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3.3.3 Details of Books publication, Book Chapters andConferences participation during 2021-16

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COLLEGE OF ENGINEERING
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Approved by AICTE, New Delhi
Affiliated to Anna University, Chennai
TUV CERT ISO 9001

Details of Conferences, Books & Book Chapters (2016-21)

Dept.	2020-21			2019-20		2018-19		2017-18		2016-17		Total
	National & International conferences	Books published	Book Chapter published	National & International conferences	Books published	National & International conferences	Books published	National & International conferences	Books published	National & International conferences	Books published	
CIVIL	6	--	--	--	--	28	2	19	--	09	03	67
CSE	20	--	--	18	--	17	--	07	--	13	--	75
ECE	15	--	1	07	--	25	--	14	--	30	--	92
EEE	10	--	--	04	--	17	--	07	--	14	--	52
MECH	18	2	1	02	--	06	--	04	--	21	--	54
S&H	--	01	--	05	--	07	--	15	01	08	--	37
Total	74			36		102		67		98		377

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Details of Faculty participation in books, chapters and conference / 2016-21

SN	Name of the teacher	Title of the book/ chapters published	Title of the paper	Name of the conference	ISBN/ISSN number of the proceeding	Name of the publisher
2020-21						
CIVIL						
1	Ms.R.Revathi	--	Experimental Investigation on self curing, self compacting and high performance concrete with Bamboo	International Conference on Emerging Technologies and adaptation in Geotechnical Engineering – ICETAGE'21, organized by Meenakshi Sundharam Engineering College	--	Meenakshi Sundharam Engineering College
2	Mr.R.Sundharam	--	Experimental Investigation on Geomembrane by Recycled plastic waste	International Conference on Emerging Technologies and adaptation in Geotechnical Engineering – ICETAGE'21, organized by Meenakshi Sundharam Engineering College	--	Meenakshi Sundharam Engineering College
3	Mr.R.Sundharam	--	Experimental Investigation on Geomembrane by Recycled plastic waste	Virtual National Conference on Sustainable Technologies and smart materials (NCSSM-2021) organized by SRM TRP Engineering College	--	Meenakshi Sundharam Engineering College
4	Mr.K.Arun	--	Experimental Investigation on partial utilization of crushed oyster shell for fine aggregate in SCC	International Conference on Emerging Technologies and adaptation in Geotechnical Engineering – ICETAGE'21, organized by Meenakshi Sundharam Engineering College	--	Meenakshi Sundharam Engineering College
5	Mr.K.Arun	--	Comparative study on conventional fine aggregate versus crushed oyster shell for fine aggregate in SCC	Virtual National Conference on Sustainable Technologies and smart materials (NCSSM-2021) organized by SRM TRP Engineering College	--	SRM TRP Engineering College

6	Ms.V.Ishwarya	**--**	Experimental Investigation on permeable pavement block by using construction waste	e- National Conference on Emerging Trends and advanced technologies in Civil Engineering (NC – ETATCE'21) Organized by KCE	978-93-85057	Kings College of Engineering
CSE						
1	Ms. S.PUVANESWARI, etal	**--**	Social networking application for KCE	National Level Conference on Recent Trends in Computing & Communication Technologies for Smart Environment – NCRTCCTSE'21	978-93-85057-18-2	Kings Publication
2	Ms.J.CHANDRAPRIYA,	**--**	Mental Health Care Application	National Level Conference on Recent Trends in Computing & Communication Technologies for Smart Environment – NCRTCCTSE'21	978-93-85057-18-2	Kings Publication
3	Dr. S. M. Uma, Dr. D. Sivakumar	**--**	Intrusion Detection System using Deep Learning A New hybrid Genetic Search Algorithm and Invasive Weed Optimization Algorithms for Skin Lesion Cancer Classification	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)		Shri Vishnu Engineering College for Women
4	Dr. S. M. Uma, Dr. D. Sivakumar	**--**	A Novel Approach to Solve Class Imbalance by using Ensemble Classifier	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
5	Mrs. R. Sugantha Lakshmi , Mrs. G. Chandra Praba, Mrs.K.Abhirami	**--**	Automated Water Management and Leakage Detection System using IOT	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
6	J. Chandra Priya,S. Puvaneswari, etal	**--**	BIIoT: Provenance of Industrial IoT Data with Blockchain Technology	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
7	Dr. S. M. Uma, etal	**--**	Biometric based Secured ATM Transaction incorporating GSM Technology	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women

8	Ms. R. Suganthalakshmi, etal	--	Covid-19 Facemask Detection with Deep Learning and Computer Vision	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
9	Mrs. S. Puvaneswari, etal	--	Criminal Investigation Tracker with Suspect Identification	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
10	S.Puvaneswari & J.Chandrapriya	--	Detection of Gas Leakage in Polymer Industries using IOT	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
11	Dr. S. M. Uma, etal	--	Digitized Banking Transactions using QR Scanner	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
12	Mrs. G. Chandra Praba, et.al	--	Fake Education Document Detection using Image Processing and Deep Learning	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
13	Mr. M. Arun, et.al	--	Food Conservation Application - Mobile App Connecting Provider and Consumer	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
14	Ms.K. Abhirami, et.al	--	Handwritten Digit Recognition for Banking System	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women

15	Mr. S. Rajarajan, et.al	--	Intrusion Detection System using Deep Learning	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
16	K. Abhirami, G. Chandra Praba, R. Sugantha Lakshmi	--	IOT Based Paddy Crop Disease Identification and Prevention System using Deep Neural Networks and Image Processing	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
17	Mrs. K. Abhirami, et.al	--	Iris Detection based Authentication for Secure Voting System	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
18	Mrs. G. Chandra Praba, Mrs. K. Abhirami, Mrs. R. Suganthalakshmi	--	Prediction and Analysis of Key Performance Indicators (Kpi) For Students using Data Science	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
19	Dr. D. Sivakumar, Preetha. B, Priyadharshini. K, Thulasi. K	--	Smart E-Marketing in Agricultural Products	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
20	Mr.R.Sriramkumar, et.al	--	Wireless IoT based Solution for Women Safety	Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by Shri Vishnu Engineering College for Women(Autonomous)	–	Shri Vishnu Engineering College for Women
ECE						
1	R. J. Kavitha, T. Avudaiyappan, T. Jayasankar, J. Arputha Vijaya Selvi	Smart Sensors for Industrial Internet of Things	Industrial Internet of Things (IIoT) with Cloud Teleophthalmology-Based Age-Related Macular Degeneration (AMD) Disease Prediction Model	-	978-3-030-52623-8	Springer International Publishing
2	Sathyaraj R et al		An IOT based Efficient Waste Collection Management with Smart Bins	7th International E-Conference on Latest trends in Science, Engineering and Technology, Karpagam Institute of Technology	–	Karpagam Institute of Technology

3	U.Jeyamalar et al		IOT Based multifunctional agribot	7th International E-Conference on Latest trends in Science, Engineering and Technology, Karpagam Institute of Technology	–	Karpagam Institute of Technology
4	P.Rajapirian et al		Environmental Climate creation for Plant using IOT(Polyhouse)	7th International E-Conference on Latest trends in Science, Engineering and Technology, Karpagam Institute of Technology	–	Karpagam Institute of Technology
5	R.Ponni et al		Implementation of assistive robot for patient monitoring	7th International E-Conference on Latest trends in Science, Engineering and Technology, Karpagam Institute of Technology	–	Karpagam Institute of Technology
6	R.Balakrishnan et al		Advanced fire detection system for Indian Railways	7th International E-Conference on Latest trends in Science, Engineering and Technology, Karpagam Institute of Technology	–	Karpagam Institute of Technology
7	N.Mangaiyarkarasi et al		Real time safety system for women using GSM(HEVERA)	7th International E-Conference on Latest trends in Science, Engineering and Technology, Karpagam Institute of Technology	–	Karpagam Institute of Technology
8	S.Ramarajan et al		Design and Implementation of safe drive for Electrical vehicle with IOT	International Virtual Conference on Innovative Research in Power and Energy Engineering, Arasu Engineering College,Kumbakonam	–	Arasu Engineering College
9	T.Pasupathi et al		IIOT Based Smart Control Model for Motorcycle Durability Test	International Virtual Conference on Innovative Research in Power and Energy Engineering, Arasu Engineering College,Kumbakonam	–	Arasu Engineering College
10	S.Sivakumar et al		Design and Implementation of border security system in military field	International Virtual Conference on Innovative Research in Power and Energy Engineering, Arasu Engineering College,Kumbakonam	–	Arasu Engineering College
11	D.Vennila et al		Design of an Intelligent Wheel Chair System using Arduino	7th International E-Conference on Latest trends in Science, Engineering and Technology, Karpagam Institute of Technology,26-27th March 2021, Coimbatore	–	Karpagam Institute of Technology

12	T.Shanthi et al		Design and Implementation of E Vehicle Charging Station Using Solar With IOT	7th International E-Conference on Latest trends in Science, Engineering and Technology, Karpagam Institute of Technology	–	Karpagam Institute of Technology
13	P.Raja pirian, R.Hinduja		Advanced Secure Electronic Voting Machine Using Deep Learning	National Conference on Emerging Trends in Engineering-2021, Cambridge Institute of Technology, Bangalore	–	Cambridge Institute of Technology,
14	W.Newton David Raj		Single watermark for image watermarking	National conference on advancement in Electronics and Communication for Digital India, Kings College of Engineering	–	Kings College of Engineering
15	K.Sudharsanan		Medical application of Electromagnetic fields	National conference on advancement in Electronics and Communication for Digital India, Kings College of Engineering	–	Kings College of Engineering
16	K.Sudharsanan		Energy efficient routing protocol for WSN	International Conference on Recent trends in Engineering and Technology, Samskruti College of Engineering and Technology.	–	Samskruti College of Engineering and Technology.
EEE						
1	M. Meenalochani , A. Albert Martin Ruban		PV Based Switched Capacitor Converter for NPC Inverter in Grid Connected Applications	International Conference on Research and Developments in Science, Engineering and Technology (ICRDSET)	–	St. Anne's College of Engineering and Technology,
2	S.R. Karthikeyan, J. Arokiaraj		IoT Based Monitoring and Control of Distribution Transformer & Transmission Lines	International Conference on Research and Developments in Science, Engineering and Technology (ICRDSET)	–	St. Anne's College of Engineering and Technology,
3	N.Rajeswari , A. Albert Martin Ruban		A Single Phase Bidirectional Electric Drive Reconstructed Onboard Converter For Electric Vehicles Applications	International Conference on Research and Developments in Science, Engineering and Technology (ICRDSET)	–	St. Anne's College of Engineering and Technology,
4	Mr.S.R.Karthikeyan		Non Touching Attendance Monitoring Systems	AICTE Sponsored International E-Conference on Smart Technologies in Electric Vehicles & Power Grid	–	Sri Venkateswara College of engineering

5	Mr.S.R.Karthikeyan		Touch Free Smart Gadget	National Conference on "Flourishing Areas in Electrical and Electronics Engineering" (NACOFEE'21)	978-93-85057-23-6	Kings College of Engineering
6	Mr.S.R.Karthikeyan		IoT Based Monitoring and Control of Distribution Transformer and Transmission Lines	National Conference on "Flourishing Areas in Electrical and Electronics Engineering" (NACOFEE'21)	978-93-85057-23-6	Kings College of Engineering
7	Dr.M.Meenalochani		Early prediction of breast cancer through machine learning with minimal features	6th international E-conference on information technology & society 2020 (ICITS 2020)	-	International Islamic university college, selangoor, Malaysia
8	Dr.M.Meenalochani		Machine learning based vehicle health monitoring system	6th international E-conference on information technology & society 2020 (ICITS 2020)	-	International Islamic university college, selangoor, Malaysia
9	Mr.R.Sundaramoorthi		Battery Management Systems using Ultra Capacitor for Electric Vehicles and Energy Storage Applications	International E-conference on "Challenges and Opportunities in Renewable Energy, Smart systems and E-obility" (ICCORSE-2020)	-	Eswari Engineering College
10	Mr.R.Sundaramoorthi		Study of Battery Electric Vehicle Performance using Ultra capacitor and digital Controller	Virtual International Conference on Power Initiatives (ICPI-2020)	-	K.Ramakrishnan College of engineering, Trichy
Mech						
1	Dr.P.P.Shantharaman, Dr.T.Pushparaj	Text Book on Internal Combustion Engines	-	-	978-93-5437-340-4	Kings Publications
2	Dr.P.P.Shantharaman, R. Shankar	Text Book on Power Plant Engineering	-	-	978-93-5445-571-1	Kings Publications
3	PP Shantharaman, T Pushparaj, M Prabhakar	New Ideas Concerning Science and Technology	Chapter on "Study on Performance and Emission Studies on Cashewnut Shell Liquid Bio-Oil Fuelled Diesel Engine with Acetone as Additive"	-	978-93-90768-71-4	B P International
4	M.Aswin, Aravindasamy, Arjunkumar, Maheswaran, Manimaran		Mechanical and Corrosion Behaviour of Aluminium welded metals Al6061 & Al7075.	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications

5	M.Prasanth, K.Prem kumar, N.Santhosh kumar, K.Ajith kumar, M.Melwin Jagadeesh Sridhar		Tribological behaviour and characterization studies on Metal Matrix Composities	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
6	M.Sathyamoorthi,K.Senthamizsudar, R.Senthil, R.Sriharan,S.Sabanayagam		Corrosion Behavior of IN625 coated Stainless Steel (SS309) at an elevated temperature of 800˚C.	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
7	M.Prakesh,M.Sarathkumar, B.D.Senthamilpriyan, R.Mukilan, M.MelwinJagadeesh Sridhar		Mechanical Testing and characteristics of Copper Matrix Composite through Powder Metallurgy route	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
8	Shankar.R,Kabilan.S,Annamalai.K,Balamurugan.M,Kathiravan.R		Efficiency Improvement in polycrystalline solar panel by thermal control	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
9	S.Siva, M.Subhaneshwaran, A.Suriya, J.Vijaychandru,S.Desikan		Analyse the effect of welding parameter in Gas Tungsten arc welding process in Caron and Alloy steel plate.	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
10	K.Shriram sundar,M.Venkatesh,MV.Venkateswaran,E.Dinesh,M.Sakthivel		Investigation of Mechanical properties for Sisal and Abaca with Epoxy resin composite material	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
11	D.Thirupugazh, S.Vishnu,R.L.Wilber Judson,K.Santhosh shivan		An Experimental investigation and optinmization of friction stir welding on AA6061 & AA5052	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
12	P. Enoch Ebenezer, J. Abdul Shimak, R. Hariharan, M. Karthick,S. Desikan		Design and fabrication of portable micro grinding machine using Carbonium wheel and analysis on different materials	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
13	S. Nelson raja, K.vadivel, R.rajadurai		An investigation on mechanical properties of combined natural fibers using epoxy resin	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
14	Pushparaj.T,Dhivakaran.K, Hariharan.V,Manimaran.S,Muthu Manikandan.J		Solar Powered Trolley	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications

15	P.Raghu Devan,T.Raghul, N.Renga Rajan,S.Ruban, M.Ashwin		Application of Grey relation analysis to optimize EDM parameters for cast Aluminium Composite Plates	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
16	Agilan.H, Dr.Pushparaj.T		Performance and Emission Characteristic Analyses in CI Engine by Using of Alternative Fuel of Jojoba and Juliflora with I Pentanol Additives	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
17	Shantharaman.P.P, Alagesan.K, Bharath.M, Infantraja.S, Karan.K		Fabrication and Properties of Magnesium Hybrid Nano Metal matrix composites using powder metallurgy	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
18	S.Sabanayagam, S.Abbas Mohamed,S.Abishek,A.Jerome Nicholas,D.Madesh		Structural Characterization on Stainless Steel (SS316) with Inconal 625 Coating by HVOF	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
19	Agilan.H,AjithKumar.K,Rajarajeshwaran.B,K.VSasiKumar,VigneshKumar.J		Performance and Emission Characteristics on Biofuel in CI Engines	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
20	R. Shankar, S. Muthu, K. Keerthivasan, Sudarsan, K. Kannan		Design and Fabrication of Motorized Sheet Metal Rolling Machine	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
21	N.Magesh, A.Murugesan , B.Prakash, P.Kaviyarasu , R.Pragadeesh		Pumpkin and Maize Biodiesel with Elaeocarpus Ganitrus Additive Performance Emission Analysis in CI Engine	National Conference on Energy and Manufacturing Scenario-2021	978-93-85057-22-9	Kings Publications
S&H						
1	Dr.V.Suresh Kumar & Dr.P.Saravanan	CY8151-Engineering Chemistry	-	-	7.89385E+11	KINGS PUBLICATION
2019-20						
CSE						
1	Ms.G.ChandraPraba, et.al		Prediction and Analysis of Key Performance Indicator (KPI) for Student using Data Science	National conference on "Recent Trends and Technologies in Computing" – NCRTTC'20	-	Arasu Engineering College
2	Ms.R.Ranitha, et.al		IOT based Early Detection and Prediction of Unfavourable Pathogens in Cattle (Cow)	National conference on "Recent Trends and Technologies in Computing" – NCRTTC'20	-	Arasu Engineering College

3	Ms.R.Sugantha Lakshmi, et.al		Automated Water Management and Leakage Detection System using IOT	National conference on "Recent Trends and Technologies in Computing" – NCRTTC'20	–	Arasu Engineering College
4	Mr.R.Sriram Kumar, et.al		Smart Self Defense & Monitoring System incorporating GPS and GSM Technologies	National conference on "Recent Trends and Technologies in Computing" – NCRTTC'20	–	Arasu Engineering College
5	Ms.S.Puvaneswari, et.al		IOT Based Fire and Gas Accident Prevention System for Industries	National conference on "Recent Trends and Technologies in Computing" – NCRTTC'20	–	Arasu Engineering College
6	Ms.K.Abhirami, et.al		IOT Based Paddy Crop Disease Identification and Prevention System	National conference on "Recent Trends and Technologies in Computing" – NCRTTC'20	–	Arasu Engineering College
7	Dr.D.Sivakumar, et.al		IOT based Smart System Detecting Air Pollution Aiding Asthma Patient	National conference on "Recent Trends and Technologies in Computing" – NCRTTC'20	–	Arasu Engineering College
8	Ms.P.Nalayini, et.al		Mono Systematic Monitoring system handling multiple sequence of DB.	International Conference on Intellectual Research in Science, Engg&Mgmt ICIRSEM- 2020	–	St.Joseph College of Engineering &Techonology
9	Mr.M.Arun, et.al		IOT Based auto climate change monitoring to support warehouse logistics	National conference on "Recent Trends and Technologies in Computing" – NCRTTC'20	–	Arasu Engineering College
10	Mr.S.Rajarajan, et.al		Heart Arrhythmia Detection Using GPU Deep Learning	National conference on "Recent Trends and Technologies in Computing" – NCRTTC'20	–	Arasu Engineering College
11	Mr.K.Rajesh, et.al		Android App Handling Clinical Data Aiding Diagnosis	National conference on "Recent Trends and Technologies in Computing" – NCRTTC'20	–	Arasu Engineering College
12	Ms.B.Sangeetha, et.al		Forest Fire Detection Based on IOT	National conference on "Recent Trends and Technologies in Computing" – NCRTTC'20	–	Arasu Engineering College
13	Dr.S.M.Uma, et.al		IOT Based Transformer Monitoring System	National Conference on ETCCCT - 2020	978-93-85057-19-9	Kings College of Engineering
14	Ms.G.ChandraPraba, et.al		Multi view facial expression based on gsrrr model	Advanced Technology in power & robotics engg (ICONPOWROBO'20)	978-81-944813-4-8	Arasu Engineering College
15	Dr.S.M.Uma, et.al		Home appliances control using Android Application	International Conference on Intellectual Research in Science, Engg&Mgmt ICIRSEM- 2020	–	St.Joseph College of Engg. &Tech.

16	Dr.S.M.Uma, et.al		Skin lesion classification using supervised algorithm in Data mining	International conference on Advanced Technology in power & robotics engg (ICONPOWROBO'20)	978-81-944813-4-8	Arasu Engineering College
17	Mr.S.Rajarajan, et.al		A Data sharing protocol to minimize security and privacy risks in cloud storage	International conference on Advanced Technology in power & robotics engg (ICONPOWROBO'20)	978-81-944813-4-8	Arasu Engineering College
18	Dr.S.M.Uma, et.al		Feature Selection Technique using Hybridization IWO and SSA for Skin Lesion cancer prediction	National Conference on ETCCCT	978-93-85057-19-9	Kings College of Engineering
ECE						
1	P.Rajapirian, et.al		Vision based onboard controller for safe landing and target detection using UAV	International conference on Intellectual Research in Science, Engineering and Management (ICIRSCM2000), at ST.Joseph's College of Engineering and Technology, Thanjavur	-	ST.Joseph's College of Engineering and Technology,
2	P.Rajapirian, et.al		UAV based rice corp monitoring system	National Conference on Emerging Trends in Computing, Control and Communication Technologies (ETCCCT'20), Kings college of Engineering	-	Kings College of Engineering
3	R.Sathyaraj et al		Implementation of Smart agriculture using IoT	National Conference on Emerging Trends in Computing, Control and Communication Technologies (ETCCCT'20), Kings college of Engineering, Pudukkottai	-	Kings College of Engineering
4	Herald A		Design and analysis of antenna for underwater communication	International Conference on Empowering Engineering and Technology (ICEET-2020), Parisutham Institute of Technology and Science, Thanjavur	-	Parisutham Institute of Technology and Science,
5	U.Jeyamalar, R.Hinduja		Women security and self defence system, National Conference on Emerging Trends in Computing	National Conference on Emerging Trends in Computing, Control and Communication Technologies (ETCCCT'20), Kings college of Engineering, Pudukkottai	-	Kings College of Engineering

6	P.Thirumagal et al		Green leaf disease detection using Raspberry Pi	National Conference on Emerging Trends in Computing, Control and Communication Technologies (ETCCCT'20), Kings college of Engineering, Pudukkottai	-	Kings College of Engineering
7	R.Balakrishnan, et.al		Advanced design of solar powered agricultural robot	Proceeding of 2nd International conference on communication, computing and Internet of Things (IC3IOT-2020)	-	Kings College of Engineering
EEE						
1	Dr.S.Sivakumar		Prediction of Fault and Protection of Single phase motor	International conference on "Advanced Technologies in Power and Robotics Engineering" (ICON POWROBO'20)	978-81-944813-4-8	Arasu Engineering college
2	Dr.A.Albert Martin Ruban		Optimised Domestic Load Scheduling for Power Management in Smart Grid	International conference on "Advanced Technologies in Power and Robotics Engineering" (ICON POWROBO'20)	978-81-944813-4-8	Arasu Engineering college
3	Mr.R.Sundaram oorthi		Implementation of Battery Monitoring and Smart Charging using IOT for Electrical vehicle Operation	International conference on "Advanced Technologies in Power and Robotics Engineering" (ICON POWROBO'20)	978-81-944813-4-8	Arasu Engineering college
4	Dr.M.Meenaloch ani		An Intelligent technique for fault detection in smart grid	International conference on "Advanced Technologies in Power and Robotics Engineering" (ICON POWROBO'20)	978-81-944813-4-8	Arasu Engineering college
Mech						
1	Dr.T.Pushparaj		Comprehensive assessment of performance and emission characteristics of Pumpkin sheed oil with C2H5 20 and Jojoba sheed oil with C5H1 20 in CI engine	International Conference on Nanotechnology : Ideas, Innovation and Initiatives (ICN2K19)	-	Syed Ammal Engineering College Ramanathapuram, India
2	S. Sabanayagam, S. Chockalingam		Analysis of High Temperature oxidation behaviour of SS316 by Al2O3 and Cr2O3 Coating	International Conference on Nanotechnology : Ideas, Innovation and Initiatives (ICN2K19)	-	Syed Ammal Engineering College Ramanathapuram, India
S&H						
1	Dr.P.Saravanan	–	Dyeing of Polyester with Eco – Friendly Natural dye obtained from flowers of Lantana Camara Linn	National Conference on Multidisciplinary Research in Science and Humanities	–	Arasu Engineering College,Kumbakonam

2	Mrs.T.Gnanajeya	-	1.Neutrosophic Forests and Neutrosophic Trees.	Virtual Heber International Conference on Applied Mathematics	-	Bishop Heber College, Trichy
3	Mrs.T.Gnanajeya	-	2.Isomorphic Single Values Neutrosophic Graphs and their Complements	e-National Conference on Advancements of Science and Humanities at Kings College of Engineering	-	Kings College of Engineering
4	Dr.G.Shankarakalidoss	-	Decagonal Numbers-Simultaneously Equal to Triangular And Hexagonal Numbers	International Conference on Recent Trends and Technology of Mathematics & Science	-	Queens College of Arts and science
5	Dr.R.Suresh	-	Characteristics of Complex Neutrosophic Graphs	International Web – Conference on Complex Analysis and Differential Geometry:Revisiting	-	SKBU University , West Bengal
2018-19						
CIVIL						
1	Dr.R.Saravanan	Railways ,Airports and Harbour Engineering	-	-	978-81-932114-7-2	Suchitra Publications chennai
2	Dr.R.Saravanan	Concrete Technology	-	-	978-81-932114-9-6	Suchitra Publications chennai
3	Ms.R.Revathi	-	Experimental investigation on concrete by replacement of fine aggregates with stabilised soil	4th International conference on cement research in engineering science and technology, Jayaram college of engineering and technology	-	Jayaram college of engineering and technology
4	Ms.R.Revathi	-	Experimental study on recycled coarse aggregate in concrete in concrete by using m-sand and silica fume	National conference on recent trends in civil engineering,Mother Teresa College of Engineering & Technology	-	Mother Teresa College of Engineering & Technology
5	Mr.R.Sundharam	-	Experimental Report on Flexible Pavement by Using Hydrophobic Silica, Zeolite and Steel Mesh	International Conference on "Multi Disciplinary Research (ICMR 2019)",KSK College of Engineering & Technology, Kumbakonam	-	KSK College of Engineering & Technology,
6	Mr.R.Sundharam	-	Experimental Investigation on Carbon Nanotube Concrete	International Conference on "Multi Disciplinary Research (ICMR 2019)",KSK College of Engineering & Technology, Kumbakonam	-	KSK College of Engineering & Technology,
7	Mr.R.Sundharam	-	Experimental Study On Partial Replacement Of Clay Using Boiler Ash In Bricks	National Conference on "Innovative Trends and Advances in Civil Engineering (NCITACE'19)"	-	Kings College of Engineering

8	Mr.R.Sundharam	-	Experimental Study On Partial Replacement Of Cement Using Egg Shell Powder And Brick Powder	International Conference on "Emerging Technique in Engineering Technology and Management - 2019"Rathinam Technical campus, Coimbatore.	-	Rathinam Technical campus, Coimbatore.
9	Mr.K.Arun	-	Experimental Investigation on Partial Replacement of Cement Using Medical Waste in Concrete	International Conference on Emerging Techniques in Engineering Technology and Management ,Rathinam Technical campus, Coimbatore	-	Rathinam Technical campus, Coimbatore.
10	Mr.K.Arun	-	Experimental Investigation on Partial Replacement of Bitumen Using Sugarcane Molasses	International Conference on Emerging Techniques in Engineering Technology and Management,Rathinam Technical campus, Coimbatore	-	Rathinam Technical campus, Coimbatore.
11	Mr.K.Arun	-	Comparative Study on Polymer Fibre Reinforced Concrete with Conventional Concrete	National Conference on Recent Trends in Civil Engineering (NCRTCE'19),Mother Teresa College of Engineering and Technology, Pudukkottai	-	Mother Teresa College of Engineering and Technology
12	Ms.S.Kamaraj	-	Comparative Study of Self Curing Concrete with Super Absorbent Polymer and Glycerine	International Conference on "Recent Trends in Nano materials for Energy, Environmental and Engineering applications (ICONEEEA-2K19)",K.Ramakrishna College of Technology, Trichy	-	,K.Ramakrishna College of Technology,
13	Ms.S.Kamaraj	-	Experimental Study Of Fibre Reinforced Concrete	National Conference on "Innovative Trends and Advances in Civil Engineering (NCITACE'19)"	-	Kings College of Engineering
14	Ms.S.Kamaraj	-	Experimental Investigation Of Brick Manufacturing Using Phopho Gypsum	National Conference on "Recent Trends in Civil Engineering",Mother Teresa College of Engineering & Technology, Pudukkottai	-	Mother Teresa College of Engineering and Technology
15	Ms.S.Kamaraj	-	Experimental Investigation on Strength of Fly ash Bricks with Addition of Lime, M- Sand and Gypsum.	National Conference on "Recent Trends in Civil Engineering",Mother Teresa College of Engineering & Technology, Pudukkottai	-	Mother Teresa College of Engineering and Technology

16	Mr.S.R.Elwin Guru Chanth	-	Experimental Investigation on Composite Bricks with Partial Replacement of Weeds Ash	National Conference on "Recent Trends in Civil Engineering",Mother Teresa College of Engineering & Technology, Pudukkottai	-	Mother Teresa College of Engineering and Technology
17	Mr.S.R.Elwin Guru Chanth	-	Experimental Study On Partial Replacement Of Cocunut Fibres And Sea Shell In Roofing Tiles	National Conference on "Recent Trends in Civil Engineering",Mother Teresa College of Engineering & Technology, Pudukkottai	-	Mother Teresa College of Engineering and Technology
18	Mr.K.Ranjith	-	Experimental investigation of plastic sand coarse aggregate	International conference on Multidisciplinary Research (ICMR - 2019)	-	School of Distance Education (SDE), Universiti Sains Malaysia (USM)
19	Mr.K.Ranjith	-	Experimental investigation on Marble powder on concrete as replacement of cement	National Conference on "Recent Trends in Civil Engineering",Mother Teresa College of Engineering & Technology, Pudukkottai	-	Mother Teresa College of Engineering and Technology
20	Mr.M.Mohamed Ilyas	-	Experimental Investigation on Concrete by Partial Replacement of Cement by Metakaolin	International Conference on "Current Research in Engineering, Science & Technology",Jayaram College of Engineering & Technology, Trichy	-	Jayaram College of Engineering & Technology
21	Mr.M.Mohamed Ilyas	-	Experimental Study On Partial Replacement Of Cement Using Rice Husk	National Conference on "Innovative Trends and Advances in Civil Engineering (NCITACE'19)"	-	Kings College of Engineering
22	Ms.V.Ishwarya	-	Experimental Investigation on Partial Replacement of Coarse Aggregate and Cemnt Concrete by rubber tyre and Silica Fume in Concrete	International Conference on "Current Research in Engineering, Science & Technology",Jayaram College of Engineering & Technology, Trichy	-	Jayaram College of Engineering & Technology
23	Ms.V.Ishwarya	-	Comparitive Study On Partial Replacement Of Sand Using Crumb Rubber With Conventional Concrete	National Conference on "Innovative Trends and Advances in Civil Engineering (NCITACE'19)"	-	Kings College of Engineering
24	Ms.V.Ishwarya	-	Experimental Study On Partial Replacement Of Coarse Aggregates With Qyarry Dust And Copper Slag	National Conference on "Recent Trends in Civil Engineering",Mother Teresa College of Engineering & Technology, Pudukkottai	-	Mother Teresa College of Engineering and Technology

25	Ms.M.Priya	-	Experimental Study on Partial Replacement of Coconut Shell as Coarse Aggregate in Concrete	National Conference on "Innovative Trends and Advances in Civil Engineering (NCITACE'19)"	-	Kings College of Engineering
26	Ms.M.Priya	-	Experimental Investigation Of Manufacturing Of Fly Ash Bricks	National Conference on "Recent Trends in Civil Engineering",Mother Teresa College of Engineering & Technology, Pudukkottai	-	Mother Teresa College of Engineering and Technology
27	Ms.K.Jeyashankari	-	Experimental Study Of Papercrete In Concrete	International Conference on "Multi Disciplinary Research (ICMR 2019)",KSK College of Engineering & Technology, Kumbakonam	-	KSK College of Engineering & Technology
28	Ms.K.Jeyashankari	-	Experimental study on Partial Replacement of Cement by Ground Granulated Blast Furnace Slags(GGBFS)	National Conference on "Innovative Trends and Advances in Civil Engineering (NCITACE'19)"	-	Kings College of Engineering
29	Ms.K.Bhavarohini	-	Comparitive Study Of Normal Paver Block With Partial Replacement Of Sand By Saw Dust	National Conference on "Recent Trends in Civil Engineering",Mother Teresa College of Engineering & Technology, Pudukkottai	-	Mother Teresa College of Engineering and Technology
30	Ms.K.Bhavarohini	-	Experimental Investigation of Partial Replacement of Clay by Waste Water Sludge and Silica Fume in Bricks	National Conference on "Recent Trends in Civil Engineering",Mother Teresa College of Engineering & Technology, Pudukkottai	-	Mother Teresa College of Engineering and Technology
CSE						
1	Dr.S.M.Uma et al	-	Autonomous Self Parking Robot	International Conference on Multi disciplinary Research	978-93-87793-76-7	KSK College of Engineering
2	Ms.K.Abhirami et al	-	ANN Based credit card fraudulent detection using Autoencoder for Secured environment	International Conference on Multi disciplinary Research	978-93-87793-76-7	KSK College of Engineering
3	Dr.D.Sivakumar et al	-	Computer interfaced smart A1 battle field Tank	International Conference on the Advances in information Technology and Networking	-	Dr.G.R.DAMODARAN College OF SCIENCE(AUTONOMOUS),Coimbatore
4	Mr.R.SriramKumar et al	-	Data Transfer over Internet using Quantum Key Distribution Protocol	National Conference NCACCPS'19	978-93-85057-18-2	St.Josephs College of Engineering and Technology
5	Ms.R.Suganthalakshmi et al	-	Smart home automation system using IOT based Sensing and Monitoring	National Conference NCACCPS'19	-	St.Josephs College of Engineering and Technology

6	Ms.R.Suganthalakshmi et al	-	PACIFIER (Multi Utility Mobile Application"	International Conference on Multi disciplinary Research(ICMR'19)	978-93-87793-76-7	KSK College of Engineering
7	Ms .R.Ranitha et al	-	Account trade: Accountable Protocols For Big Dara Trading Against DisHonest Consumers	International Conference on Multi disciplinary Research	978-93-87793-76-7	KSK College of Engineering
8	Ms.B.Sangeetha et al	-	Radar Surveillance system with IOT Enabled system for security alert in bank and borders	International Conference on Multi disciplinary Research	978-93-87793-76-7	KSK College of Engineering
9	Mr.S.Rajarajan et al	-	An Intelligent Solar LED Street Ligthting System	National Conference NCON'19		Kings College Of Engineering
10	Mr.S.Rajarajan et al	-	Edge Computing based Manhole Cover Management	National Conference NCON'19		Kings College Of Engineering
11	Ms.P.Nalayini et al	-	Speech Stress Analysis based lie detecting Software	International Conference on Multi disciplinary Research(ICMR'19)	978-93-87793-76-7	KSK College of Engineering
12	Mr.K.Rajesh et al	-	Proposed Security Model for Session Transfer and Services using OTP	International Conference on Multi disciplinary Research(ICMR'19)	978-93-87793-76-7	KSK College of Engineering
13	Ms.S.Puvaneswari et al	-	Automatic Railway Gate & Track monitoring System using IOT	International Conference on Multi disciplinary Research(ICMR'19)	978-93-87793-76-7	KSK College of Engineering
14	Ms.G.Chandrapraba et al	-	Semi supervived based PSO Framework for Microarray Analysis	International Conference on Multi disciplinary Research(ICMR'19)	978-93-87793-76-7	KSK College of Engineering
15	Mr.M.Arun et al	-	Enhanced Automated Toll Collection	National Conference NCACCPS'19	978-93-85057-18-2	St.Josephs College of Engineering and Technology
16	Ms.S.Puvaneswari et al	-	Automated trouble ticket routing models and their reviews based on demand of the user	Int. Conf on Electrical, Information and Communication Technologies, ICEICT – 2K'19	-	MAM College of Engineering,
17	Dr.S.M.Uma et al	-	Advanced Botnet command and control traffic detection	Int. Conf on Electrical, Information and Communication Technologies, ICEICT – 2K'20	-	MAM College of Engineering,
ECE						
1	J.Arputha Vijaya Selvi, T.Pasupathi		An Inspired Underwater Communication Robotic Fish for Aquatic Animals	1st International Conference on Innovations in Information and Communication Technology (ICIICT), CHENNAI	-	IEEE Proceedings

2	T. Pasupathi and J. A. Vijaya Selvi		Wavefront Compensation Technique for Terrestrial Line of Sight Free Space Optical Communication	1st International Conference on Innovations in Information and Communication Technology (ICIICT), CHENNAI	-	IEEE Proceedings
3	N.Mangaiyarkarasi et al		Securing the national pride women safety by using IOT	International conference on multidisciplinary Research (ICMR-19), K.S.K.College of Engineering and technology, March-2019	-	K.S.K.College of Engineering and technology
4	N Mangaiyarkarasi, A. Aruna Devi		SAR ADC in CMOS for Medical Implant Devices	National Conference on Emerging Trends in Electronics and Communication Engineering (NTECE'19), Kings College of Engineering, Punalkulam	-	Kings College of Engineering
5	T. Shanthi		Multilayer Multifault diagnosis for fault tolerance network on chip (NOC),	National conference on advanced, computing and power system (NCACCPS-2K'19), St. Josephs college of engineering and technology, Thanjavur	-	St. Josephs college of engineering and technology
6	R.Ponni, T.Jayasankar		Handover position based signaling sensor	National Conference on Emerging Trends in Computing, Control and Communication Technologies (ETCCCT'20)	-	Kings College of Engineering
7	K.Sudarsanan et al		Dual banned microstrip antenna design for WLAN application	National conference on advanced, computing and power system (NCACCPS-2K'19), St.Josephs college of engineering and technology, , Thanjavur	-	St. Josephs college of engineering and technology
8	D. Thatshayini and Rajapirian		FPGA Realization of Fuzzy Based Robotic Manipulator for Agriculture Applications	1st International Conference on Innovations in Information and Communication Technology (ICIICT), CHENNAI	-	IEEE Proceedings
9	P.Rajapirian et al		IOT Applications on secure smart shopping system	National Conference on Emerging Trends in Electronics and Communication Engineering (NTECE'19), Kings College of Engineering, Punalkulam	-	Kings College of Engineering

10	P.Rajapirian, D.Thatshayini		Fuzzy based Robotic Manipulator with FPGA Realization for Cultivate Applications	National Conference on Emerging Trends in Electronics and Communication Engineering (NTECE'19), Kings College of Engineering, Punalkulam	–	St. Josephs college of engineering and technology
11	P.Rajapirian et al		Quick fix impedimenta for women's safety based on IOT, National conference	National conference on advanced, computing and power system (NCACCPS-2K'19), St. Josephs college of engineering and technology	–	St. Josephs college of engineering and technology
12	R.Sathyaraj et al		Bus speed control when the human detector in the steps	National conference on advanced, computing and power system (NCACCPS-2K'19), St. Josephs college of engineering and technology, Thanjavur, March-2019	–	St. Josephs college of engineering and technology
13	W.Newton david raj, et.al		Smart agriculture on planting & monitoring system for protected cultivation,	National conference on advanced, computing and power system (NCACCPS-2K'19), St. Josephs college of engineering and technology, Thanjavur	–	St. Josephs college of engineering and technology
14	A.Herald, et al		Point of care implementation in blood cholesterol monitoring system for cardiovascular disease prevention	National conference on advanced, computing and power system (NCACCPS-2K'19), St. Josephs college of engineering and technology, Thanjavur, March-2019	–	St. Josephs college of engineering and technology
15	D. Vennila and P. Rajapriyan		Design and Implementation of Low Power Nanogrid with Intelligent Solar PV Utilization	1st International Conference on Innovations in Information and Communication Technology (ICIICT), Chennai	–	IEEE Proceedings
16	D. Vennila et al		Implementation of roadside wireless sensor communication using intelligent navigation	National conference on advanced, computing and power system (NCACCPS-2K'19), St. Josephs college of engineering and technology, Thanjavur	–	St. Josephs college of engineering and technology
17	S.Ramarajan et al		Implementation of effective driver vigilance system for drowsiness detection	National conference, National conference on advanced, computing and power system (NCACCPS-2K'19), St. Josephs college of engineering and technology, Thanjavur	–	St. Josephs college of engineering and technology

18	S.Ramarajan et al		FPGA based real time data logging system for automatic metrological weather station, National conference	National conference on advanced, computing and power system (NCACCPS-2K'19), St. Josephs college of engineering and technology, Thanjavur, March-2019	–	St. Josephs college of engineering and technology
19	J.Deepika, U.Jeyamalar		Measurement and Analysis of Human Body Communication for Bio-Medical Application	1st International Conference on Innovations in Information and Communication Technology (ICIICT), CHENNAI	–	IEEE Proceedings
20	U.Jeyamalar et al		An IOT based system for passenger service and comfort in railways	National conference, National conference on advanced, computing and power system (NCACCPS-2K'19), St. Josephs college of engineering and technology, Thanjavur,	–	IEEE Proceedings
21	S. Sheeba and T. Jeyaseelan		Design and Implementation of Reconfigurable Architecture for Automatic Monitoring and Detection System for Tonsillitis	1st International Conference on Innovations in Information and Communication Technology (ICIICT), CHENNAI	–	IEEE Proceedings
22	S.Ashiga, J.S.Gayathri, S. Kavibala,P. Malathi		Design and implementation of physiological signal based driver state detection system in the national conference	National conference on advanced, computing and power system (NCACCPS-2K'19), St. Josephs college of engineering and technology, Thanjavur	–	St. Josephs college of engineering and technology
23	P.Thirumagal, et al		Smart phone based photoplethysmography for physiotherapy	National conference on advanced, computing and power system (NCACCPS-2K'19) , St. Josephs college of engineering and technology	–	St. Josephs college of engineering and technology
24	R.Balakrishnan et al		Communication during natural disaster with help of black box	National conference, National conference on advanced, computing and power system (NCACCPS-2K'19),St. Josephs college of engineering and technology, Thanjavur	–	St. Josephs college of engineering and technology
25	T. Pasupathi et al		Civil structure life monitoring and alert system using GSM	National conference on advanced, computing and power system (NCACCPS-2K'19), St. Josephs college of engineering and technology	–	St. Josephs college of engineering and technology

1	Dr.S.Sivakumar		Intelligent Safety System for Mobikes	National Conference on "Flourishing Areas of Electrical and Electronics Engineering"(NACOFEE'18)	–	Kings College of Engineering, Punalkulam
2	Dr.S.Sivakumar		Implementation of Fully automated Plant for Grain Storage System	International Conference on Innovative Research in Engineering and Sciences (IRES 2017)	–	
3	Dr.A.Albert Martin Ruban		IoT based Monitoring and Controlling of home appliance by using Zigbee Technology	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'18)	–	Kings College of Engineering, Punalkulam
4	Dr.N.Hemavathi		Implementation of Eye and Gesture based wheel chair for physically challenged person	National Conference on Modeling, Analysis & Simulation Techniques in Engineering Research (MASTER'18)	–	AVC Engineering college,Mayiladuthurai
5	Dr.N.Hemavathi		EG Chair:Eye and Gesture based Wheelchair Control for Physically Challenged Person	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'18)	–	Kings College of Engineering, Punalkulam
6	Mr.R.Sundaramoorthi		A simulation study of Electric drive performance using ultra capacitor and digital controller and battery operated vehicle systems	International Conference on Science, Technology, Engineering and Management (ICSTEM'18)	–	KIT-Kalaignarkarunanidhi Institute of Technology
7	Mr.R.Sundaramoorthi		Design of charge controller for solar powered charging station	National Conference on Cutting Edge Technologies in Electrical, Communication and Soft Computing Techniques (NCCEECS'18)	–	Saranathan College of Engineering, Trichy
8	Mrs.N.Rajeswari		Solar based Inverterless Automatic Irrigation and Ligting system using Microcontroller	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'18)	–	Kings College of Engineering, Punalkulam
9	Mrs.A.Prabha		Smart Grid Monitoring System based on phasor Measurement Unit	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'18)	–	K.Ramakrishnan College of Engineering, Trichy
10	Mr.J.Arokiaraj		Microcontroller based Monitoring and Controlling of PV panel by zigbee module	National Conference on "Flourishing Areas of Electrical and Electronics Engineering"(NACOFEE'18)	–	Kings College of Engineering, Punalkulam

11	Mr.J.Arokiaraj		IoT based Monitoring and Controlling of home appliance by using Zigbee Technology	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'18)	–	Kings College of Engineering, Punalkulam
12	Mr.C.Balaji		A New Soft Switching Dual Input Converter for Renewable Energy Systems	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'18)	–	Kings College of Engineering, Punalkulam
13	Mr.J.Arokiaraj, Mr.S.R.Karthikeyan		Solar based Inverterless Automatic Irrigation and Ligting system using Microcontroller	2nd International Conference on Innovations in Engineering, Technology and Science(ICIETS-2018)	–	NIE Institute of Technology, Mysore,
14	Mr.J.Arokiaraj, Mr.S.R.Karthikeyan		IoT based smart home Automation	National Conference on Modeling, Analysis & Simulation Techniques in Engineering Research (MASTER'18)	–	AVC Engineering college,Mayiladuthurai
15	Mr.S.R.Karthikeyan		Microcontroller based Monitoring and Controlling of PV panel by zigbee module	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'18)	–	Kings College of Engineering, Punalkulam
16	Mr.S.R.Karthikeyan		IoT based Monitoring and Controlling of home appliance by using Zigbee Technology	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'18)	–	Kings College of Engineering, Punalkulam
17	Mr.P.Narasimman		Implementation of Zero Voltage Switching	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'18)	–	Kings College of Engineering, Punalkulam
Mech						
1	H.Agilan, et al.		Performance and Emission of C.I Engine Using Biofuel With Additives	National Conference on Recent Advances in Mechanical Engineering – 2019	978-93-85057-16-8	Kings Publications
2	P.P.Shantharaman, et al.		Mechanical Properties Of Reinforced Fiber Metal Laminates	National Conference on Recent Advances in Mechanical Engineering – 2019	978-93-85057-16-8	Kings Publications
3	M.Melwin Jagadeesh Sridhar		Grey Relational Analysis To Determine the Optimum Process Parameters For Cylindrical Grinding Process on Ohns (AISI 0-1) Steel Rounds	National Conference on Recent Advances in Mechanical Engineering – 2019	978-93-85057-16-8	Kings Publications
4	Dr.T.Pushparaj, et al.		Performance And Emission Characteristic Of Icengine Using Cucurbita Pepo L. And Zea Mays Bio Diesel Blend	National Conference on Recent Advances in Mechanical Engineering – 2019	978-93-85057-16-8	Kings Publications

5	T.Pushparaj		Performance and Emission Studies on an Agriculture Engine on Karanja Bio Diesel With Diethyl Ether Additive	National Conference on Recent Advances in Mechanical Engineering – 2019	978-93-85057-16-8	Kings Publications
6	H.Agilan1,et al.		Performance And Evaluation of Thermoelectric Refrigeration By Using Peltier Effect	National Conference on Recent Advances in Mechanical Engineering – 2019	978-93-85057-16-8	Kings Publications
S&H						
1	Dr.V.Suresh Kumar		A Study on Immersion time…HCl using Polythiophene derivatives	International conference on Recent Applications in Advanced Materials	–	E.R.K Arts & Science College, Dharmapuri
2	Dr.V.Suresh Kumar		Inhibition effect….steel in Hcl solution	International conference on Emerging Trends & Innovations in chemistry(ETIC-2019)	–	Sengamala Thayaar Educational Trust Women's College, Mannargudi
3	Dr.S.Udayakumar		Kinetic studies on the Removal Iron(III)…vitex negunds stem	International conference on Recent Applications in Advanced Materials	–	E.R.K Arts & Science College, Dharmapuri
4	Dr.S.Udayakumar		Studies on the.....Activated Carbon	International conference on Emerging Trends & Innovations in chemistry(ETIC-2019)	–	Sengamala Thayaar Educational Trust Women's College, Mannargudi
5	Dr.P.Saravanan		A Improving the Dye ability of silk…Dye from flowers of Landana Camara Linn	International conference on Recent Applications in Advanced Materials	–	E.R.K Arts & Science College, Dharmapuri
6	Dr.P.Saravanan		Dyeing of silk.....Arjuna Linn	International conference on Emerging Trends & Innovations in chemistry(ETIC-2019),	–	Sengamala Thayaar Educational Trust Women's College, Mannargudi
7	Dr.AL.Kavitha		Overview of modified carbon paste electrode with chitosan composite	International Conference on Frontier Areas in Chemical Technologies(FACTS 2019)	–	Alagappa University, Karaikudi
2017-18						
CIVIL						
1	Ms.R.Revathi		Experimental study on concrete by partial displacement of fine aggregate by using quarry dust & saw dust.	International Conference on Modern Global Research in Engineering and Technology,Sri Ramakrishna college of Engineering, Perambalur	–	Sri Ramakrishna college of Engineering,

2	Ms.R.Revathi	–	Experimental study on strength characteristics of steel fibre reinforced concrete	International Conference on Modern Global Research in Engineering and Technology,Sri Ramakrishna college of Engineering, Perambalur	–	Sri Ramakrishna college of Engineering,
3	Ms.R.Revathi	–	Experimental investigation on concrete by partial replacement on cement by using GGBFS & added with human hair	International Conference on Modern Global Research in Engineering and Technology,Sri Ramakrishna college of Engineering, Perambalur	–	Sri Ramakrishna college of Engineering,
4	Ms.R.Revathi	–	Experimental study on partial replacement of coarse aggregate by coconut shell and with addition of chicken feather in concrete	International Conference on Modern Global Research in Engineering and Technology,Sri Ramakrishna college of Engineering, Perambalur	–	Sri Ramakrishna college of Engineering,
5	Ms.T.Bhuvaneswari	–	Comparitive study on partial replacement of wood ash with cement.	International conference on Emerging Trends in Engineering and Technology, Pandian Saraswathi yadav engineering college,Sivagangai	–	Pandian Saraswathi yadav engineering college,Sivagangai
6	Mr.R.Sundharam	–	Experimental Investigation By Incorpation Of Flyash, Stp Sludge, Lime, Gypsum And Quarry Dust In Brick Making	International Conference On Innovations In Science Engineering, Technology And Management" (ICISETM 2018), Annapoorna Engineering College, Salem.	–	Annapoorna Engineering College, Salem.
7	Mr.R.Sundharam	–	Experimental Investigation Of Construction Properties Using Fibre Concrete	International Conference On Innovations In Science Engineering, Technology And Management" (ICISETM 2018), Annapoorna Engineering College, Salem.	–	Annapoorna Engineering College, Salem.
8	Mr.K.Arun	–	Experimental Investigation on Utilisation of E-Waste as partial replacement of Fine Aggregates in Concrete	International Conference on Innovations in Science, Engineering, Technology and Management "ICISETM 2018",Annapoorana Engineering College, Salem	–	Annapoorna Engineering College, Salem.

9	Mr.K.Arun	–	Comparative Study of Steel Slag with Coarse Aggregate and testing its binding properties with Bitumen	International Conference on Innovations in Science, Engineering, Technology and Management "ICISETM 2018",Annapoorana Engineering College, Salem	–	Annapoorna Engineering College, Salem.
10	Mr.K.Arun	–	E-Waste as an alternate to minimize Scarcity of fine aggregate for Concrete	National Conference on Advanced Techniques in concrete, Environmental and Geotechnical Engineering "NC-ATCEGE'18"	–	
11	Mr.K.Arun	–	Experimental Investigation on influence of Steel Slag with Coarse Aggregate in Bitumen and testing its binding properties	National Conference on Advanced Techniques in concrete, Environmental and Geotechnical Engineering "NC-ATCEGE'18"	–	
12	Ms.D.Sarmila	–	Assesment and impact of surfacewater quality a case study of Thanjavur region	International conference on Emerging Trends in Engineering and Technology, Pandian Saraswathi yadav engineering college,Sivagangai	–	Pandian Saraswathi yadav engineering college,Sivagangai
13	Mr.S.R.Elwin Guru Chanth	–	Experimental investigation on Concrete blocks using flyash and recycled plastic waste as raw material with interlocking mechanism	International Conference on Modern Global Research in Engineering and Technology,Sri Ramakrishna college of Engineering, Perambalur	–	Sri Ramakrishna college of Engineering,
14	Mr.K.Ranjith	–	Experimental study on partial replacement of cement with egg shell powder	International Conference on Modern Global Research in Engineering and Technology,Sri Ramakrishna college of Engineering, Perambalur	–	Sri Ramakrishna college of Engineering,
16	Mr.K.Ranjith	–	Experimental investigation of Light weight concrete with partial replacement of coarse aggregate by using pumice stone	Third International Conference on recent Trends in Mechanical ans Civil Engineering,Christian College of Engineering & Technology, Dindigul	–	Christian College of Engineering & Technology,
17	Mr.M.Mohamed Ilyas	–	Experimental investigation of partial replacement of coarse aggregate by demolished concrete	International Conference on Modern Global Research in Engineering and Technology,Sri Ramakrishna college of Engineering, Perambalur	–	Sri Ramakrishna college of Engineering,

18	Mr.M.Mohamed Ilyas	-	Experimental investigation of partial replacement of fine aggregate with steel slag	International Conference on Modern Global Research in Engineering and TechnologySri Ramakrishna college of Engineering, Perambalur	-	Sri Ramakrishna college of Engineering,
19	Mr.M.Mohamed Ilyas	-	Experimental investigation And analysis of Agriculture waste as partially Replacement of cement	International Conference on Modern Global Research in Engineering and TechnologySri Ramakrishna college of Engineering, Perambalur	-	Sri Ramakrishna college of Engineering,
CSE						
1	Ms.K.Abhirami et al	-	Pedometer and Calorie calculator for fitness tracking using mems digital accelerometer	National Conference NCACCPS'18	-	St.Josephs College of Engineering and Technology
2	S.Puvaneswari et al	-	Helmet Based vehicles auto ignition with alcohol detection &accident indication with reporting	National Conference NCACCPS'18	-	St.Josephs College of Engineering and
3	R.Sugantha Lakshmi et al	-	Electronics voting using finger print sensor and adhar card	National Conference NCACCPS'18	-	St.Josephs College of Engineering and Technology
4	R.Sriram kumar et al	-	Onion routing protocol	National Conference NCACCPS'18	-	St.Josephs College of Engineering and Technology
5	P.Nalayini et al	-	An apply for efficient data sharing using CRN	National Conference NCACCPS'18	-	St.Josephs College of Engineering and Technology
6	B.Sangeetha et al	-	Privacy preserving user review verification using fuzzy and particle swarm optimization	National Conference NCACCPS'18	-	St.Josephs College of Engineering and Technology
7	M.Arun et al	-	Enhanced content sharing in social network	National Conference NCACCPS'18	-	St.Josephs College of Engineering and Technology
ECE						
1	N.Mangaiyarkarasi et al		A mobile airbag system using MEMS sensors	2nd International Conference on Innovations In Engineering, Technology and Science (ICIETS-2018)	-	K.Ramkrishna College of Engineering

2	T.Pasupathi et al		SBA: Swatch Bharat Abhiya smart dustbin management	Second International Conference on Innovations in Engineering, K.Ramkrishna College of Engineering	–	K.Ramkrishna College of Engineering
3	P.Thirumagal et al		Wheel inflation maintanence device for enabling safetly driving	2nd International Conference on Innovations In Engineering, Technology and Science (ICIETS-2018), K.Ramkrishna College of Engineering	–	K.Ramkrishna College of Engineering
4	P.Geetha Bai et al		Real Time Smart Walking Stick for Visually Challenged People using raspberry Pi3	2nd International Conference on Innovations In Engineering, Technology and Science (ICIETS-2018), K.Ramkrishna College of Engineering	–	K.Ramkrishna College of Engineering
5	T.Jeyaseelan et al		Visible Light Communication Link for Indoor Hospital Communication Systems	2nd International Conference on Innovations In Engineering, Technology and Science (ICIETS-2018), K.Ramkrishna College of Engineering	–	K.Ramkrishna College of Engineering
6	U.Jeyamalar et al		Efficient Line Spectrum Pair Computation for LPC using ETT	2nd International Conference on Innovations In Engineering, Technology and Science (ICIETS-2018), K.Ramkrishna College of Engineering	–	K.Ramkrishna College of Engineering
7	S.Ramarajan et al		Design And Implementation of Fully Automated Plant for TNCSC	National Conference on innovations in Engineering and Management-(NCIEM 2018)	–	K.Ramkrishna College of Engineering
8	A.Aravind Armstrong et.al.		Design of Wireless Optical Communication for Underwater Vehicles	National conference on Advanced Communication, Computing and Power Systems (NCACCPS-2018),March 2018	–	St. Josephs college of engineering and technology
9	P.Raja Pirian et al		IOT based Wireless Sensor Networks for Agriculture	2nd International Conference on Innovations In Engineering, Technology and Science (ICIETS-2018), K.Ramkrishna College of Engineering	–	K.Ramkrishna College of Engineering

10	J.Arputha Vijaya Selvi et al		Smart Ration Distribution System	2nd International Conference on Innovations In Engineering, Technology and Science (ICIETS-2018), K.Ramkrishna College of Engineering	–	K.Ramkrishna College of Engineering
11	U.K.Vithyashri et.al.		Wireless Controlled Robot Movement System Designed using Microcontroller	National conference on Advanced Communication, Computing and Power Systems (NCACCPS-2018)	–	St. Josephs college of engineering and technology
12	K.Sudarsanan et al		Realtime Implementation of LIFI based Zone sensing and Adaptive Lighting System for Automobile	2nd International Conference on Innovations In Engineering, Technology and Science (ICIETS-2018), K.Ramkrishna College of Engineering	–	K.Ramkrishna College of Engineering
13	N.Mangaiyarkarasi, R.Sathyaraj et al		Detection of Leukemia in Human Blood Samples	International Conference on Emerging Trends in Engineering and Technology (ICETET-2018),	–	K.Ramkrishna College of Engineering
14	R.Ponni, et al.		Segmentation and Volume Estimation of Thyroid modules using Ultra Sound Images	2nd International Conference on Innovations In Engineering, Technology and Science (ICIETS-2018), K.Ramkrishna College of Engineering	–	K.Ramkrishna College of Engineering
EEE						
1	Dr.S.Sivakumar		Mitigation of Harmonics in Multilevel Inverter using MPWM and SWM Techniques	2017 Asian Institute of Technology Conference Center	–	Asian Institute of Technology, pathum Thani,Thailand
2	Dr.N.Hemavathi		Implementation of Smart Navigation System for Visually Impaired using Sensors	International Conference on Engineering, Energy and Environment(ICEEE'17)	–	TRP Engineering college
3	Mr.R.Sundaramoorthi		Student Centric Instructional and Learning Resources Nurturing Active Learning experience	46th ISTE Annual National Convention and National Conference	–	ISTE
4	Mr.R.Sundaramoorthi		Role of Mentoring System in Educational institutions Facilitating Learner's Progression Leading to Value Enriched Citizens	46th ISTE Annual National Convention and National Conference	–	ISTE

5	Mrs.N.Rajeswari		Improved Performance of Hybrid Bidirectional DC-DC Converter in Grid application	International Conference on Engineering, Energy and Environment(ICEEE'17)	–	TRP Engineering college
6	Mrs.N.Priya, Mr.P.Narasimman		Multi level inverter based Single Phase AC-DC_AC Converter	Interntional Conference on Communication and security(ICCS 2017)	–	SASTRA University
7	Mr.P.Narasimman		FPGA based Interleaved Bidirectional Converter for Electric Vehicle	International Conference on Research Advances in Communication, Computation, Electrical Science and Structures	–	
Mech						
1	S.Karikalan, V.Vinoth Kannan, J.Prabakaran		Prediction of Optimal Machining Rate on Titanium in CNC-Wire cut Electrical Discharge Machining using Response Surface Methodology	National Conference on Emerging trends in Mechanical Engineering – 2018	978-93-85057-13-7	Kings Publications
2	S.Karikalan, V.Vijayakumar		Performance study of machining on coated carbide tool using response surface methodology in CNC	National Conference on Emerging trends in Mechanical Engineering – 2018	978-93-85057-13-7	Kings Publications
3	Balaji.R, Arivazhagan.R, Dr.T.Pushparaj		Manually operated eco-friendly floor cleaning machine	National Conference on Emerging trends in Mechanical Engineering – 2018	978-93-85057-13-7	Kings Publications
4	H.Agilan, R.Shankar		Experimental Investigation on the performance and emission characteristics of a diesel engine fuelled with ethanol with additives, diesel and 1-pentanol, jatrophaa based biodiesel blends	National Conference on Emerging trends in Mechanical Engineering – 2018	978-93-85057-13-7	Kings Publications
S&H						
1	Mrs.T.Gnanajeya	–	Isomorphism On Neutrosohic Fuzzy Graphs	International Conference on Graph Theory & its Applications	–	AMET University, Coimbatore
2	Dr.V.Suresh Kumar	–	A Study on Homocysteine status Myocardial infection among Tamilians	Adroit Conference on Emerging Trends in Chemistry - National Level conference	–	Jeppiaar SRR EngineeringCollege, Padur, Chennai
3	Dr.S.Udayakumar	–	Thermal studies on Transition metal ion doped Zno nanoparticles by simple chemical precipitation method	Adroit Conference on Emerging Trends in Chemistry - National Level conference	–	Jeppiaar SRR EngineeringCollege, Padur, Chennai
4	Dr.P.Saravanan	–	Effect of Chitosan and mordants on Dyeablity of silk fabrics with natural dye from barks of odinawodier	Adroit Conference on Emerging Trends in Chemistry - National Level conference	–	Jeppiaar SRR EngineeringCollege, Padur, Chennai

5	Dr.AL.Kavitha	-	1.Low cost of Coloured Emulsion Paints with IR Resistant Coatings over Asbestos Sheets	National seminar on 6-7thSep 2018,	-	N.S.SHinduCollege, Changanachery.
6	Dr.AL.Kavitha	-	2.Synthesis and Characterization of Antiscalants for Cooling Water Applications	International Conference on Chemical and Environmental Research	-	Jamal Mohamed College, Trichy.
7	Dr.AL.Kavitha	Book of Environmental Science and Engineering	-	-	978-93-86712-03-5	Jeyalakshmi publications
8	Dr.V.Sureshkumar	-	Evaluation of Synthesized water system Application	National conference on RACS – 2017	-	Sri Ramakrishna Instituteof Technology, Coimbatore.
9	Dr.S.Udayakumar	-	Kinetic study of removal of Fe III from aqueous solution by Acid Activated Negundo Stem	National conference on RACS – 2017	-	Sri Ramakrishna Instituteof Technology, Coimbatore.
10	Dr. AL.Kavitha	-	1.Synthesis and Characterization of Iron oxide-Chitosan Nano composite	International conference onICAMST 2017, Center for crystal Growth	-	VIT University, Vellore
11	Dr. AL.Kavitha	-	2.Multifunctional application of Iron Oxide-Chitosan Composite	National Seminar, School of Chemistry	-	Alagappa University, Karaikudi.
12	Dr.V.Suresh Kumar	-	Influence of polythiophene derivatives on corrosion inhibition of mild steel in acidic solution	International conference on Innovations in Science, Engineering and Technology for sustainable Development	-	Muthayammal Engineering College, Rasipuram.
13	Dr.S.Udayakumar	-	Optical studies on Transition Metal ion doped ZnO Nano rods by simple precipitation method	International conference on Innovations in Science, Engineering and Technology for sustainable Development	-	Muthayammal Engineering College, Rasipuram.
14	Dr.P.Saravanan	-	Effects of Chitosan & Mordants on the dye ability of silk fabrics with a Eco-friendly Natural Dye from the Barks of Ficus Religiosa Lion	International conference on Innovations in Science, Engineering and Technology for sustainable Development	-	Muthayammal Engineering College, Rasipuram.
15	Dr.AL.Kavitha	-	Economical Development of IR coatings in Asbestos Sheet	ICREST 2017	-	Alagappa University, Karaikudi
2016-17						
CIVIL						
1	Dr.R.Saravanan	Environmental science & Engineering	-	-	978-93-83103-10-2	Lakshmi Publications chennai
2	Dr.R.Saravanan	Repair and Rehabilitation of structures	-	-	978-93-83103-74-4	Lakshmi Publications chennai

3	Dr.R.Saravanan	Municipal Solid Waste Management	–	–	978-93-83103-65-2	Lakshmi Publications chennai
4	Mr.R.Sundharam	–	Experimental Analysis On Self-Consolidating Concrete	2nd International Conference On Engineering Innovations And Soutions (2'ICEIS – 2017) ,Sri Venkateswara College Of Technology, Sriperumbudur.	–	–
5	Mr.R.Sundharam	–	Experimental Investigation Of Partial Replacement Of Sand By M-Sand & Eco Sand And Replacement Of Cement Using Fly Ash In Concrete	2nd International Conference On Engineering Innovations And Soutions (2'ICEIS – 2017) ,Sri Venkateswara College Of Technology, Sriperumbudur.	–	Sri Venkateswara College Of Technology, Sriperumbudur.
6	Mr.K.Arun	–	Experimental Investigation of influence of Marble Powder in Concrete as a partial replacement of Cement	International Conference on Newer Engineering concepts & Technology (ICONNECT-2K17)	–	–
7	Mr.K.Arun	–	Study of Concrete properties by partial replacement of Cement using Marble Powder	National Conference on Advances in civil Engineering	–	–
8	Mr.K.Arun	–	Experimental Study on partial replacement of Bitumen by recycled rubber from tyre on Asphalt Pavement	National Conference on Recent Advancement in Technologies	–	–
9	Mr.R.Sundharam	–	Experimental investigation on self curing concrete	International Conference on Current Research in Engineering Science and Technology (ICCREST-2016),Jayaram College of Engineering and Technology	–	Jayaram College of Engineering and Technology
10	Mr.R.Sundharam	–	Innovative concrete by using paper waste	International Conference on Advances in Mechanical and Civil Engineering (ICETMSH'16),E.G.S. Pillay Engineering College, Nagapattinam.	–	E.G.S. Pillay Engineering College, Nagapattinam.
11	Mr.R.Sundharam	–	Experimental investigation of internal curing concrete	National Conference On Emerging Trends And Challenges In Civil Engineering (NC – ETCCE'16)	–	–
12	Mr.K.Arun	–	Flexural behavior of RC Beam with welded mesh as shear reinforcement	National Conference on Emerging Trends and Challenges in Civil Engineering	–	–

1	S.M.Uma et al	–	Energy Efficient And Interference Aware Multi hop In Underwater Acoustic Networks	Recent Trends and Technologies in Computing(NCRTTC'17)	–	Arasu Engineering College
2	K.Abhirami	–	Web user behavior modeling discovering behavior patterns & analysis on pattern acuracy	international Conference on Innovative research in engineering & science-IRES	–	Asian Institute of Technology, Thailand (ONLINE mode)
3	S.Hemalatha	–	Adaptive Crowd Sourcing In Medical Bigdata Platform	International conference on newer engineering concepts & technology	–	K.Ramakrishna College of technology
4	R.Sriram kumar	–	Survey On File Recovery System For Hadoop Using Grid Based Query Language	International conference on newer engineering concepts & technology	–	K.Ramakrishna College of technology
5	R.Sriram kumar	–	Compressing video using Asymmetric algorithm & implementing blind video water marking technique	International conference on Recent trends in Engineering and Sciences(NCICRTES 2017)	–	Vetri vinayaga College of Engineering
6	J.Jegan, D.Sivakumar	–	Secure cost aware routing protocol for wireless sensor networks	International Conference on Computation of power,energy,information and communication 2017(ICCPEIC)	978-1-5090-4324-8	Adhiparasakthi Engineering College
7	J.Jegan, D.Sivakumar	–	Design of earlier flood and landslides monitoring system based on weather forecasting data using wsn	International conference on newer engineering concepts & technology-2K17	–	K.Ramakrishna College of technology
8	J.Jegan, D.Sivakumar	–	A secure and efficient power saving analysis for wireless sensor network	International conference on newer engineering concepts & technology-2K17	–	K.Ramakrishna College of technology
9	K.Rajesh, J.Jegan, D.Sivakumar	–	Survey on file recovery system for hadoop using grid based query language	ICONNECT 2K17	–	K.Ramakrishna College of technology
10	P.Nalayini	–	Wireless communication with power saving technologies	International conference on engineering, energy and environment(ICEEE-2017)	–	TRP Engineering College
12	S.Rajarajan	–	Quick response system App for service support	International conference on newer engineering concepts & technology-2K17	–	K.Ramakrishna College of technology
13	S.Rajarajan	–	Chaotic map combined with MSIS scheme for secure data transmission,	International conference on newer engineering concepts & technology-2K17	–	K.Ramakrishnan college of technology
ECE						

1	J. Arputha Vijaya Selvi, J. Niranjan Samuel et al		Internal Lighting by Solar Collectors and Optical Fibers - A Review	International Conference on Microwave and Optical Communication, Alagappa Chettiar College of Engineering and Technology, Karaikudi.	–	Alagappa Chettiar College of Engineering and Technology
2	T.Pasupathi et al		Design and Implementation of Gravity/Magnet Assisted Power (GAP) Generating System for Harvesting Electrical Energy	International Conference on Engineering, Energy & Environment (ICEEE 2017), TRP Engineering College, Tiruchirappalli.	–	TRP Engineering College
3	J. Niranjan Samuel, T. Pasupathi et.al		Energy Efficient Lighting using Optical Fiber for Commercial Buildings	International Conference on Emerging Trends in Electrical, Electronics and Communication Systems, Anna University (BIT Campus), Tiruchirappalli.	–	Anna University (BIT Campus)
4	A.Herald, et al.		Wireless Optical Communication System using Media Converter for Ethernet Applications	International Conference on Engineering, Energy & Environment (ICEEE 2017), TRP Engineering College, Tiruchirappalli.	–	TRP Engineering College
5	J. Arputha Vijaya Selvi, S.Durairaj, T. Shanthi		SFRDS – An Insight to Research for UG Students	1st International Conference on Multidisciplinary research for the accomplishment of academic excellence in higher and technical education through industrial practices, organized by ISTE,Bangkok, Thailand, June 2016	–	ISTE,Bangkok
6	S.Durairaj, K.Abhirami, V.Filomin Joseena		PEAK – An Innovative Practice to Engineering Students	1st International Conference on Multidisciplinary research for the accomplishment of academic excellence in higher and technical education through industrial practices, organized by ISTE, Bangkok, Thailand, 2016	–	ISTE,Bangkok

7	R.Ponni, M.Ashvitha		Segmentation and Volume Estimation of Thyroid Nodules using Ultrasound Image	1st International Conference on Multidisciplinary research for the accomplishment of academic excellence in higher and technical education through industrial practices, organized by ISTE, Bangkok, Thailand, June 2016	–	ISTE,Bangkok
8	T.Jayasankar, A.Appas Apdulrajak,J.Arputha Vijaya selvi		Improvement of Speaker Identification System Using MFCC and Pitch Based MFCC in Noise Environment	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Kings College of Engineering, Punalkulam, pp 475-478	–	Kings College of Engineering
9	Pasupathi T, Arputha Vijaya Selvi J, Niranjan Samuel J		Mitigation Of Low-Order Atmospheric Turbulent Effects Using Sensorless Adaptive Optics In Terrestrial Free Space Optical Communication	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Organized by Kings College of Engineering, Punalkulam, pp 514-519	–	Kings College of Engineering
10	Shanthi.T, et al.		'FPGA based Frequency Synthesizer for 14-Band MB-OFDM UWB Tranceivers	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Organized by Kings College of Engineering, Punalkulam, pp 514-519	–	Kings College of Engineering
11	Herald A, Vennila C		Comparison of Modulation Techniques for Underwater Optical Wireless Communication at Mallipattinam	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Organized by Kings College of Engineering, Punalkulam, pp. 520-524	–	Kings College of Engineering
12	B.Priya J.Arputha Vijaya Selvi		Dynamically Reconfigurable Multilevel Multiphase Space Vector Pulse Width Modulator for Overmodulation Region	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Kings College of Engineering, Punalkulam, pp 735-738	–	Kings College of Engineering

13	A. Albert Martin Ruban,T. Pasupathi, N. Rajeswari		A Fuzzy-logic Based Management System in Smart- Microgrid for Residential Applications	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Organized by Kings College of Engineering, Punalkulam, pp 711-717	–	Kings College of Engineering
14	J Arputha Vijaya Selvi, et al.		Parametric Analysis of a Novel Reconfigurable Wireless Sensor Network Architecture	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Kings College of Engineering, Punalkulam, pp.91-95	–	Kings College of Engineering
15	J Arputha Vijaya Selvi, et al.		Finite State Markovian Model for Trustworthy Reliable Communication in Dynamic Reconfigurable Wireless Sensor Network Architecture	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Kings College of Engineering, Punalkulam, pp.146-151	–	Kings College of Engineering
16	J Arputha vijayaselvi, et al.		Efficient Mobile Transporter in WSNs Lifetime Enhancement	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Kings College of Engineering, Punalkulam, pp. 175-180	–	Kings College of Engineering
18	J.Arputha Vijaya Selvi		Comparative performance analysis of forward error correcting codes for Free Space Optical Communication	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Organized by Kings College of Engineering, Punalkulam, pp 529-534	–	Kings College of Engineering
19	Sharmila S, Shanthi T		A survey on wireless Adhoc network issues and implementation	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Organized by Kings College of Engineering, Punalkulam, pp 559-564	–	Kings College of Engineering

20	Jeyaseelan T		Medical imaging modalities: A survey	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Organized by Kings College of Engineering, Punalkulam, pp 525-528	–	Kings College of Engineering
21	Bhuvaneshwati S, Arockia Bazil Raj A		Survey on soft computing assisted controller driven insulin injection gadget	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Organized by Kings College of Engineering, Punalkulam, pp 535-538	–	Kings College of Engineering
22	Ponni R		Testing in VLSI: A survey	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Organized by Kings College of Engineering, Punalkulam, pp 539-543	–	Kings College of Engineering
23	Sudarsanan K		A survey on smart grid	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Organized by Kings College of Engineering, Punalkulam, pp 544-549	–	Kings College of Engineering
24	Filomin Joseena.V		A survey on Wireless Communication	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS-2016), Organized by Kings College of Engineering, Punalkulam, pp 550-554	–	Kings College of Engineering
25	N. Mangaiyarkarasi et al		A Low power Multiplier with the spurious Power Technique	International Conference on Current Research in Engineering Science and Technology (ICCREST) 2016	–	Jayaram College of Engg. & Tech., Trichy.
26	Mangayarkarasi .N		Low Cost Hybrid Solar Car Concept -A Technique that challenges the conventional cars in efficiency and usability	International Conference on Current Research in Engineering Science and Technology (ICCREST) 2016	–	Jayaram College of Engg. & Tech., Trichy.

27	Jeyaseelan.T		Design of Ultrafast Imaging System for Thyroid Nodule Detection	National Conference On Integrated Technologies 2016, Organized By Department of Electronics and Communication Engineering, E.G.S Pillay Engineering College. Nagapattinam, February 2016	–	E.G.S Pillay Engineering College
28	Rinitha R		FPGA implementation of OFDM transceivers using BIST	National Conference on Integrated Technologies 2016, Organized By Department of Electronics and Communication Engineering, E.G.S Pillay Engineering College. Nagapattinam, February 2016.	–	E.G.S Pillay Engineering College
29	Arputha Vijaya Selvi J, Pasupathi.T		'FPGA implementation of Low Density parity Check Code encoder	National Conference on Integrated Technologies 2016, Organized By Department of Electronics and Communication Engineering, E.G.S Pillay Engineering College. Nagapattinam, February 2016	–	E.G.S Pillay Engineering College
30	Rajapirian P, et al.		A novel approach for WSN based Plant monitoring and Low complexity Design	National Conference on Integrated Technologies 2016, Organized By Department of Electronics and Communication Engineering, E.G.S Pillay Engineering College. Nagapattinam, February 2016	–	E.G.S Pillay Engineering College
31	V. Filomin Joseena		A New Architecture Using Polynomial Matrix Multiplication For Advanced Wireless Communication	National Conference on Integrated Technologies 2016, Organized By Department of Electronics and Communication Engineering, E.G.S Pillay Engineering College. Nagapattinam, February 2016	–	E.G.S Pillay Engineering College
32	Sharmila S, Shanthi T		Low Complexity FPGA architecturefor SC-FDMA MIMO detector	National Conference on Integrated Technologies 2016, Organized By Department of Electronics and Communication Engineering, E.G.S Pillay Engineering College. Nagapattinam, February 2016	–	E.G.S Pillay Engineering College

EEE						
1	Dr.S.Sivakumar		Smart Tracking systems for Domestic Consumers	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'16)	978-93-85057-07-6	Kings College of Engineering, Punalkulam
2	Dr.A.Albert Martin Ruban		A fuzzy-logic based management system in smart-microgrid for residential applications	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS)	978-1-4673-6726-4	Kings College of Engineering, Punalkulam
3	Mr.A.Tamilselvan		Vibration analysis of 3-phase squirrel cage induction motor due to broken rotor using artificial intelligence	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS)	978-1-4673-6726-4	Kings College of Engineering, Punalkulam
4	Mr.R.Sundaramoorthi		Implementation and Control of Multiple Input Single Converter Battery charged for DC Nanogrid applications	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'16)	978-93-85057-07-6	Kings College of Engineering, Punalkulam
5	Mr.R.Sundaramoorthi		Design and implementation of SEPIC converter with low ripple battery current for electric vehicle applications	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS)	978-1-4673-6726-4	Kings College of Engineering, Punalkulam
6	Mrs.N.Rajeswari		Implementation of Hybrid Bidirectional DC-DC Converter in Microgrid	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'16)	978-93-85057-07-6	Kings College of Engineering, Punalkulam
7	Mrs.N.Rajeswari		A fuzzy-logic based management system in smart-microgrid for residential applications	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS)	978-1-4673-6726-4	Kings College of Engineering, Punalkulam
8	Mrs.N.Priya		Student Centric Instructional and Learning Resources Nurturing Active Learning experience	46th ISTE Annual National Convention and National Conference	_	ISTE
10	Mr.J.Arokiaraj		Series compensation technique based energy management at micro-grid	International Conference on Emerging Trends in Engineering, Technology and Science (ICETETS)	978-1-4673-6726-4	Kings College of Engineering, Punalkulam
11	Mr.C.Balaji		Smart Tracking systems for Domestic Consumers	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'16)	978-93-85057-07-6	Kings College of Engineering, Punalkulam

12	Mrs.A.Prabha		Smart Tracking systems for Domestic Consumers	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'16)	978-93-85057-07-6	Kings College of Engineering, Punalkulam
13	Mr.S.R.Karthikeyan		A Study on self Monitoring Glucose Sensing with Multiple Parametric Surface Plasmon Resonance	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'16)	978-93-85057-07-6	Kings College of Engineering, Punalkulam
14	Mr.M.Mayapandi		Simulation of Three Phase Five Level Neutral Clamped Inverter (NPC) for Induction Motor	National Conference on "Flourishing Areas of Electrical and Electronics Engineering" (NACOFEE'16)	978-93-85057-07-6	Kings College of Engineering, Punalkulam
Mech						
1	Dr. T Pushparaj		Performance analysis of linear Fresnel reflector concentrating solar system with horizontal and vertical absorber with varying width of reflector"	International Conference IRES	9.78151E+12	Dusseldorf, Germany
2	Dr. T Pushparaj		Performance and Emission studies on Cashewnut Shell Liquid Diesel Engine with Acetone as AdditiveBio-oil Fuelled	International Conference ICEEE	978-1-5090-6789-3	Gazi University in Ankara, Turkey
3	Dr. T Pushparaj		Effects of nano additive on Cashew Nut Shell Liquid bio-oil blends in diesel engine	ICETES-2016	978-1-4673-6725-7	Kings Publications
4	Dr. T Pushparaj		Cold flow analysis of various biomass mixtures in self fluidized bed biomass gasifier"circulating ,	ICETES-2016	978-1-4673-6725-7	Kings Publications
5	Dr. T Pushparaj		Shell side flow behavior analysis with various tube bundle and tube heat exchanger using CFDalignment in shell	ICETES-2016	978-1-4673-6725-7	Kings Publications
6	Dr. T Pushparaj		Shell side flow behavior analysis with baffles configuration in tube heat exchanger using CFDshell and	ICAMC-2016	978-1-4673-6725-7	Kings Publications
7	Mr. R. Shankar		Effects of nano additive on Cashew Nut Shell Liquid bio-oil blends in diesel engine	ICETES-2016	978-1-4673-6725-7	Kings Publications
8	Venkatesh. S, M.Babu		A Review on Thermodynamic Properties of various fuels, solar cells and nano grid particles for eco friendly power generation.	National Conference on Recent Advances in Mechanical Engineering – 2016	978-93-85057-13-6	Kings Publications

9	D.Yogendran		Developing a model for institutional capacitated vehicle routing problem	National Conference on Recent Advances in Mechanical Engineering – 2016	978-93-85057-13-6	Kings Publications
10	S.karikalan, J.Prabakaran,		Effect of surface roughness on titanium alloy in cnc-wedm using response surface methodology.	National Conference on Recent Advances in Mechanical Engineering – 2016	978-93-85057-13-6	Kings Publications
11	M.Pradeep, N,Mahesh		Effect of surface roughness on aa6061 with titanium nickel composite fabricated via friction stir processing	National Conference on Recent Advances in Mechanical Engineering – 2016	978-93-85057-13-6	Kings Publications
12	Venkatesh. S , Mathan. S, M.Babu		Fuels for future splitting of hydrogen from water by carbon-graphite method	National Conference on Recent Advances in Mechanical Engineering – 2016	978-93-85057-13-6	Kings Publications
13	T.Pushparaj, P.P.Shantharam an		Experimental investigation on the effects of acetone additive with cashew nut shell liquid bio-oil blends in diesel engine	National Conference on Recent Advances in Mechanical Engineering – 2016	978-93-85057-13-6	Kings Publications
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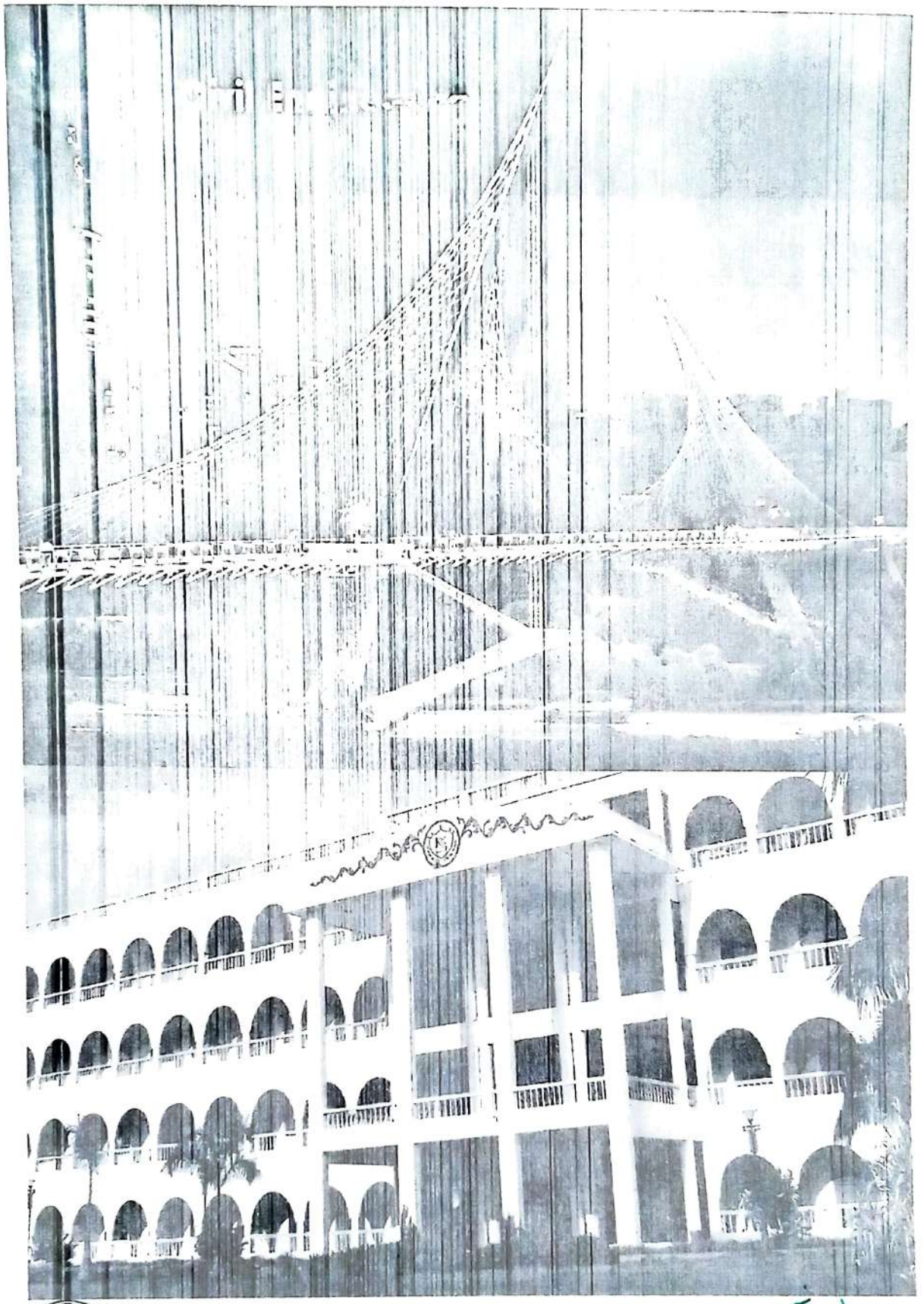

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CE 16

EXPERIMENTAL INVESTIGATION ON PERMEABLE PAVEMENT BLOCK BY USING CONSTRUCTION WASTE

V. Ishwarya[1],R.Bhagavathi[2],K.Mariya[3],S.Shalini[4], R.Rashiga[5]

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Permeable pavement can reduce volumes and improve water quality. Large amount of construction waste have been generating every year in India. Since very small amount of waste are recycled, therefore disposing of waste becomes very serious problem and it requires more space. The objective of this project is to find a good percentage and strength for permeable pavement blocks. Name of the pavement block which indicate the action of the pavement, it absorbs the water. Coarse aggregate partially replaced by construction waste. Cubes casted with concrete mixes(M35) and it will be subjected to curing for 7 days,14 days,28 days. It can designed for light traffic.

Keywords; permeable pavement,construction waste,good drainage .

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SOCIAL NETWORKING APPLICATION FOR KCE

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Abstract:

The type of social space available to users can provide a more personalized and interactive experience for educative purpose. In this project a social networking application exclusive for the college has been created whereby students, faculty and administration would be able to socialize and share their knowledge. Also it would be a hub to share information about all the ongoing activities in the college campus. It describes the features implemented in this project and presents a glimpse of how the application works. It discusses about the implementation of social networking application for learning purposes and to share the information's about the college.

Keywords: Social network, college, interaction.

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MENTAL HEALTH CARE APPLICATION

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Abstract:

This paper discusses about the project implementation of social application for maintaining the mental health care of a person in different ways. Depression is a mental disorder characterized by persistent sadness, loss of interest, and a set of behavioural changes. The high prevalence of depression imposes a significant burden on the world population, demanding methods capable of monitoring and treating this mental disorder. In this application, which contains various psychiatric tips, meditation tips, best psychiatrist's advice for maintain mental health, also the appointment and live sessions of the psychiatrists and some relaxation features. The type of social space available to users can provide more personalized and interactive experience for taking these tips. The role of mobile apps in mental health treatment is a relatively new tool. Apps can be utilized by mental health practitioners, individuals interested in mental well-being, etc.

Keywords: Mobile application, Mental disorders, psychiatrists, Mental health care

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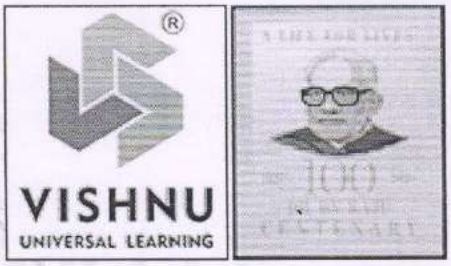

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INTRUSION DETECTION SYSTEM USING DEEPLEARNING

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Abstract— **Intrusion Detection System (IDS) defined as a Device or software application which monitors the network or system activities and finds if there is any malicious activity occur. Outstanding growth and usage of internet raises concerns about how to communicate and protect the digital information safely. In today's world hackers use different types of attacks for getting the valuable information. Many of the intrusion detection techniques, methods and algorithms help to detect those several attacks. The main objective of this paper is to provide a complete study about the intrusion detection, types of intrusion detection methods, types of attacks, different tools and techniques, research needs, challenges and finally develop the IDS Tool for Research Purpose That tool are capable of detect and prevent the intrusion from the intruder.**

Index Terms— **Intrusion Detection System, Need, Type of IDS, Detection Techniques, Functioning of IDS, Components, Application based IDS, Tools of IDS.**

I. INTRODUCTION

In today's world internet security has become a challenge for organisations. To protect credential data from the intruders. In process of safeguarding the data Web Firewalls, encryption, authentication and Virtual Private Networks (VPN) have been deployed since a long time to secure the network infrastructure and communication over the internet. Intrusion detection is a relatively new addition to set of securitytechnologies. IDS is an evolution which enhance the network security and safeguarding the data of the organisation.

The IDS helps the network administrator to detect any malicious activity on the network and alerts the administrator to get the data secured by taking the appropriate actions against thoseattacks. An intrusion refers to any unauthorized access or malicious utilization of information resources. An intruder or an attacker is a real world entity that tries to find a means to gain unauthorized access to information, causes harm or engage in other malicious activities.

The Intrusion detection system is about the firewall security. The firewall protects an organization from the malicious attacks from the Internet and the IDS detects if someone tries to access in through the firewall or manages to break in the firewall security and tries to have an access on any system in the organization and alerts the system administrator if there is an undesired activity in the firewall.

Therefore, an Intrusion detection system (IDS) is a security system that monitors network traffic and computer systems and works to analyse that traffic for possible hostile attacks originating from outside the organization and also for misuse of system or attacks originating from inside the organization.

I.NEED

Now a day's internet has become part of our daily life infect, the business world is getting connected to Internet. Number of peoples are getting connected to the Internet every day to take advantage of the new business model which is known as e-Business. Connectivity enhancement has therefore become very critical aspect of today's e- business.

There are two phases of business on the Internet. First phase is the Internet brings in outstanding potential to business in terms of reaching the users and at the same time it also brings a lot of risk to the business. There are both harmless and harmful users on the Internet. Whereas an organization makes its information system accessible to harmless Internet users. Malicious users or hackers can also get an access to organization's internal systems in various reasons. These are,

- Software bugs called vulnerabilities in asystem
- Failure in administration security
- Leaving systems to default configuration

The intruders are use different types of techniques like Password cracking, peer-to-peer

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A Noval Approach To Solve Class Imbalance By Using Ensemble Classifier

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ABSTRACT

Security is a key controversy to both computer and computer networks. An Intrusion Detection System is a software that superintend a single or a network of a computers for denmastry activities which are pursued at purloining or inspecting information or deprave network protocols. IDS can be grouped into Signature based Detection (SBD) and Anomaly based Detection (ABD). Machine Learning Techniques have been scrutinized and emulated in label of their detection potentiality for identifying the different groups of attacks. In this Paper, we Proposed a comprehensive evaluation of diverse machine learning techniques for locating the root of complications in recognizing Intrusion Activities. Controversies that are analogous to discerning low-frequency attacks utilizing network attack datasets are also explored and effective methods are recommended for betterment. Numerous Data Mining tools for Machine Learning have also been incorporated in this paper. By using Sampling Technique, the efficiency and scalability was improved better compared to formal approaches.

Keywords: Intrusion Detection System, Machine Learning, Precision, ROC, True Positive, False Negative.

INTRODUCTION

A lay of skill used for perception of anomalous etiquette of networks. Based on the speculation that the etiquette of intruder is contradictory from that a usual user. As the elegant attack intensifies, the skillful Intrusion Detection approach is essential to overcome the annoying activities. In Common ,the potency of IDS is a survey of its proficiency to identify intrusion, to the least those that could possibly cause detrimental destruction. Few common parameters for estimates are detection rate, false positive, false negative, true positive ,false alarm. Much of the Existing strategy focused on upgrading the detection rate and therefore to some extent, the field has been massively well researched. In this Paper, we inspect an aggregate of ABD methodologies that has been developed for IDS. Each Method was tested using various available datasets targeting a number of attacks. Our main review is to find the key advantages of each technique as well as their drawbacks. In Succeeding period, this paper can benefit as a reference point and furnish scope to improve the existing approach for further research.

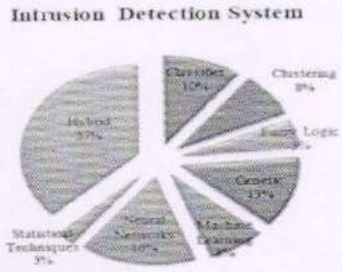

Figure 1.1

Machine Learning based IDS contributes a Learning based system to find category of attacks based on the learned normal and attack performance. The ultimate aim of machine learning based IDS is to imitate a

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AUTOMATED WATER MANAGEMENT AND LEAKAGE DETECTION SYSTEM USING IOT

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Abstract:

Leakage in dams is a major safety issue when left unimpeded, may result in dam failure. The leak repairs should be done without significant delays often pressured on dam operators. In order to overcome such situations, we are in the need to reduce the risk of failure or control water loss that led's to costly remedial repairs which are planned and executed without a complete understanding of the problem. A lack of appropriate leakage analysis and monitoring can result in repairs that are ineffective in controlling or reducing leakage. In the last few decades, a series of new hydrological techniques have been developed to help in the assessment of leakage and discharge in dams. Even though there are various techniques available, still we are facing problems in this regard. In this paper we are going to analysis the different methodologies that can be used in automated water management and leakage detection of dams

Index term:

Adriuno, GSM, SMS, Smart Water Leakage Detection (SWLD), Wireless Sensor Networks (WSN)

I-Introduction

Dams are among the structures that are subject to extreme forces. Many small and large dams have broken in the past and almost every time such accidents are contributed to structural defects in original design or structural defects caused later as a result of poor maintenance. When a dam breaks, millions of dollars of investment are lost and it creates a sudden flood. The flood destroys farms and houses and properties and takes many lives. Without a dam, many cities will lose electricity and water for an extensive period of time. So we have to key an eye on the strength of the dam which helps in los of humans and things

The structure of a dam or the way that its parts are designed and interconnected is the main factor affecting the strength of a dam. An embankment dam must be stable, and its side slopes must not slip or slide. The two basic dam materials, concrete and earthfill, possesses weaknesses that must be accommodated in the design process.

Concrete dams are designed to place minimum tensile stress on the dam and instead to take advantage of concrete's great compressive strength. The chief constituent of concrete, cement, shrinks as it hardens, and it also releases heat as part of the chemical reactions that occur within the cement during the process of hydration (or hardening). Because of the massive quantities of concrete used in a large dam, shrinkage caused by cooling can present a serious cracking hazard.

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This is to certify that Mrs. G.CHANDRA PRABA from KINGS COLLEGE OF ENGINEERING has presented a Research Paper Titled "AUTOMATED WATER MANAGEMENT AND LEAKAGE DETECTION SYSTEM USING IOT" in Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by the Department of Computer Science & Engineering, Shri Vishnu Engineering College for Women (Autonomous) during 29-31, January, 2021.

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BIIoT: Provenance of Industrial IoT Data with Blockchain Technology

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***Abstract*— The** Internet of Things (IoT) is the collection of internets connected devices that are embedded with electronics, sensors, and hardware that can be observed and controlled. IoT appears to be a double-edged sword: it has a range of possibilities for ultra-low-power communications and makes such communication vulnerable to malicious attacks because all IoT devices are wireless. To improve security in IoT devices, blockchain technology is utilized here. Hybrid industrial architecture is used for various branches of an organization and is located in more than one country. Although IoT devices are used in several organizations, they reduce their product prices along with improving quality. Various threats can occur in IoT devices perpetrated by different intruders. Attackers compromise IoT devices by performing malicious activities. For example, a company's workers can steal some product. Blockchain technology is used to provide privacy and protect the control system in real-time conditions to prevent such problems. In this paper, the researcher has discussed using a Blockchain mechanism to extract data from IoT devices and keep the blockchain records to maintain transparency among different users located at different places.

Keywords*— *Internet of Things, Industrial Internet of Things, Blockchain, Data Provenance

Introduction

An Internet of Things (IoT) network is formed with the networking of internet-connected devices that are embedded with electronics, sensor devices, and other hardware that can be remotely observed and controlled. Things on the Internet can be associated with an automobile with sensors imparted to notify the driver when tire pressure is reduced, or any natural or human-made item dispensed an IP can move information over a system. Differently, enterprises utilize IoT to work all the more productively, better comprehend clients to convey upgraded client assistance, improve essential leadership, and increment the business's estimation. IoT is not a Internet-associated buyer gadget. IoT is the innovation that manufactures frameworks fit for detected by its own and reacting to upgrades from this present reality without human intercession. To build up a strategy stream for a distinct structure over which an IoT arrangement is assembled.

Actuators are a thing regarding the Internet of Things, ought to be outfitted with sensors and actuators in this manner enabling to produce, acknowledge, and procedure signals. Data Acquisition Systems is the sensors' information begins in simple structure and changed over into computerized streams for further examination. Information procurement frameworks play out these information agglomeration and transformation techniques. Edge Analytics is the IoT information that has been digitalized, collected, and might require further handling before it enters the server farm. Cloud Analytics is the information that needs extra top to bottom procedure gets sent to physical server farms or cloud-based frameworks.

Related Works

Yigit et al (2019) proposed a system the Internet of Things (IoT) contains a different gathering of sensors, actuators, and alternative Internet-connected devices communicating, processing information, and performing a different technique. Attack graphs give analytical support to stop multi-step network attacks by showing all potential sequences of vulnerabilities and their collaborations. Attack graphs generally consist of a vast number of nodes, and it is computationally challenging to analyze them for network hardening—greedy algorithm using compact attack graphs to search for a cost-effective solution to secure IoT frameworks. The algorithm scales almost linearly with the network size, and it tends to be applied to enormous-scale graphs with an incredibly massive number of IoT nodes. In

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BIOMETRIC BASED SECUREDATM TRANSACTION INCORPORATING GSM TECHNOLOGY

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Abstract-This project deals with the solutions related to the ATM (Automated Teller Machine) transaction security. Today, ATMs and Debit cards are used for the purpose of money transactions which play a vital role in the nature of trade. The weaknesses of existing authentication scheme such as password and PIN number caused the leakage of information stored in ATM smartcard which lead to the lost of money in bank account and private information misuses. To overcome this shortcoming of piracy in money transactions. All these factors are verified for the authentication purpose of the user along with atm scanning and biometric verification. Parameter are differing and then the link is generated to the User's Mobile number for further more secure authentication system. In the modification phase, an automation user Internet (Bank server) recognition model using mobile is designed to enhance the user comfort and detection of the time span spend by the user in the ATM machine.

Keywords: Classification, Fraud Detection,K-Nearest NeighborAlgorithm, Outlier Detection.

I.INTRODUCTION

In the war of functionality versus security, the functionality wins more often. Security has always been viewed upon as an overhead or afterthought by software developers. But in the case of banking and money transactions, the security should hold highest priority. Increase in daily attacks on ATM and banking security the developers getting on right track and putting security their important aspect in developing projects. The multifactor authentication is an approach to authentication, which requires the presentation of two or more authentication factors: a knowledge factor ("something only the user knows"), a possession factor ("something only the user has"), and an inherence factor ("something only the user is"). After presentation, the other party for authentication to occur must validate each factor. In present days the ATM holds only one thing (i.e. PIN) to secure the money saved in the bank if we are not considering the physical attacks. In our system, we are going beyond this level of security to enhance ATM security for money transactions. We introduce the concept of Biometric verification and SESSION LINK in ATM banking. Our system will provide the second level of security using different factors to generate SESSION LINK. This will send over customer's mobile number & stored in records.

In secure ATM, user will have to register mobile and its IMEI number in bank system. When user puts/swipes card into machine, user get request to insert PIN (which is current way of ATM banking). In the proposed system user will get SESSION LINK on mobile. When user enters SESSION LINK to the system, he/she will be having access to the machine else no transaction can be made. First word ATM stands for Automated teller machine, a machine that allows customers of a Banking institution to transact banking business without any help of a cashier i.e.

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COVID-19 FACEMASK DETECTION WITH DEEP LEARNING AND COMPUTER VISION

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ABSTRACT

The corona virus COVID-19 pandemic is causing a global health crisis so the effective protection methods is wearing a face mask in public areas according to the World Health Organization (WHO). The COVID-19 pandemic forced governments across the world to impose lockdowns to prevent virus transmissions. Reports indicate that wearing facemasks while at work clearly reduces the risk of transmission. We will use the dataset to build a COVID-19 face mask detector with computer vision using Python, OpenCV, and Tensor Flow and Keras. In our proposed system we will use live video stream and finally in output it gives alert sound(buzzer) when someone not wearing mask.Our goal is to identify whether the person on image/video stream is wearing a face mask or not with the help of computer vision and deep learning.

Keywords:DeepLearning,Computer Vision, OpenCV, Tensorflow, Keras.

I.INTRODUCTION

The trend of wearing face masks in public is rising due to the COVID- 19 corona virus epidemic all over the world. Before Covid-19, People used to wear masks to protect their health from air pollution. While other people are self-conscious about their looks, they hide their emotions in the public to hide their faces.

More than five million cases were infected by COVID-19 in less than 6 months across 188 countries. The virus spreads through close contact and in crowded and overcrowded areas.

We can tackle and predict new diseases by the help of new Technologies such as artificial intelligence, Iot, Big data, and Machine learning. In order to better understand infection rates might be decrease through our technique. People are forced by laws to wear face masks in public in many countries. These rules and laws were developed as an action to the exponential growth in cases and deaths in many areas. However, the process of monitoring large groups of people is becoming more difficult in public areas. So we will create a automation process for detecting the faces.

Here we introduce a facemask detection model that is based on computer vision and deep learning. The proposed model can be integrated with Surveillance Cameras to impede the COVID-19 transmission by allowing the detection of people who are wearing masks not wearing face masks. The model is integration between deep learning and classical machine learning techniques with Open cv, Tensor flow and Keras. We will achieve the highest accuracy and consume the least time in the process of training and detection.

II.LITERATURE REVIEW

1.TITLE : "Face Mask Detector"

Single Shot Detector architecture is used for the object detection purpose. In this system face mask detector can be deployed in many areas like shopping malls, airports and other heavy traffic places to monitor the public and to avoid the spread of the disease by checking who is following basic rules and who is not.It takes excessive time for data loading in Google Colab Notebook. It did not allow the access of webcam which posed a hurdle in testing images and video stream.We have modeled a facemask detector using Deep learning. We are processed a system computationally efficient using MobileNetV2 which makes it easier to Extract the data sets. We use CNN architecture for better performance.We can fix it in any kind of cameras

2.TITLE :"Face detection techniques: a review,"Artificial

Human beings have not tremendous ability to identify different faces than machines, so automatic face detection system plays an important role in face recognition,head-pose estimation etc.It has some problems like face occlusion,andnon uniform illumination.We use Neural Network to detect face in the Live video stream. Tensor flow is also used in this system . In existing they use Adaboost algorithm, we are using

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Criminal Investigation tracker with suspect Identification

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Abstract--Whenever a case against the crime is filed the investigation always starts from the scratch right away from the evidences found at the crime location and the eye witnesses present at the crime location. On the basis of the statement given by the eye witnesses about the crime and the criminal who committed that crime. The process of the investigations starts. As to reduce the stress of the police officers we implemented a system as criminal investigation tracker with suspect identification that will help the officers to speed up the process of investigation and track status of ongoing case by predicting out the primary suspects on the basis of the records which consists of compendium of the people associated to the case, former criminal background proofs recovered from crime location, etc. This digitized system makes the work easy for an officer to check the status of the case online and even allows him to add up the new important information related to the case as it's when needed. The proposed system consists of suspect prediction algorithm to predict and suggest the suspects in the logical order.

I.INTRODUCTION

We here propose a criminal investigation tracker system that tracks the investigation status of criminal cases with logs and also predicts primary suspects. The system is proposed to help agencies like CBI, CID and other such bureau's to sped up investigation process and track status of multiple cases at a time. The system keeps logs of a case which includes case summary, people involved, disputes, past criminal history of those involved, Items recovered on scene and other details. The system realizes the type of case, allows admin to update the status of investigation, upload more images of crime, items found on scene etc. This allows authorized officers to check case status and look into its status online and also update any important info as and when needed. The system also consists of a suspect prediction algorithm. Based on type of case, property, land, love or other entities involved the system studies past cases, it studies past criminal records of those involved and based on this data it provides suggestions of suspected persons in a logical order. The system is designed to aid investigation teams to work collectively on cases, coordinate and also speed up the process by suggesting logical suspects based on data provided.

[1] Dongyuan Li, Xiaojun Bai "Criminal Investigation Image Retrieval Based on Deep Learning", 2020 International Conference on Computer Network, Electronic and Automation (ICCNEA) In this paper CSI image retrieval technology based on low-level features uses a content-based image retrieval (CBIR) framework to extract low-level features of the image or to fuse different low-level features, which confirms the feasibility of CBIR technology in CSI image retrieval.
The author proposes to combine low level features of image dominant color descriptors as color features, gray-level co-occurrence matrix as texture features to improve CSI image retrieval performance.
Advantage:
Final experimental results show that the algorithm can effectively describe the content of CSI image and maintain a high average precision.

[2] Bagus Priambodo, Yuwan Jumaryadi, Zico Pratama Putra "Comparison of Local Binary Pattern and Eigenfaces for Predict Suspect Positive Drugs"2020 2nd International Conference on Broadband Communications, Wireless Sensors and Powering (BCWSP). In this paper The dataset is generated from online sources by collecting and pre-processing 30 images of people before and after drug. We compare two algorithm local binary pattern and Eigenfaces for predicting suspect positive drugs based on face images.The experiment shows that the result of the prediction using Local binary pattern is better than the prediction using Eigenfaces. However, a higher accuracy of prediction reaches only 75 %.
Advantage:
Local binary pattern is better than the prediction using eigenfaces.

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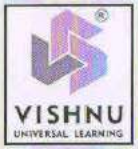

Outstanding Paper Award

This is to certify that S.Puvaneswari, J.Chandrapriya titled "Detection of gas leakage in polymer industries using IOT" of Kings College of Engineering, Tamilnadu has been adjudged as Outstanding Paper during ICRADL 2021 in the track of Applications of Deep learning Organized by the Department of Computer Science & Engineering, Shri Vishnu Engineering College for Women (Autonomous) during 29-31, January, 2021.

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DIGITIZED BANKING TRANSACTIONS USING QR SCANNER

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Abstract- Challan is official form or there kind of document, piece of paperwork, citation etc. It is a way of crediting the money to one's bank account through a form. people are waiting in queue for withdraw and deposit money and taking DD in bank. They need some one's help for filling the challan if they are less educated. To reduce incidents of failed transactions and transactional errors in ATMs, Mobile banking and POS terminals, need to come up with an application that can be used to enhance digital banking, facilitation of ICT skills. Digitized challan can also be defined as a specific format used for Depositing, Withdrawing and DD payment at a bank. Banking payment technology that uses digitized challan using QR code to identify the user and authorized persons account from a bank account. It based on QR Scanning is the most common code accessing method.In this system weuses a secure factor authentication, in which the QR code scan takes the place of the user at the time it automatically generated the account holder's number and name of the person. And it shows three main functional processes such as Deposit, Withdraw and DD.

Keywords: DD-Demand Draft,QR-Quick Response,ATM-Automated Teller Machine,POS-Point Of Sale.

I.INTRODUCTION

Now a days,. A bank challan is same as a deposit slip by which you can deposit an amount in someone's account by cash or NEFT/RTGS, but the only difference is in deposit slip you need to fill in the details of the recipient but in the bank challan, the recipient details along with the amount is pre-filled. The bank challan is generated by a merchant/institution for paying some fees or bill and so you needn't worry about the recipient details and the amount is pre-specified, so you needn't fill it.

A bank challan normally comes in a doublet or a triplet - One part always remain with the customer and the other part is kept with the bank, and another part if available is submitted to the merchant/recipient. All the parts are duly signed and stamped by the bank official who received the amount and a transaction id is also written on it for the same. Passbook is predicted to become a major player in the mobile wallet space in the next few years. This trend will increase the necessity for high performance barcode scanners that can not only read fast but also validate the barcodes within passes with servers.

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FAKE EDUCATION DOCUMENT DETECTION USING IMAGE PROCESSING AND DEEP LEARNING

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ABSTRACT

The forgery of official documents becomes familiar and this made a lot of problems and difficulties to the official institutions .With the new the sophisticated powerful digital printers and a lot of software tools it become very simple to edit scanned document and create new one with different information that is very difficult to distinguish from the original and the forgeryone. The current document detection is not so efficient, so some people make fake document and do illegal activities. The proposed system contain two methods to detect the fake documents .First, the QR-code scanner which scan the QR-code of the document and detect that document is original or fake. Second, the image processing techniques undergoes three stages : training phase, testing phase, classification to detect the fake documents. In this proposed project, the originality of document is discussed and focused on making the detection of forgery document more robust and reliable. By the Neural network and error value analysis algorithm using image processing system to detect the forgery document.

I. INTRODUCTION

In modern world the documents can now be altered and manipulated easily, Trustworthinessofdocumentsisnowmoreindemand.Manypeopleusethiswayto get jobs throw out forgery their certificate. Formally, many technologies were less effective in countering the danger of faking identity documents. So new methods mustbeimprovedtorestricthatthreat.Manypreventive measureshavebeentaken by the government to stop these forgery activities but still has not affected the growing rate of these crimes and has remainedunaffected.Many preventive measures have been taken by the government to stop these forgery activities but still has not affected the growing rate of these crimes and has remained unaffected. The proposed system use image processing techniques to detection forgery in official scanned document. The aim of proposed system is design a quick and most efficient system for detecting forgery in official documents.Theproposedsystemcontaintwomethodstodetectthefakedocuments.First, the QR-code scanner which scan the QR-code of the document and detect that document is original or fake. Second the image processing uses neural network concept. In this proposed project, the originality of document is discussed and focusedonmakingthedetectionofforgerydocumentmorerobustandreliable.The system is needed at the time of submission of individual'sidentity documents on various web portals like Scholarship and Educational systems where it checks whether the document is real or not .So this system is needed in such cases where the user submits the forged that is manipulated documents on the webportal.

II.METHODOLOGY

The software that we implement first scanned the QR-code of the document and the sign, stamp and logo of the document using Image processing techniques in deeplearning.The Image Processing Module basically includes of two parts:Error Level Analysis and NeuralNetwork.These parts in combination help to detect whether the documentimage is manipulated by any means ornot.Deployment phase of the system is the main part that is how the systemis to be used in the reallife.

Two parts in deploymentmodule:

QR-code scannermodule:

The QR-code of the scanned document is verified that it give the encrypted code of the document, otherwise it detect that the documents is fake.

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This is to certify that Mrs. G.Chandrapraba from Kings College of Engineering Thanjavur has presented a Research Paper Titled "Fake education document detection using image processing and deep learning" in Online International Conference on Recent Advances in Deep Learning (ICRADL-2021) Organized by the Department of Computer Science & Engineering, Shri Vishnu Engineering College for Women (Autonomous) during 29-31, January, 2021.

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FOOD CONSERVATION APPLICATION - MOBILE APP CONNECTING PROVIDER AND CONSUMER

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ABSTRACT: We propose an application that helps people to conserve food efficiently by providing that food to people in hunger. The idea behind this project is to serve the exceeded food from hotels and marriage halls to the people in need specifically the ones in home and orphanage. In this project, a mobile application assists donor to find nearby orphanage and home and lets the donor contact the acceptor and share details about the availability of food and related information in just few clicks. Then the nearby acceptors can see the food ready to be donated and claim that food after confirmation with donor. This application will be an impactful changeover of many lives.

KEYWORDS: Mobile Application, Excess Food, Food Donation.

I. INTRODUCTION

These days, in highly populated countries like India, food wastage is a big issue. A lot of food is thrown away in garbage bins, streets, and landfills have proof to prove it. Marriages, canteen, restaurants, social and family get-together and functions expel out so much of food. Food wastage is not only an indication of pollution or hunger, but also of many economic problems. Instead of wasting food we can put them in use by donating them to various organizations such as orphanages, old age home, NGOs, etc.

It has become a habit to waste food exceeded from the large amount of preparation in hotels and similar areas without giving a second thought. It sounds normal just because it happens everywhere, so it's no longer a problem. But the truth is that it has a huge impact on many lives.

Food wastage happens because there is no alternative to save them at ease. We people must pay attention to this issue and bring possible improvement over it cause it greatly concerns today' unprivileged people and also our successors on this planet. That is where our project shows up and solves the major problem. Thus, this application is not only useful for avoiding wastage of foods but also to feed those people in need.

II. LITERATURE REVIEW

I. FOOD WASTAGE REDUCTION THROUGH DONATION APPLICATION - The users need to register into the application and can offer or request for donation. The notification will be sent to the other and they can either accept or deny the service given. This can be tracked by the participants to ensure the food delivery.

II. This is an internet based mobile application for the NGO named 'Jan Visas Singh' This system creates a common collaboration between a donor and a volunteer from the NGO where the donor uploads all the food details at the same time volunteer receives a notification ofavailability of the food once the donor uploads its successfully.

III. This system will create a common collaboration portal for hotels/restaurants and charities, charity can directly contact restaurants who have food remaining and report generation which will show how much food is donated by which restaurant and providing reward points for them.

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HANDWRITTEN DIGIT RECOGNITION FOR BANKING SYSTEM

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Abstract--The aim of a handwriting digit recognition system is to convert handwritten digits into machine readable formats. The main objective of this work is to ensure effective and reliable approaches for recognition of handwritten digits and make banking operations easier and error free. Handwritten digit recognition system (HDR) is meant for receiving and interpreting handwritten input in the form of pictures or paper documents. Traditional systems of handwriting recognition have relied on handcrafted features and a large amount of prior knowledge. Training an Optical character recognition (OCR) system based on these prerequisites is a challenging task. Convolutional neural networks (CNNs) are very effective in perceiving the structure of handwritten characters/words in ways that help in automatic extraction of distinct features and make CNN the most suitable approach for solving handwriting recognition problems. Our aim in the proposed work is to recognizing written character on cash deposit/ withdrawal/ and other transaction, we are proposing to develop an automatic banking deposit number recognition system which is able to recognize the handwritten account number and amount number on the cash deposit slip and thus automate the cash deposit process at bank counter.

INTRODUCTION

Handwritten digit recognition for banking system aims at ensuring effective and reliable approaches for recognition of handwritten digits and make banking operations easier and error free. In the current age of digitization, handwriting recognition plays an important role in information processing. A lot of information is available on paper, and processing of digital files is cheaper than processing traditional paper files. The aim of a handwriting recognition system is to convert handwritten characters into machine readable formats. Handwritten digit recognition has not only professional and commercial applications, but also has practical application in our daily life and can be of great help to the visually impaired. It also helps us to solve complex problems easily thus making our lives easier. Handwritten digit recognition has gained so much popularity from the aspiring beginner of machine learning and deep learning to an expert who has been practicing for years. Developing such a system includes a machine to understand and classify the images of handwritten digits as 10 digits (0–9). Handwritten digits from the MNIST database are already famous among the community for many recent decades now, as decreasing the error rate with different classifiers and parameters. Digit recognition system is the working of a machine to train itself or recognizing the digits from different sources like emails, bank cheque, papers, images, etc. and in different real-world scenarios for online handwriting recognition on computer tablets or system, recognize number plates of vehicles, processing bank cheque amounts, numeric entries in forms filled up by hand (say — tax forms) and so on. The handwritten digits are not always of the same size, width, orientation and justified to margins as they differ from writing of person to person, so the general problem would be while classifying the digits due to the similarity between digits such as 1 and 7, 5 and 6, 3 and 8, 2 and 5, 2 and 7, etc. This problem is faced more when many people write a single digit with a variety of different handwritings. Lastly, the uniqueness and variety in the handwriting of different individuals also influence the formation and appearance of the digits.

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IoT BASED PADDY CROP DISEASE IDENTIFICATION AND PREVENTION SYSTEM USING DEEP NEURAL NETWORKS AND IMAGE PROCESSING

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Abstract:
Human population on earth is expected to reach 9.7 billion by 2050 as per FAO projections and to feed this population production to be increased by 70%. This magnificent population growth brings a lot of challenges with food production the major issue to be addressed. Pests and diseases cause heavy losses through deaths, reduced productivity and loss of markets for products. Crop pests and diseases reduce yields substantially, sometimes by over 50 per cent or even total crop failure. Technology enabled farming supported by IoT and Image processing techniques for disease prediction entiles new dimensions in the field of precision farming. Vision-based detection of plant diseases is beneficial in monitoring large fields of crop and symptoms that appear on the plant leaves by deep neural network. Proposed methodology combines IoT and Image processing and performs classification using deep learning model that helps in crop disease prediction and thereby supports increased productivity.

Keywords—Crop Disease prediction, Deep Neural Networks, Image Processing, Precision Farming.

I. INTRODUCTION

Traditional methods of farming, decreasing farm labour availability, server water scarcity problem, depletion of soil conditions makes agriculture economically unavailable and inefficient. It is also the right time to focus on nurturing the nature, do technology enabled farming to feed the existing and the anticipated population. According to the report by United Nation of food and Agriculture Organization the population will get doubles in 2050. The increased production of the agriculture will support huge economic boost to the nation. Agriculture practices suitably supported by technological inventions are essential for efficient and timely agriculture operations, facilitating multiple cropping & thereby increasing production, convenience. Farm products should provide only nutrients to the consumers and ensure healthy living. The county GDP will get improved by the agriculture production. Agriculture contribution in India is about total GDP of 16% and total exports of 10%. Backbone of Indian economy is depending on the agriculture production. When compare

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IRIS DETECTION BASED AUTHENTICATION FOR SECURE VOTING SYSTEM

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Abstract--India being a democracy that too worlds largest, still conducts its elections using either Secret Ballet Voting or Electronic Voting Machines (EVM) both of which involves high costs, manual labor and are inefficient. So, the system must be optimized to be made efficient which would not leave room for unwanted means of voting. The most familiar issue faced by the election commission is inappropriate confirmation with respect to the arrangement of casting the votes, duplication or illegal casting of votes

The proposed biometric electoral authentication system allows the user to scan s so that his or her credentials can be compared to existing iris images already stored in the system's database. Present Aadhar database will be integrated into voting authentication system.

Using detection of iris based authentication decreases the chance of duplicating a vote and those who are registered prior to the election and are recognized by the system will be allowed to vote. Hence, the approach makes the system the best way to vote.

In proposed project, biometric based authentication avoids anonymity and the focus is on making the voting system more robust and reliable by eliminating dummy voters. By using Daughman's algorithms will scan IRIS and check those details in our database for match.

Keywords – Iris Detection, Authentication , Voting System

I. INTRODUCTION

The election system is the pillar of the every democracy . The depth of democracy is voting. The voting process must be reliable, and the voting record must be accurately and reasonably recorded. The success of democratic administration is totally dependent on the results of the election. The election process provides the right to every citizen of a country to select a legitimate representative among themselves who can guide the democratic system towards the welfare of the society. The voting system has observed many effective changes over the past few decades, right from the traditional paper ballot voting to electronic voting and now towards the online voting. The voting system is improving step by step; advancement in the new system eliminates the drawbacks of the previous system. Every system tries to overcome the loop holes of the previous system. The primary goal of this paper is to understand the traditional voting system with the recently proposed voting system.

In modern world, many new techniques such as voting process play an important role in any democratic country. Democracy is meant to allow people to vote freely and the election result is accepted by voters group.

The concept of Iris Recognition was first proposed by Dr. Frank Burch in 1939.It was first implemented in 1990 when Dr. John Daughman created the algorithms for it.

Iris recognition is a method of biometric authentication that uses pattern-recognition techniques based on high-resolution images of the irises of an individual's eyes. Iris is a muscle within the eye that regulates the size of pupil, controlling the amount of light that controls the eye.

II. BACKGROUND

"Smart Voting" is used to identify people who are trying to vote a second time, and once the fingerprint print And iris are scanned, authentication is complete, and the user is locked into

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Smart E-Marketing In Agricultural Products

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ABSTRACT:
Our proposed idea is E-market is to develop an Application which will help civilian; the farmer will get best from his input. The project "Smart E-Marketing in Agricultural" is Mobile application which maintains a transparency between the Farmer and civilian. This application also makes a selection for civilian for the farmer's requirement and to make it easy. With the help of this application farmer can be able to know the best value for his products cheat by the marketers. This application makes the farmers requirement become easy . By using this application farmers can get the complete information about eradicating black marketing and inflation. It helps in proper maintenance of data and information. One can easily browse through the various details using the well defined interfaces provided by the system. It is used by all over India's farmer and the basic advantages are it is feasible in all languages and also including the voice recognition for illiterate farmers . Then finally the payment process will be proceeding in online mode.

Keywords: E - Market , Mobile application , Farmers ,Civilian , Internet and technology.

INTRODUCTION:

Now farmers will be able to sell their produce through e-market platform i.e. the National Agriculture Market (NAM) which was launched by our Prime Minister Narendhra Modi. Agriculture is the backbone of India. More than 60% of Indian workers are involved in Agriculture. It was the key development in the rise of sedentary human civilization, whereby farming of domesticated species created food surpluses that enabled people to live in cities. More than one third of the world's workers are employed in agriculture. After agriculture second only to the service sector but over the past several years the number of agricultural workers in developed countries have decreased significantly. There are some applications available in playstore i.e, eFarming, Farmers eMaret, Aggrigate, eNam these all applications have some disadvantages to overcome these problems is our project concept. The eNam was launched by our Prime Minister Narendhra Modi, after this eNam all other applications had some more added features and introduces into the society.

BENEFITS OF E-MARKETING:

1. Save effort and time.
2. Good quality at better price along with transparent pricing information
3. Quality and variety segregation for the ease of buying and exploration
4. Eliminate time variable from pricing and quality so that the system becomes more accessible.
5. Destroy dependency on vendors in pricing (increase trust) .
6. Replace bargaining by standardization.

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WIRELESS IOT BASED SOLUTION FOR WOMEN SAFETY

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ABSTRACT

In today's era, women still feel scared to step out of their homes at late nights due to the fear of sexual harassment. This problem is compounded when one shifts the focus from urban to rural sector and interior areas of villages where there is erratic electric supply and poor cellular network connectivity.This paper proposes a system, by creating a wireless network using IoT technology with a portable device for alerting the concerned authorities to prevent any mishap. Women will be provided with a beacon device consisting of a help button. In case of any emergency, the beacon information will reach the central stations and an alarm will be triggered at the prominent places of the village.

INTRODUCTION

Even though we live in the 21st century with much technological advancement and social awareness, women face the problem of harassment of any form and get abused physically or mentally. Areas like streets and public spaces have been the territory of such violence. This issue worsens for women living in remote and rural areas, where they might not be aware about these crimes or hesitate to report these crimes to the concerned authorities. There are many existing applications and devices for women security through smartphones. Though the smartphones have increased rapidly, it is not possible that the smartphones and cellular network will be available all the times in rural areas. Also, many people in the village do not have smartphones which can assist them in contacting the concerned authorities, otherwise. Literacy rate of villages is low and parents do not send girls to schools due to the fear of sexual harassment.

In this system, women safety is based on BLE (Bluetooth Low Energy) Beacon device due to their low cost, ease of deployment, ease of accessibility to the users and superior interior localization as described in . Kang EunJeon, James She, Perm Soonsawad, and Pai Chet Ng [2] specify that BLE has low energy requirements and battery life of BLE Beacon devices can be extended upto 2-3 years on a single coin cell battery if broadcast intervals are set appropriately based on the application. BLE is 60 - 80% cheaper than traditional Bluetooth and is compatible with a wide range of IoT(Internet of Things) boards, mobile phones, tablets and computers. It is ideal for the proposed system which requires small periodic broadcast of data at regular interval of 1 - 1.5 seconds.

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A New hybrid Genetic Search Algorithm and Invasive Weed Optimization Algorithms for Skin Lesion Cancer Classification

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Abstract— Skin disease is a primary hassle amongst people global. Different learning algorithm getting to know. Strategies can be implemented to perceive lessons of pores and skin sickness. Accurately diagnosing skin lesions to discriminate among benign and malignant skin lesions is critical to make certain suitable affected person treatment. Skin malignant growth is one of most dangerous maladies in people. As per the high closeness among melanoma and nevus sores, doctors set aside substantially more effort to explore these sores. This paper displays another technique dependent on enhancement calculation to order and foresee skin malignant growth maladies tried utilizing certifiable disease datasets. This philosophy going to joins new two sort of calculation. One is genetic algorithm(GA) and another is Invasive weed optimization (IWO)algorithm to arrange and anticipate malignant growth prior. The proposed framework is assessed by arranging and expectation malignant growth sicknesses in skin sore disease datasets and assessment measures. The outcomes are thought about with (convolution algorithm)SVM execution benchmark. Framework can defeat to diagnosing the malady rapidly and exactness. Contrasting with other calculation proposed calculation has more precision.

***Key Words*: IWO, SVM, SSA data set, Analysis, Clustering, Accuracy**

1. INTRODUCTION

Information mining is the procedure where esteemed data is separated from the enormous dataset. It has arrived at the high development over recent years. Because of the convenience of information mining approaches in wellbeing world, it has become the great innovation in medicinal services area. Malignant growth is a speculatively last ailment caused fundamentally by conservational issues that change qualities encoding basic cell administrative proteins. Resultant Many highlights of the cutting edge Western eating routine (high fat, low fiber content) will expand malignant growth recurrence.

2. METHODOLOGY SYSTEM IMPLEMENTATION

The following actions are carried out in the proposed system. They are;

1. Dataset Acquisition
2. Preprocessing
3. Feature Selection
4. Disease Diagnosis
5. Evaluation Criteria

DATASET ACQUISITION

In this module, transfer the datasets. The dataset might be microarray dataset. Accumulate the information from emergency clinics, server farms and disease inquires about focuses. The gathered

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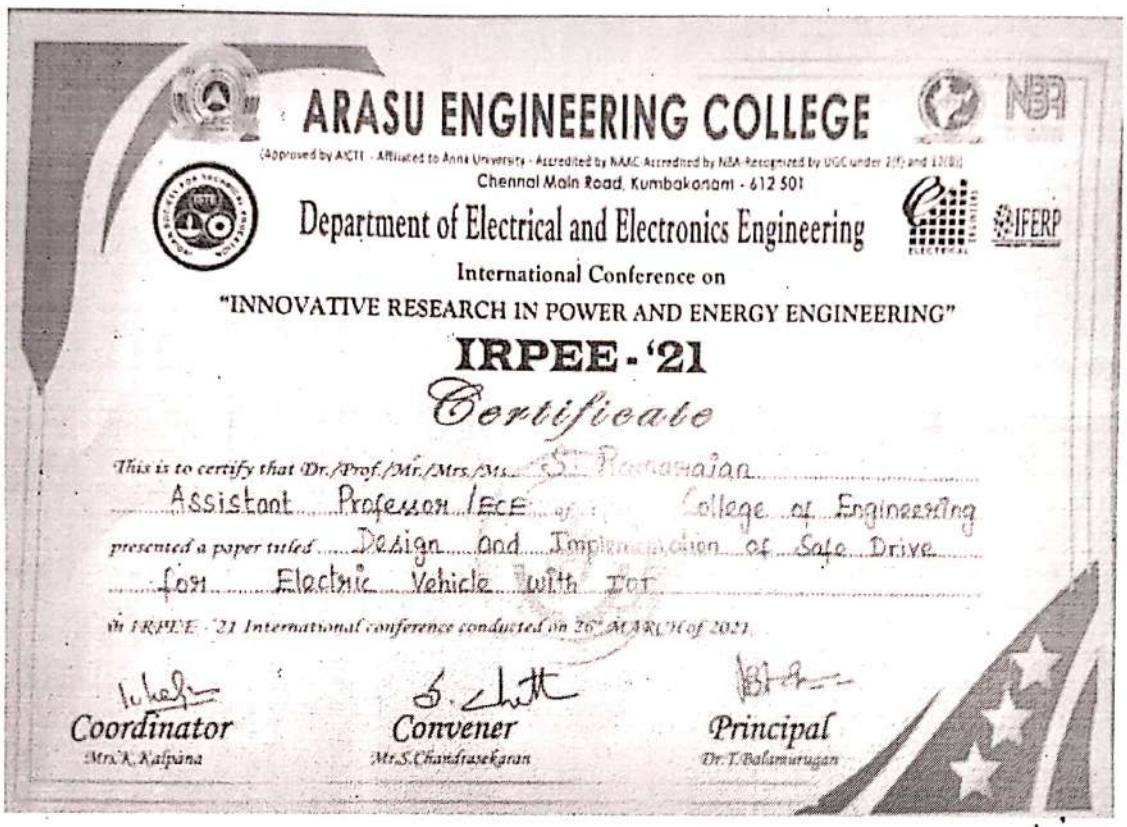

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Dear Prof. / Dr. / Mr. / Mrs..

ACCEPTANCE OF FULL PAPER FOR 6th INTERNATIONAL CONFERENCE ON INFORMATION TECHNOLOGY & SOCIETY 2020 (ICITS 2020)

We are pleased to inform you that your full paper has been accepted for e-proceeding on 6th INTERNATIONAL CONFERENCE ON INFORMATION TECHNOLOGY & SOCIETY 2020 (ICITS 2020). ICITS 2020 was held on 11th November 2020 as an online presentation (Google meet) and video presentation. The details of your full paper are as follows:

Paper Id : ITS 040-1
Paper Title : EARLY PREDICTION OF BREAST CANCER THROUGH MACHINE LEARNING WITH MINIMAL FEATURES
Author(s) : DEEPAK.R.U[1], N.HEMAVATHI[2*], R.SRIRANJANI[2], A.PARVATHY[2] AND M.MEENALOCHANI[3]

Should you need any further information or assistance, please do not hesitate to email us at icits@kuis.edu.my. Kindly mention your paper ID as the reference. Thank you for joining ICITS 2020.

Note: E-Proceeding publication will be published on 7th December 2020. You can check your e proceeding paper at http://fstm.kuis.edu.my/icits/2020/.

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AHMAD SYUKRI BIN ADNAN
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Proceeding of ICITS 2020 e-ISSN: 2716-6732
6th International Conference on Information Technology & Society
November 11th, 2020, Selangor, MALAYSIA

Machine Learning Based Vehicle Health Monitoring System

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Abstract. This paper presents the design and implementation of a machine learning based prediction system for monitoring and maintenance of vehicle's health. The proposal aims to examine the normal operation of the vehicle and if any abnormal condition or variation from regular routine is observed, the user will be informed. These predictions can reduce the rate of road accidents that occur due to defects in the parts of the vehicle. Such deviation can be predicted by implementing Machine learning using software like Matlab, Python etc. Machine learning algorithms such as Fine tree, linear regression and linear SVM are chosen and the prediction is carried out using these algorithms. Results obtained using these algorithms are compared. It is found that Linear SVM is capable of obtaining better results due to its precise prediction within less training time.

Keywords: Vehicle health, Prediction, Machine learning.

INTRODUCTION

Now-a-days, one of the issues that need to be focused is road accidents due to poor vehicle maintenance. A computing system to predict vehicle maintenance needs can be designed. The system may be internal or external (mobile device) to the vehicle. Prediction is done using machine learning model which is implemented in the computing system. Maintenance can be of three types which include corrective, preventive and predictive maintenance [1]. Corrective maintenance is carried out when a fault is detected. It is suggested for faults that occur rarely and also the repair cost is high. Preventive maintenance is used commonly in the automotive industry, in which the vehicle components are replaced periodically.

On the other hand, predictive maintenance aims to predict the condition of the vehicle and indicates which part will probable to fail and when it will occur [2].Sensor data may be noise data from different parts within the vehicle, data from maintenance records etc. and/or other suitable vehicle data. Machine Learning is used in order to predict these changes beforehand. The data set developed from the changes in parts like steering, tyres

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PV Based Switched Capacitor Converter for NPC Inverter in Grid Connected Applications

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[1]Assistant Professor
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[3]PG student
Kings College of Engineering, Punalkulam, Pudukkottai.

Abstract

This paper proposes a grid connected solar Photovoltaic (PV) Systems with a new voltage balancing converter suitable for Neutral-Point-Clamped (NPC) Multilevel Inverter (MLI). The switched capacitors used in the proposed converter are able to balance the DC link capacitor voltage effectively by using proper switching states. The proposed balancing converter can be extended to any higher levels and it can boost the DC input voltage to a higher voltage levels without using any magnetic components. This feature allows the converter to operate with the boosting capability of the input voltage to the desired output voltage while ensuring the self-balancing. In this paper, the proposed converter is used for a grid connected solar PV system with NPC multilevel inverter, which is controlled using vector control scheme. The proposed grid connected solar PV system with associated controllers and maximum power point tracking (MPPT) is implemented in MATLAB /Sims Power System and experimentally validated using d SPACE system and designed converters. The simulation and experimental results show that the proposed topology can effectively balance the DC link voltage extract maximum power from PV module and inject power to the grid under varying solar irradiances with very good steady state and dynamic performances.

Keywords: *Solar photovoltaics, NPC multilevel inverter, balancing circuit, dc-link voltage balancing, grid connected PV system*

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IoT Based Monitoring and Control of Distribution Transformer & Transmission Lines

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[1,2] Assistant Professor,
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Abstract

To maintain the reliability in grid operation it is important to monitor real time transformer health and faults in the transmission lines. We know the importance of transformers in electricity distribution and transmission. They are the main components and constitute the large portion of capital investment of the distribution grid. Real time transformer health and transmission line fault detection systems help to replace the equipment before failure and continuity of the power will not be disturbed and also reducing the potential dangers that are caused due to any unforeseen circumstances. So, we need a system that can monitor the health of the transformer as well as the faults in the transmission line in real-time. So, that we can easily identify the faults and ensure the safety and reliability of the overall power grid.

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1. Dr. R. Karpagam — Associate Professor
2. Dr. P. Manish Kumar — Associate Professor
3. Mrs. K. A. Indu Saikaja — Assistant Professor

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Assistant professor from Kings college of Engineering has presented paper on *Study of Battery Electric Vehicle Performance using Ultracapacitor and Digital Controller*, in the event "Virtual International Conference on POWER INITIATIVES (ICPI-2020)" organized by Department of EEE & IEEE Student Branch(STB-64616) of K.Ramakrishnan College of Engineering on 22nd & 23rd of JULY 2020.

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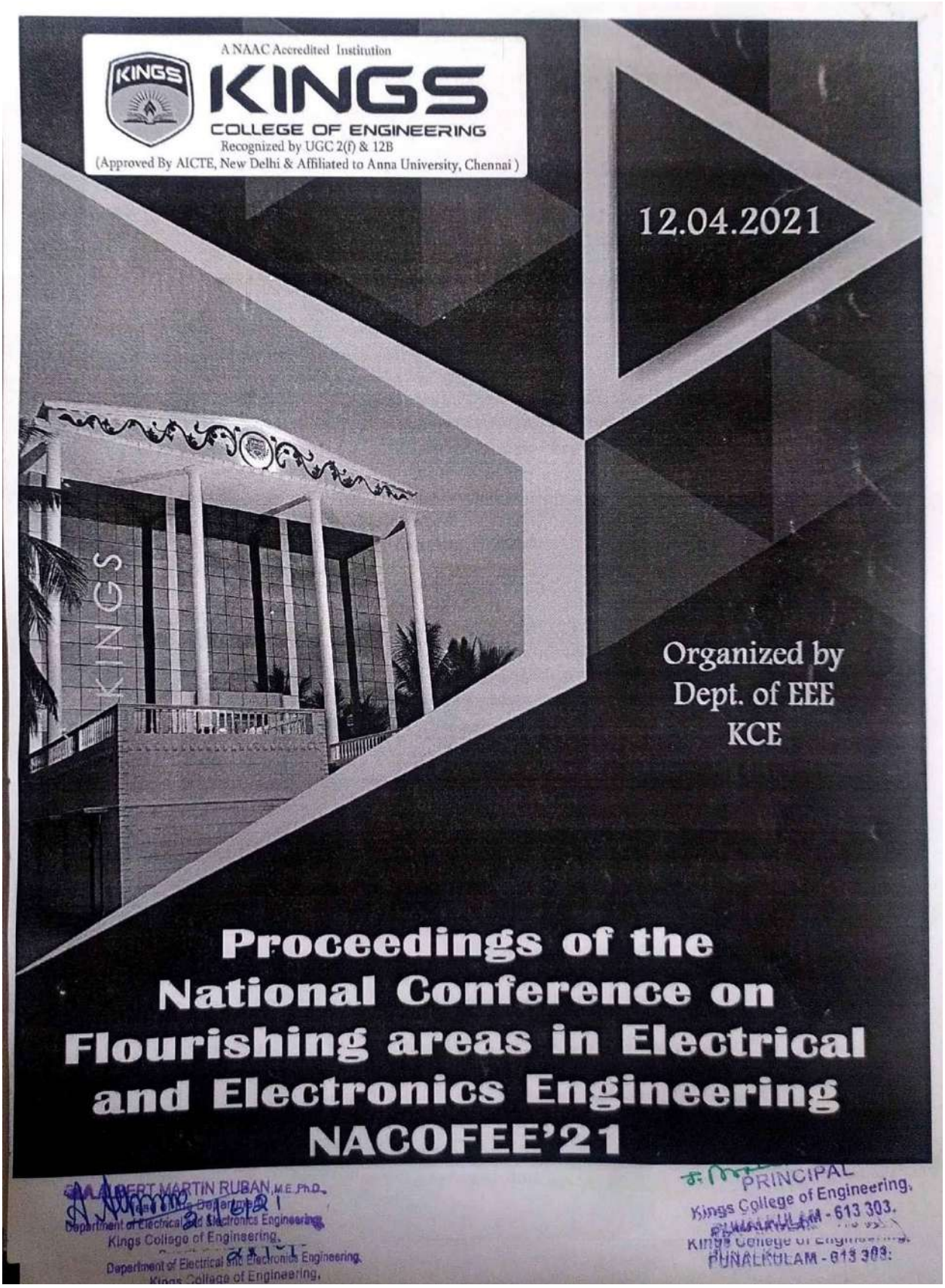
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ISBN:978-93-85057-23-6

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Monitoring and control of covid-19 in organaization using auto temperature detector and arduino based auto cleaner

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Abstract - Covid-19 is worldwide threatening to life of human being. It affect overall growth of the nation in every sector. At present social distancing is the most important precaution that prevents from Covid-19. Very first symptom of covid-19 patients are identified from their body temperature (TEMP: 100.4F).Presently are operating thermal scanner manually at the entrance of every organization to measure body temperature. But our proposed temperature detector fixed at the entrance of the organization to measure body temperature automatically and make caution if it exceed the permissible level. Also, we can control the spread from that particular place using auto cleaner .To achieve this, Arduino uno and MLX90614 sensor.

Keywords: Control of covid-19, measure body temperature automatically, using non contact temperature sensor

Touch Free Smart Gadget

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Abstract - In today's world carrying a number of plastic smartcard to establish our identity has become an integral segment of our routine lives. BIO-METRIC fingerprint systems have a major problem of viral spread among the people. To overcome this problem we come with some new innovative idea that is touch free smart gadget. Wi-Fi Modem is used for tracking and identification purpose. In this paper, the principle aim is to discuss the viability of Touch free smart gadget technology. Our Touch free smart gadget consist of Wi-Fi module for tracking, fingerprint sensor for identification, MEMS sensor to recognize abnormal moment like EPILEPSY, vibration sensor as a reminder and an emergency switch to give alter signal. The additional aim of our system is to propose a viable technological solution for a single multipurpose touch free smart gadget to avoid malfunction or fraud in large companies.

Keywords: Acceleration sensor, Wi-Fi module, MEMS sensor

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IoT Based Monitoring and Control of Distribution Transformer and Transmission Lines

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Abstract - Transformer is one of the important electrical equipment that is used everywhere. Monitoring the transformer's health had become a fiery task. Since incase of any damage in the internal properties of the transformer will result in huge drawback. So it is mandatory to regularly keep an eye on the transformer. The main objective of this proposal is to acquire live data of transformer health remotely over the internet using Internet of Things (IOT) technology. We are going to monitor the transformer parameter such as Transformer Temperature Oil Level Oil Quality Current level Voltage level Humidity KVA and Power Factor Incipient fault monitoring. These data will be sent over the internet using MQTT protocol. . It also has a unique feature of detecting the phase failure. If any phase gets defects then it will be indicated in the development board by an LED. These parameters will be displayed in an Android Application. By this process we can get to know the health of the transformer regularly and necessary steps can be taken to maintain it in a proper way.

Keywords: IoT, Monitoring, Distribution Transformer, Transmission Lines

Implementation of Smart Vehicles with Auto Rules Following System

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Abstract - Traffic sign recognition is important to transport system on the high way or road. This paper presents an overview the traffic sign detection and recognition. we develop and implemented the procedure to extract the road sign. The main objective of this paper is to design and construct system which can automatically detect the road sign and display the image on dash board of vehicle. This paper is based upon a major approach to detect road sign and extract it. This system will play an important role for the detection purpose of specific domains like island, schools, etc.

Keywords: No horn, Speed control

ISBN:978-93-85057-23-6

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Paper ID: STEP 21073

Touch Free Smart Gadget

J.Arokiaraj[1], S.R.Karthikeyan[2], N.Ishwarya[3], M.Nandhini[4], R.Priyadharshini[5] and S Sindhu[6]

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Abstract:

In today's world carrying a number of plastic smartcard to establish our identity has become an integral segment of our routine lives. BIO-METRIC fingerprint systems have a major problem of viral spread among the people. To overcome this problem we come with some new innovative idea that is touch free smart gadget. Wi-Fi Modem is used for tracking and identification purpose. In this paper, the principle aim is to discuss the viability of Touch free smart gadget technology. Our Touch free smart gadget consist of Wi-Fi module for tracking, fingerprint sensor for identification, MEMS sensor to recognize abnormal moment like EPILEPSY, vibration sensor as a reminder and an emergency switch to give alter signal. The additional aim of our system is to propose a viable technological solution for a single multipurpose touch free smart gadget to avoid malfunction or fraud in large companies.

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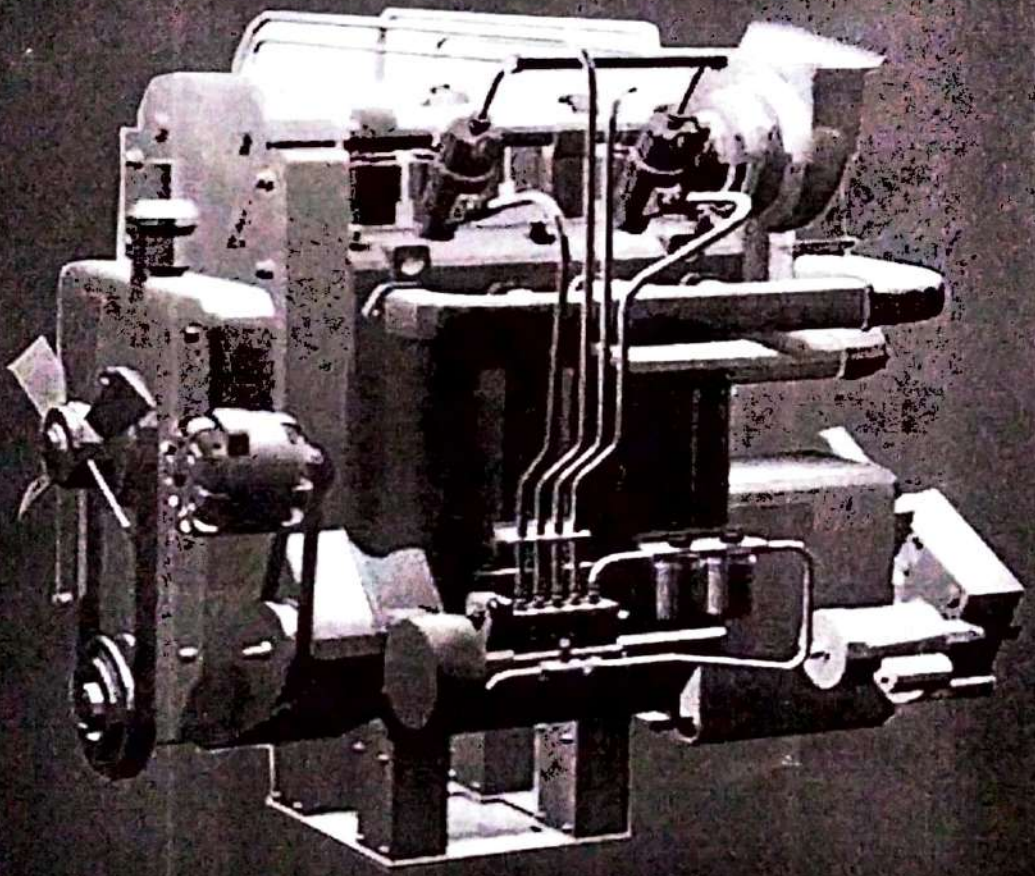

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First Edition : **2021**

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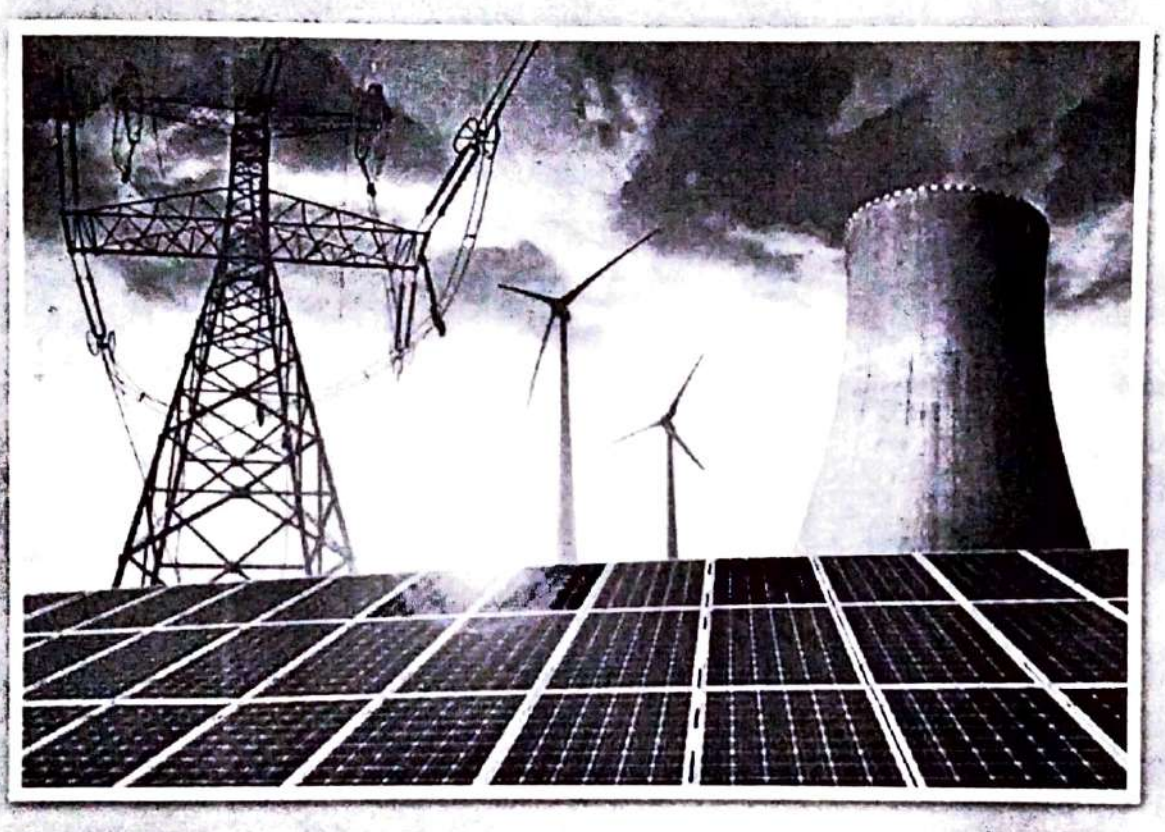

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First Edition : **2021**

Price : **Rs.400**

ISBN :**978-93-5445-571-1**

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Printed at :

Real Impact Solutions,

12, East Abiramapuram 3rd street,

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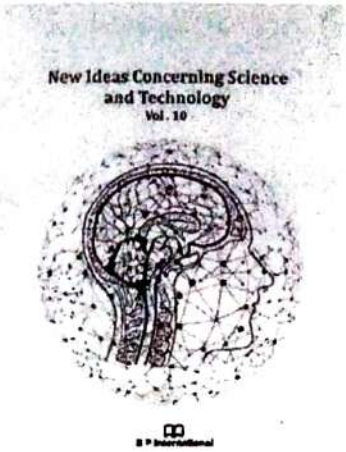

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Study on Performance and Emission Studies on Cashewnut Shell Liquid Bio-Oil Fuelled Diesel Engine with Acetone as Additive

P. P. Shantharaman ; T. Pushparaj ; M. Prabhakar

New Ideas Concerning Science and Technology Vol. 10, 17 March 2021, Page 68-76
https://doi.org/10.9734/bpi/nicst/v10/7868D (https://doi.org/10.9734/bpi/nicst/v10/7868D)
Published: 2021-03-17

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Abstract

Vegetable oils are a potential alternative to partial or total substitution of diesel fuels. In this study, we used Acetone as an additive to investigate the possible use of increased percentages of bio-oil in diesel engine without any retrofitting. Bio-oil was made by pyrolysis process. Cashew nut shell liquid (CNSL) was feed stroke for bio oil. Number 2 diesel fuel containing 20% bio oil and 80% diesel fuel, is called here as B20. The effects of Acetone, blended with B20 in 4, 8, 12% by volume were used in a single cylinder, four strokes direct injection diesel engine. The effect of test fuels on engine torque, power, brake specific fuel consumption, brake thermal efficiency, exhaust gas temperature, were ascertained by performance tests. The influence of blends on CO, HC, NO and smoke opacity were evaluated by emission tests. HC emission was reduced by 34%, smoke density reduced by 16% and the NO emission is reduced remarkably by 49.4% while the engine was operated by 12% Acetone with B20 when comparing neat diesel operation. CNSL can be alternately used as fuel for diesel engine. Consequently 20% CNSL bio oil and 12% Acetone as additive was the better alternate fuel blend for diesel engines without any engine modification.

Keywords: Biodiesel; Cashew Nut Shell Liquid (CNSL); emission; acetone; pyrolysis

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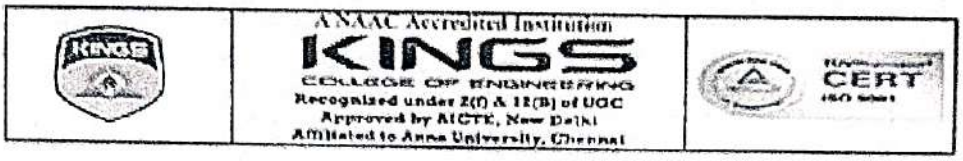

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ISBN: 978-93-85057-22-9

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MECHANICAL AND CORROSION BEHAVIOUR OF ALUMINIUM WELDED METALS AL6061 & AL7075

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Abstract

The Aluminum alloys have a powerful role in construction of automotive, aircraft and ship building. The aim of this investigation is to study the dry sliding wear characteristics of dissimilar aluminium alloy (AA6061 and AA7075) joints. Wear characteristics of the weld region and the base material of the samples were performed using the dry sliding wear test method by Pin-on-Disc equipment at room temperature. The present work, considered the different applied loads and sliding velocities as 20 N, 30 N, 40 N and 1 m/s, 2 m/s, 3 m/s and constant sliding distance. The worn out of wear surfaces are analyzed by optical microscopy and Scanning Electron Microscopy (SEM). The results illustrated that the wear rate increased with increase in applied load and sliding velocity. The study also analyses the corrosion behaviour of the friction stir welded dissimilar aluminium alloy (AA6061and AA7075) by salt spray test and laboratory immersion test method with different corrosion medium. The two acidic solutions and one alkaline solution are used for this test and the test is carried at atmospheric temperature.

Keywords : Aluminium Alloy, Wear, Corrosion, SEM, Pin-on-Disc

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TRIBOLOGICAL BEHAVIOUR AND CHARACTERIZATION STUDIES ON METAL MATRIX COMPOSITIES

M.Prasanth[1], K.Prem kumar[2], N.Santhosh kumar[3], K.Ajith kumar[4]

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Abstract

In recent years, there has been a great deal of interest in particulate reinforced MMCs and, in particular those based on existing copper alloys. These are highly potential alloys which exhibit good wear resistance, good machinability, cold workability, fatigue resistance, corrosion resistance etc,. Copper Matrix Composites (MMC) have been widely used in, automobiles, aerospace, bearing and bushes because of the better mechanical properties, solid lubrication and hardness. To produce a metal matrix composite (MMC) using pure copper (Cu) as a base material reinforced with the Silicon Carbide (SiC) and yittrium oxide (Y_2O_3) each time with different volume fractions. In this present experimental study, four different Metal Matrix Composite (MMC) specimens has been fabrication using pure copper (Cu) as a base material reinforced with Silicon carbide (SiC) 2.5,5,7.5 wt% and yittrium oxide(Y_2O_3) 2.5,5,7.5 wt%.The blending of powders using planetary ball milling process at 180 minutes at the speed of 300 rpm. After blending the powders were poured in compacting die. The produced green compacts were sintered at the range of 900°C using muffle furnace at 4 hours. The sintered composite have been carried out the various characterization studies like SEM, XRD and EDAX also various mechanical properties have been carried out.

Keywords: MMC, SiC, Y_2O_3, Characterization studies, Corrosion etc.,

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CORROSION BEHAVIOR OF IN625 COATED STAINLESS STEEL (SS309) AT AN ELEVATED TEMPERATURE OF 800°C

M.Sathyamoorthi[1],K.Senthamizsudar[2], R.Senthil[3], R.Sriharan[4]

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Abstract

Inconel 625 powder has been widely used over 50 years in the marine, petroleum industries, heavy water plants and nuclear power plants. The coating of IN625 powder over SS309 and provides more corrosion resistance, this can be tested by comparing two specimens, in which one of the specimen is coated by IN625 powder using thermal coating and others are without coating. All specimens are treated under various environments such as oxidation, atm air, salt bathing. After these treatments all the four specimens are heated at an elevated temperature of 800°c for 50 hrs ,which is known as thermal cycling. After this process those specimens are tested by using SEM (scanning electron microscope), XRD (X-Ray Diffraction Analysis), EDAX (Energy Dispersive Analysis Of X-Ray) . From these test we can know the corrosion behavior of all the specimens and by comparing the results of these test , we can know the difference between coated and non coated material.

Keywords: IN 625, SS 309, Corrosion, SEM, EDAX, XRD, Plasma Coating.

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05/4/2021
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ISBN: 978-93-85057-22-9

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MECHANICAL TESTING AND CHARACTERISTICS OF COPPER MATRIX COMPOSITE THROUGH POWDER METALLURGY ROUTE

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Abstract

In recent years, there has been a great deal of interest in particulate reinforced MMCs and, in particularthose based on existing copper alloys. These are highly potential alloys which exhibit good wear resistance, goodmachinability, cold workability, fatigue resistance, corrosion resistance etc,.Copper Matrix Composites (MMC) have been widely used in, automobiles, aerospace, bearing and bushes because of the better mechanical properties, solid lubrication and hardness.To produce a metal matrix composite (MMC) using pure copper (Cu) as a base material reinforcedwith the Silicon Carbide (SiC) each time with different volume fractions.In this present experimental study, four different Metal Matrix Composite (MMC) specimens has been fabrication using pure copper (Cu) as a base material reinforced with Silicon carbide (SiC) 5,10,15 wt % The blending of powders using planetary ball milling process at 180 minutes at the speed of 300 rpm. After blending the powders were poured in compacting die. The produced green compacts were sintered at the range of 900°C using muffle furnace at 4 hours. The sintered composite have been carried out the various characterization studies like SEM, XRD and EDAX also various mechanical properties have been carried out.

Keywords: MMC, SiC, Characterization studies, Corrosion etc.,

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EFFICIENCY IMPROVEMENT IN POLYCRYSTALLINE SOLAR PANEL BY THERMAL CONTROL

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Abstract

The increasing demand for electricity evolved from main grids has necessitated the use of multiple micro grids, which serve as subsystems of the utility power. More recently, solar power stations are being utilized for electricity generation. This energy source has witnessed high global growth figures, as more countries research this alternative power source in the revolution of energy needs. Solar panels are exposed to high temperatures due to the heat absorbed from the sun and this heat negatively impact its thermal control that lags its power generation. The excessive heat absorbed from the sun limits energy generated by the solar cells. Cooling of solar panels is essential, especially on concentrated Photovoltaic (PV) systems. The aim of this project is to study the effect of cooling of solar panel using cooling systems like water cooling, air cooling and cooling media (Nano fluids) etc. This involves cooling of panels with the help of temperature sensing. After thermal control the maximum power of solar panel will increase0.258% for every degree of temperature fall.

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ANALYSE THE EFFECT OF WELDING PARAMETER IN GAS TUNGSTEN ARC WELDING PROCESS IN CARON AND ALLOY STEEL PLATE

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Abstract

Welding as a fabrication process is one of the vital production routes for most manufacturing industries , several factors are involved in the choice of welding process for specific application. Notable among these are composition range of the material to be welded , the thickness of the base materials and type of current . In most metal oxidize rapidly in their molten state and therefore the weld area needs to be protected from atmospheric contamination and this is achieved in gas tungsten arc welding GTAW by a shielding gas (Argon, Helium , Nitrogen). Welding input parameters play a very significant role in determining the quality of a weld joint. The joint quality can be defined in terms of properties such as weld-bead geometry, mechanical properties, and distortion. Generally, all welding processes are used with the aim of obtaining a welded joint with the desired weld-bead parameters, excellent mechanical properties with minimum distortion. In our project we are going to analyze which welding parameters will give high quality weld with less defects in carbon and alloy steel plate of thickness 7 mm . The parameters taken for the analysis are as follows

- Welding speed in mm/s
- Voltage
- Arc gap
- Type of current

Keywords: Welding, Contamination, GTAW, Weld bead geometry,etc.

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05/4/2024
PRINCIPAL
Kings College of Engineering
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ISBN: 978-93-85057-22-9

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AN EXPERIMENTAL INVESTIGATION AND OPTINMIZATION OF FRICTION STIR WELDING ON AA6061 & AA5052

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Abstract:

Joints between two aluminium alloys are need of the hour in many light weight military structures. In this investigation, an attempt to be made join the heat treatable aluminium alloys AA6061 & AA 5052 by friction stir welding (FSW) process using Threaded tool pin. The research will be applied Taguchi Method on an AA6061 & AA 5052 specimen of dimensions 100 x 100 x 4mm, which have following parameters: various RPM, Feed and Axial Load. Experimentally analyzed Threaded was used to investigate the mechanical properties and angle distortion and depth, width of the bead profile. From the macro investigation the Threaded profile has good tensile strength and low hardness properties.

Keyword : *Aluminium Alloy, AA6061 & AA5052, Friction stir welding, Mechanical Behavaviour.*

05/4/2021

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ISBN: 978-93-85057-22-9

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DESIGN AND FABRICATION OF PORTABLE MICRO GRINDING MACHINE USING CARBONIUM WHEEL AND ANALYSIS ON DIFFERENT MATERIALS

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Abstract

Micro Chemical Grinding (MCG) has generationally been used in highly specialize fields such as those of aviation and army bases. It is now popularly being applied in other industries where the parts with strenuous-to-cut and intricate geometry are required. In our project miniature of ECM is fabricated and principal issue in analysis are discussed and related issues are raised. Development in cutting wheel design, micro finishing and hybrid methods are used as per the requirement of industrial application.The parameters taken for the analysis are as follows

- Grinding wheel Speed
- Feed Rate
- Flow Rate

Keywords: Grinding wheel, Fabrication, Parameters

05/4/2021

PRINCIPAL
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ISBN: 978-93-85057-22-9

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AN INVESTIGATION ON MECHANICAL PROPERTIES OFCOMBINED NATURAL FIBERS USING EPOXY RESIN

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Abstract

In the recent world enormous amount of wastes were produced by human and nature. So, recycling and utilizing of those wastes are leads to better world for future. In this modern research and development wastes are gain importance in developing composites from those wastes. Several industrial bodies focus on alternative materials to gain an improvement in new material technology. In this research paper work leads to achieve the better mechanical characteristics among the following three combinations of natural fiber and neem fiber based composites samples. Three samples are Neem-Ravi, Neem-Hair and Ravi-Neem. The samples are prepared by hand layup technique. The various mechanical tests were performed. From the mechanical tests we achieved the better reinforcedcomposites among the three samples.

Keywords: *Composites, Natural Fiber, Mechanical Strength, Human Waste and Hand layup technique*

05/4/2021

PRINCIPAL
Kings College of Engineering.
PUNALKULAM - 613 303.

ISBN: 978-93-85057-22-9

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5/4/21

SOLAR POWERED TROLLEY

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ABSTRACT

Nowadays the utilization of conventional electric power is high. To reduce the dependency of non-renewable vehicles are increased and they use non-renewable energy to run are expensive. In coming years the major problem is depletion of ozone layer which is caused by release of CFC's(ChloroFluro Carbon) from vehicles. So we are designing a trolley to carry loads in industries. The trolley is powered by the solar energy by the use of solar panel. The weighing system is also included in the trolley to know the weight of the load carried by the trolley. This project deals with features involved in a solar powered trolley which plays a vital role for the upcoming energy crisis.

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05/4/2024
PRINCIPAL
Kings College of Engineering.
PUNALKULAM - 613 303.

ISBN: 978-93-85057-22-9

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5/4/24
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APPLICATION OF GREY RELATION ANALYSIS TO OPTIMIZE EDM PARAMETERS FOR CAST ALUMINIUM COMPOSITE PLATES

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ABSTRACT

Electrical Discharge Machining (EDM) is a non-conventional machining process, with a wide range of applicability and capabilities in modern industry. As a non-contact machining process, it has no limitations regarding the workpiece material mechanical properties, i.e. toughness and strength, with most important factors being the electrical conductivity and the thermal properties of the material. Aluminium is a chemical element in the boron group with symbol Al and atomic number 13. It is a silvery-white, soft, non-magnetic, ductile metal.Aluminium alloy are used in many different industries such as automobile, aerospace, Cutting Tools. On the other hand, there are some advantages for aluminium alloy use because of its low cost, availability, and manufacturability.The goal of the present experimental work is to optimize the electrical discharge machining (EDM) parameters of aluminum alloy (Al 7075) matrix reinforced with 5 %, 10 % and 15% in weight of boron carbide (B_4C) particles fabricated through the stir casting route.Multi-response optimization was carried out through grey relational analysis (GRA) with an objective to minimize the machining characteristics, namely electrode wear ratio (EWR), surface roughness (SR) and power consumption (PC). The optimal combination of input parameters is identified, which shows the significant enhancement in process characteristics.

Keywords: EDM, Aluminium, Boron carbide, Grey relation Analysis, Surface roughness

J. [signature] 5/4/2021

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ISBN: 978-93-85057-22-9

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PERFORMANCE AND EMISSION CHARACTERISTIC ANALYSES IN CI ENGINE BY USING OF ALTERNATIVE FUEL OF JOJOBA AND JULIFLORA WITH I PENTANOL ADDITIVES

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ABSTRACT

Ongoing inquires about of various nations utilize customary seed oils, for example, sesame oil, soybean oil, etc., for the blends of biodiesel. In present investigation, *jojoba and juliflora* seed oil was used for the synthesis of biodiesel. Performance test was made with the biodiesel blend using water cooled, constant speed, CI engine and emission characteristics were analyzed using a five-gas analyzer. It was observed that there was 18.5% increment in Brake Thermal efficiency (BTE) and 12.55% reduction in Brake Specific Fuel consumption (BSFC) at maximum load for B20 blend. It was observed at 80% load the emission of CO reduced by 10.09% of diesel emission; At 60% load, emission of CO2 reduced by 7.3% and at maximum load, emission of NO reduced by 22.2% for B20 blend while the HC emission increases for increased load. HC emission and smoke opacity was increased by 14.4 % and 21% for B20 blend which can be reduced by using additive to biodiesel. this additive is I Pentanol used in bio blends . Hence this blend is used as fuel in CI engine without engine modification.

05/4/2021
PRINCIPAL
Kings College of Engineering,
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ISBN: 978-93-85057-22-9

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FABRICATION AND PROPERTIES OF MAGNESIUM HYBRID NANO METAL MATRIX COMPOSITES USING POWDER METALLURGY

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ABSTRACT

Magnesium based metal matrix composites produced by powder metallurgy are finding applications for automotive, aerospace, defense and other industries. These composites exhibit high hardness, wear resistance, low coefficient of thermal expansion along with light weight. The Hybrid metal matrix composites are currently experiencing active developments all over the world. In the present work, magnesium reinforced with SiC andY_2O_3 particulate composites are fabricated using powder metallurgy process. The physical and mechanical properties like density, porosity, tensile strength, compressive strength and hardness were measured, so that this information can prove helpful in assessing their readiness for near-term commercial implementation in the automotive and other industries. The microstructure of the Mg-SiCp,Mg-Y_2O_3 composites was also studied using scanning electron microscopy

Keyword: Magnesium, Silicon carbide, Yttria, Powder metallurgy,

T. Pmy 5/4/2024
PRINCIPAL
Kings College of Engineering,
PUNALKULAM - 613 303.

ISBN: 978-93-85057-22-9

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STRUCTURAL CHARACTERIZATION ON STAINLESS STEEL (SS316) WITH INCONAL 625 COATING BY HVOF

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Abstract

Inconel 625 powder has been widely used over 50 years in the marine, petroleum industries, heavy water plants and nuclear power plants. The coating of IN625 powder over SS316 and provides more corrosion resistance, this can be tested by comparing two specimens, in which one of the specimen is coated by IN625 powder using thermal coating and others are without coating. All specimens are treated under various environments such as oxidation, atm air, salt bathing. After these treatments all the four specimens are heated at an elevated temperature of 800°c for 50 hrs ,which is known as thermal cycling. After this process those specimens are tested by using SEM (scanning electron microscope), XRD (X-Ray Diffraction Analysis), EDAX (Energy Dispersive Analysis of X-Ray) . From these test we can know the corrosion behavior of all the specimens and by comparing the results of these test , we can know the difference between coated and non coated material.

5/4/2024

PRINCIPAL
Kings College of Engineering.
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ISBN: 978-93-85057-22-9

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PERFORMANCE AND EMISSION CHARACTERISTICS ON BIOFUEL IN CI ENGINES

Agilan.H,AjithKumar.K,Rajarajeshwaran.B,K.VSasiKumar,VigneshKumar.J

Abstarct

Continuous use of petroleum sourced fuels is now widely recognized as unsustainable because of depleting supplies and the contribution of these fuels to the accumulation of carbon dioxide and carbon monoxide in the environment. Renewable, carbon neutral, transport fuels are necessary for environmental and economic sustainability. Here we will compare the blend of sole fuel with biodiesel extracted by double stage trans-esterification process from papaya seed oil to study the performance and emission characteristics of diesel engine.

In this study, papaya and jujube seed raw oil is used to extract the bio-diesel through transesterification process. Firstly, single biodiesel-diesel blend is prepared by blending separately both extracted biodiesels in the 10% and 20% ratio by volume with sole diesel fuel. Next two double biodiesel-diesel blends are prepared by blending papaya, jujube biodiesel, and diesel in the ratio of 10:10:80 and 20:20:80 by volume. Finally, each double biodiesel-diesel blend is blended with pentanol in the ratio of 99:1 (10ml) by volume.

The investigation was carried out in the single cylinder water cooled diesel engine with the sole fuel and blended biofuels with pentanol additive. The engine performance and emission characteristics were analyzed. From the experimental investigation it is observed that the brake thermal efficiency is slightly increased for dual biofuel with pentanol additive when compared to that of other biodiesel blend and sole fuel. The CO, HC, Smoke are found to decrease with the dual biodiesel blend with increase in NOx emission when compared to diesel fuel.

5/4/2021

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ISBN: 978-93-85057-22-9

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DESIGN AND FABRICATION OF MOTORIZED SHEET METAL ROLLING MACHINE

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Abstract

In Sheet Metal working industry a wide range of power and hand operated machines are used. As the sheet metal industry is a large growing industry and different type of machines are used for different operations. Our project the sheet metal rolling is very simple in operation by using roller which is coupled with motor. This machine consist of three roller which is coupled with a motor and connecting the motor shaft with worm shaft. The rotation of the driven rolls being utilized to feed the metal through the rolls by means of the frictional forces present between the surface of the rolls and sheet. No lubricant is used at its presence interference with the ability to grip. This machine easily produces cylindrical shaped objects of 50mm to 225mm different diameters. The machine is hand operated. So the cost of the finished product will be less and maintenance of the machine is very easy. The metals generally used for Sheet Metal work include black iron sheet, copper sheet, tin plate, aluminum plate, stainless sheet and brass sheet.

T. Muthu 5/4/2021

PRINCIPAL
Kings College of Engineering,
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ISBN: 978-93-85057-22-9

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PUMPKIN AND MAIZE BIODIESEL WITH ELAEOCARPUS GANITRUS ADDITIVE PERFORMANCE EMISSION ANALYSIS IN CI ENGINE

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ABSTRACT

This study presents an overview of emission control based energy efficiency measures in operation phase with respect to possible energy conservation situations. Transport vehicles greatly pollute the environment through emissions such as co,co2no , unburnt or partially burnt HC and smoke emissions. The major pollutants emitted by the diesel engines are burned hydrocarbon (HC) ,carbon monoxide (co) , oxides of nitrogen (NOx) , particulate matter (PM) . Modern diesel technologies have undergone a number of design parameters , operating parameters and fuel modifications in order to meet the increasingly stringent environment regulations and to reduce the various pollutants from CI engine.Several researchers conducted studies to improve the engine this study was to improve the performance and reduction in exhaust emissions from (CI) engines, using mixed biodiesel without any engine modification this is what we are doing by giving changes in alternate bio-fuels. Bio-fuels are typically made by chemically reacting lipids with an alcohol producing fatty acid esters bio additives are used to improve the fuel properties 5ml elaeocarpusgeritrus was used as bio additive biodiesel is meant to be used in standard diesel engine . Biodiesel can be used effectively as engine fuel despite several limitations in its fuel properties.

T. Pmy 5/4/2021

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T. Pmy ISBN: 978-93-85057-22-9

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Details of Faculty participation in books, chapters and conference / 2020-21

S. No	Name of the teacher	Title of the book/chapters published	Title of the paper	Name of the conference	ISBN/ISSN number of the proceeding	Name of the publisher
2020-21						
S&H						
1	Dr.V.Suresh Kumar & Dr.P.Saravanan	CY8151-Engineering Chemistry	-	-	789385057243	Kings Publication Punalkulam

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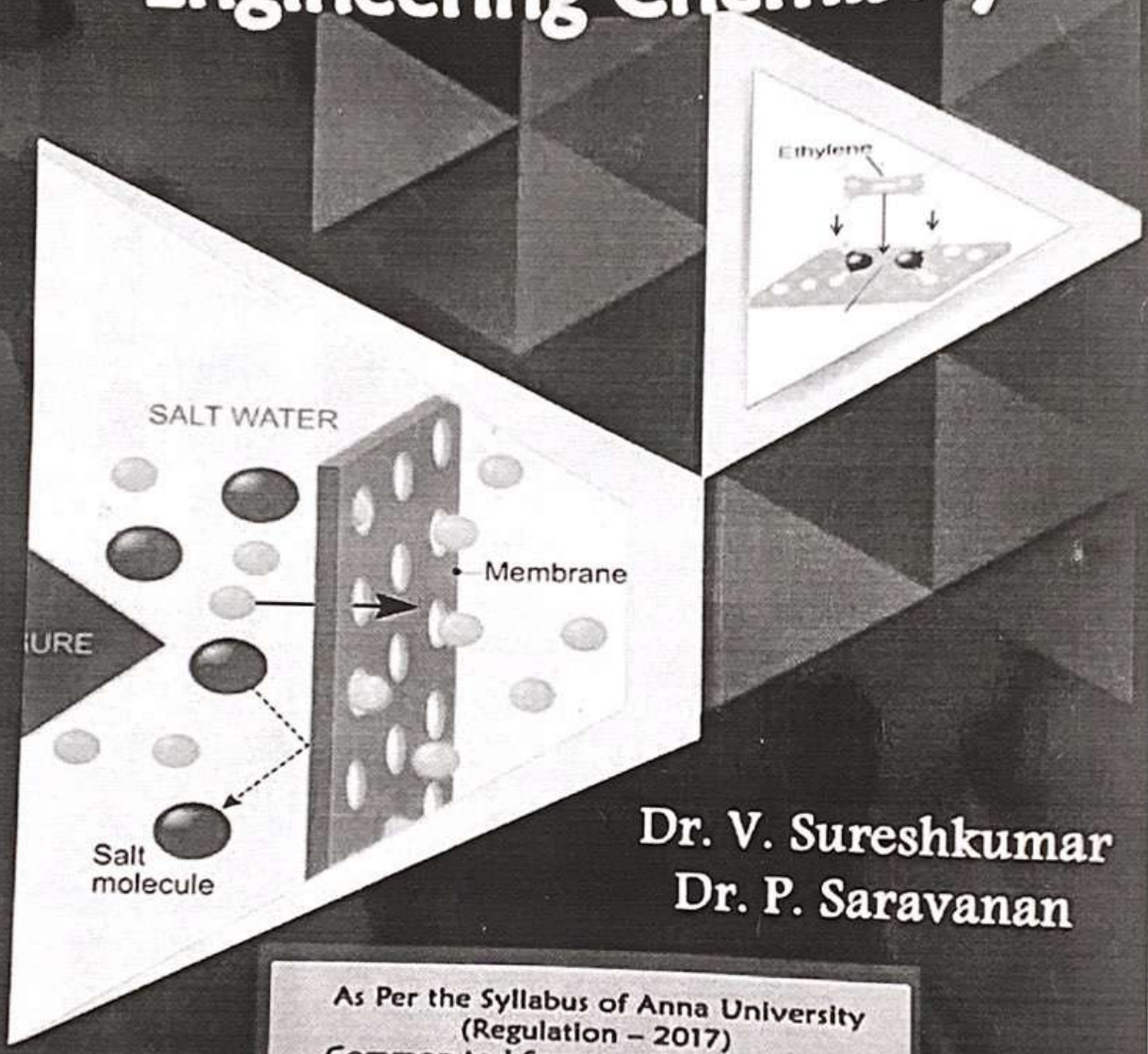

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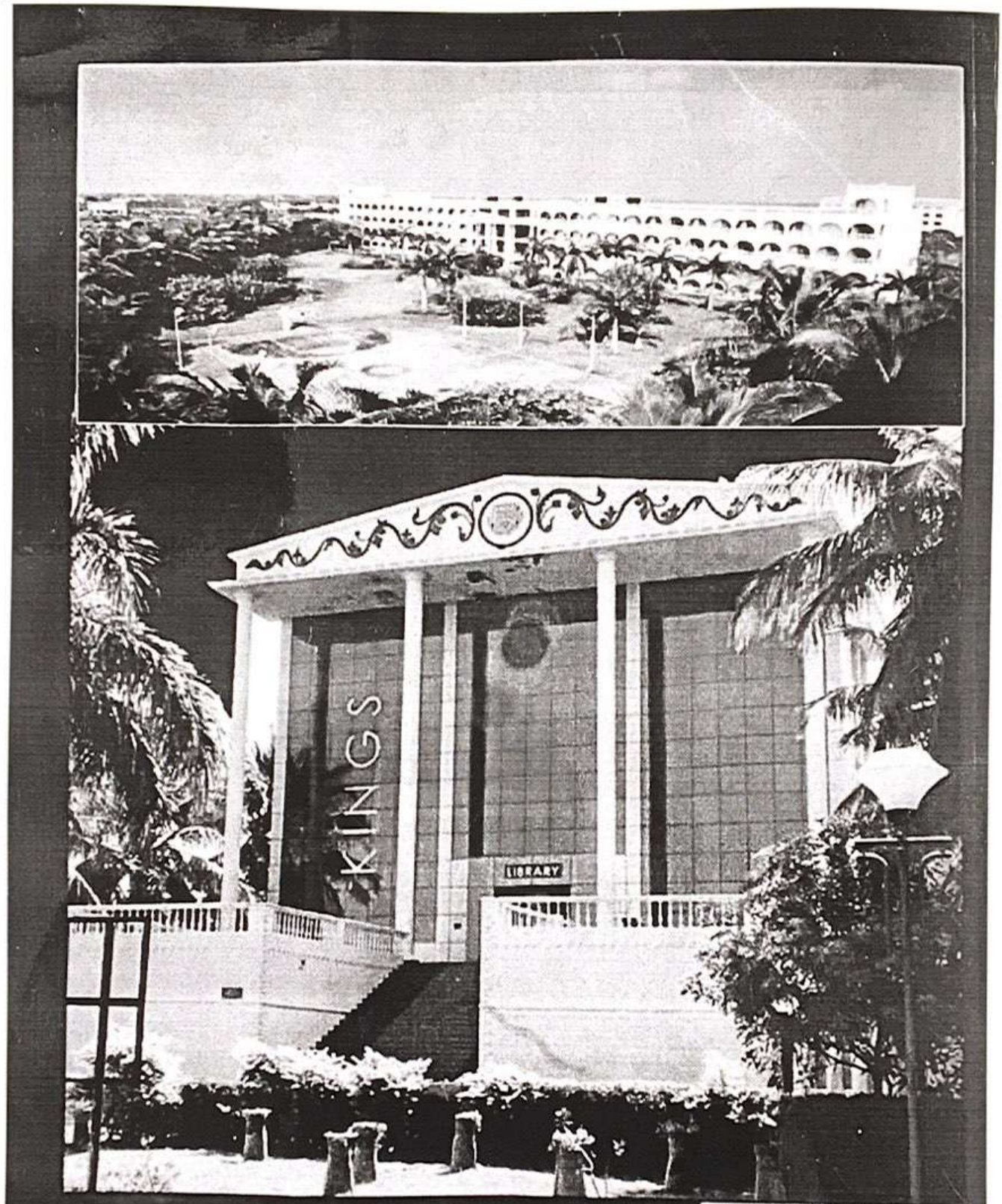

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28/12/20

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ISBN : 978-81-944813-4-8

Proceedings of International Conference on "Advanced Technologies in Power and Robotics Engineering" Iconpowrobo-'20

PREDICTION AND ANALYSIS OF KEY PERFORMANCE INDICATOR (KPI) FOR STUDENTS USING DATASCIENCE

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ABSTRACT

Predicting student's performance is a more stimulating task due to the large volume of data in student's databases. A systematically literature review on predicting student performance by using data science is proposed to improve student's achievements. The main objective is to provide a summary on the data science that have been used to predict student's performance. This proposed system also focuses on how the prediction algorithm can be used to identify the most important attributes in a student's data. It could bring the more benefits and have impacts on their performance.

Students' data can be evaluated with the help of various techniques. Data science is the most prevalent techniques to evaluate students' performance and is widely used in educational sector. To predict the student progression to analyse the better assessment by using the Machine Learning Algorithms

CLUSTER HEAD SELECTION FOR ENERGY CONSUMPTION OF NODES IN WSN FOR IOT APPLICATIONS

M. Susmitha
Department of Electronics and Communication Engineering Ponnaiyah Ramajayam College of Engineering & Technology Thanjavur

ABSTRACT

Wireless sensor networks (WSN) groups specialized transducers that provide sensing services to Internet of Things (IOT) devices with limited energy and storage resources. Since replacement or recharging of batteries in sensor nodes is almost impossible, power consumption becomes one of the crucial design issues in WSN. Clustering algorithm plays an important role in power conservation for the energy constrained network. Choosing a cluster head can appropriately balance the load in the network thereby reducing energy consumption and enhancing lifetime. The paper focuses on an efficient cluster head election scheme that rotates the cluster head position among the nodes with higher energy level as compared to other. Presence of selfish nodes is a very big problem in Wireless Networks. A selfish node doesn't forward packets and utilize to its own profit but it is hesitating using personal resources for others. If such activities occurs within most of the nodes in the network, the network is interrupted. Selfish behaviour detection is an essential condition in wireless networks. In our project we have described an efficient method for detection and punishment of a selfish node. Here we proposed a new framework is degree of intrinsic selfishness and the degree of extrinsic selfishness. Under the distributed node-selfishness management, a path selection criterion is designed to select the most reliable and shortest path in terms of RNs'. Degree of intrinsic selfishness nodes affected by their available resources, and the optimal reasons are determined by the source to stimulate forwarding multiservice of the RNs in the selected path. The algorithm considers initial energy, residual energy and an optimum value of cluster heads to elect the next group of cluster heads for the network that suits for IOT applications such as environmental monitoring, smart cities, and systems. Simulation analysis shows the modified version performs better than the LEACH protocol by enhancing the throughput by 60%, lifetime by 66%, and residual energyby64%.

Keywords: WSN, IOT, CH selection, Residual energy, Lifetime, Energy efficient.

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ISBN : 978-81-944813-4-8
Proceedings of International Conference on "Advanced Technologies in Power and Robotics Engineering" Iconpowrobo-'20

IOT BASED GAS AND FIRE ACCIDENT AVOIDER SYSTEM FOR INDUSTRIES

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ABSTRACT:

Gas leakage is one of the major problem in industries. The leakage of gas leads to fire accidents in industries. It is so difficult to recover the industry after getting damaged by fire accident. So industries need a very efficient gas leakage detection system. The aim of our project is to design and construct industrial safety system for workers working in hazardous environments by automatically detect, alert and control gas leakage, fire and smoke.

I.INTRODUCTION

Internet of Things[IOT] is a computing concept that aims to simplifying the human life by automating every small task in our surroundings . IOT is used to automating the daily tasks, the benefits of IOT can also be extended for enhancing the existing safety standards. Safety has always been an important criterion while designing home, buildings, industries as well as cities. The presence of highly concentrated gases in the atmosphere can produce extremely dangerous condition. These gases might be flammable at certain temperature and humidity conditions, toxic after exceeding the specified concentrations limits or even a contributing factor in the air pollution of an area leading to problems such as smoke and reduced visibility which can in turn cause several accidents and also have adverse effect on the health of people.

In the existing method, **gas sensing technology** is used. The LPG leakage is detected by the semiconductor sensor. Nowadays LPG accident occur very common. The reason for the major fire accident is gas leakage. This leakage of gas starts when we forget to close the main regulator valve or any leakage in the valve. This is the basis of these kinds of accidents. Already there are some sorts of remedial measures such as when the leakage is detected; message is sent to the fire station and the owner. There is no control action taken, it needs a manual controlling which puts human into direct risk. It causes high impact on environment and difficult to control.

The fire safety mechanism has been used in many places but it starts to work after the detection of fire. In order to control such conditions, The proposed system consist of sensors which is capable of detecting the gas, fire,smoke and used to prevent from explosive gases.

The harmful effects of carbon dioxide is warming the ocean water and additional amount of co2 present in the environment increases the greenhouse effect. carbon dioxide also affects the health issues of all living things like high blood pressure , headache, flushed skin and twitching the muscles , and at higher levels , man can experience panic , hallucinations vomited , irregular heartbeat and potentially unconsciousness or even death due to rising of carbon dioxide concentration in the blood. Carbon monoxide affects human. Increased levels of carbon monoxide reduce the amount of oxygen carried by hemoglobin around the body in red blood cells. The result is that vital organs, such as the brain, nervous tissues and the heart, do not receive enough oxygen to work properly.

The entire system has been constructed by fire and gas sensors for detection of gas leakage. If the system detects a gas leakage the system first off the main supply of gas by automatically . The system now

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AUTOMATED WATER MANAGEMENT AND LEAKAGE DETECTION SYSTEM USING IOT

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Abstract:
Water is essential to human life. It is most precious not only for the human race but also for all the living things in the planet. It serves us in 360 degrees starting from households to hydroelectric plants of our life and so on. So it is very important and responsibility of everyone to manage the water in an efficient way. In this paper we propose an efficient water monitoring system based on the Internet of Things. If we keep wasting water continuously it can be very dangerous problem in future. We should start saving water from ourselves. There are various ways through which water get wasted. Leakage plays a vital role in water wastage. Whenever there is leakage somewhere we couldn't get it in initial stage but when it becomes a huge problem it causes large wastage of water. So it is better to take actions immediately as soon as leakage takes place. In order to give a solution, we put forward a system that monitors the water level, water quality and water leakage using various sensors. The ultrasonic sensor and flow sensor senses the water level and the water leakage respectively. Once the flaw is identified, it is informed to control room through the internet (Email, twitter, SMS) and also nearby people can be informed in time. By placing this system, we will be able to collect and analyze the water usage patterns of the residents and save a lot of water in small as well large scale in future.

Keywords : Water, IoT, Sensors, Internet

I. INTRODUCTION

Water is an essential need for human survival but due to rapid pace of industrialization and greater emphasis on agricultural growth combined with latest advancements, agricultural fertilizers and no enforcement of laws have led to water pollution to a large extent. The availability of good quality water is paramount in preventing outbreaks of water-borne diseases as well as improving the quality of life. In order to ensure the safe supply of the drinking water the quality needs to be monitor in real time.

Water quality refers to the chemical, physical, biological, and radiological characteristics of water. In this work Water quality is calculated by considering waters physical temperature. Water pollution monitoring system can help to detect the water pollution that means temperature of the water.

The pipe leakage detection is also the important thing to avoid the wastage of water. A lack of appropriate leakage analysis and monitoring can result in repairs that are ineffective in controlling or reducing leakage

The Internet of Things (IoT) is a revolutionary concept that has the potential to turn virtually anything to smart. IoT provide interface to monitor and operate remotely from anywhere and anytime. To ensure safe supply of drinking water and to avoid wastage of water we are proposing a Water monitoring automation System using the techniques of different sensors (Internet of Things).

II. RELATED WORKS

Various efforts have been made up till now in monitoring water level & accordingly controlling dam state. The input of work in this area is mentioned below

IOT based water supply monitoring and controlling system [1]

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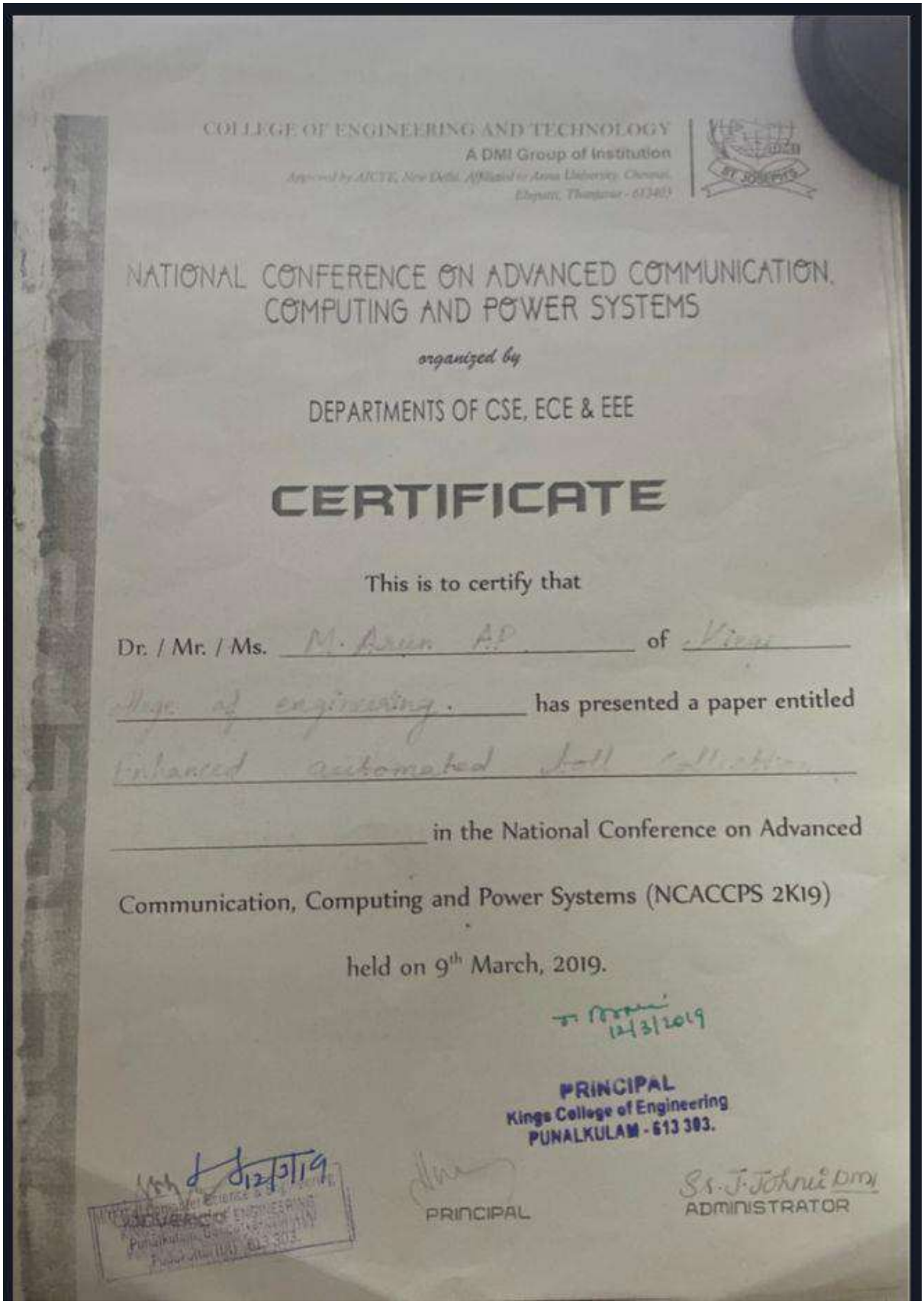

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Proceedings of International Conference on "Advanced Technologies in Power and Robotics Engineering" Icenpowrobo-'20

DETECTION ON TONGUE FOR HYPERTENSION AND COLD USING ANFIS CLASSIFICATION

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ABSTRACT

The proposed work is targeted on personalised healthcare and scientific carrier. The repute of a tongue is the important indicator to diagnose one's fitness like physiological and clinicopathological modifications of internal elements of the frame. The tongue diagnosis is suffering from exam occasions including mild supply, affected person's posture, and physician's condition. The tongue image popularity is included with advanced device studying version including deep gaining knowledge of (Adaptive Neuro Fuzzy Interface System) into the conventional model correctly for increasing the evolution. The syndrome differentiation and prescription choice are the maximum vital two steps of this concept. We classify the tongue popularity the use of the CNN classification, and we're validating with the staked auto-encoder and multi-modal deep mastering model for syndrome reputation of high blood pressure and cold.

Keywords: Tongue, Convolutional Neural Network, Multimodal Deep Learning, Staked Auto Encoder

MULTI-VIEW FACIAL EXPRESSION RECOGNITION BASED ON GROUP SPARSE REDUCED-RANK REGRESSION

N. Deepa and E. Jeevitha
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ABSTRACT

In this paper, a novel multi-view facial expression recognition method is presented. Different from most of the facial expression methods that use one view of facial feature vectors in the expression recognition, we synthesize multi-view facial feature vectors and combine them to this goal. In the facial feature extraction, we use the grids with multi-scale sizes to partition each facial image into a set of sub regions and carry out the feature extraction in each sub region. To deal with the prediction of expressions, we propose a novel group sparse reduced-rank regression (GSRRR) model to describe the relationship between the multi-view facial feature vectors and the corresponding expression class label vectors. The group sparsity of GSRRR enables us to automatically select the optimal sub regions of a face that contribute most to the expression recognition. To solve the optimization problem of GSRRR, we propose an ef cient algorithm using inexact augmented Lagrangian multiplier (ALM) approach. Finally, we conduct extensive experiments on both BU-3DFE and Multi-PIE facial expression databases to evaluate the recognition performance of the proposed method. The experimental results con rm better recognition performance of the proposed method compared with the state of the art methods.

Keywords: Multi-view facial expression recognition, group sparse reduced-rank regression (GSRRR), sparse reduced-rank regression model (SRRR), reduced-rank regression model (RRR)

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TO IMPROVE PERFORMANCE RESPONSE OF POWER SYSTEM ECONOMIC LOAD DISPATCH BY USING SWARM INTELLIGENCE TECHNIQUE

R. Anandhakumar
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ABSTRACT

An Electrical power system Economic Load Dispatch (ELD) problem is an optimum allocation of load demand to the online participating generating units subject to satisfying system constraints. The objective of ELD problem is to minimize the total fuel cost with fulfilling system constraints. The ELD problem is very complex to solve because of its colossal dimension, n non-linear objective function, and a large number of constraints hence it is difficult to use conventional methods to solve the ELD problem. Swarm intelligence is a research branch that models the population of interacting agents or swarms that are able to self organize. In recent years researchers focus much attention in swarm intelligence based algorithm to solve optimization problems. In this paper a swarm intelligence technique is applied to improve performance response of power system ELD problem.

Keywords: Economic load dispatch, Optimal Scheduling, Optimization, Swarm Intelligence.

SKIN LESION CLASSIFICATION USING SUPERVISED ALGORITHM IN DATA MINING

Saranya G and Dr. S. M. Uma
Department of Computer Science and Engineering, Kings College of Engineering, Punalkulam

ABSTRACT

Skin disease is a primary hassle amongst people global. Different learing algorithm getting to know. strategies can be implemented to perceive lessons of pores and skin sickness. Accurately diagnosing skin lesions to discriminate among benign and malignant skin lesions is critical to make certain suitable affected person treatment. While there are many computerised techniques for pores and skin lesion type, convolutional neural networks (CNNs) have been proven to be superior over classical methods.we have worked with two main algorithm. 1)j48 algorithm 2)SVM. In this project we are going to finding which algorithm producing more accuracy result.

Keywords: J48, SVM, data set, Analysis, Clustering, Accuracy

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FEATURE SELECTION TECHNIQUE USING HYBRIDIZATION OF IWO AND SSA FOR SKIN LESION CANCER PREDICTION

ETCCCT-CS16

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ABSTRACT

Skin disease is a primary hassle amongst people global. Different learning algorithm getting to know. Strategies can be implemented to perceive lessons of pores and skin sickness. Accurately diagnosing skin lesions to discriminate among benign and malignant skin lesions is critical to make certain suitable affected person treatment. Skin malignant growth is one of most dangerous maladies in people. As per the high closeness among melanoma and nevus sores, doctors set aside substantially more effort to explore these sores. This paper displays another technique dependent on enhancement calculation to order and foresee skin malignant growth maladies tried utilizing certifiable disease datasets. This philosophy going to joins new two sort of calculation. One is squirrel search algorithm (SSA) and another is Invasive weed optimization (IWO) algorithm to arrange and anticipate malignant growth prior. The proposed framework is assessed by arranging and expectation malignant growth sicknesses in skin sore disease datasets and assessment measures. The outcomes are thought about with (convolution algorithm)SVM execution benchmark. Framework can defeat to diagnosing the malady rapidly and exactness. Contrasting with other calculation proposed calculation has more precision.

DESIGNING AND MANAGING A SMART PARKING SYSTEM USING WIRELESS SENSOR NETWORKS

ETCCCT-CS17

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[1] Assistant professor,[2],[3],[4],[5] UG Scholar
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ABSTRACT

To provide computational resources for user smart parking methodology has been merged, by which low latency is guaranteed. For real – time smart parking management we forward a solution that enables offloading , aiming to minimize the average time for construct a distributed city-wide smart parking management system , in which vehicles close to RSUs can be utilized. Then according to queuing theory, parked and moving vehicle-can be modeled as an M=M=1 queue. Based on a real- world taxi trajectory data set performance analysis is conducted to illustrate the superiority of the method.

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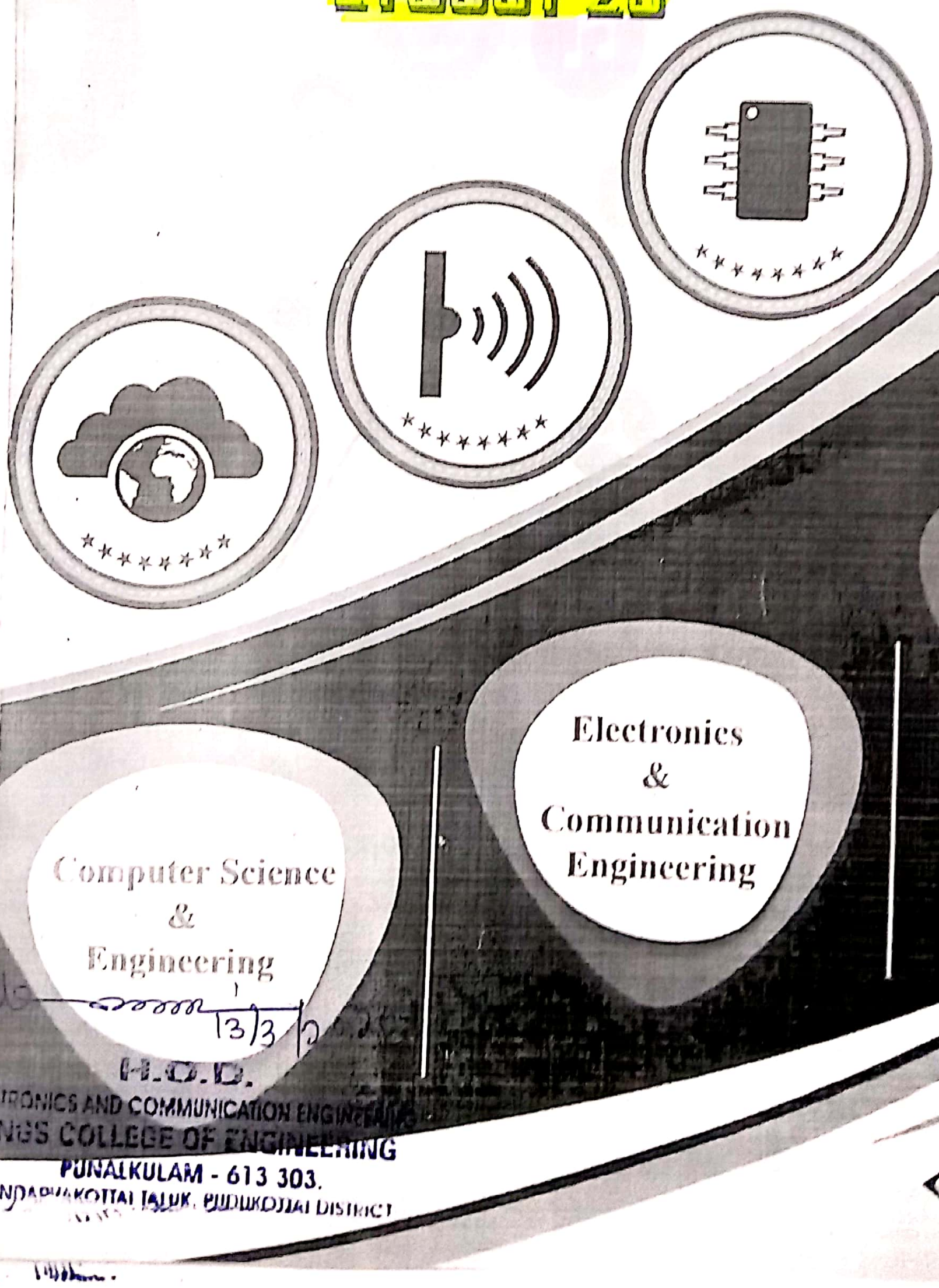

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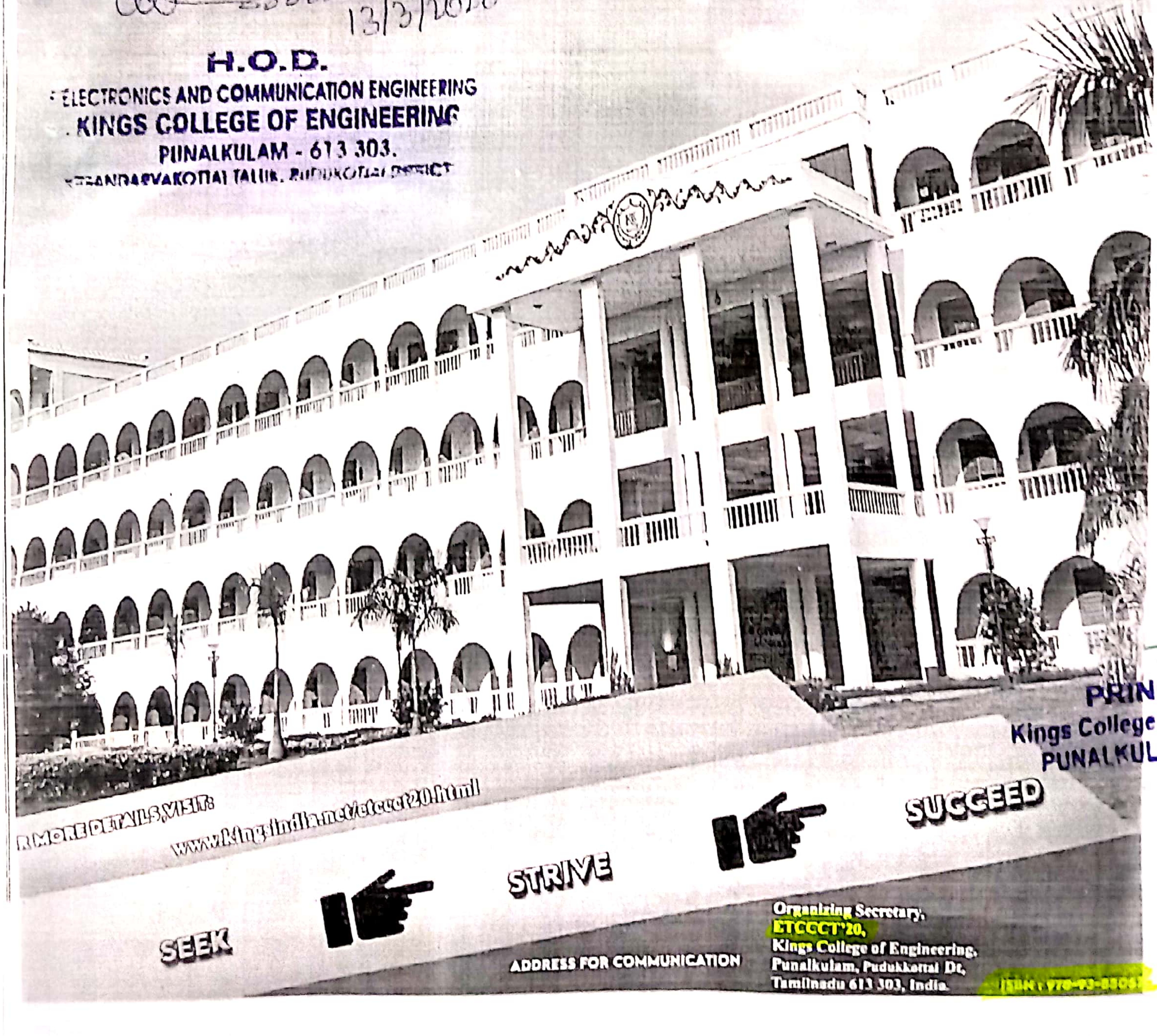

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UAV BASED RICE CORP MONITORING SYSTEM

ETCCCT-EC51

P.Raja Pirian [1] , B.Melvin Charles [2] , Ezhilarasi.M[3] ,Srithala.M [4] , Iswarya.M[5]
[1.2.3.4]UG Scholar, [5] Professor,
[1]Assistant professor,[2.3.4.5]UG Scholar,
Kings College of Engineering , Punalkula.

Abstract :

The increasing of population in the world lead the Malaysia government to intensification the food supply for the future in efficient way. Sustainable agriculture plays a main role for maintain the food production and preserve the environment from any excessive chemical by usage of technology for the better management. The Economic Transformation Program (ETP) emphasizes on the use of technology to finest aid crop production. Drone applications in crop monitoring are increasing globally and get place among end-users. The objective of this paper is to monitor rice crop by using multirotor Unmanned Aerial Vehicle (UAV) as known as drone and RGB digital camera in Kelantan, Malaysia. This paper will present the spatial analysis using RGB imagery in paddy plot at early stage to improve the management system. Results show that the uneven ground surface is a key element in achievement the higher yield production and improving the irrigation system in the paddy field. The ground management need to take action to make sure the paddy development can be growth in a healthy condition to increase the yield.

DISEASE PREDICTION IN RETINAL IMAGES USING MACHINE LEARING TECHNIQUES

ETCCCT-EC52

PL.Ramesh[1],M.Kasthuri[2],U.Maheshwari[3],M.Tamilarasi[4]
[1]Assistant professor,[2,3,4,]UG Scholar,
Department of Electronics and Communication Engineering
Mother Terasa college of engineering and technology

Abstract:

Retina of human eye can provide valuable information about human health. The state of the retinal vessels has been shown to reflect the health condition of the body so implement deep neural network algorithm to predict cardiovascular diseases and other diseases.

SMART AID FOR VISUALLY IMPAIRED PEOPLE

ETCCCT-EC53

C.Manivannan[1],A.Aishwarya[2] ,G.Gayathri[3],M.Nithiya[4],
[1]Assistant professor,[2.3.4.]UG Scholar,
Department of Electronics and Communication Engineering
Mother Terasa college of engineering and technology

Abstract:

For the blind or visually impaired (BVI) person, it is a very difficult job to acquire information from the world. One feasible way in order to perform that job is that someone will help him to read aloud the context. Another way to get the information is by giving a feeling of the information. The later technique is built through a representation of the information on a paper or a substantial surface so that a blind person can feel and recognize the information.

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IMPLEMENTATION OF SMART AGRICULTURE USING IoT

ETCCCT-EC05

Mr.R.Sathiyaraj[1] , P.Abrana[2] ,K.Dhurka[3] ,A.Elakiyakowshika[4],M.Sudha[5]
[1] Assistant professor, [2,3,4,5] UG scholar,
Department of Electronics and Communication Engineering,
Kings college of Engineering, Punalkulam.

Abstract:

Agriculture is a basic source of livelihood for People in India. It plays a major role in the economy of our country. But nowadays due to migration of people from rural to urban there is a hindrance to agriculture. Monitoring the environmental factor is not the complete solution to increase the yield of crops. There are no factors that decrease productivity to a great extent. Hence Automation must be implemented in agriculture to overcome these problems. An automatic irrigation system thereby saving time, money and power of farmer. Traditional Farmland irrigation techniques require manual intervention. With the automated technology of irrigation, human intervention can be minimized. Continuous sensing monitoring of crops by the convergence of sensors with the Internet of things (IoT) and making farmers to aware about crops growth, harvest time periodically and in turn making high productivity of crops and also ensuring correct delivery of products to end, consumers at the right place and right time. So to overcome this problem we go for smart agriculture techniques using IoT. This Project includes sensors such as temperature, humidity, soil moisture and rain detector for collecting the field data and processed. These sensors are combined with well-established web technology in the form of a wireless sensor network to remotely control and monitor data from the sensors. IOT modernization helps in assembly informence on circumstances like climate, level of water, temperature, humidity, soil moisture, rain detector for collection the field data and pressure sensor are processed.

SMART AND SAFE CHILD RESCUE SYSTEM FROM BOREWELL

ETCCCT-EC06

Mr.V.Venkata subbu[1], K.Pavithra[2], V.Santhiya[3], M.Thenmozhi[4]
[1],Assistant Professor, [2,3,4] UG Scholar ,
Department of Electronics and Communication Engineering,
St. Joseph's College of Engineering and Technology, Thanjavur.

ABSTRACT:

In India, for the past few days, people are facing a distressed cruel situation like a child has felled in the bore well and struck in the hole which is uncovered and getting trapped. Rescue of a trapped child from bore well is a very risky and difficult process when compared to the other accidents. It takes more than a day to save the child. Here, in this paper, the child who is stuck inside the hole is to be saved by the clipper which picks and places the child with the help of a remote controller. The clipper is left manually by the rope tied up and its hands. In this alternative scenario, there will not be any requirements digging hole parallel to the bore well. The child can be saved within a short period without any difficulties.

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WOMEN SECURITY AND SELF DEFENCE SYSTEM

ETCCCT-C15

U.Jeyamalar [1] ,R.Hinduja[2]
[1]Assistant professor ,[2]PG Scholar,
Department of Electronics and communication engineering,
Kings college of engineering, Thanjavur.

Abstract:

Women protection performs a tough mission in our society. Since from couple of years while we used to read newspapers we frequently examine about the growing price of violence in opposition to women. We planned to make a device with Low value, Wearable, Fast and efficient. This paper describes about safe and secured electronic machine for women. The violence towards the girls may be added to an stop with the help of our product "FILLE". This tool is a protection gadget particularly designed for ladies in distress. We can document video for in addition research and may provide an alert message to pre-set contacts with instantaneous place for each 2 minutes. It incorporates of Arduino, wrist band Microphone, Motion sensor, Webcam, Buzzer, Tear gas mechanism, LCD, GSM and GPS are used on this venture. . Here Tear fuel mechanism is imposed for self - defense motive. This movement permits us to get assist straight away from the Police as well as Public in the near radius who can reach the sufferer with super accuracy.

DESIGN AND IMPLEMENTATION OF SMART GESTURE WATCH

ETCCCT-EC16

J.Sofiya Jenifer[1], Vidhyaganesh.M[2] , Balamohan.J [3] , Princebossco.J[4]
[1]Assistant Professor, [2,3,4]Students
Department of Electronics and Communication Engineering,
Parisutham Institute of Technology and Science.

Abstract :

To develop a Bluetooth based home automation system with Arduino Using gyro sensor and Lilypad Board .Remote controlled home automation system provides a simpler solution with Hand GESTURE WATCH technology. According to the hand gestures the signal is send .In the receiver side we are receiving the signal to control the corresponding load such as light and door open and close and direction of DC Motor. Gyro sensor is used to detect the position of hand. OLED is used to show the display in the watch. Then the robotic arm can be thought to learn those positions and run along them. To run the load arm with the hand movement by the help of gyro sensor.

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GREEN LEAF DISEASE DETECTION USING RASPBERRY PI

ETCCCT-EC23

P.Thirumagal[1], Abinayakarthika.T[2], Poovizhi.A[3], Sripriya.M[4], Tamilazhagi. T[5]
[1]Assistant Professor, [2,3,4,5] UG scholar,
Department of Electronics and Communication Engineering,
Kings College of Engineering, Thanjavur.

Abstract:

This paper talked about a framework utilizing raspberry PI to detect and prevent plant disease from spreading. The k means clustering algorithm was used for image analysis. It has numerous focal points for use in vast harvest ranches and in this way distinguishes indications of sickness naturally at whatever point they show up on plant leaves. In pharmaceutical research, the recognition of leaf ailment is essential and a critical theme for research, because it has the advantages of monitoring crops in the field in the form and thus automatically detects symptoms of disease by image processing using an algorithm clustering k - means. The term disease refers to the type of plant damage. This paper gives the best strategy to recognizing plant infections utilizing picture preparing and alarming the ailment brought about by email, SMS and showing the malady name on the framework proprietor&#39:s screen display. Automatic detection of symptoms of disease is useful for upgrading agricultural products. Completely automatic design and implementation of these technologies will make a significant contribution to the chemical application. The cost of pesticides and other products will be reduced. This will lead to an increase in farm productivity.

COMPARATIVE ANALYSIS OF VOIP APPLICATION WITH DIFFERENT QUEUING SCHEMES IN WIMAX USING OPNET

ETCCCT-EC24

Mrs. P. Pavithra[1],T.Udhaya kumar[2],G.Pragadish soumyan[3]
[1]Asisstant Professor,[2,3] UG Scholar,
Department of Electronics and Communication Engineering,
Anjalai Ammal Mahalingam Engineering College, Thiruvarur.

Abstract:

The objective of our idea will attempt to study the effects &performance of three queuing techniques (First in First outQueuing, Priority Queuing, Weighted Fair Queuing) with VOIP application in WiMAX through OPNET 17.5 simulator. In recent years VOIP (Voice over Internet Protocol) is one of the most modern and interesting technology. This work inspects the execution of VOIP traffic characteristics over WiMAX (Worldwide Interoperability for Microwave Access). Applications like web browsing (HTTP), email and FTP are very careless or insensitive towards any kind of delay in transmission of information while VOIP technology is very delicate and sensitive towards delay, packet losses and jitter. For this reason three different queuing methods are put into operation to manage, regulate, arrange and also to prioritizing the packets in buffers before their transmission. Here FIFO, PQ and WFQ queuing are implemented with the help of OPNET simulator and various parameters like jitter, mean opinion score, packet delay variation and packet end to end delay are studied. After this analysis and evaluation we can pick the best and right queuing scheme. In this document we are also investigating that how performance of various queuing schemes are affected with different numbers of nodes. We can also analyze the network path of the transmitted data or information

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ECONOMIC AND ENVIRONMENTAL DISPATCH OF A MICROGRID WITH PENETRATION OF PV AND FUEL CELL USING GREY WOLF ALGORITHM

P. Keerthana[1] and Dr. R. Ashok Bakkiyaraj[2]
PG Scholar[1], Department of Electrical Engineering, Annamalai University
Associate Professor[2], Department of Electrical Engineering Annamalai University

ABSTRACT

Micro grid (MG) is aimed to integrate the distributed generations and thereby improving the energy efficiency. Economic dispatch is an important tool to obtain the economic operation in MG, which deals with the power in efficient ways while meeting the constraints of total load demand as well as the generator constraints. Most studies of such networks addresses the operational and investment costs, however neglect the environmental impact. Based on these two criteria, an optimization model is established in this work, in order to determine the viability and the environmental contribution of micro grid. This model includes high penetration of fuel cell units and renewable energy sources. In order to accomplice this; a recently developed grey wolf optimization algorithm is used in order to perform hourly optimizations on the Micro grid.

Keyword: Micro grid, Photovoltaic, Micro turbine, Distributed generation

OPTIMISED DOMESTIC LOAD SCHEDULING FOR POWER MANAGEMENT IN SMART GRID

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[2]Assistant Professor, Department of EEE, Kings College of Engineering
[3]Department of EEE, M.E Power Electronics and Drives, Kings College of Engineering

ABSTRACT

In the future era, revolution of smart grid in electric power sector plays a predominant role .The combination of new technologies and communication infrastructure in the electric power system makes the grid smarter. The vision of smarter markets, a key feature of smart grid is effectively achieved by Demand Side Response. Customer participation by actively reducing or shifting the loads from peak hours to non-peak hours with respect to the available power is done by DR schemes. Thus to obtain automatic scheduling of appliances artificial intelligence technique namely Genetic Algorithm is proposed in order to reduce the excessive wastage of power thus by using it efficiently in a smarter way in residential consumers.

Keywords: Demand Response, genetic algorithm, Smart grid, Optimization

17/6/20
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ISBN : 978-81-944813-4-8

Proceedings of International Conference on "Advanced Technologies in Power and Robotics Engineering" Iconpowrobo-'20

AN INTELLIGENT TECHNIQUE FOR FAULT DETECTION IN SMART GRID

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ABSTRACT

A smart grid has a complex topology which includes multiple diversity of components. Power interruption due to faulty components has become a major issue in smart grid. It is difficult to obtain warning for faults that occur in each component. Also, the security of smart grid is under threat due to these unnoticeable faults. To improve the security of smart grid, it is essential to develop an efficient fault detec

tion technique. Hence, an attempt is made to determine the transmission line faults that occur in smart grids using Artificial Neural Networks. The proposal is simulated using MATLAB SIMULINK and the results confirm the supremacy of the proposal over other approaches.

Keywords: Smart grid, Transmission line faults, Artificial Neural Network, Classification.

COMPARISON OF LP-GROWTH AND FP-GROWTH ALGORITHMS USING MULTIPLE MINIMUM SUPPORT THRESHOLD

M. Sinthuja and D. Devikanniga
Department of Computer Science and Engineering, Presidency University, Bangalore

ABSTRACT

Data mining is the process of discovering interesting patterns from the transactional database. Previously, many algorithms have been proposed by fixing a single minimum support threshold for all items from the database. It results in "rare item problem" where while fixing high minsup, frequent patterns with rare item are missed and at low minsup, it results in too many frequent patterns which is said to be combinatorial explosion. To confront the rare item problem, an effort has been made in the literature to find frequent patterns with "multiple minimum supports thresholds". In this concept, each item is given minimum item support (MIS) for finding frequent patterns. In this paper, comparison is made between MISFP-Growth and MISLP-Growth algorithm for mining frequent patterns using multiple minimum support threshold. Experimental evaluation is made between MISFP-Growth and MISLP-Growth algorithms using different database. From the result, it is revealed that the MISLP-Growth algorithm is better than MISFP-Growth algorithm in the criteria of runtime and memory.

Keywords: Data Mining, Frequent Patterns, LP-Growth, Minimum support, Multiple Minimum Support

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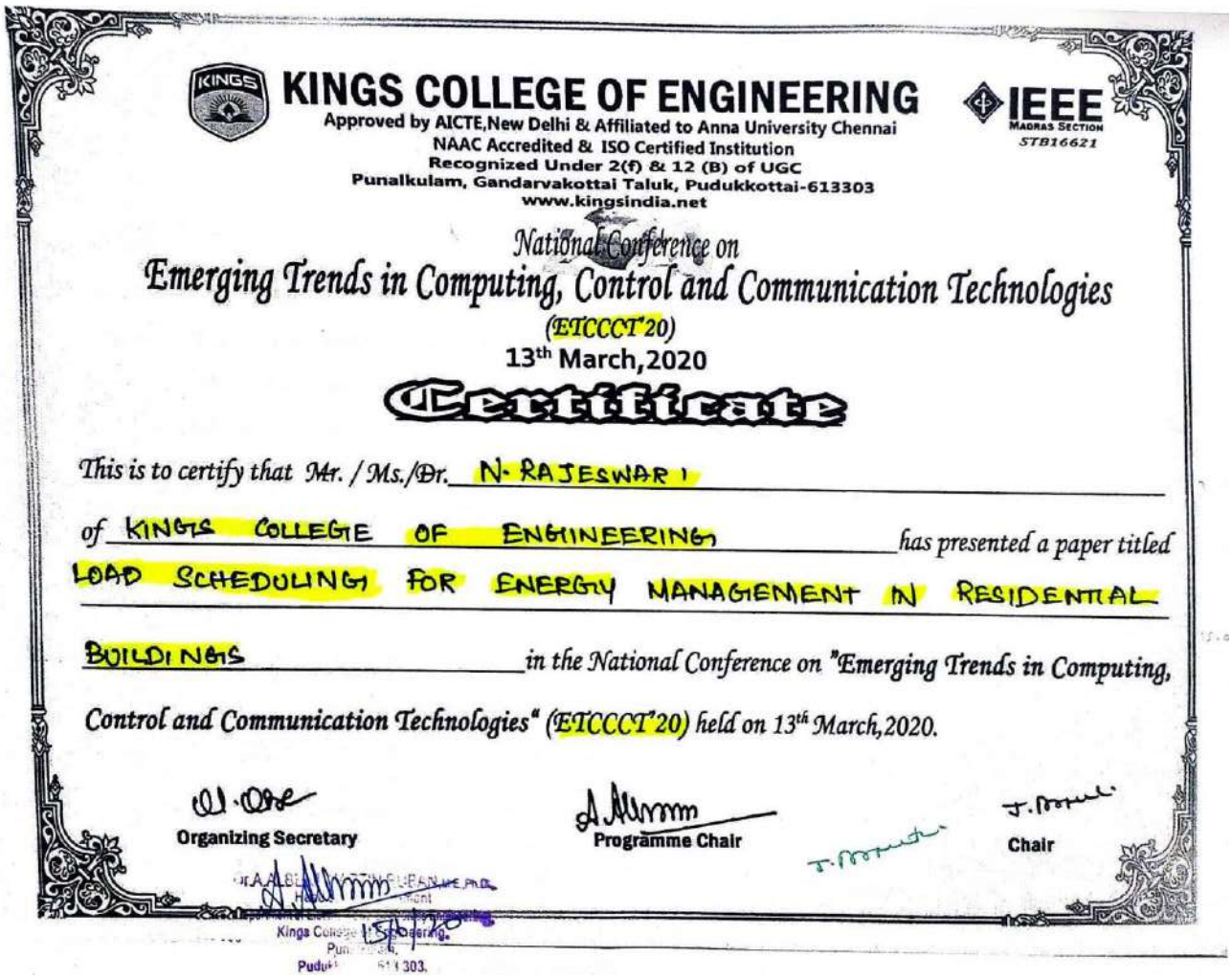

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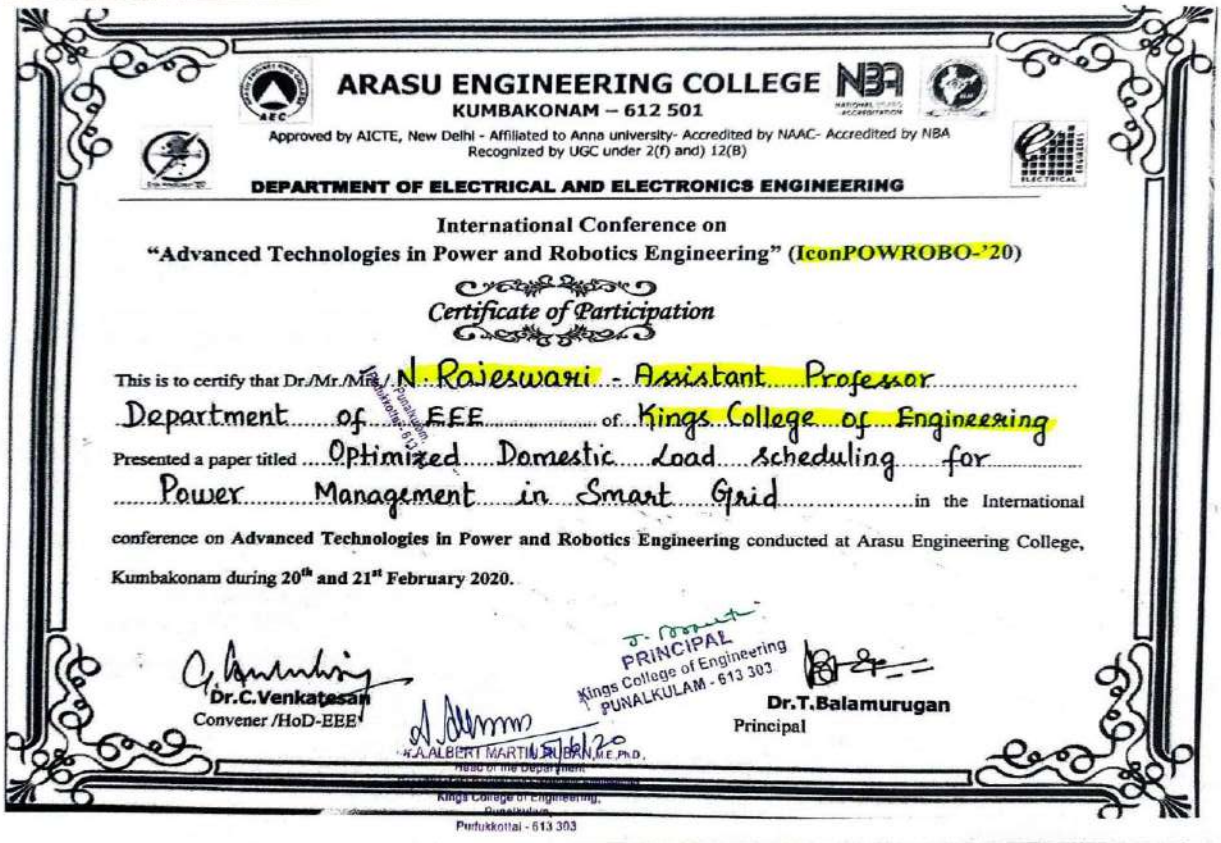

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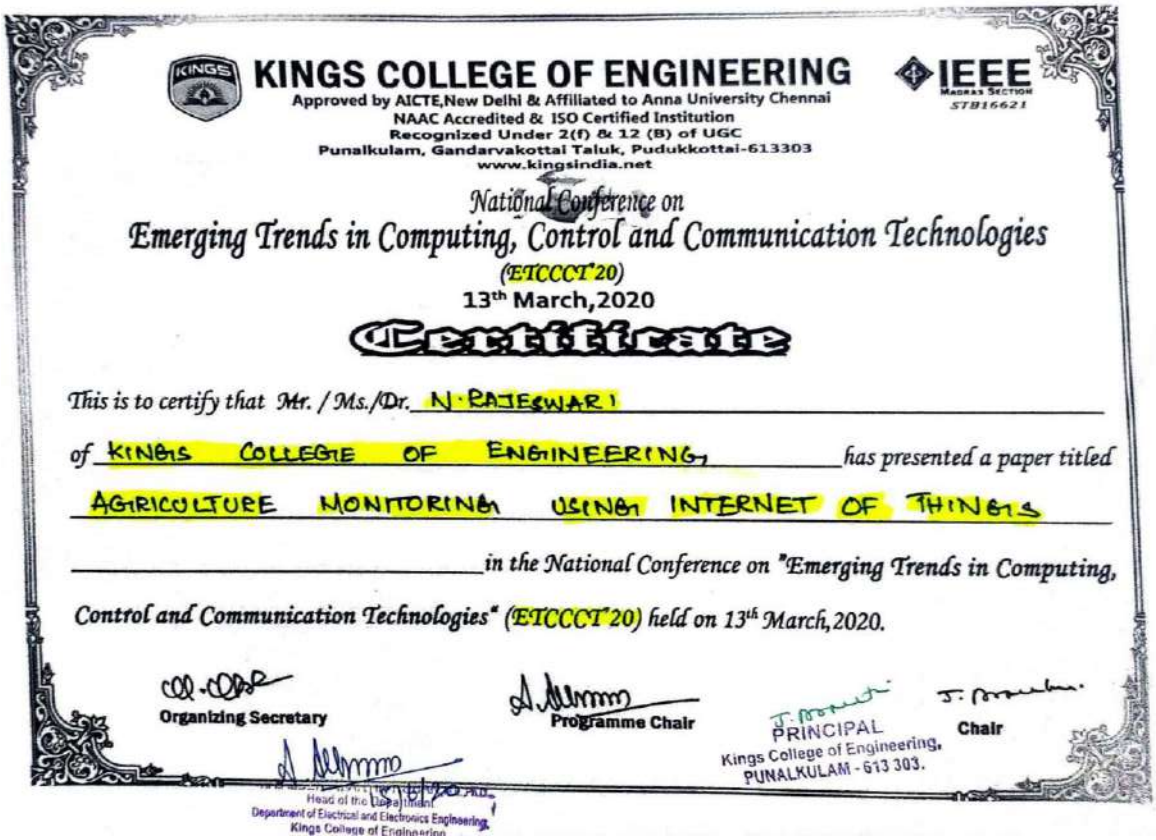

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ANALYSIS OF HIGH TEMPERATURE OXIDATION BEHAVIOUR OF SS316 BY AL_2O_3 AND CR_2O_3 COATING

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[2]Associate Professor, Department of Mechanical Engineering, E.G.S Pillay Engineering College,

ABSTRACT

The main objective of this work is to evaluate the oxidation behavior of super heater material which is used in the High temperature application such as super critical boiler. High temperature application operates at elevated temperature range above 700°C and 750°C. At elevated temperature, oxidation occurs surface of metal which leads to failure of material. This turns the metal to corrode which interrupts and decrease its functionality of plant. Hence, the selective super heater material (SS316) is selected for this work. High temperature oxidation behavior is analyzed by testing the material in tubular furnace in air environment at 700°C and 750°C.The material is tested in the tubular furnace by arranging the specimen in an order like without coating of metal surface, second one is with Aluminum oxide coating of metal surface and third one is Chromium oxide coating of metal surface. After that the tested specimens are characterized by SEM, EDAX. From that results suitability of the metal for high temperature application in power plant is recommended.

Keywords: *Boiler Materials, Surface modification, Coatings, SEM, EDAX.*

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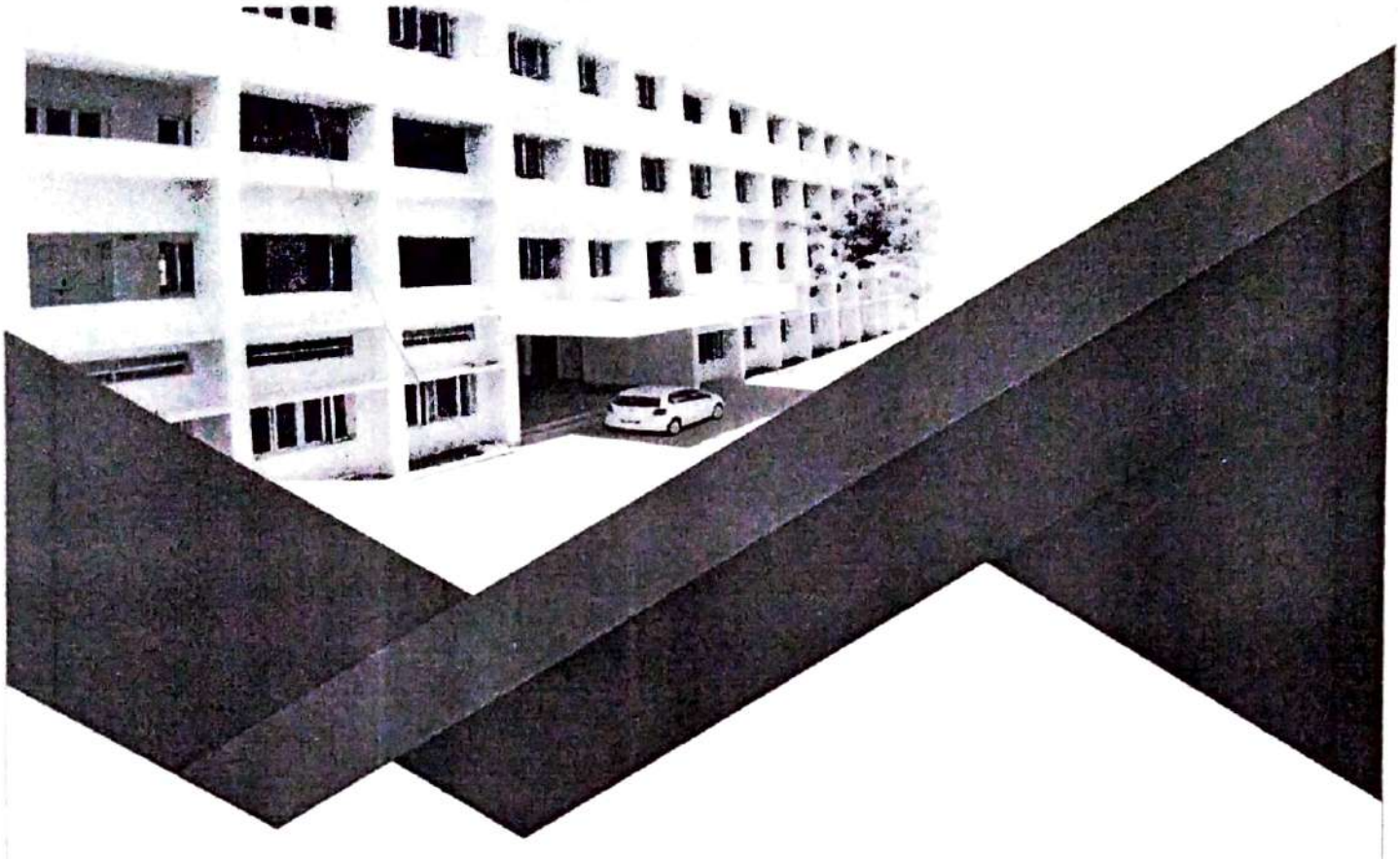

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1	Dr.P.Saravanan	-	Dyeing of Polyester with Eco – Friendly Natural dye obtained from flowers of Lantana Camara Linn	National Conference on Multidisciplinary Research in Science and Humanities	-	Arasu Engineering College, Kumbakonam
2	Mrs.T.Gnanajeya	-	Neutrosophic Forests and Neutrosophic Trees.	Virtual Heber International Conference on Applied Mathematics	-	Bishop Heber College, Trichy
3	Mrs.T.Gnanajeya	-	Isomorphic Single Values Neutrosophic Graphs and their Complements	e-National Conference on Advancements of Science and Humanities at Kings College of Engineering	-	Kings College of Engineering Punalkulam
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NCMRSH 44: Dyeing of Polyester with Eco – Friendly Natural dye obtained from flowers of *Lantana Camara Linn*

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ABSTRACT

Natural dyes have become a part of human life since time of immemorial. The Alchemy of colours started its use from an early time. Use of natural dyes in colouration of textile materials and other purpose is just one of the consequences of increased environmental awareness. Natural dyes are preferred nowadays in developed countries, because they are non-allergic, non-carcinogenic and have lower toxicity and better biodegradability than the synthetic dyes. In present study, a natural dye was extracted from the flowers of *Lantana Camara* using water as the solvent. It was observed that the natural dye has good affinity towards polyester fabrics. Three methods of mordanting namely Pre-mordanting, post-mordanting and simultaneous mordanting were followed. Chemical mordants like $CuSO_4$, $NiSO_4$, $FeSO_4$, alum, $K_2Cr_2O_7$ and $SnCl_2$ were used to obtain different colours. Natural mordants like myrobolan and cow dung were also used. The effect of time and temperature on dye uptake was also being studied. The light fastness, washing fastness and rubbing fastness properties of the dyes polyester fabrics were studied. The colour strength (K/S values) and hues produced by the natural dyes on the polyester fabrics were measured by computer colour matching method. The extracted natural dye was characterized by UV, FT-IR and ICP-OES studies.

Key words: Natural dye, Extraction, Lantana Camara, flowers, polyester

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e-NCASH-MAT014

2-ODD LABELING OF SOME GRAPHS AND ITS JOINS

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ABSTRACT

A graph G with p vertices and q edges is called a 2-Odd graph if the vertices of G can be labelled with integers (necessarily distinct) such that any two vertices that are adjacent will have their modulus difference of their labels as either exactly 2 or an odd integer. In this paper we study on Comb graph $P_n \odot K_1$ and its M-Joins, Comb graph $P_n \odot K_2$ and its M-Joins, Armed Crown graph $C_3 \Theta P_n$ and its M-Joins, Human Chain graph $HC_{n,3}(p,q)$ and proved that they are 2-Odd graph and in further we study some characteristics of these graphs and their labelling schema.

Key words: Comb graph, Armed Crown Graph, Human Chain graph, 2-Odd graph.

e-NCASH-MAT015

ISOMORPHIC SINGLE VALUED NEUTROSOPHIC FUZZY GRAPHS AND THEIR COMPLEMENTS

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ABSTRACT

In this paper, basic definitions related to Single Valued Neutrosophic Fuzzy Graphs (SVNFG) with examples are discussed. Some properties of isomorphism are introduced. Also isomorphism between single valued neutrosophic fuzzy graphs is proved to be an equivalence relation. Also discussed about isomorphic neutrosophic fuzzy graphs and their complements .

Keywords : Single Valued Neutrosophic Fuzzy Graphs, Isomorphism, Equivalence relation, Complement.

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DAY - 02 (08.10.2020) | Technical Session TRACK – 07 | TIME:10.30-11.30 AM

MANUSCRIPT ID	AUTHORS	TITLE	SESSION CHAIR
QIVCRTTMS046	A.A. Hamoud A.A. Sharif K.P. Ghadle	Existence and uniqueness results for Atangana-Baleanu fractional nonlinear Volterra-Fredholm integro differential equations	Dr. W. SRIDHAR ASSOCIATE PROFESSOR DEPARTMENT OF MATHEMATICS K. L. UNIVERSITY GUNTUR, A.P SESSION ORGANISER Dr V SRIDEVI
QIVCRTTMS047	R. Antony Doss S. Balamurugan	The edge Signal number of some special	
QIVCRTTMS048	J. T. Gondalia A. H. Rokad	Integer cordial labeling of star and Bistar related graphs	
QIVCRTTMS049	K. Palani A. Shunmuga priya	Near mean labeling in di-cyclic snakes	
QIVCRTTMS050	Hemavathi P S K.N. Prakasha,	LE-Degree sum Energy of graph	
QIVCRTTMS051	S. Sureshkumar	Double diffusive convection with cross-diffusion effects in a rotating fluid layer	
QIVCRTTMS052	K.Kalairasi S.Krishnaveni	A Retailer Total Profit Per Unit Time Of An EOQ Inventory Under Both Non-Linear Stock And Holding Cost, Trade Credit	
QIVCRTTMS053	Dr. G.Shankarakalidoss	Decagonal numbers-simultaneously equal to triangular and hexagonal numbers	
QIVCRTTMS054	R. Arul Ananthan S. Balamurugan	The isolate bondage number and some families of graphs	

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DAY - 02 (08.10.2020) | Technical Session TRACK –08 | TIME :10.30-11.30 AM

MANUSCRIPT ID	AUTHORS	TITLE	SESSION CHAIR
QIVCRTTMS080	Dr.B.Gayathri	Real Time Face Recognition And Radio Frquency Identification Tracking	Dr. B. GAYATHIRI ASSISTANT PROFESSOR DEPARTMENT OF COMPUTER SCIENCE BISHOP HEBER COLLEGE TRICHY SESSION ORGANISER Dr R SUJATHA
QIVCRTTMS081	Dr.B.Gayathri	Artificial Intelligence in IoT Software Defined Radio and Implementing Block chain techniques	
QIVCRTTMS082	S. Sasmitha Dr.B.Gayathri	future analysis about cloud computing: cloud analytics, cloud deployment model, cloud computing platform	
QIVCRTTMS083	Dr.P.M.Murali.	Analysis on data science recent trend technology with artificial intelegence.	
QIVCRTTMS084	Dr. B. Gayathri R. Kumarasanthosh	Biotechnology and food science	
QIVCRTTMS085	S. Kumar	Role of image process using health care Departments	
QIVCRTTMS086	Dr. B.Gayathri A.Kavipriya	Artificial Intelligence, Iot And Robotics	
QIVCRTTMS087	Dr R Sujatha	An Approach to Prevent gray hole attacks :MANET	

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[2]PG student, Cauvery College for women, Cauvery College for women (Autonomous), Tiruchirapalli, Tamilnadu-620018, India
Mail id: krishnaaarthy24@gmail.com

ABSTRACT:This paper deals with an economic order quantity (EOQ) inventory models under both non-linear stock and holding cost. Trade credit is an important process in modern business operations. A retailer's point is developed into this inventory model. A full fuzzy model is developed where the input parameters annual demand ,production rate, set up cost, holding cost ,transportation cost ,purchase cost, order processing cost, carrying cost are fuzzy trapezoidal numbers. The fuzzy production inventory model is determined using the algorithm of extension of the Lagrange method for solving inequality constraints problem and graded mean integration method is used for defuzzifying the fuzzy total profit. A some numerical example is used to find the usefulness of the proposed integration models

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DECAGONAL NUMBERS-SIMULTANEOUSLY EQUAL TO TRIANGULAR AND HEXAGONAL NUMBERS

Dr. G.SHANKARAKALIDOSS

Department of Mathematics, Kings College of Engineering, Punalkulam, Pudukkottai (Dist) - 613303 [Email:shankarakalidoss@gmail.com]

Abstract: Explicit formulas for the ranks of decagonal numbers which are simultaneously equal to triangular and hexagonal numbers in turn are presented.

Key Words: Pell's equation, General solution of Pell's equations.

THE ISOLATE BONDAGE NUMBER AND SOME FAMILIES OF GRAPHS

[1] ARUL ANANTHAN R AND [2] BALAMURUGAN S

[1] Research Scholar , Department of Mathematics, St. Xavier's College (Autonomous), Palayamkottai, affiliated to Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli – 627 012, Tamilnadu, India.
[2] Assistant Professor, Department of Mathematics, St. Xavier's College (Autonomous), Palayamkottai, affiliated to Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli-627 012, Tamilnadu, India.
[1] arulanand1005@gmail.com. [2]balamaths@rocketmail.com.

Abstract: A set D of vertices in a graph G is a dominating set, if each vertex of G that is not in D is adjacent to at least one vertex of D. The minimum cardinality among all dominating sets in G is called the domination number of G and is denoted by $\gamma(G)$. A dominating set S such that $< S >$ has at least one isolated vertex is called an isolate dominating set. An isolate dominating set of minimum cardinality is called the isolate domination number and is denoted by $\gamma_0(G)$. The isolate bondage number of a graph G to be the cardinality of a smallest set E of edges for which

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to me, arivuvani06, Mathemati...

Dear Sir/Madam,

On the eve of the New Year 2021, we on behalf of the Department of Mathematics, Sidho-Kanho-Birsha University, Purulia would take the opportunity to inform you that your article presented in the National Webinar during June 11-12, 2020 or International Web-Conference during June 29-30, 2020 organized by the Department of Mathematics in association with the IQAC of SKBU and submitted thereafter for possible publication in the conference e-proceeding with ISBN, has been accepted for publication in the 1st round. The revision, uncorrected proof will be processed in due course.

Title of the article: **Characteristics of Complex Neutrosophic Graph**

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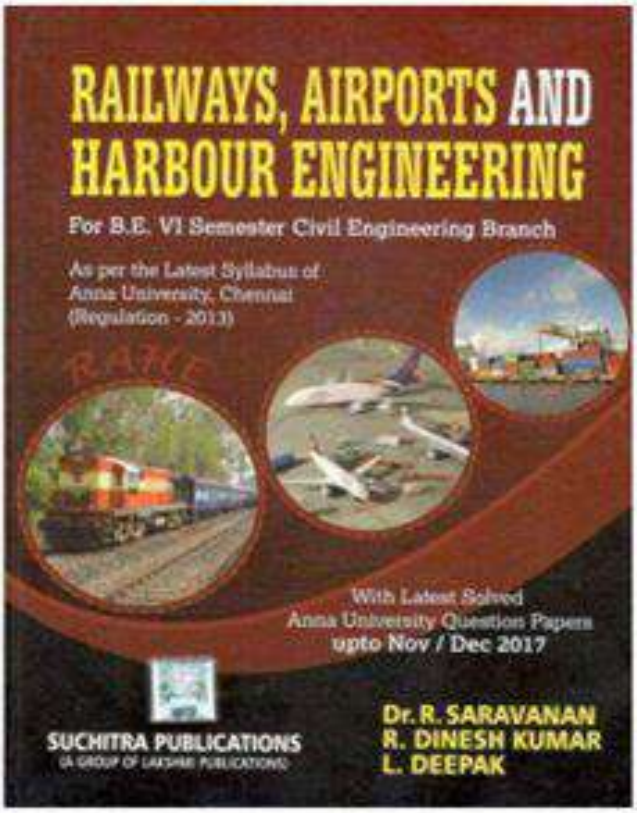

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Third Edition : January 2014

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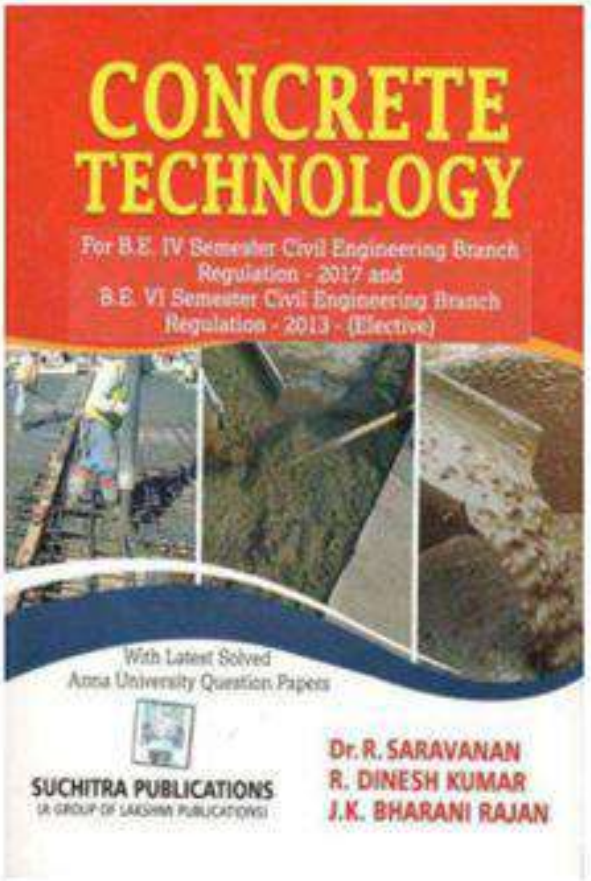

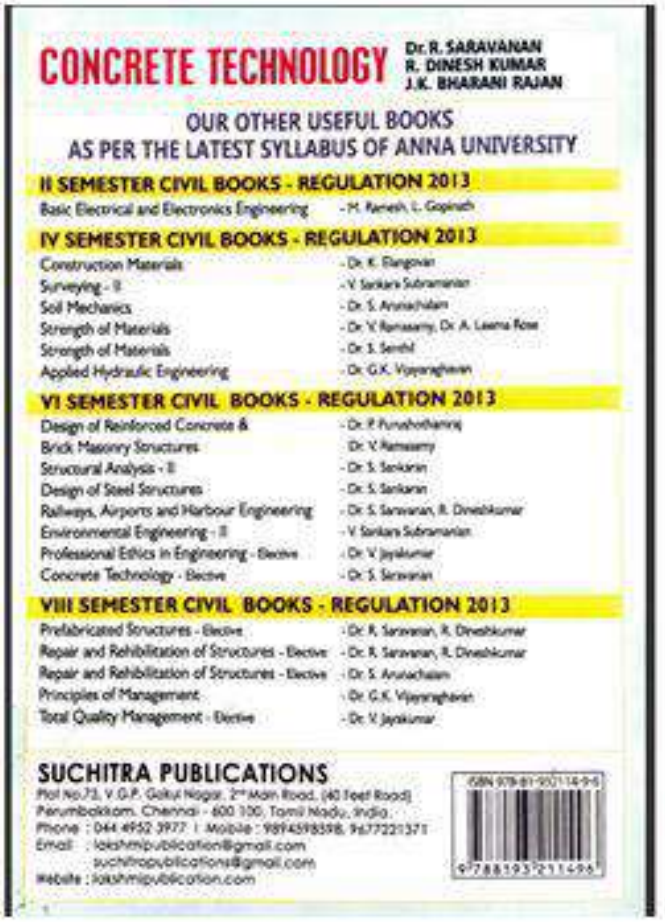

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CE058

EXPERIMENTAL INVESTIGATION ON PARTIAL REPLACEMENT OF CEMENT BY USING RICE HUSK ASH (PEDDY HUSK ASH)

M.Mohamed ilyas[1],S.Balamurugan[2],T.Mohamed halith[3],H.Mohamed irfhon[4],s.sameerudeen[1]
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ABSTRACT

In India rice milling produces a by product which is known as Husk. This husk is used as fuel in rice mills to produced steam for boiling process .This husk contain near about 75 % organic matter and the remaining 25% of this husk is modified into Ash during the firing process which know n as rice husk ash (RHA). The rice husk ash (RHA) contain near about 85 % to 90 % amorphous silica. By using rice husk ash in concrete , we can improve the properties of concrete. The current study and experimental investigation were taken to study the properties of concrete made with Rice husk ash . the replacement is done partially in the proportion of 0% ,20% and its effect on workability of concrete made with rice husk ash were investigated for the 20% rice husk ash replacement ,the hardened properties such as compressive strength observed were good as compare to 0 % RHA . The compressive strength test was conducted at 0 % and 20 % rice husk ash replacement and the highest compressive strength at 20 % RHA replacement as compared to 0% RHA replacement at 14 ,21 and 28 days. The emission of CO2 has increased due to cement manufacturing and improper disposal of rice hush ash (RHA) leads to air pollution and land fill problem. This Project presents the study of Rice Husk Ash and problems of disposal of the Marble of RHA are also sort out to some extent. Compressive strength test are conducted on RHA mortar. The cube with RHA in various percentage, then properties like compressive strength are studied. Compressive Strength Test will carry for all the mix proportions and for all the replacement For compressive strength test will testing for 7, 14 and 28 days for all the replacements. The study giving comparative results for mortar compressive strength test. In this project we use mortar proportion 1:3, 1:4 and 1:5.

Keywords: *Rice Husk Ash(RHA),Compressive strength, RHA size, mortar*

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CE059

EXPERIMENTAL STUDY ON PARTIAL REPLACEMENT OF CLAY USING BOILER ASH IN BRICKS

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[1]Assistant professor, [2,3]UG Scholar.

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ABSTRACT

High strength concrete (HSC) may be defined as concrete with specific characteristic cube strength between 60 and 100 N/mm2. In this experimental investigation, a brief review is made on high strength concrete by using mineral and chemical admixtures. Mineral admixtures, namely, fly ash and metakaolin were used. Superplasticizer (chemical admixture), namely, conplast SP 430 is also used in order to achieve good workability under lower water-cement ratio for high strength concrete of M60 grade. Mechanical properties of the admixed concrete is determined by replacing metakaolin (5%, 10%, 15%, 20%) and flyash (15%, 30%, 45%, 60%) in both binary combination and taking an optimum strength from both individual replacements to form a terinary combination to find a optimum strength at the age of 7 days and 28 days. Compressive strengths of all these mineral admixtures are compared at their individual replacements and combinations of various percentages to found out the optimum percentage replacements to achieve maximum strength. The beams were casted for control mix and obtained optimum mix and were tested to determine the Load – Deflection characteristics, peak load, first crack load, Crack and failure pattern were observed. Finally on influence of replacement of mineral admixtures on the fresh and hardened concrete, strength and durability aspects are reported and discussed and compare with the control mix.

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CE060

EXPERIMENTAL STUDY OF FIBRE REINFORCED CONCRETE

S.Kamaraj[1] , Surya Kumar.K[2], Tamilmani.K[3]

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ABSTRACT

This project investigated filler slab and hybrid natural composites.the filler slab is one of the alternate technology in construction industry.It can use the hybrid composite in filler slab it attain the light weight,low cost and low density with high strength.The fibre was treated with NaoH(0.1N) and Nacl(0.1N) solution to take away the light in content and progress the adhesion property. In this composites is fabricated by hand layup process with different fibre and various mechanical tests are conducted to the specimen

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CE061

COMPARITIVE STUDY ON PARTIAL REPLACEMENT OF SAND USING CRUMB RUBBER WITH CONVENTIONAL CONCRETE

V.Ishwarya[1] , Priya.L [2], Pavithra.K [3]

[1]Assistant professor, [2,3]UG Scholar,

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ABSTRACT

In this work, styrene butadiene crumb rubber latex is be used to produce polymer modified self compacting concrete. Also, polymer self-compacting concrete has good mechanical properties especially tensile strength. In the present study the mix design for M40 grade SCC was first carried out in accordance with EFNARC guidelines. The cement in SCC was partially replaced with 30% of Fly ash(FA) and 10% of Metakaolin(MK). Hook ended steel fibers were added with this mix of FA30 MK10 for various proportions of 0.5%,1%,1.5%,2% and the fresh properties and mechanical properties is studied. Further, the durability properties of concrete is tested. Presence of calcium in metakaolin induces corrosion effect on steel fibers. Research on the durability of steel fiber reinforced self-compacting concrete (SFRSCC) is still scarce, particularly in the aspects of corrosion resistance, which did not yet demonstrate clearly whether the corrosion of steel fibers may or may not lead to cracking and subsequent spalling of the surrounding concrete. In this research work, effect of polymer type, polymer dose, cement content, cement type, w/c ratio were studied. Latexes also found particular acceptance in reinforced concrete structures due to improved bond strengths with embedded steel bars as well as superior resistance to corrosion, chloride ion penetration, and oxygen diffusion. Addition of SBR latex in the form of construction chemical in concrete improves the various properties of NC, such as strength, adhesion, resilience, water tightness, chemical resistance and durability. This paper involves determining the optimum polymer dosage for increasing the compressive strength and split tensile strength, flexural strength by casting beam column joint.

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CE062

EXPERIMENTAL STUDY ON PARTIAL REPLACEMENT OF COCONUT SHELL AS COARSE AGGREGATE IN CONCRETE

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Dept of Civil, Kings College Of Engineeering, Punalkulam.

ABSTRACT

Textile industry is one of the most important and rapidly developing industrial sectors in India. It contributes to about 25% of total export earning of our country. But the dye pollutants from textile industries are important sources of environmental contamination. It has been reported that the textile wastewater is characterized mainly by high COD, suspended solids, dissolved solids, and chloride. The adsorption process is one of the effective methods for removal of dyes from the wastewater. The most widely used adsorbent is activated carbon, but the commercially available activated carbon is very expensive. Hence, the use of natural adsorbents in wastewater treatment has received increasing attention and currently offers a very attractive method for pollution remediation. Therefore our study aims to contemplate to propose a protocol, which could be used to compare the efficiency of different natural occurring adsorbents like coconut shell, saw dust, water hyacinth and sugarcane bagasse for the removal of pollutant from textile effluent. Our investigation site Tiruppur, has spurred up the textile industry in India for the past three decades. From this study, the dosage of 1.2g of Coconut shell was observed to be effective for COD & solid removal and thus making it a better option for removal of contaminants. Keywords-- Natural adsorbents, COD, water hyacinth, coconut shell, etc

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CE063

EXPERIMENTAL STUDY ON PARTIAL REPLACEMENT OF CEMENT BY GROUND GRANULATED BLAST FURNACE SLAGS(GGBFS)

K.Jeyashankari[1] , Shalini.A[2] , Sugapriya.B [3]

[1]Assistant professor, [2,3]UG Scholar.

Dept of Civil, Kings College Of Engineeering, Punalkulam.

ABSTRACT

The main objective of this paper is to determine the effect of silica fume and ground granulated blast furnace slag (GGBFS) on compressive strength, split tensile strength and durability behaviour on slurry infiltrated fibrous concrete(SIFCON). An experimental program was carried out with 10% fiber content and by replacing the cement with different percentages of silica fume(5%, 10%, 15%, 20%, 25%) and GGBFS (15%, 30%, 45%, 60%, 75%). The test result reveals that the incorporation of cementitious materials improve the strength as well as the durability nature of SIFCON. Also, the GGBFS replacement exhibit excellent performance in strength and durability when compared to silica fume replacement. This study recommends the use of GGBFS in the production of high strength slurry infiltrated fibrous concrete. Key words: SIFCON, Silica fume, GGBFS, Strength and durability

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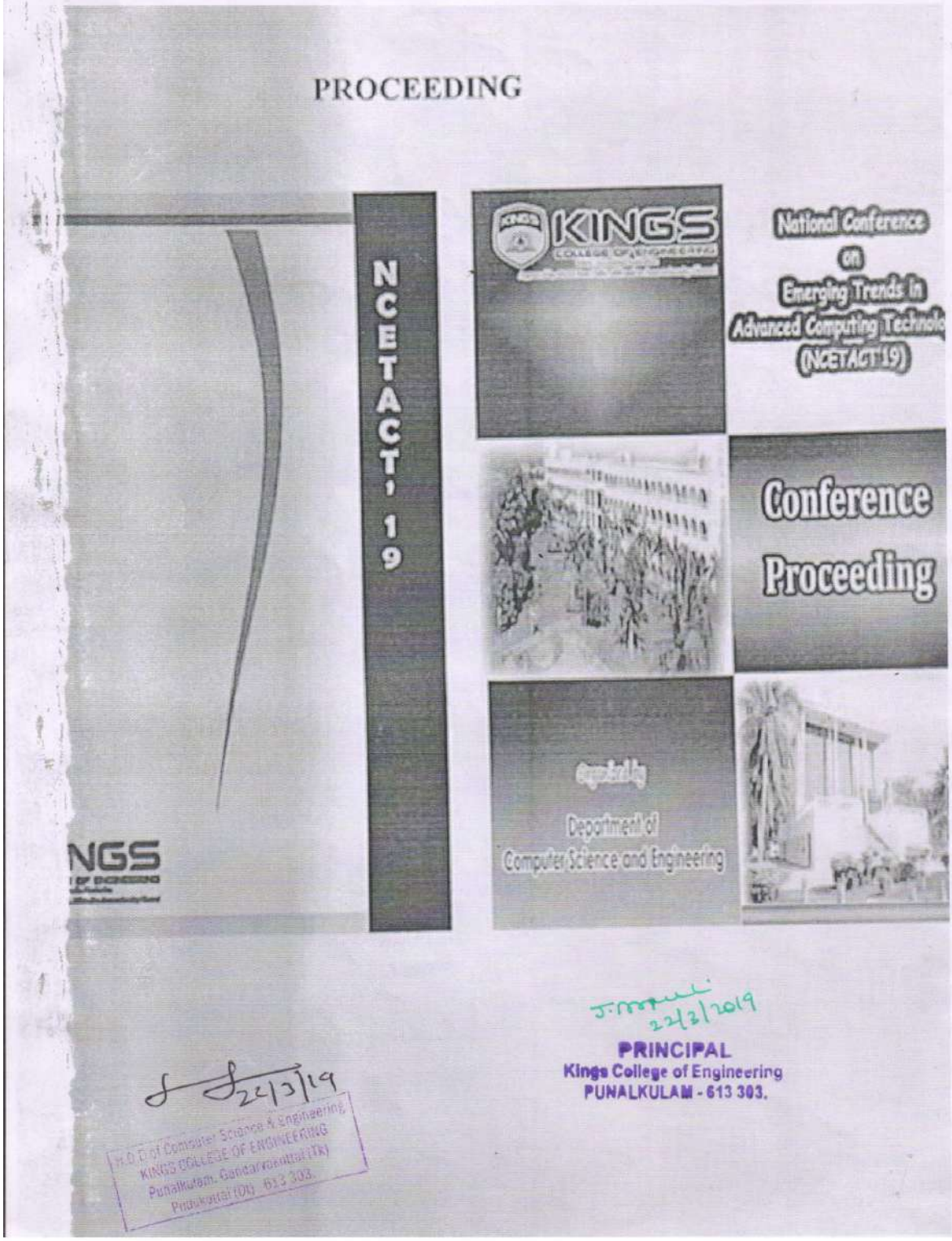

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AN INTELLIGENT SOLAR LED STREET LIGHTING SYSTEM

S. Rajarajan, R.Abinaya, P.Thenmozhi, A.vidhya Assistant Professor,UG Students,Department of Computer Science Engineering Kings College of Engineering, Thanjavur.

IJTCSE Research /ISSN 2349–1582 conference publication

Abstract -The street lighting system is safety and energy conservation are very important advantages of smart cities. Namely, the city street lamp is correlated with both safety and energy conservation. In this project to address the existing problems, a smart street lamp (SSL) based on decentralized computing for smart cities are proposed in this paper. The proposed SSL is dynamic brightness adjustment, all street lamps can be adjusted dynamically; autonomous alarm on abnormal states, each street lamp can report the abnormal status independently, such as broken, fault, and so on. The experimental results showed that proposed SSL can improve energy efficiency and reduce danger.
Keywords — Smart LED street light; Solar; Energy efficient; Street Lighting,

MULTI-VIEW FACIAL EXPRESSION RECOGNITION BASED ON GROUP SPARSE REDUCED-RANK REGRESSION

N.Deepa-Kings College of Engineering,Punalkulam.(ndeepamj@gmail.com)
E.Jeevitha-Kings College of Engineering,Punalkulam.(jeevitha2308@gmail.com)
M.Arun-AP-Kings College of Engineering,Punalkulam

Abstract:

In this paper, a novel multi-view facial expression recognition method is presented. Different from most of the facial expression methods that use one view of facial feature vectors in the expression recognition, we synthesize multi-view facial feature vectors and combine them to this goal. In the facial feature extraction, we use the grids with multi-scale sizes to partition each facial image into a set of sub regions and carry out the feature extraction in each sub region. To deal with the prediction of expressions, we propose a novel group sparse reduced-rank regression (GSRRR) model to describe the relationship between the multi-view facial feature vectors and the corresponding expression class label vectors. The group sparsity of GSRRR enables us to automatically select the optimal sub regions of a face that contribute most to the expression recognition. To solve the optimization problem of GSRRR, we propose an efficient algorithm using inexact augmented Lagrangian multiplier (ALM) approach. Finally, we conduct extensive experiments on both BU-3DFE and Multi-PIE facial expression databases to evaluate the recognition performance of the proposed method. The experimental results confirm better recognition performance of the proposed method compared with the state of the art methods.

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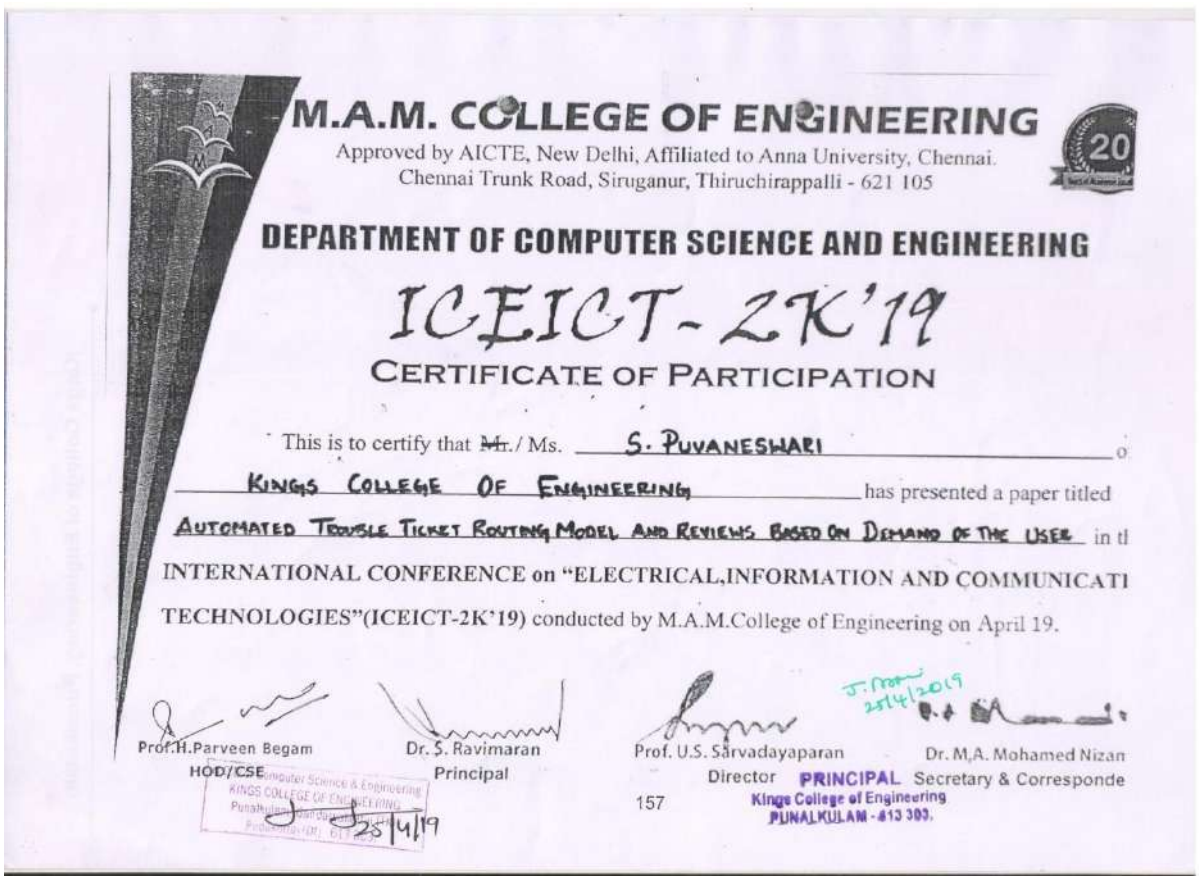

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EDGE COMPUTING BASED MANHOLE COVER MANAGEMENT

Mr.S.Rajarajan[1] M.E.,B.Jayaprakash[2] ,S.Nandhakumar[3],M.Tamilarasan[4], T.veeramani[5]

Assistant professor[1]

UG Student[2,3,4,5]

Department of computer science and engineering

Kings college of engineering,Thanjavur

Abstract: An intelligent manhole cover management system is one of the most important basic platforms in a smart city to prevent frequent manhole cover accidents. Manhole cover displacement, loss, and damage pose threats to personal safety, which is contrary to the aim of smart cities. This project proposes an edge computing-based intelligent manhole cover management system (IMCS) for smart cities.RFID tag with IR and vibration sensors is used for each manhole cover, and a ZigBee based microcontroller is adopted for communication. Meanwhile, edge computing servers interact with corresponding management personnel through remote devices based on the collected information.

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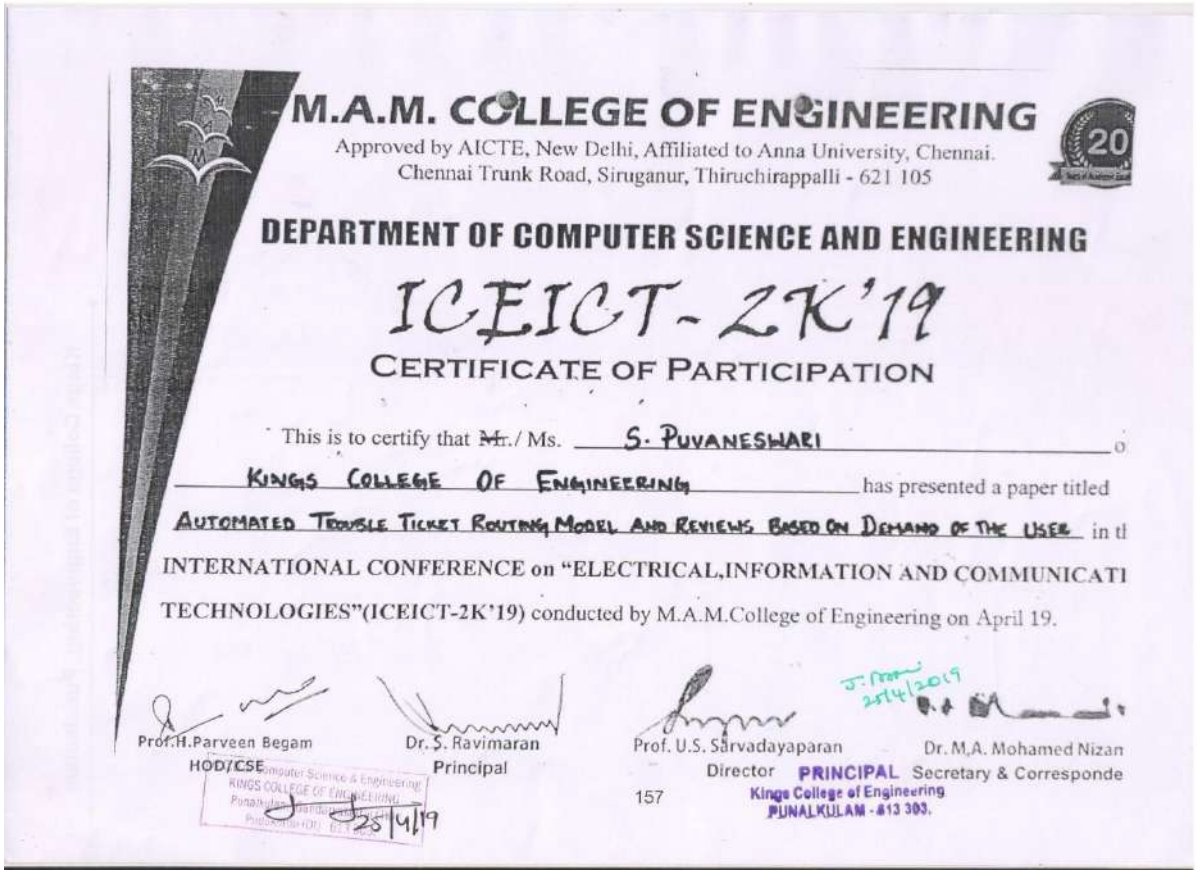

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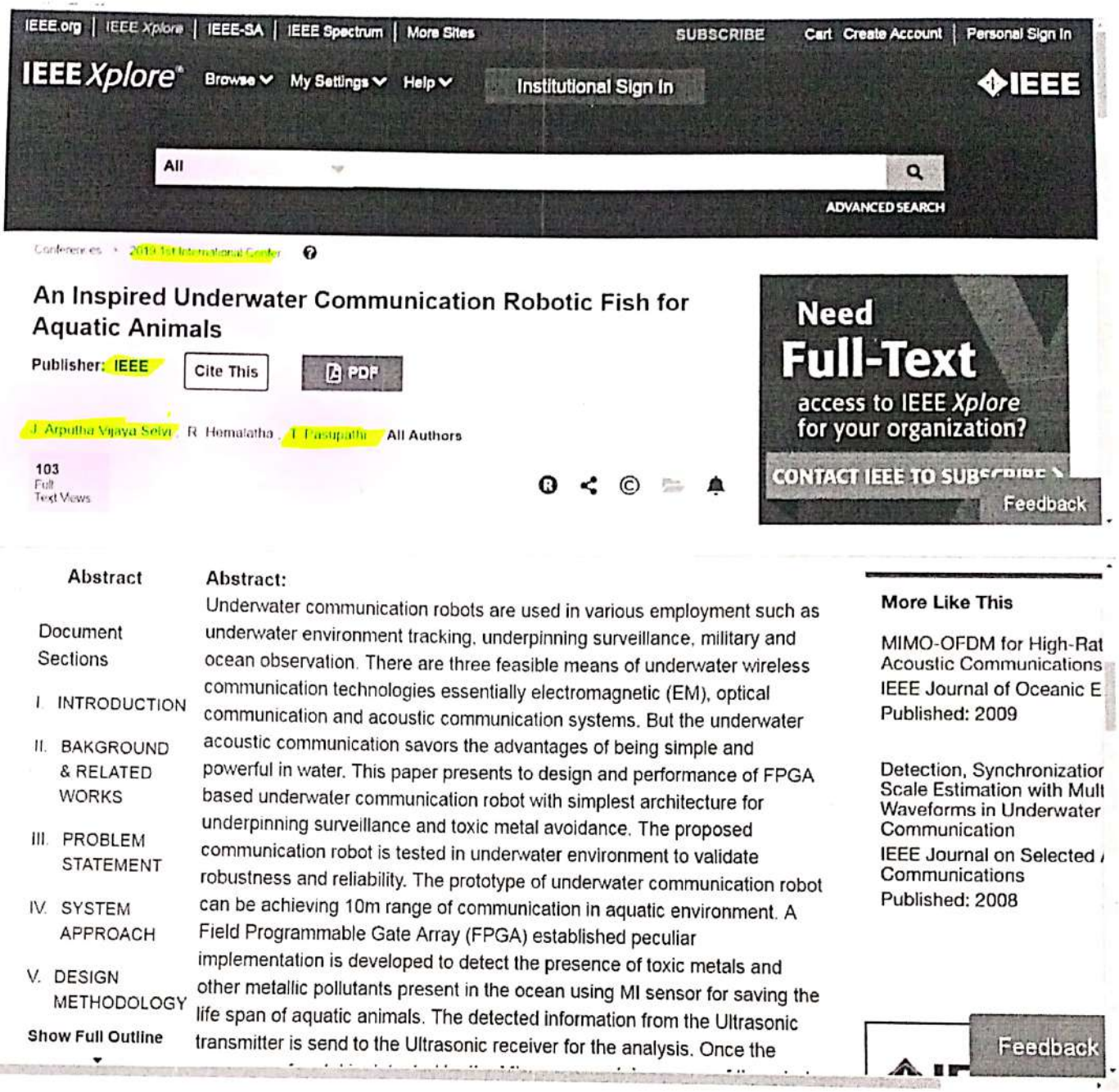

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Wavefront Compensation Technique for Terrestrial Line of Sight Free Space Optical Communication

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III. SYSTEM MODEL

IV. DESIGN METHODOLOGY

V. EXPERIMENTAL RESULT

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Abstract:

Free Space Optical Communication (FSOC) refers to an optical communication where unguided visible, infrared or ultraviolet light is used to carry the signal. In Wireless Optical Communication systems, optical signal is modulated and transmitted over the free space atmospheric channel. When the laser beam is propagating through the turbulent atmospheric channel it is heavily affected by various parameters. Generally, the intensity of the laser beam is greatly degraded by the phenomenon such as absorption and scattering effect due to natural atmospheric components namely gases, dust, smoke, precipitation, fog, rain etc. In other hand, the performance of FSOC is heavily affected by the fluctuation in the atmosphere. This fluctuation results in atmospheric turbulence effect such as beam wandering beam scintillation and wavefront aberration. Therefore, the performance of the FSOC is degraded by the atmospheric turbulence tremendously. Hence it is necessary to develop a suitable optoelectronic arrangements and algorithms to compensate the atmospheric turbulences. This paper shows the viability to improve the performance of FSOC by compensating the atmospheric turbulence effect. In this paper, a wavefront aberration compensation technique to mitigate the wavefront aberrations due to the channel is developed using the necessary opto electronic assembly. This paper mainly elaborates experimental implementation for

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Abstract:
In our country agriculture is a essential portion of financial changes. The gigantic number of general population it is enormously rigid to undertaking the foodstuff. A viewpoint to assurance the nourishment of remarkable laypeople is troublesome then again it is likewise hard to create sustenance thing for foodstuff where low measure of individuals and youthful age is additionally losing their interest on cultivating. This project describes fuzzy based robotic manipulator for advanced agriculture application to maintain the farm easily. An automation system can water the plants of a farm without the help of any human hand. This robotic manipulation have the options of planting seeds measuring soil moisture etc. To implement these features, robotic hand is controlled by fuzzy based computer numerical control with the help of FPGA. Motor and wheels are used to rotate the direction of robotic Arm. Therefore two motors are used to rotate the robotic arm in both X and Y axis and the stepper motor used to rotate the direction in Z axis. As the arm can move on three dimensional spaces, target purposes.

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Design and Implementation of Low Power Nanogrid with Intelligent Solar PV Utilization

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Abstract:
Fossil fuels such as diesel, petrol etc are currently used as the main source of energy in supplying our society. However, these sources cause serious damage to our climate and global system by emitting greenhouse gasses. This will cause the major drawbacks to increase the environmental pollution and also the maximum utilization of vehicles increases the cost of the fuel. This indirectly increases the cost of living. Only 10% of vehicle is used as electric vehicles and they are depending on conventional energy sources. In order to cope with global change a fundamental change towards an energy system based on renewable is needed. Our project focuses on harvesting the energy from renewable energy resources such as solar, wind , electromagnetic sources . Centralized electricity systems are being integrated by a multitude of small distributed generation clusters, called Nano grids, capable of ensuring full utilization of renewable energy. Renewable energy plays an vital role in harvesting such a sources there by protecting the environment. With this innovative technology give a great change in reduce the cost of the fuel. The FPGA controls the panel using MPPT algorithm and provides the maximum power. Using multiple panels we can run smaller vehicles.

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Measurement and Analysis of Human Body Communication for Bio-Medical Application

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J. DEEPIKA ; U. JEYAMALAR All Authors

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Abstract

Abstract:
Human Body Communication (HBC) is the medium to communicate transfer the health informatics by using human body tissue. The Body Area Network (BAN) requires promising physical layer solution. The human centric nature of HBC offers an innovative method to transfer the health care data, transmission requires low interference and reliable data link. HBC electrodes play a role of wireless antennas in other communication standards. In this paper, health monitoring device is designed, the health data collected from wearable sensors (worn on the body) and transmit it through human body to receiver device. The healthiness information is communicated via human to machine contact. By using HBC based wearable health monitoring system is utilizes propose restrains and signal convey distinctiveness can be calculated and evaluated in this system. Finally, calculation of reactance of capacitance among transmitter and receiver electrodes can be done successfully. In this paper is important issues related to HBC data transmission such as signal propagation model, communication performance, and experimental considerations is conducted and necessary results are presented.

Document Sections

I. INTRODUCTION

II. BACKGROUND & RELATED WORK

III. HBC SYSTEM DESIGN

IV. CAPACITIVE COUPLING METHODOLOGY

V. LABVIEW SOFTWARE

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Published in: 2019 1st International Conference on Innovations in Information and Communication Technology (ICIICT)

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Design and Implementation of Reconfigurable Architecture for Automatic Monitoring and Detection System for Tonsillitis

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Abstract

Document Sections

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III. OBJECTIVES AND SCOPE OF WORK

IV. SYSTEM DESIGN

V. PRPOSED SOFTWARE-BASED TONSILLITIS MONITORING SYSTEM

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Abstract:
Tonsillitis is the major problem for children and aged people. There exists a lack of doctors for frequently monitoring and detecting the Tonsillitis. Therefore, it is very important to develop an automated tonsillitis monitoring and detection system. In this project the design and implementation of automated tonsillitis monitoring and detection system using FPGA is proposed. An automated tonsillitis monitoring and detection system aims for separate use also provides portability, a compact size with reliable functionality. In this system a tonsillitis image of a person is acquired through camera and the image is processed for noise reduction. The preprocessed image is further processed to extract tonsil color and size by using boundary detection and feature extraction algorithm. At last, the three stages are determined using classifier. The execution of the proposed method is assessed by comparing the results of proposed experimental system with results of the doctors. The simulation results that shows the red color level of tonsillitis image for normal stage, early stage and final stage lies in the range of (224-243), (185-123) and (39-109) respectively.

Published in: 2019 1st International Conference on Innovations in Information and Communication Technology (ICIICT)

Date of Conference: 25-26 April 2019

Date Added to IEEE *Xplore*: 20 June 2019

ISBN Information:

INSPEC Accession Number: 18761385

DOI: 10.1109/ICIICT1.2019.8741496

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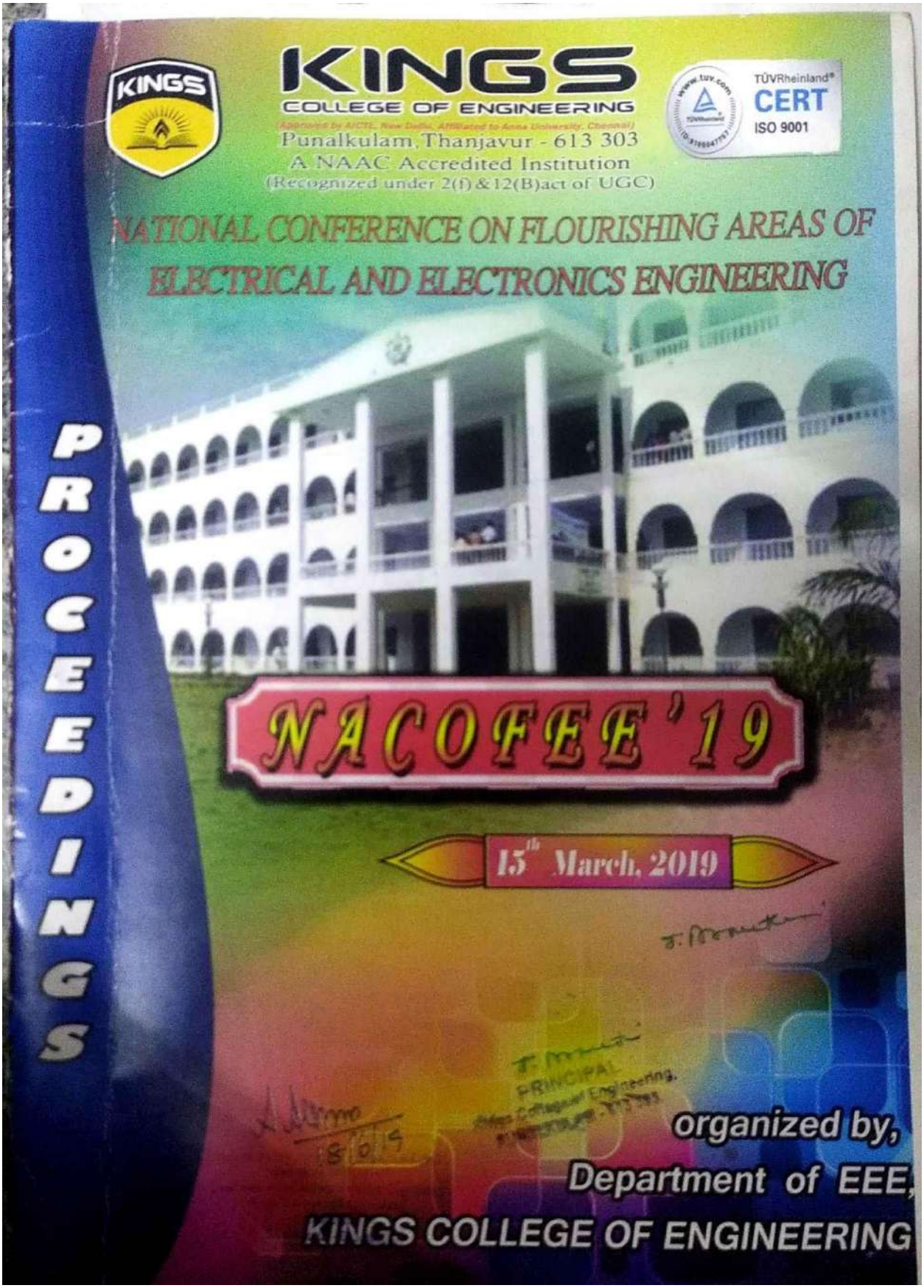
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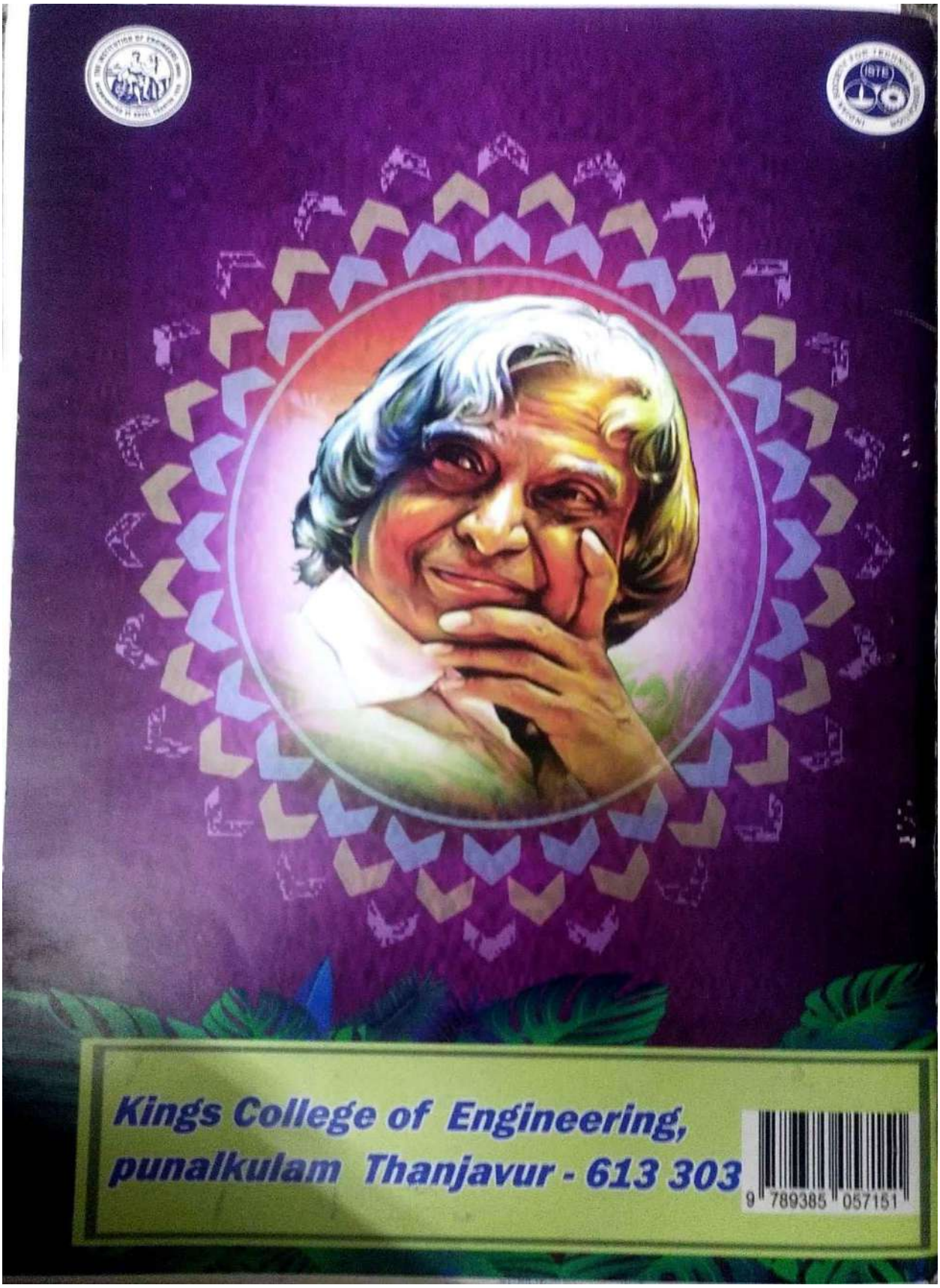
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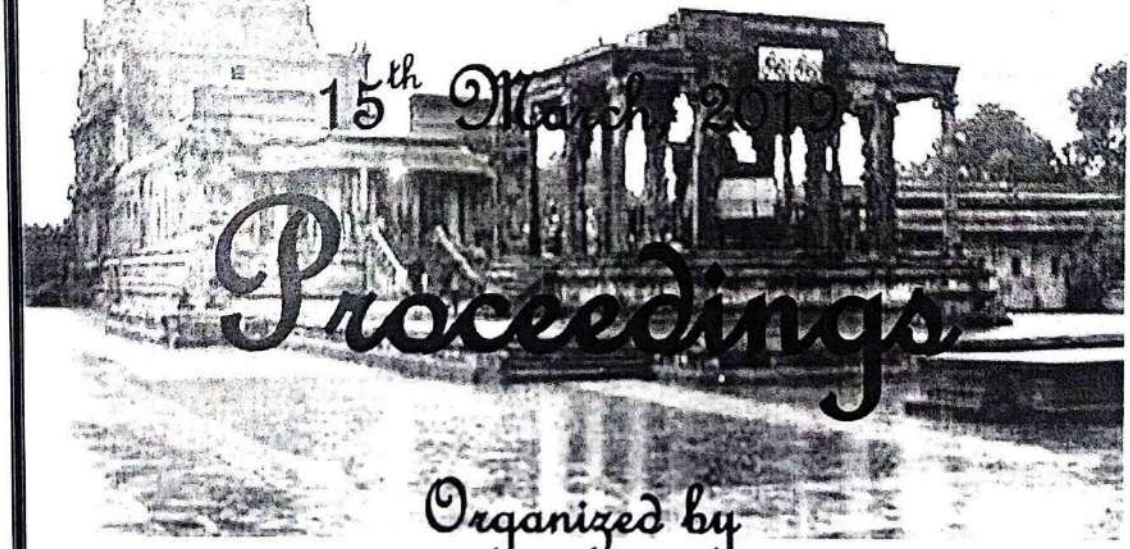

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ENERGY MANAGEMENT SYSTEM FOR INTEGRATED POWER SYSTEM

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Abstract—This system deals with the Energy Management System (EMS) for the smart-micro grid applications. This system obtains power from the PV panels, wind turbine, and diesel generation systems. The EMS relies on fuzzy control for the purpose of the optimization. The RS 485 zigbee network,a communication protocol employed for the purpose of communication to know about the generation status of the power generating systems. The EMS commands this system when to operate, as per the power availability, and load demand migration. Keywords—Energy Management System, Smart micro grid, fuzzy logic control.

F2WF SYSTEM USING AUTOMATION TECHNOLOGY

Dr.A.Albert Martin Ruban, Associate Professor
S.Shelaa ,K.Harini ,D.Kalaiyarasi
UG Students, B.E Final year
Department of Electrical and Electronics Engineering, Kings college of Engineering

Abstract - Vermicomposting is the process of breaking down biodegradable matter by earthworms to convert the contained nutrients in the organic matter to vermicast. In this paper, the proponents introduced the development of an automated production of vermicast. Four subsystems were designed namely: irrigation, sensor network, worm, and communication subsystem to minimize human intervention. The communication system involved the use of 2.4 Ghz. The study uses Arduino uno and Arduino mega microcontrollers, an android phone and liquid crystal display (LCD) for monitoring. The automated project improved the manual process of vermicomposting by eliminating 4 processes from the manual system.

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AUTOMATION IN PRECISION FARMIING USING ENCAPSULATED SEED AND MONITOR THROUGH IOT USING INTELLIGENCE SYSTEM WITH AN ARRAY OF SENSORS

Mr.S.Anbalagan, Mr.A.Mohamed Ameen, Mr.R.Dinesh, Mr.R.Pravesh, Mr.R.Dinesh Babu
Department of Electrical and Electronics Engineering,
Anjalai Ammal Mahalingam Engineering College (Affilated to Anna University)
Tiruvarur(dt),Tamilnadu ,India.)

Abstract— (1)To make a complete Organic farming.(2)To monitor the field and reduce Drudgery to the farmers.(3)To reduce the initial cost.(4)Our efforts is to take the traditional system of agriculture to the next level.(5)To reduce the usage of water in field.(6)we can monitor the sensor values and automate the pump in land.

DEVELOPMENT OF SOLAR BASED AGRIBOT USING WIRELESS TECHNOLOGY.

Sakthivel S[1], Dheerthi S[2], Divya K[3] , Nalini N[4]
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Abstract--The paper aims on the design, development and the fabrication of the robot which can plough and dispense the seeds. More than 40% of the population in the world chooses agriculture as the primary occupation, in recent years the development of the autonomous vehicles in the agriculture has experienced increased interest. The real power required for machine equipment depends on the resistance to the movement of it. Even now, in our country 98% of the contemporary machines use the power by burning of fossil fuels to run IC engines or external combustion engines. This evident has led to widespread air, water and noise pollution and most importantly has led to a realistic energy crisis in the near future. Now the approach of this project is to develop the machine to minimize the working cost and also to reduce the time for digging and seed sowing operation by utilizing solar energy to run the robotic machine. A concept is been developed to investigate if multiple small autonomous machine could be more efficient than traditional large tractors and human forces.

Keywords: Direct Current Motor; Infrared Sensors; Internal Combustion Engines; Special Purpose Vehicle.

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RECOGNITION OF VEHICLE AND CONTROL USING RASPBERRYPI AND IMAGE PROCESSING

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[3]J.Sharmila Devi, Assistant Professor, sharmeejeyam@gmail.com,
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[1,2,3] A.V.C. College of Engineering, Mayiladuthurai, Tamil Nadu, India

Abstract - Image processing is widely used in various fields such as organ imaging, imaging technology, development of instrumentation, computer aided study of geological areas, planet exploration etc,. The main objective of the paper is to demonstrate the use of image segmentation in traffic sign recognition using small computing environments such as Raspberry Pi and ARM processors. The objective of the proposed work is to implement the available technique to detect the stop board and red traffic signal for an autonomous car that takes action according to traffic signal with the help of raspberry pi3 board. Ultrasonic sensor at the back of the car will also reduce the problem of parking accidents because of unaware of the distance of the obstacles at the back of the car since system will get the distance of the obstacles without seeing it.

Keywords: Raspberry pi3, traffic signal detection, obstacle detection, python

WIRELESS POWER TRANSMISSION USING LPT TECHNOLOGY

[1]R.Baranika,[2]T.Akalya,[3]R.Shanthi, UG Students,
[4]Mr. C. Balaji, Assistant Professor
Department of EEE, Kings College of Engineering, Punalkulam, Thanjavur.

Abstract — *Laser Power* Transmission (LPT) is one of the most promising technologies in the long-range wireless power transfer field. LPT research has been driven by the desire to remotely power unmanned aerial vehicles (UAVs), satellites and other mobile electric facilities. However, the low overall efficiency is the main issue that limits the implement of high intensity laser power beam (HILPB) system. As seen from the contemporary understanding of efficiency of laser power transmission channel, the efficiencies of laser and PV array are the main limiting factors to the HILPB system from the perspective of power conversion. Thus, a comprehensive overview of LPT technology is presented from the point of efficiency optimization view in this paper. First, the basic principles of laser power transmission are briefly summarized. Then, a survey of the efficiency optimization methods for HILPB system with regard to the laser and PV technologies is provided in detail. Additionally, the open issues and challenges in implementing the LPT technology are discussed.

Index Terms—Laser, photovoltaic (PV), Gaussian beam, Optical propagation, Efficiency, Wireless Power Transmission.

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A SOLUTION FOR CUSTOMER SECURITY IN INDIAN CABS WITH ARDUINO MICROCONTROLLER

[1]K.Nithya and [2]R.Sindhu, PG Students,
[1,2]Kings College of Engineering, Punalkulam, Thanjavur

Abstract— This Paper deals with the development of an interactive app which functions as a Cab Booking System for customers to smoothly book cabs for travel with some advanced features that are namely accident avoidance and detection system, customer and driver feedback system. This proposed system designed with android and hardware interfaced as user friendly in briefly it explains about hardware which contains obstacle detection and accident detection sensors. This application contain some latest cab booking features like, customers can view available cabs, booking the cabs after verifying cost, driver experience, last travelling time of driver with previous customer feedback etc.,. This Application based management system is designed to handle the entire primary Information required to manage the whole data. Separate database is maintained to handle all the details required for the correct statement calculation and generations. This Paper intends to introduce more user-friendly approach in the various activities such as record updating, maintenance and searching.

IMPLEMENTATION OF SYSTEM FOR MINIMIZINNG USAGE OF GROUND WATER IN IRRIGATION BY USING SOLAR POWER&MICROCONTROLLER

Mr.S.R.Karthikeyan[1], Mr.M.Veeramani[2], Mr.B.Rohinth[3], Mr.S.Mohanraj[4]
[1]Assistant Professor, [2,3,4] Students, Department of EEE, Kings College of Engineering

Abstract— Now a days, renewable energy sources are used for generating electric power. Among all the renewable energy sources, solar energy is easily available in most of the tropical region and it can be converted into electrical energy with the use of photovoltaic panels. In certain rural areas, where the electric power is not available from electricity board, solar energy can be used effectively for many purpose. In most of the remote places, majority of the people involve in cultivation. For cultivation, they need water which can be sucked out from the earth with the use of electric motor. So that they need electric power to run the motor but electricity is not available from electricity board. If possible, electricity is available, there is a frequent stoppages in that. So the farmer can't water their fields properly which reduces the cultivation of plants. Our solar based inverter less automatic irrigation and lighting system helps in watering the plant or whole field automatically and effectively with the use of microcontroller.

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 ISBN: 978-93-85057-15-1

HIGH STEP UP INTERLEAVED BOOST CONVERTER FOR DISTRIBUTED GENERATION USING RENEWABLE AND ALTERNATIVE POWER SOURCES

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Abstract - This paper proposes a novel high step-up interleaved boost converter suitable for distributed generation using renewable and alternative power sources. The proposed interleaved boost converter not only lengthens the lifetime of the renewable power source by reducing the input-current ripple but also achieves high step-up conversion. Hence, large voltage spikes across the main switches are alleviated and the efficiency is improved. Finally, a prototype circuit with an input voltage of 48 V, an output voltage of 380 V and an output rated power of 3.5 kW is implemented and tested to demonstrate the functionality of the proposed converter. Moreover, satisfying experimental results are obtained and discussed in this paper; the measured full-load efficiency is 94.7%, and the highest measured efficiency of the proposed converter is 97.3%.

BORDER DEFENCE SYSTEM BY USING INVISIBLE TANKER IN BATTLE FIELD

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Abstract-As the potential for disastrous consequences from threats increases in prevalence, the speed which such cyber threats can occur presents new challenges to understandings of self-defense. This paper first examines the prevention of threats nations could face. It next looks at existing concepts of self-defense with particular focus on anticipatory and pre-emptive self-defense, and then moves to a review of the underlying criteria which govern the right to resort to such actions. Highly sophisticated electronic sensors attached to the tank's hull will project images of the surrounding environment back onto the outside of the vehicle enabling it to merge into the landscape and evade attack . The electronic camouflage will enable the vehicle to blend into the surrounding countryside in much the same way that a squid uses ink to help as a disguise . Unlike conventional forms of camouflage, the images on the hull would change in concert with the changing environment always insuring that the vehicle remains disguised.

18/6/19

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 ISBN: 978-93-85057-15-1

MEDICAL MONITORING USING LI-FI TECHNOLOGY

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Abstract - Constant monitoring of patient's health condition in hospital is either manual or wireless fidelity (Wi-Fi)-based system. Wi-Fi-based system becomes slow in speed due to exponentially increased scalability. In this scenario, light fidelity (Li-Fi) finds the places wherever Wi-Fi is applicable with additional features of high speed data network. Apart from the speed factor, Li-Fi is more suitable in hospital application for monitoring the patient's conditions without frequency interference with human body. This paper proposes an application of Li-Fi network in the hospital for monitoring the patient's conditions such as temperature, pressure, heartbeat, glucose level, and respiratory conditions using respective sensors. The collected data from the sensors is transmitted to the sink, and further these data are processed using microcontroller and sent to display unit in the form of graphs or charts. Based on the concept of visible light communication, a prototype model is built with the PIC microcontroller and basic sensors as peripherals and tested it's working. Thus, the application of Li-Fi as a health monitoring system demonstrated experimentally.

WIRELESS POWER TRANSMISSION

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Abstract - The transmission of electrical energy from source to load for a distance without any conducting wire or cables is called Wireless Power Transmission. The concept of wireless power transfer was realized by Nikola Tesla. Wireless power transfer can make a remarkable change in the field of the electrical engineering which eliminates the use conventional copper cables and current carrying wires. Day by day new technologies are making our life simpler. Wireless charging through resonance could be one of the next technologies that bring the future nearer. In this project it has been shown that it is possible to charge low power devices wirelessly via inductive coupling. It minimizes the complexity that arises for the use of conventional wire system. In addition, the project also opens up new possibilities of wireless systems in our other daily life uses.

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A TWENTY ONE LEVEL INVERTER WITH REDUCED NUMBER OF SWITCHES USING PV RENEWABLE ENERGY SOURCES

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Abstract – A new model multilevel inverter for generating 21 voltage levels has been proposed in this paper. A multilevel inverter topology with PWM techniques and each cell of conventional PV voltage added with multilevel inverter structure by additional switch and voltage source to obtain high voltage level. The objective of this project is to enhance the voltage level at the output with reduced number of switches. To improve the output voltage level and the pulse width modulation (PWM) techniques. The advantage of proposed topology is to reduce the circuit complexity and also reduced numbers of switches, gate driver circuits, lower EMI and less Harmonic distortion in the inverter output voltage. The converter topology uses the midpoint voltage of the dc link to provide two more output voltage levels, decreasing switching power losses and EMI. The results of proposed 21-Level multilevel Inverter are shown using MATLAB/SIMULINK software. The conventional control methods are mainly restricted to the direct and indirect control of the inverter.

IMPLEMENTATION OF DC-DC CONVERTER WITH HIGH FREQUENCY TRANSFORMER (DHFT) IN AC/DC MICROGRID

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Abstract-In this paper, DC/DC converter with High Frequency Transformer (DHFT) is proposed to replace the conventional bulky transformer for bus voltage matching and galvanic isolation. Various DHFT topologies have been compared and CLLC-type has been recommended due to its capabilities of bidirectional power flow, seamless transition and low switching loss. DHFT are designed in order to maximize the conversion efficiency and minimize output voltage variations in different loading condition. This paper presents a series-connected high frequency DC/DC converter connected to a DC micro-grid system to provide auxiliary power for lighting, control and communication in a DC light. Three converters with low voltage and current stresses of power devices are series-connected with single transformers to convert a high voltage input to a low voltage output for a DC light. Thus, Metal-Oxide-Semiconductor Field-Effect Transistors (MOSFETs) with a low voltage rating and a turn-on resistance are adopted in the proposed circuit topology in order to decrease power losses on power switches and copper losses on transformer windings. Lab-scale prototypes of the DHFT and hybrid AC/DC micro-grid have been developed for experimental verifications. A small hybrid grid will be modeled and simulated using MATLAB.

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 ISBN: 978-93-85057-15-1

IMPLEMENTATION OF DC-DC CONVERTER FOR ENERGY MANAGEMENT SYSTEM USING WIRELESS SENSOR NETWORK

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Abstract-This paper proposes a dc-dc converter for energy management system using WSN (Wireless sensor network). This proposed converter has the ability to controlling the electrical power of loads. The WSN is used for cost efficient monitoring and controlling over the geo location. The main aim is to provide low cost and flexible operation. Increasing power consumption is becoming a huge problem. This research helps to users and power distribution centre to manage the power in an efficient manner. For controlling the parameters, it sends intimation to the user when the parameter exceeds their predefined values. To provide a high degree of security user or authenticator ID is given by server to consumers. Due to ID users only access their corresponding loads. In this paper, microcontroller is employed to interface a digital signal with WSN.

LANDSLIDE WARNING AND MONITORING SYSTEM THROUGH SMARTPHONE BY USING OPTIMIZED SOLAR POWERED WIRELESS SENSOR NETWORK

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[4]R.pragadeesh, [5]Dr.P.Avirajamanjula
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PRIST University, Vallam, Thanjavur.

Abstract -Landslides cause significant damages to civil infrastructure. Over the years, methods and technologies have been proposed to determine the risk of landslides and to detect hazardous slope movements. There have been increasing interests in developing and landslide monitoring systems to observe movements using sensors installed on the slope. Although providing accurate data, many landslide monitoring systems are not operating in an automated fashion and lack the ability to analyze the collected data in a timely manner. This paper presents an autonomous landslide monitoring system based on wireless sensor networks by using IOT. Self-contained, autonomous software programs ("software agents") are embedded into the wireless sensor nodes. In cooperation with each other, the software agents are continuously collecting and analyzing sensor data, such as recorded ground acceleration and the orientations of the sensor nodes along the slope. If movements are observed, the collected data sets are automatically transmitted to a connected server system for further diagnoses. Sensors are powered by solar energy.The landslide monitoring system presented in this paper is remotely accessible via Internet and provides near-time information about the current state of the monitored slope. Laboratory tests have been conducted to validate the reliability and the performance of the monitoring system.

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AVIATION ACCIDENT SAFETY SYSTEM USING ARTIFICIAL INTELLIGENCE

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Abstract - An escape crew capsule is an escape capsule that allows one or more occupants of an aircraft to escape from the craft while it is subjected to extreme conditions, such as mechanical error, firing etc. The contribution is dealing with the issue of air transportation safety in view of the potential causes resulting in air accidents and their prevention.

POWER QUALITY IMPROVEMENT IN DISTRIBUTION SYSTEM USING UNIFIED POWER FLOW CONTROLLER

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Abstract: — The Unified Power Flow Controller (UPFC) is a typical FACTS (Flexible AC Transmission Systems) device that is the most sophisticated and complex power electronic equipment and has emerged for the control and optimization of power flow and also to regulate the voltage in electrical power transmission system. This project propose the real, reactive power and voltage control through a transmission line by placing UPFC at the sending end using computer simulation. The control scheme has the fast dynamic response and hence is adequate for improving transient behavior of power system after transient conditions. When no UPFC is installed, real and reactive power through the transmission line cannot be controlled. A control system which enables the UPFC to follow the changes in reference values like AC voltage, DC voltage and angle order of the series voltage source converter is simulated. In this control system, a generalized pulse width modulation technique is used to generate firing pulses for both the converters. Simulations will be carried out using MATLAB/PSCAD software to check the performance of UPFC.

Keywords: - UPFC, FACTS, Power Quality, Transient, Control.

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EFFICIENT WIRELESS COMMUNICATION SYSTEM FOR SMART GRID MONITORING

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Abstract - Economy as well as power system, reliability and safety issues of power system have been more important. Development of distribution Transformer Health Monitoring System (THMS) has been done in that reason. Distribution transformer is the most vital asset in any electrical distribution network and therefore it needs special care and attention. This THMS can monitor the health status of the distribution transformer in real time aspect. As a large number of transformers are distributed over a wide area in present electric systems, it's difficult to monitor the condition manually of every single transformer. So automatic data acquisition and transformer condition monitoring has been an important issue. This project presents design and implementation of a mobile embedded system to monitor load currents, over voltage, transformer oil level and oil temperature. The implementation on-line monitoring system integrates Global Service Mobile (GSM) Modem, with single chip microcontroller and sensors. It is installed at the distribution transformer site. The output values of sensors are processed and recorded in the system memory. System programmed with some predefined instructions to check abnormal conditions. If there is any abnormality on the system, the GSM module will send SMS (Short Message Service) messages to designated mobile telephones containing information about the abnormality according to the aforesaid predefined instructions. This mobile system will help the utilities to optimally utilize transformers and identify problems before any catastrophic failure occurs. This system will be an advanced step to the automation by diminishing human dependency. As it is a wireless communicating system, there is no need of large cables which are of high cost. Thus THMS offers a more improved transformer monitoring.

Keywords—GSM; Transformer health monitoring; Microcontroller; Embedded System; Transformer.

DESIGN OF SOLAR TREE

D.George Nithish Raj, S.Hari Haran, A.Ganesh Kumar
Arasu Engineering College

Abstract - This paper deals with design of solar tree is a new solar technology that emulates how trees convert sunlight into energy. Trees, shrubs and plants use an inherent structural design to expose their leaves, height dense to sunlight for photosynthesis. Flat or roof top mountings of PV systems require large area or land. Scarcity of land is greatest problem in cities and even in villages in India. Solar Power Tree provides better alternative to flat mounting of PV systems. For domestic lighting and other applications use of Solar Tree is more relevant when PV system is to be used. Demand for energy is increasing with each period, to fulfill the required demand we must have to concentrate on utilizing non conventional sources of energy. Energy from the Sun is the best alternatives among the renewable energy sources.

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ENERGY MANAGEMENT SYSTEM FOR INTEL BUILDINGS USING GRID CONNECTED SYSTEMS

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Abstract—Buildings are the major factor of power demand because, they consumes 40% of total power in a systems. So, Demand Side Management (DSM) is a promising technology for power balancing in future energy systems. To avoid or delay large investments in grid infrastructures and storage facilities we have an idea i.e., Energy management using grid connected sources Smart buildings provide customers with information on various services and allow them to track the impact of their resource consumption on the overall sustainability of their buildings. Energy management is one of the most demanding issues within such urban centers owing to the complexity of the energy systems and their vital role. This project introduces a theoretical planning and operation models within the smart buildings by classifying roles demand side management (DSMs) into main intervention areas: parameters and temperature constraints, tracking human, energy prices, regulatory constraints and energy demand. More-complex building energy models integrating more than one intervention area are also reviewed, outlining their advantages and energy demand, existing trends and challenges, and some relevant applications. Finally, a methodology for developing an improved energy model in the smart buildings context is proposed, along with some additional final recommendations

Keywords: Intelligent building, load shedding, grid, PIR, Human detection, LDR, temperature sensor.

POLY HOUSE FOR OPTIMAL GROWTH OF PLANTS

S.Atchaya, S.Siva Ranjani,R.Jeevitha
Arasu Engineering College

Abstract - The major concept of this project is to create a favorable atmosphere for the growth of the crop by providing control over the atmospheric parameters within a polyhouse farm with respect to the outer environment using automation. Polytunnel are basically naturally ventilated climate controlled. Polytunnel have a variety of applications the majority being ,growing of vegetables floriculture,and planting material acclimation,fruit crop growing for export market. Polytunnel are built of a pre-galvanized cum tubular structure where in crops are grown under a favorable controlled environment and other condition via temperature, humidity, light intensity, soilmedia, irrigation, fertilization, fustigation, and other agronomical practices through out the season irrespective of the natural conditions outside. The work will be benefical for rural areas. Polyhouse are available in different size and constructed as per customer requirement the size vary from as small as 100sq.m to 10,000sq.m and more.

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in the Second INTERNATIONAL CONFERENCE ON INNOVATIONS IN ENGINEERING TECHNOLOGY AND SCIENCE (ICIETS - 2018) held on March 13th & 14th 2018 .

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SOLAR BASED INVERTERLESS AUTOMATIC IRRIGATION AND LIGHTING SYSTEM USING MICROCONTROLLER

Mr.S.R.Karthikeyan1, Mr.J.Arokiaraj2, Ms.S.Sowmiya3, Ms.S.Krithika4
1, 2 Assistant Professor, Department of EEE, Kings College of Engineering.
3, 4 Students, Department of EEE, Kings College of Engineering.

Abstract — Nowadays, renewable energy sources are used for generating electric power. Among all the renewable energy sources, solar energy is easily available in most of the tropical region and it can be converted into electrical energy with the use of photovoltaic panels. In certain rural areas, where the electric power is not available from electricity board, solar energy can be used effectively for many purpose. In most of the remote places, majority of the people involve in cultivation. For cultivation, they need water which can be sucked out from the earth with the use of electric motor. So that they need electric power to run the motor but electricity is not available from electricity board. If possible, electricity is available, there is a frequent stoppages in that. So the farmer can't water there fields properly which reduces the cultivation of plants. Our solar based inverter less automatic irrigation and lighting system helps in watering the plant or whole field automatically and effectively with the use of microcontroller. There is no need of electricity from electricity board because solar acts as a source of energy. This system is an automated one and the actions taken by the controller is send to the farmer's mobile with the use of GSM modem.

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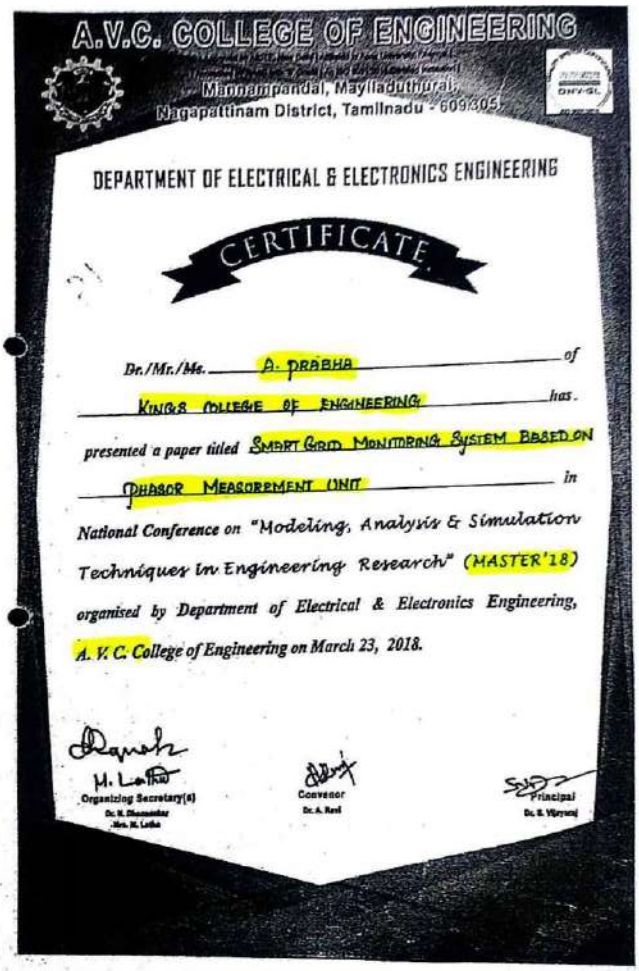

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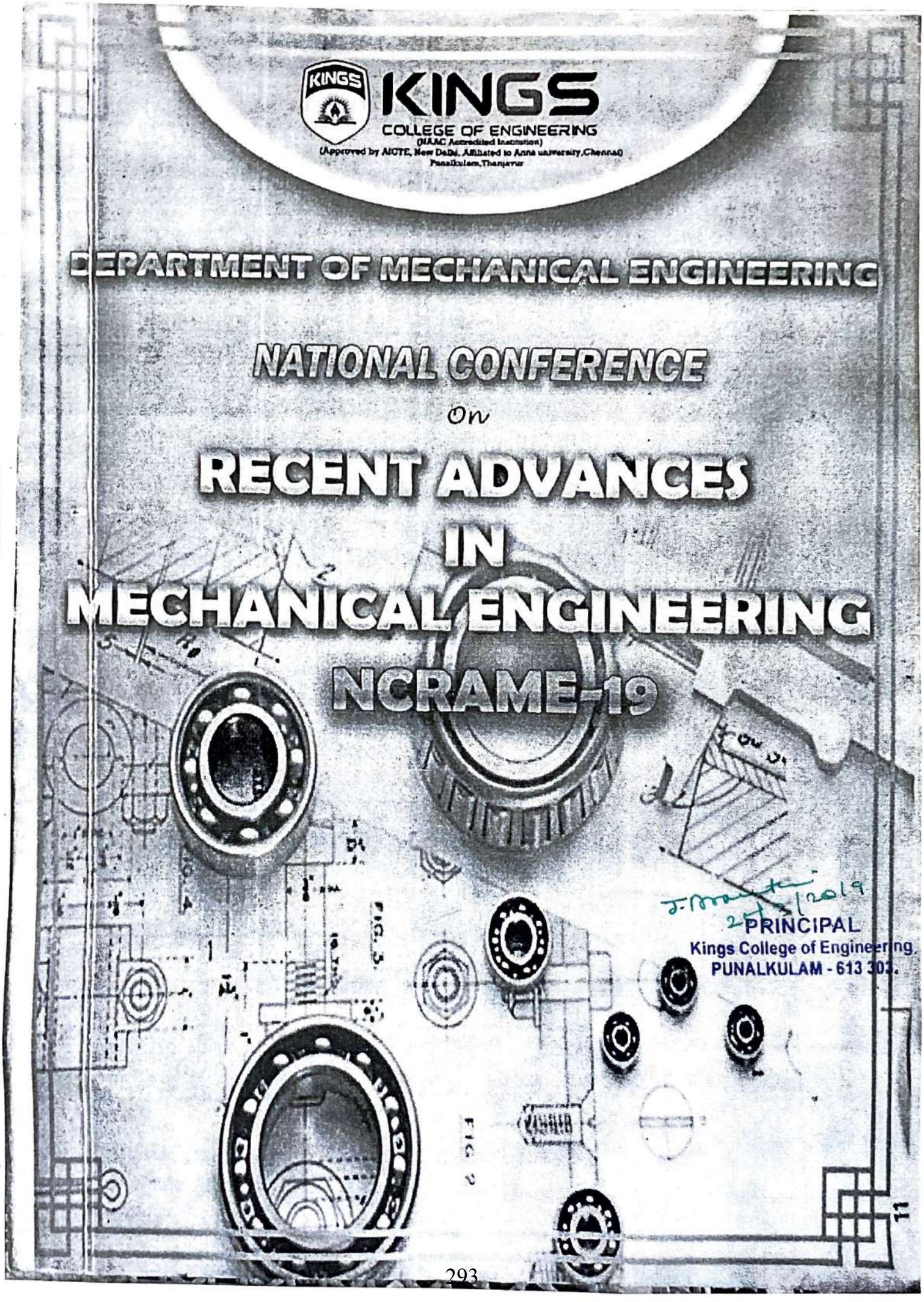
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ISBN: 978-93-85057-16-8

ISBN 978-93-85057-16-8

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PERFORMANCE AND EMISSION OF C.I ENGINE USING BIOFUEL WITH ADDITIVES

H.Agilan, S.Rajeev, S.Srinath and M.Venkateshan
Department of Mechanical Engineering, Kings College of engineering.

Abstract:

Nowadays the need of alternative fuels is only great demand in automobile industry, because the conventional fuel like petrol and diesel are in the list of extinction. They were mostly taking out from the earth. This condition will create great demand in the automobile industry since most of the vehicles in this society runs by IC engines. So addition of biofuel (Jojoba oil) and chemical additives (one pentanol) in this conventional fuel will increase the efficiency and also reduce the exhaust pollutants. These fuel and chemical additives will create some chemical bond with the conventional fuels according to the chemical properties and may also increase the efficiency of the CI engine. The conventional fuel pure diesel is mixed with jojoba oil in the ratio of 20%, 40%, 60%, 80%, 100%and additive as one pentanol added 5ml in the experiment.

The performance parameters of the engine as well as exhaust emissions, when lower blends of jojoba oil were used with and without preheating. Both low and high concentrations of ethanol were studied. Ethanol concentrations were varied at 3%, 5%, 15% and 25% in biodiesel–diesel–ethanol (BDE) observed that the increase in compression ratio, injection timing and injection pressure increase the performance with lower emissions for pungam methyl ester as compared to diesel. simulation of a four-stroke engine with variable stroke-length and compression ratios. The results concluded that the indicated power of the engine has increased up to 62% over that of the ordinary constant-stroke engine and lower engine speed.

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ISBN: 978-93-85057-16-8

MECHANICAL PROPERTIES OF REINFORCED FIBER METAL LAMINATES

P.P.Shantharaman, G.Siddharthan, P.Venkateshkumar, V.Vijay, R.Sivasurya
Department of Mechanical Engineering. Kings College of Engineering.
Thanjavur, Tamil Nadu, India

Abstract

Fiber metal laminate (FML) are an advanced hybrid material composition consisting of metal layers bonded with reinforced polymer layers. Their most outstanding characteristic is exceptional fatigue resistance. In this work aluminium based fiber metal laminate fabricated. The FML'S fabricated comprise of two layers of unidirectional glass bonded with treated aluminium sheets of 1.05 mm thickness. Epoxy resin along with the hardener in the ratio 10:1 is used as a matrix material. FML plates are fabricated at room temperature and constant pressure by hand layup technique. The specimens in accordance with ASTM standard are prepared with cross ply orientation of glass fiber.

The objective is to evaluate the mechanical characteristics of FML. The various test such as tensile test, bending test, and hardness test are conducted to predict the mechanical behavior of FML's fabricated.

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ISBN: 978-93-85057-16-8

GREY RELATIONAL ANALYSIS TO DETERMINE THE OPTIMUM PROCESS PARAMETERS FOR CYLINDRICAL GRINDING PROCESS ON OHNS (AISI 0-1) STEEL ROUNDS

***M.Melwin Jagadeesh Sridhar**
Department Of Mechanical Engineering, Kings College of Engineering, Thanjavur.

Abstract

This study aimed to use the grey-relational analysis method to assess optimum parameter on Cylindrical grinding process and it is the important metal cutting processes used extensively in the finishing operations. Metal removal rate, Heat generation and machining time are the most important output responses in the production with respect to quantity and quality respectively. OHNS steel is a commonly preferred material for manufacturing of automotive components, Die blocks, fasteners and cutting tools. Surface quality is very important performance factors to be considered in grinding process.

In this research activities that include experimental work and statistical analysis help in improving quality standards of manufactured components. Surface quality of OHNS steel after machining process is proposed to be studied in this project using L9 orthogonal array having three levels and three input parameters. The input parameters considered in this study are work speed, depth of cut and number of pass and the response parameters are higher mrr, lower machining time and least heat generation during machining process and minimum tool wear. After conducting experiment, it is optimized by S / N ratio and analyzed by ANOVA and predicted that work speed is a dominating parameter for higher metal removal rate, lower machining time and least heat generation of cylindrical grinding.

Keywords: *Cylindrical Grinding, OHNS, Surface Roughness, S/N ratio, optimization, ANOVA.*

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ISBN: 978-93-85057-16-8

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PERFORMANCE AND EMISSION CHARACTERISTIC OF ICENGINE USING CUCURBITA PEPO L. AND ZEA MAYS BIO DIESEL BLEND

B.Vishnu Dr.T.Pushparaj

PG Scholar,Department of Mechanical Engineering. Kings College of Engineering. Thanjavur, Tamil Nadu .India

Abstract

In recent years, the acceptance of fatty acid methyl esters (biodiesel) as a substitute to petroleum diesel has rapidly grown in India. The raw materials for biodiesel production in this country mainly include traditional seed oils (cotton seed oil, sunflower oil, soybean oil and rapeseed oil) and used frying oils. In the search for new low-cost alternative feed stocks for biodiesel production, this study emphasizes the evaluation of cucurbita pepo l. and zea maysseed oil. The experimental results showed that the oil content of cucurbita pepo l. and zea maysseeds were remarkably high (45%). The fatty acid profile of the oil showed that is composed primarily of linoleic, oleic, palmitic and stearic acids. The oil was chemically converted via an alkaline transesterification reaction with methanol to methyl esters, with a yield nearly 97.5 wt%. All of the measured properties of the produced biodiesel met the current quality requirements. Although this study showed that cucurbita pepo l. and zea mays oil could be a promising feedstock for biodiesel production within the India, it is rather difficult for this production to be achieved on a large scale.

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ISBN: 978-93-85057-16-8

25/3/19

PERFORMANCE AND EMISSION STUDIES ON AN AGRICULTURE ENGINE ON KARANJA BIO DIESEL WITH DIETHYL ETHER ADDITIVE

T.Pushparaj[1]

[1]*Department of Mechanical Engineering. Kings College of Engineering. Thanjavur, Tamil Nadu .India*

Abstract

The idea of using vegetable oils as fuel for diesel engines is not new. With the advent of cheap petroleum, appropriate crude oil fractions were reined to serve as fuel and diesel fuels and diesel engines evolved together. In the 1930s and 1940s vegetable oils were used as diesel fuels from time to time, but usually only in emergency situations. Recently, because of increases in crude oil prices, limited resources of fossil oil and environmental concern there has been a renewed focus on vegetable oils and animal fats to make biodiesel fuels. Diesel engines have proven their utility in the transportation, agriculture, and power sectors in India. Concerns on the long-term availability of petroleum diesel and the stringent environmental norms have mandated the search for a renewable alternative to diesel fuel to address these problems.

In this study, performance tests were carried out on diesel engine with neat diesel fuel and biodiesel mixture. The effects of B30,B30 with Bio Fuel additive and commercial diesel on the engine power, engine torque, BSFCs and exhaust gasses temperature were ascertained by performance tests. The influence of blends on CO, NOx,and CO_2 emission were investigated. The experimental results showed that the use of Biodiesel improve the performance parameters and decrease the CO emission as compared to diesel fuel. Diethyl ether (DEE) not only improve the performance and also increase fuel saving and reduce the NOx

Keywords— Transesterification; Karanja oil, Diethyl ether (DEE), Emissions

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ISBN: 978-93-85057-16-8

CHARACTERISATION STUDY OF NiCrBSi COATING OBTAINED BY HVOF PROCESS

G.Mathivanan, R.Shankar, G.Leander Infant Raj, R.Madhan, M.Praveen Kumar, R.R.Pravin
Department of Mechanical Engineering. Kings College of Engineering. Thanjavur, Tamil Nadu

Abstract

Microstructure plays a important role in determining material behavior. Increasing microstructure uniformity leads to increase in thermal, chemical and mechanical properties of the material.High Velocity Oxy Fuel (HVOF) is one of the emerging technologies among the thermal spraying techniques, for producing uniform and dense coatings, having high hardness and good adhesion values. In this study, HVOF technique was used to deposit NiCrBSi coatings, approximately 150 - 200 µm thick on the Ni based superalloys.Microstructure and chemical composition of the coating was analyzed by Optical Microscope, Scanning Electron Microscope (SEM) and X-ray Powder Diffraction (XRD) Analysis. Hardness test of the coating was measured with a Vickers hardness tester and Porosity of the coating was measured with Optical Microscope.

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PERFORMANCE AND EVALUATION OF THERMOELECTRIC REFRIGERATION BY USING PELTIER EFFECT

H.Agilan[1],M.Manohari[2],G.Vidhya[3],B.Veereshwaran[4],A.Venkatesh[5]
Department of Mechanical Engineering. Kings College of Engineering. Thanjavur, Tamil Nadu .India

The Peltier module replaces the compressors in conventional refrigerators. We constructed the refrigerator without using compressor, alter for an compressor and refrigerants we using Peltier module for cooling. Peltier module instead promotes a green environment. Comparison has been made based of existing systems and feasibility. The system works on Peltier effect. The cold side of the Peltier modules is utilized for space cooling and the heat generated in the Peltier modules is removed using heat sinks with an arrangement of fans. The coefficient of performance of the system is a criterion for evaluating the performance of the cooling system.

The problem with traditional refrigerators have been, high consumption of electricity, negative impacts on the environment, all these problems have been addressed by the Peltier cooler. It does not make use of refrigerants thus ensuring a green and eco- friendly technology for space cooling applications. The absence of Compressor leads to noiseless operation and lowered maintenance cost. It is an energy efficient initiative, consuming less power. For generations rural India does not have a dependable supply of electricity. Being highly reliable alternative it is intended for use in these places. We use rock wool material as a new insulation in our project. It withsand more than 1000 degree and also act as a sound absorber. They can last upto 100 years and act as a fire resilience withstand high temperature.

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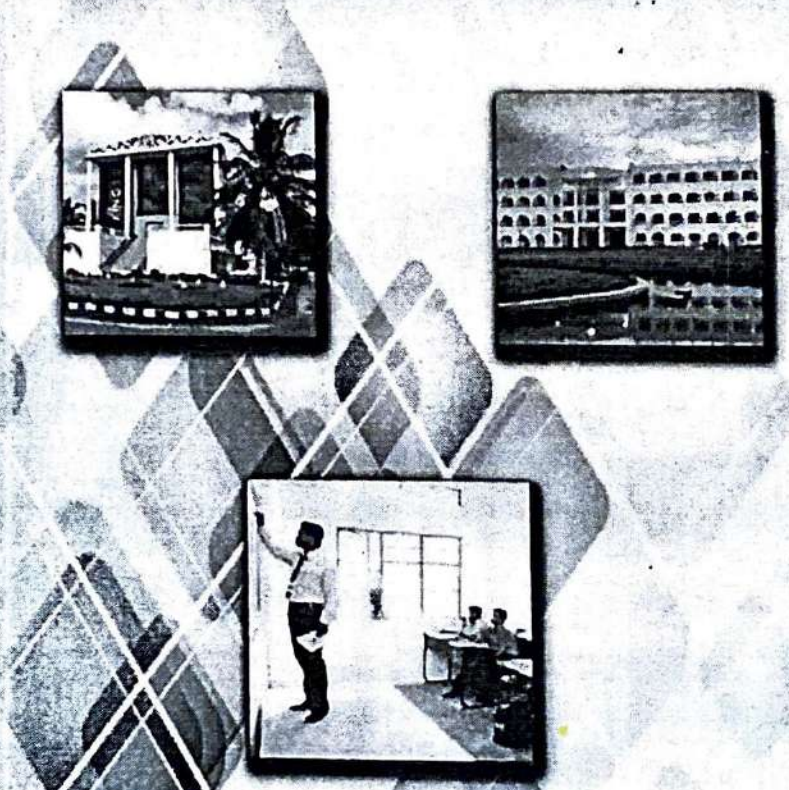

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Details of Faculty participation in books, chapters and conference / 2018-19

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1	Dr.V.Suresh Kumar	-	A Study on Immersion time...HCl using Polythiophene derivatives	International conference on Recent Applications in Advanced Materials	-	E.R.K Arts & Science College, Dharmapuri
2	Dr.S.Udayakumar	-	Kinetic studies on the Removal Iron(III)...vitex negunds stem	International conference on Recent Applications in Advanced Materials	-	E.R.K Arts & Science College, Dharmapuri
3	Dr.P.Saravanan	-	A Improving the Dye ability of silk...Dye from flowers of Landana Camara Linn	International conference on Recent Applications in Advanced Materials	-	E.R.K Arts & Science College, Dharmapuri
4	Dr.V.Suresh Kumar	-	Inhibition effect....steel in HCL solution	International conference on Emerging Trends & Innovations in chemistry	-	Sengamala Thayaar Educational Trust Women's College, Mannargudi
5	Dr.S.Udayakumar	-	Studies on the.....Activated Carbon	International conference on Emerging Trends & Innovations in chemistry	-	Sengamala Thayaar Educational Trust Women's College, Mannargudi
6	Dr.P.Saravanan	-	Dyeing of silk.....Arjuna Linn	International conference on Emerging Trends & Innovations in chemistry	-	Sengamala Thayaar Educational Trust Women's College, Mannargudi
7	Dr.AL.Kavitha	-	Overview of modified carbon paste electrode with chitosan composite	International Conference on Frontier Areas in Chemical Technologies	978-81-937479-3-3	Alagappa University, Karaikudi
8	Mrs.T.Gnanajeya	-	Isomorphism On Neutrosohic Fuzzy Graphs	International Conference on Graph Theory & its Applications	-	AMRITA University, Coimbatore

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A Study on immersion time and Inhibition efficiency of carbon steel in 1N HCl using polythiophene derivatives

V. Suresh Kumar*

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Abstract

New and effective polymeric corrosion inhibitors, namely, Polythiophene and some of its acid derivatives (PTh, PTh-CA, PTh-p-TSA, PTh-AQSA and PTh-β-NSA) were prepared by dilute polymerization method. The synthesized inhibitors were characterized by FT-IR and SEM studies. Its influence on corrosion inhibition of mild steel in 1N HCl solution in different immersion time at 30°C was studied using weight loss method. The inhibition efficiencies of the polythiophene derivatives were found out at various concentrations to find out the optimum inhibitive concentration and immersion time of these inhibitors. The polymeric inhibitors such as PTh, PTh-CA, PTh-p-TSA, PTh-AQSA and PTh-β-NSA under study behave as good and efficient inhibitors for the corrosion of carbon steel in 1N HCl solution. In the weight loss studies for a period of 3 h of immersion time, the maximum inhibition efficiency obtained for PTh was 85.2% at 900 ppm, PTh-CA 88.7% at 700 ppm, PTh-p-TSA 92.5% at 700 ppm, PTh-AQSA 95.2% at 700 ppm, PTh-β-NSA 95.2% at 700 ppm. Among the five polythiophene derivatives studied, the maximum inhibition efficiency was found in both PTh-AQSA and PTh-β-NSA which showed inhibition efficiency of more than 95% at 700 ppm.

Keywords: *Corrosion inhibitors, Mild steel corrosion, Polythiophene, Polythiophene-Citric acid, Polythiophene Anthraquinone sulphonic acid, Polythiophene-β-Naphthol sulphonic acid, Polythiophene-p-Toluene sulphonic acid.*

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14/12/2019.

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Kinetic Studies on the Removalliron (III) onto Acid Activated Vitex Negundo Stem

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[2]*Department of Chemistry, S.T.E.T Women's College, Mannargudi, Tamil Nadu, India-614 001*

Abstract

The present study is on adsorption of Fe(III) by Acid Activated Vitex Negundo Stem. It uses batch adsorption techniques. The influence of contact time, initial concentration, dosage of adsorbent and effect of solution pH were investigated. The isotherm studies of R_L values showed that the adsorption process was favorable. Thermodynamic parameters such as ΔH°, ΔS° and ΔG° were evaluated. The data indicate that, the adsorption was spontaneous and is an endothermic nature. Adsorption kinetics was tested with pseudo- second –order, Elovich model and intra – particle diffusion models. Kinetic studies indicate an adsorption pseudo – second –order reaction. This study shows that intra – particles played a major role in the adsorption of Fe(III) ions mechanism. The Acid Activated VitexNegundo Stem has high adsorption capacity and adsorption rate for the removal of Fe(III) ions from aqueous solution.

Keywords: *Adsorption, Iron (III) ions, kinetics, Vitex Negundo Stem, Thermodynamics*

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14/12/2019

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Improving the Dyeability of silk Fabrics by using Chitosan with Natural Dye from Flowers of *Landana Camara Linn*

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Abstract

Recently people have shown greater interest in the use of natural dyes in textile processing. This is because of people's increasing awareness of the environmental effects of water pollution and waste disposal. In addition, there are problems of toxic in and allergic reactions associated with synthetic dyes, while natural dyes exhibit fewer problems of toxicity, better biodegradability, and more compatibility with the environment. The study examined the influence of chitosan to improve dye absorption on silk farbric using *Landana Camara Linn.* In present study, the silk fabric was treated with chitosan at different concentrations to find a suitable concentration on dye ability with natural dye from flowers of *Landana Camara Linn.* The influence of dyeing methods with mordants, i.e. pre-mordanting, post-mordanting and simultaneous mordanting was determined. The light and wash fastness of chitosan treated samples were measured compared with untreated samples. Chitosan-treated silk fabric improved both dyeability and fastness compared with untreated silk fabric. The silk fabrics treated with chitosan not only provided better depth of shade but also provided better wash fastness and light fastness than those of the untreated fabrics. The use of different mordants and mordanting methods affected the dye shade and depth of shade differently on the dyed fabrics both with and without chitosan. The range of colour developed on dyed materials were evaluated in terms of (L*a*b*) CIELAB coordinates and the dye absorption on the silk was studied by using K/S values.

Keywords: *Extraction, Natural dye, Ficus Religiosa Linn, chitosan, mordant and silk fabric*

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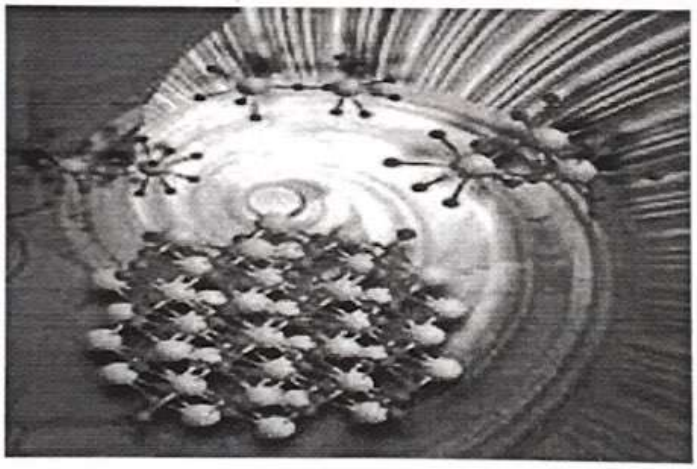

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ABS-022

INHIBITION EFFECT OF POLYTHIOPHENE-B-NAPHTHALENE SULPHONIC ACID ON MILD STEEL IN HCL SOLUTION

V.Suresh Kumar

[1]Department of Chemistry, Kings College of Engineering, Thanjavur - 613 303

Polythiophene-β-naphthalene sulphonic acid (PTh-β-NSA) has been prepared and characterized by UV-Visible and FTIR spectroscopy studies. Its influence on corrosion inhibition of mild steel in 1N HCl solution was studied using chemical and electrochemical techniques. It was found that the inhibition efficiency increased with the increase of PTh-β-NSA upto 700ppm and beyond this concentration, its inhibition efficiency was decreased from 95.2 to 92.7%. It indicates that 700ppm is the optimum concentration to get maximum corrosion protection for mild steel 1N HCl solution. The results obtained from chemical and electrochemical measurements are in reasonably good agreement. The polarization studies revealed that PTh-β-NSA act as mixed type inhibitor. Adsorption of PTh-β-NSA on mild steel surface follows Langmuir adsorption isotherm. The surface characteristics of the inhibited and uninhibited mild steel were investigated by scanning electron microscope studies.

Keywords: Corrosion inhibitors, Mild steel corrosion, Polythiophene-β-Naphthalene sulphonic acid , Langmuir adsorption isotherm, Mixed type inhibitors.

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ABS-20

CoO ANCHORED GRAPHENE OXIDE AS A STABLE VISIBLE LIGHT RESPONSIVE NANOCOMPOSITE PHOTOCATALYST FOR DYE REMOVAL

S.Vijayalakshmi
PG & Research Department of Chemistry, Government College for Women (Auto)
Kumbakonam, Thanjavur (Dt)., Tamil Nadu, India.

In recent years, Photo catalytic oxidation using semiconductor photo catalyst nanoparticles (NPs) has gained a lot of research potential as a method for waste water treatment in the presence of UV/visible light. The cobalt oxide CoO/RGO NPs were synthesized by one step hydrothermal method. The structure and morphology of the obtained CoO/RGO nano crystals were evaluated by SEM, EDX, UV-DRS, UV-vis, XRD, Raman spectra and FT-IR techniques. The size of as synthesized CoO nano crystals was in the range of 8 to 10 nm as provide by the XRD measurements. Morphology of the CoO/RGO NPs is showed to be spherical in shape. The calcinations temperature has exerted an important effect on the surface phase composition variation of CoO/RGO. These CoO/RGO nano particles have showed enhanced photocatalytic degradation efficiency over methyl violet dye degradation.

Key words: NPs- Nanoparticles, MV- Methyl violet.

*****

ABS-021

A STUDIES ON THE REMOVAL OF CATIONIC DYE USING LOW COST ACID ACTIVATED CARBON

S.Udayakumar[1], K. Kavitha[2]
Department of Chemistry, Kings College of engineering, Punalkulam, Thanjavur,TamilNadu, India.

The mechanism of Methylene Blue adsorption on acid activated carbon *Vitex Negundo* Stem (AAVNS) has been studied through batch experiments. Generally, dyes are organic compounds used as colouring products in chemical, textile, paper, printing, leather, plastics andvarious food industries. The need for the treatment of dye contaminated waste water passed out from the industry. In this study, *Vitex Negundo* Stem was studied for its potential use as an adsorbent for removal of a cationic dye methylene blue. The effects of various experimental parameters, such as initial dye concentration, contact time, adsorbent dose and effect of temperature, were evaluated. The results showed that the dye removal increased with increase in the initial concentration of the dye. The experimental data were fitted into the pseudo-second order kinetic model. The equilibrium of adsorption was modelled by using the Langmuir and Freundlich isotherm. The results show that AAVNS could be employed effective and low cost material for removal of dyes and colour from aqueous solution.

Keywords: Acid Activated *Vitex Negundo* Stem (AAVNS); Methylene blue; Adsorption isotherm; Kinetics; Equilibrium models.

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ABS-023

DYEING OF SILK WITH ECO – FRIENDLY NATURAL DYE OBTAINED FROM BARKS OF *TERMINALIA ARJUNA LINN.*

P.Saravanan[1] and S.Saivaraj[2]

[1]Department of Chemistry, Kings College of Engineering, Punalkulam, Thanjavur, Tamil Nadu, India -613 303

[2] Department of Chemistry, Thirumalai Engineering College, Kanchipuram Tamil Nadu, India– 631 551.

Eco-friendly natural dyes are obtained from natural sources such as vegetable matter, minerals or insects. Natural dyes find use in the coloration of textiles, food, drugs and cosmetics. Small quantities of dyes are also used in coloration of paper, leather, shoepolish, wood, candles and such other products requiring coloration. Natural dyes are preferred nowadays in developed countries,because they are non- allergic,non-carcinogenic and have lower toxicity and better biodegradability than synthetic dyes. The colours obtained are gentle, soft and createarestful effect. In present study, a natural dye was extracted from the barks of ***Terminalia Arjuna Linn.*** using ethanol as the solvent. It was observed that the natural dye has good affinity towards silk fabric. Three methods of mordanting namely Pre-mordanting, post-mordanting and simultaneous mordanting were followed. Chemical mordants like $CuSO_4$, $NiSO_4$, NH_4Cl, $KMnO_4$, $K_2Cr_2O_7$ and $SnCl_2$ were used to obtain different colours. Natural mordants like myrobolan and cow dung were also used. The effect of time and temperature on dye uptake was also being studied. The light fastness, washing fastness and rubbing fastness properties of the dyes cotton fabrics were studied. The colour strength (K/S values) and hues produced by the natural dyes on the cotton fabrics were measured by computer colour matching method.The extracted natural dye was characterized by using UV, FT-IR and ICP-OES.

Key words: Natural dye, Extraction, Terminalia Arjuna L, Barks, Silk.

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Frontier Areas in Chemical Technologies

A Compendium of Research Papers presented in the International Conference FACTs 2019, July 25-26, 2019

Conference Organised by:
Department of Industrial Chemistry
Alagappa University, Karaikudi

ISBN: 978-81-937479-3-3

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Published by
Alagappa University
Karaikudi

Typeset by:
Department of Industrial Chemistry
Alagappa University, Karaikudi – 630 003

Printed by:
Poocharam Printers
Karaikudi – 2.

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OP 24

POSSIBLE MECHANISM OF THE MPT DEGRADATION UNDER VISIBLE LIGHT IRRADIATION OVERVIEW OF MODIFIED CARBON PASTE ELECTRODE WITH CHITOSAN COMPOSITE

AL. Kavitha*[1], H.Gurumallesh Prabu*

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*School of chemistry, Alagappa University, Karaikudi.

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Abstract

Graphene/graphene oxide(GO) and its nanocomposites have been utilized for improved performance of biosensors, attributed to synergistic effect of graphene and accompanying material in the nano composite. GO dispersed in a polymer matrix like chitosan (CH) have been reported to enhance electrochemical performance, ease of immobilization, biocompatibility and favorable micro environment for fabrication of enzymatic biosensors. Chitosan is commonly used to disperse nano materials due to its excellent capability of film formation, non toxicity, biocompatibility, mechanical strength and good water permeability. Accordingly, a variety of materials with ability to promote electron transfer between Glucose oxidase enzyme(GOD) and electrode (e.g. carbon nanotubes (CNTs). Chitosan (CH) have been adopted as the matrix to immobilize GOD. CNTs with properties of excellent electricity, metal and semiconductors, especially the biocompatibility, have become suitable candidates for the promotion of heterogeneous electron transfer. They are one of novel nano material components to improve the electrical contacting of enzymes with electrode. The attractive benefits of modifying electrodes is their improved electrocatalytic response which includes reduction in over-potentials and large voltammetric signals allowing low detection limits and high sensitivities. The proposed modified carbon paste electrode will enhance the electrochemical performance of metal/metal nanoparticles which would be a next generation, low cost and biosensing applications.

Keywords: Carbon paste, metal nanoparticles, graphite, biosensor, Modified electrode, Composite.

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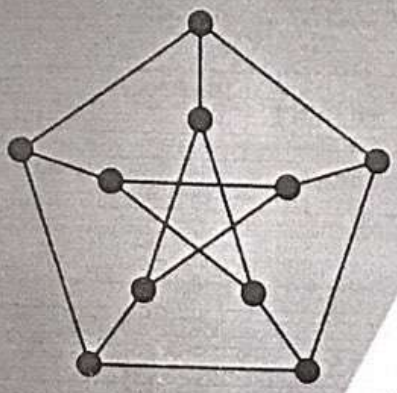

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Time	Session	Speaker	Title	Session Chair	Venue
Day-2 05-01-2019 15.45 -16.30	Session-1	V. Balaji	Existence of Skolem Mean Labeling for Four Star Graphs	Prof. Kumar Abhishek	Murali Krishna Hall
		T.Saratha Devi	Some new families of edge pair sum graphs		
		A.P. Santhakumaran	The Forcing Total Monophonic Number of a Graph		
		C. Palanivelu	Super *(a, d)* - Edge Antimagic Total Labeling of Disconnected Graphs-II		
	Session-2	M. Ilayaraja	Uniformly Resolvable Decomposition of Kn into 1-factors and P2k-factors	Prof. Deepa Sinha	Room No. LC-2
		H. Naresh Kumar	Trees with Vertex-Edge Roman Domination Number Twice the Domination Number Minus One		
		K.S.P. Sowndarya	Dominator and Total Dominator Colorings on Chessboard Graphs		
	Session-3	Sovan Samantaa	Food Value Measurement for Packaged Food Using Fuzzy Logic	Prof. Tarkeshwar Singh	Room No. LC-3
		Sonia Mandal	Different types of vertices in m-polar fuzzy graphs and their applications		
		T. Gnanajeya	Isomorphism on Neutrosohic Fuzzy Graphs		

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Different types of vertices in m-polar fuzzy graphs and their applications

Sonia Mandal and Madhumangal Pal

Department of Applied Mathematics with Oceanology and Computer Programming, Vidyasagar University, Midnapore-721102, India
E-mail: soniamandal1234@gmail.com, mmpalvu@gmail.com

Abstract

Recently, m-polar fuzzy graph ($mPEG$) becomes a growing research topic as it is the generalization of fuzzy graph. In this paper, strong m-polar fuzzy vertex (strong mPF vertex) and super strong m-polar fuzzy vertex (superstrong mPF vertex) in an $mPEG$ are defined. An application of superstrong mPF vertex problem is also given at the end.

****

Isomorphism On Neutrosohic Fuzzy Graphs

J. Malarvizhi [1] and T. Gnanajeya [2]

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Abstract

In this paper, basic definitions related to Graphs, Fuzzy graphs and Neutrosophic fuzzy graphs with examples are discussed. Some properties of isomorphism are introduced. Also isomorphism between neutrosophic fuzzy graphs is proved to be an equivalence relation

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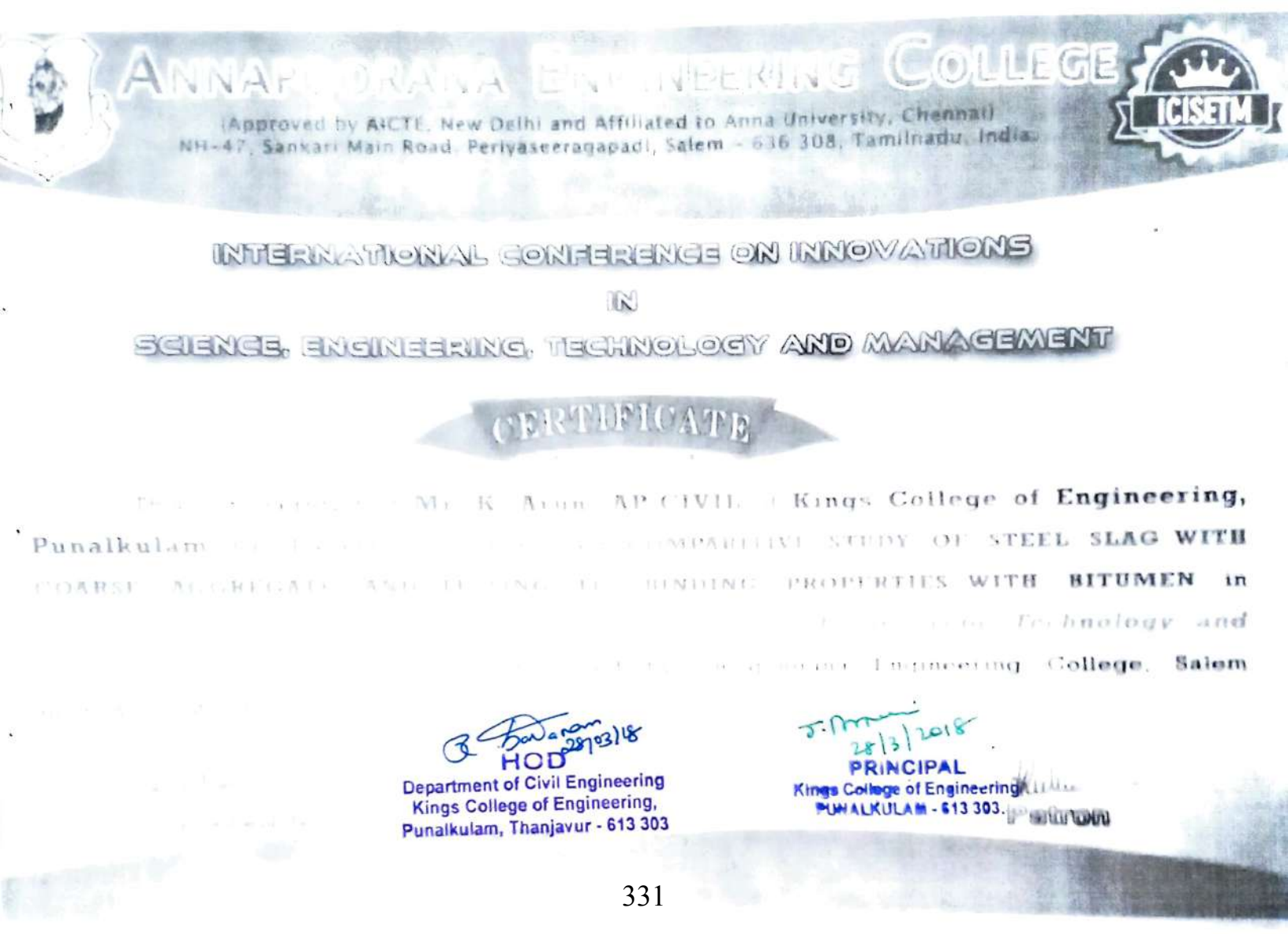

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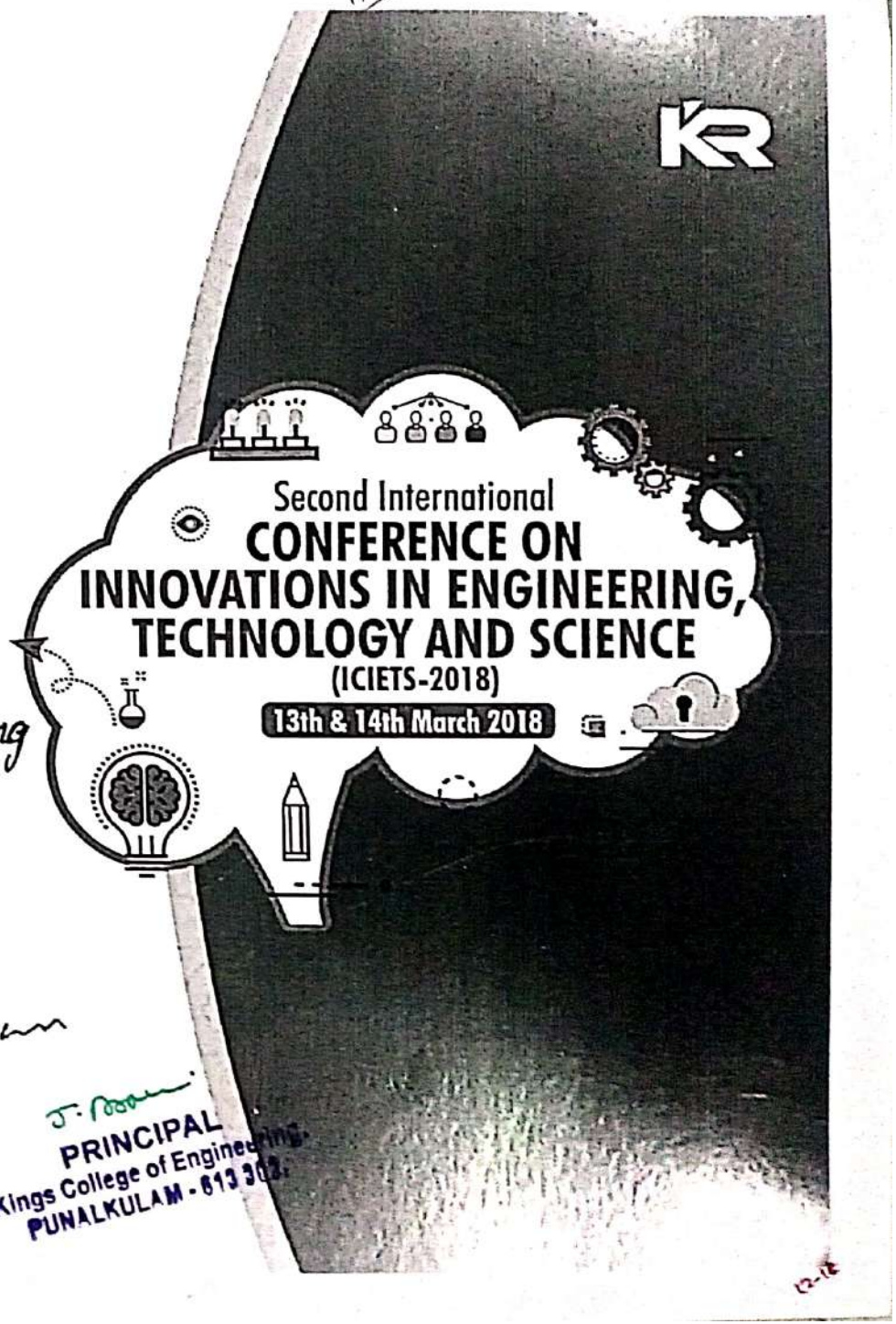

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SBA: SWACHH BHARAT ABHIYAN-SMART DUSTBIN MANAGEMENT SYSTEM

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ABSTRACT: Swachh Bharat Abhiyan (English: Clean India Mission and abbreviated as SBA or SBM for "Swachh Bharat Mission") is a national drive started by the GOI, covering 4,041 statutory cities and towns, to clean the streets, roads and infrastructure of the country. The main objective of the task is to cover all the rural and urban areas of our country. But garbage bins or Dust bin are placed at public places in the cities are overflowing due to increase in the waste every day. It creates unhygienic condition for the people and creates bad odour around the surroundings this leads in spreading some deadly diseases & human illness, to avoid such a situation we proposed a design called "Smart Dustbin Management System". In this paper, smart bin is built on a FPGA which is interfaced with GSM and level sensor(LASER source). Level sensor is placed at the top of the dustbin which measures the level of the garbage. When the dustbin reaches its level, it will trigger the GSM modem which will continuously alert the required authority until the non degradable waste in the dustbin is cleaned. Degradable waste filled in dustbin is measured in same manner and is fired using firing circuit. Once these smart bins are implemented on a large scale, by replacing our traditional bins, waste can be managed efficiently as it avoids unnecessary lumping of wastes on roadside.

ADVANCED REAL TIME VEHICLE TRACKING AND ARRIVAL TIME IDENTIFICATION USING ARM

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ABSTRACT : The objective of this proposed system is to start the current transport status to the general population without getting to the internet. Currently, transport course timetables are accessible inside the transports and at the transport stop, yet numerous clients forget the timings when they require. A creative framework to give the location of the transports in and around the city is displayed in this paper. This framework proposed to know the status of the transport, Ambulance and School vans anyplace by utilizing GSM TECHNOLOGY. GSM (Global System for Mobile Communication) is broadly utilized for the distressing framework. The proposed system also concentrates on abnormal CO level and improper maintenance of brake as a part of pollution free environment and to prevent accidents in the society respectively. In this research RF used for monitoring the movement of vehicle and GSM unit is mounted on the bus sends the data to the central monitoring system ARM using the GSM module and displays bus location name on the LCD. The position of any vehicle from any place is sent by the GSM module to the ARM and that calculates the arrival time of the bus. As a result, it sends to the requested user through GSM module.

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DESIGN OF CHARGE CONTROLLER FOR SOLAR POWERED CHARGING STATION

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ABSTRACT

In this Paper, Design of Smart Charge controller for the solar Powered Charging station is proposed. The objective of this paper is to design and construct a solar charge controller using discrete components. The charge controller varies its output to a step of 12V; for a battery of 200Ah rating. The design consists of four stages which include current booster, battery level indicator, battery charge controller and power supply unit. The designed system is very functional, durable, economical, and realisable using locally sourced and affordable components. This work is a prototype of a commercial solar charge controller with protection systems that will prevent damages to the battery associated with unregulated charging and discharging mechanisms.

Keywords: booster, controller, discrete, indicator, protection,

1 INTRODUCTION

In recent days Renewable Energy sources are the Integral part of Power Energy sectors.Photovoltaic solar systems can be divided into two basic categories – *grid connected* and *off- grid (also called stand alone or isolated)* solar systems. The grid connected systems feed the electricity produced by solar panels to the grid using an inverter. When the electricity is needed during night or periods with little sunlight, the energy is taken back from the grid. In isolated systems, the excess electricity is usually stored in batteries during the day and batteries are used to power the appliances in times when photovoltaic panels do not produce enough energy. *Solar regulators* (also known as *charge controllers*) play an important role in isolated solar systems .Their goal is to ensure the batteries are working optimally, mainly to prevent overcharging (by disconnecting solar panels, when batteries are full) and to prevent too deep discharge (by disconnecting the load when necessary)Battery lifetime reduces drastically due to overcharging and deep discharging. Battery is a very expensive component of a Solar Home System; hence it is necessary to protect batteries from being over charged or deeply discharged. In this regard, a charge controller plays a vital role to protect the battery. The system consists of photovoltaic panel, battery, and a solar charge controller. Solar energy is stored into batteries. A solar charge controller regulates the voltage and current that is coming from the solar panels and going to the battery. The charge controller is a switching device that controls the charging and discharging of the battery. This will protect the batteries from damage and hence prolong the lifespan of the Battery Photovoltaic System consists of a PV / Solar Panel (module), charge controller, batteries and power inverter.

The PV / Solar Panel (module) or array converts the sunlight energy into DC electrical energy. The charge controller conditions the DC electrical voltage and current produced by the PV / Solar Panel (Module) or array to charge a battery. The battery stores the DC electrical energy so that it can be used when there is no solar energy available (night time, cloudy days etc.). DC loads can be powered directly from the PV / Solar Panel (Module) / Battery. The inverter converts the DC power produced by the PV / Solar Panel (Module) / stored in the battery into AC power to enable powering of AC loads.

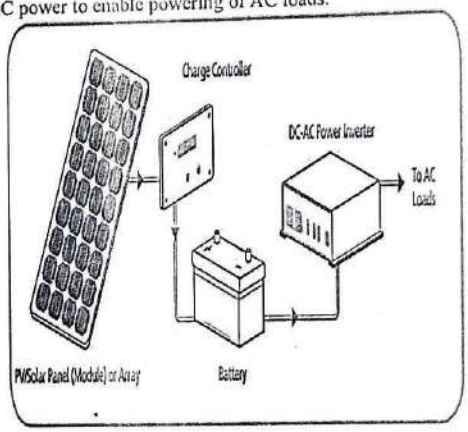

Figure 1:Solar Powered Charging station

2. SOLAR CHARGE CONTROLLER

A charge controller or alternatively a charge regulator is basically a voltage and/or current regulator, to keep batteries from overcharging. It regulates the voltage and current coming from the solar panels and going to the battery. Most "12 volt" panels produce about 16 to 20 volts, so if there is no regulation, the batteries will be damaged from overcharging The obvious question then comes up – "why aren't panels just made to put out 12 volts?" The reason is that if you do that, the panels will provide power only when cool, under perfect conditions and full sun. This is not something you can count on in most places. The panels need to provide some extra voltage so that when the sunlight is low in the sky, or you have heavy haze, cloud cover, or high temperatures, you still get some output from the panel, so the panel has to put out at least 12.7 volts under worst case conditions.

The primary function of a charge controller is to maintain the battery at highest possible state of charge. The charge controller protects the battery from overcharge and disconnects the load to prevent deep discharge. Ideally, charge controller directly controls the state of the battery. The controller checks the state of charge on the battery

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Monitoring And Implementation of Spy Cam Vehicle Using Seashores And Navy Application

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bstract— The main objective behind developing this robot is for ie surveillance of human activities in the war field or border gions in order to reduce infiltrations from the enemy side. The bot consists of night vision wireless camera which can transmit deos of the war field in order to prevent any damage and loss human life. Navy people have a huge risk on their lives while tering an unknown territory. The robot will serve as appropriate machine for the defense sector to reduce the loss human life and will also prevent illegal activities. It will help the navy people and armed forces to know the condition of ie territory before entering it.

Keywords — Robot, Night Vision, Bluetooth Module, Android,GSM,wifi.

I. INTRODUCTION

The advent of technology has brought a revolutionary change in the field of robotics and automation which ranges in all the sectors from household domestic works to the defense sector. Today in the global market, smart phones also have brought a revolution in changing people's lifestyle and providing numerous applications on different operating systems. Android operating system is one of these systems build on open source which has made a huge impact providing many applications for robotics to help people in their day to day life. [1]

The main technology used here for serial communication with the robot is the bluetooth technology. Bluetooth technology can be used to share data between two devices considering the range between two devices. The bluetooth module HC-05 will be connected with the robot and the commands to the robot will be given through the android application. [1]

The war field robot consists of arduino uno board as a controller board. It has L293D motor driver IC's along with a HC-05 bluetooth module. Two DC motors are also used for the motion of the robot. The night vision wireless camera is attached with the robot in order to monitor the situation and the camera can be rotated 360 degrees via the android application through motor.

The sydney siege is considered one of the historic moment in the field of automation and robotics where a robot with a laser beam light and Bomb disposal Kit inbuilt was sent inside a dark room before the military commanders in order to reduce the risk of losing human life. It was so far considered as the best police operation carried out by New South Wales police department with the use of latest technology resulting is less loss of human life.

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SMART GRID MONITORING SYSTEM BASED ON PHASOR MEASUREMENT UNIT

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Abstract- **The growing demand for electricity makes the power grid ever expanding day by day and more and more complex. There is a potential requirement to continuously monitor the power grid and thus making it smarter and reliable. Traditional measurement systems are getting replaced by PMUs, which enables the online monitoring of the power system. With the aid of GPS, PMUs can measure the phasor values of voltages at the bus, where it is placed and the current through the branches connected to that bus. The Current measurement enables us to estimate the voltages at the neighbouring buses. Because of this, placing PMUs at all buses for the complete monitoring of the power system is redundant. Finding the optimal locations of PMUs to make the power system completely observable is of great research interest. This paper proposes the optimal locations of PMU in Tamil Nadu state of Indian power grid using ILP. PMU placement problem has been formulated and optimization has been carried out. Results showing the various optimal locations are tabulated.**

I. INTRODUCTION

Stable operation of power system requires accurate and online monitoring of various operating conditions. Traditional method of power system monitoring is accomplished by state estimators and Remote Terminal Units (RTU). RTUs are the microprocessor controlled electronic devices which can measure real and reactive power flows, magnitude of bus voltages and currents. RTUs are placed at various substations and they send the measured values to the state estimator which is placed inside the central control center. From the received measurement values and the knowledge about the network topology, state estimator can estimate various electrical quantities related to the power system stability. These estimated values are used for the online power flow control and management. But one of the drawbacks of the RTUs is that it cannot directly measure the phase angles of the voltages and currents at any bus. If we can measure phasor values of bus voltages and currents, better state estimation and thereby better power system control can be achieved.

With the aid of Global Positioning System (GPS), a new era of measurement technique was developed in mid-1980s called Phasor Measurement Units (PMU). PMUs utilize the synchronization signals from the GPS to provide the phasor values of voltages and currents at the bus or substation wherever it is connected [1]. These types of phasor measurements can improve the monitoring of power system.

PMUs can measure the phase angle and amplitude of voltages at the installed bus and current through all branches connected to that bus. So it is redundant and not economical to place PMUs at all buses for making the power system completely observable. Finding the optimal locations for PMU is of great interest so that with minimum number of PMUs the power system under consideration will be fully observable [2], [3], [5]. This paper proposes the optimal places for PMUs in the Southern Region Indian power grid, taking Tamilnadu state power grid, so that it will be completely observable

II. PHASOR MEASUREMENT UNITS

Fig. 1 shows the functional block diagram of a PMU [1]. Analog inputs from potential transformers and current transformers are fed to an anti-aliasing. This will restrict the bandwidth of the signal to approximately satisfy the sampling theorem. The signals from the output of anti-aliasing filter are converted to digital using A/D converters. Phase locked loop ensures the synchronization of sampling with reference signal from GPS.

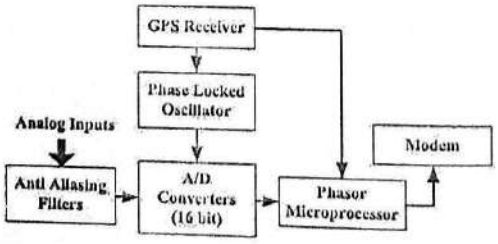

Fig. 1. Functional block diagram of PMU

Sampled signals are then fed to the phasor microprocessor, where phasors of phase voltages and currents are computed using recursive Discrete Fourier Transform (DFT) algorithms. The computed of phasor values are assembled in a message stream and are then sent via the communication network to the wide area monitoring system (WAMS).

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IoT Based Monitoring and Controlling of Home Appliances by using Zigbee Technology

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Abstract: The main objective of this paper is to monitoring and controlling the home appliances from remote area by using Wi-Fi. The status of the appliances also updated to concern user through SMS by using GSM modem whenever required. The GSM modem provides the communication mechanism between the user and the microcontroller system by means of SMS. User can monitor the status and also control multiple home appliances by sending suitably formatted SMS to the microcontroller based control system. These SMS commands are construing by microcontroller system and are authenticate. Once received SMS command is suitable that means if password is matched then it takes the necessary action against appliances and also it always monitors the home, if any one crosses the fencing then alerts will be sent to user mobile in the form of SMS.

Introduction: IoT is a world, where real, virtual and digital environments combine to create a smart environment which makes life easy. It is a new era of computing technology in which machines interact and communicate with other machines, objects and environment. This new technology has unlimited potential to improve our lives by using a "command-and-control" strategy. It is a revolution of the Internet in which objects make themselves recognizable. Objects can communicate information among them and can take necessary decisions whenever required.

Communication has been extended via internet to all things around us. When objects can communicate with each other, via the internet, we need to take complete advantage of remote access. The ultimate goal of IoT applications is to automate systems rather than using manual systems, to improve the quality of living. In today's world, Internet serves to be a popular means of communication. From the end user's point of view, Internet based Home Automation System is very convenient, easy flexible and cheap. Many devices now have Wifi and can connect to Smartphones or home computers. But these devices cannot communicate with each other or else need additional devices to do so. Thus, these devices need to be unified, such that they can be monitored and controlled using one single program or device, e.g. controlling lights, fans, air-conditioners, oven, refrigerator, TV etc. by using an application on the Smartphone. This gives the user more control of their home and can simplify many manual actions.

Importance of Smart Home:

The Smart home means home automation, with the use of new technology, to make the

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EG Chair: Eye and Gesture Based Wheelchair Control for Physically Challenged Person

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ABSTRACT

Physically challenged persons are suffering a lot in moving from one place to another. This paper is to develop a wheel chair control which is useful to the physically challenged person and the control is through their hand movement or hand gesture recognition using MEMS technology. It is a wheelchair which can be controlled by simple hand gestures. It employs a sensor which controls the wheelchair hand gestures made by the user and interprets the motion intended by user and moves accordingly. MEMS sensors are used during acceleration. When the direction is changed, the sensor registers values are changed and that values are given to microcontroller. Depending on the direction of the Acceleration, microcontroller controls the wheel chair directions like LEFT, RIGHT, FRONT and BACK. Eye blink sensor attached to the person which senses whether the person is active or not. Further, the wheelchair is designed to climb easily on the stair case without any others help.

Keywords: Wheelchair control; Physically challenged; MEMS sensor; Eye blink sensor;

Arduino controller.

I. INTRODUCTION

Now a days the physically challenged people suffers many problems. Even though there is the presence of a wheelchair, it cannot be satisfied by them. There will be the necessary of an external person to handle them for the daily work. In the case the automation is involved in the wheelchair of the physically challenged person so as they can lead them independently. In this system we used the MEMS based technology to rectify the traditional one. The eye blink sensors are used in this system to overcome the traditional one. It can be used on both normal and the staircase areas. This system moved depends the user opinion. The existing computer input devices without finger, voice, and gesture can be divided into five categories;

(1) Bio-potential based method which utilizes potential from user's body actions acquired by using special instrument. Instrument such as Electrooculograph (EOG), Electromyography (EMG) [1], and Electroencephalograph (EEG) [2], Search coil can be used for measuring bio-potential. The search coil output can be used as sources of computer input for handicap person. EOG method [7], [16] uses voltage differences between fore and aft surface of eyes.

(2) Voice Based method [3], which use user's voice as source input. Voice analysis is used to analyze user's voice and convert into digital data. The

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A MICROCONTROLLER BASED MONITORING AND CONTROLLING OF PV PANEL BY ZIGBEE MODULE

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Abstract—**The main aim of this paper is to maintain the solar photovoltaic panels which improve the system efficiency. Here Zigbee module is used which ensures wireless data transfer. The voltage is monitored and the data are stored and the panel direction is controlled. The maintenance system involves cleaning a row of PV panels in an automated manner and a tracking system which tracks the position of the sun and keeps the PV panel focusing on the sun in order to produce maximum output voltage. PIC microcontroller is used for making the system an automated one. The microcontroller controls the DC motor and the gear box.**

Keywords - Zigbee, *PIC Microcontroller, Solar PV panel.*

I. INTRODUCTION

Nowadays, solar is used as an alternative energy source as it is harmless to the environment. Solar panel also known as photovoltaic module is a most effective way to produce electricity. The to main objective of this paper is to extract maximum voltage by keeping the PV module to always perpendicular to the sun and to provide a automated cleaning system which keeps the PV panel surface free from dust in order to accumulate as much light from the sun. this system design is mainly based on controlling and monitoring of PV panels. The pic microcontroller IC (PIC16F874A/8774A) is connected to the power supply battery. The panel is also connected to the battery the microcontroller controls the LDR and water tank the microcontroller also controls buzzer relay circuit higher module the circuits are connected to the gear motor and the pumping motor Wireless technology plays a vital role in all engineer application. It provides greater flexibility reliable communication and more economical in nature. In this paper Zigbee module is used which provides security and a network and topology which enhances and effective communication between the control board and water pump. In this paper, a novel system which enables monitoring of each panel is proposed here rugged wireless communication technique is used instead of cabling.

II. EXISTING SYSTEM

For monitoring the PV plants, various solutions have been identified. The I-V curves of the PV plant are evaluated, combining DC-DC converter with MPPT in PV panels are used. But all these methods lead to complexity, needs large number of cables for transmission of data, requires boost converter for every panel. This leads to reduced performance of the system. Satellite based monitoring systems have also been developed to identify power outages. But their application is unavoidably limited to satellite observed PV plants. All the above methods allow only monitoring not controlling. The major drawback includes high installation cost, needs maintenance, require manual monitoring and cleaning.

III. PROPOSED SYSTEM

The fig.1 shows the complete block diagram of proposed system. The battery supplies the power to the microcontroller which controls the relay circuit, buzzers, Zigbee, LDR and the water tank.. In this system, the design is mainly based on controlling & monitoring of pv panels .It consists of pic microcontroller IC(PIC16F874A/877A).It is connected to the power supply battery. The solar panel is connected with the battery. Light depending resistor(LDR) and water tank is controlled by the microcontroller . Further the buzzer, zigbee module and the relay circuits are controlled by the microcontroller. The relay circuits are connected to the gear motor and pumping motor.

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Polyhouse Forming Using Microcontroller

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Abstract- Polyhouses are basically naturally ventilated climate controlled. Poly houses have a variety of applications, the majority being, growing of vegetables, floriculture, and planting material fruit crop growing for export market.Poly houses are built of a pre-galvanized channel cum tubular structure tubular structure wherein crops are grown under a favorable controlled environment and other conditions via. temperature, humidity, light intensity, ventilation, soil media, disease control, irrigation and other agronomical practices throughout the season irrespective of the natural conditions outside. The sizes vary from as small as 100 sq. m to 10,000 sq. m and more.

The degree of sophistication also varies from a simple poly house with polyethylene film covering to highly sophisticated, fully automated drip and foggers systems, full scale computerized (fully automated) systems. Indian farmers face several challenges such as small land holding, poor yields due to reliance on natural phenomena such as rainfall and lack of knowledge of modern methods of agriculture. In conventional agronomical practices, the crops are being cultivated in the open field under natural conditions where the crops are more susceptible to sudden changes in climate i.e. temperature, humidity, light intensity, photo period and other conditions due to which the quality yield of a particular crop can get affected and may be decreased.

Keyword: Monitoring and control through internet, polyhouse form environment.

I. INTRODUCTION

The irrigation system may offer users the flexibility to regulate and control the operations of their irrigation systems with little intervention to reduce runoff from over watering for improvement in crops.This enables users to take advantage of the globally deployed networks with its low service cost to use mobile phones and simple commands to manage their irrigation system. It will be possible for users to use to monitor directly the conditions of their farmland, schedule the water needs of crops, automatically control watering, and set control operational conditions in accordance with the water needs of crops. This will help minimize overwatering and crop.But the current system of greenhouse farming in India needs overhaul in terms of technological improvements. This is because it is almost impossible for human being to understand and manipulate system with more than two dependent processes without additional aid. Hence the introduction of automatic controllers and computer controlled greenhouses in the second half of the twentieth century was a major step forward to economically attractive crop production. Even the most basic automatic control will enhance the capacities of the greenhouse industry in emerging greenhouse areas all over the world. To obtain remote access from various places in order to develop rural areas through advanced technologies. The primary objective of irrigation is to increase agricultural productions on a continuous basis. Irrigation systems are planned to meet the water requirement of crops under a cropping pattern. Crop water requirements can be met from rainfall, from the soil moisture in crop root zone by pumping groundwater from the area and through supplies from a irrigation system. The efficiency of water depends on type of soil, crop and its stages of growth. When an uneven land is irrigated, the high spots are watered too little and the low spots too much .This results in uneven crop growth, reduced yields and loss of water and fertilizers. It describes about measuring pressure, temperature and humidity in the atmosphere for up to date weather monitoring-Weather is monitored atdifferent levels of the atmosphere. Proposed PIC microcontroller based instrumentation is developed for measuring the changes of linear micrometer that represents the stem diameter changes.

II.PROPOSED SYSTEM

The major concept of this project is to create a favorable atmosphere for the growth of the crop by providing control over the atmospheric parameters within a poly house farm with respect to the outer environment using automation. The user could monitor the performance of the crop using

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A New Soft Switching Dual Input Converter for Renewable Energy Systems

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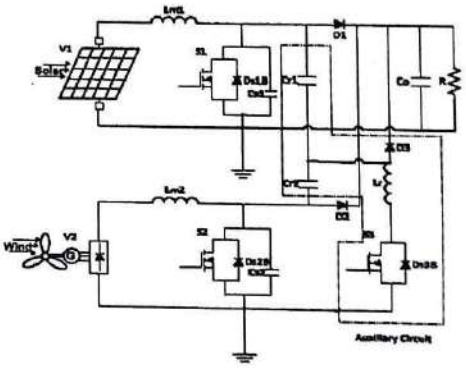
Abstract—This paper proposes a new soft switching dual input converter for renewable energy systems. Multi-input converters are produced by combining discrete converters. These converters reduce the number of circuit elements, cost, volume and weight of the converter and provide a constant output power in different weather conditions. Furthermore, soft switching techniques can be applied to increase efficiency. In this paper, a Zero Voltage Transition (ZVT) dual input boost converter is presented. Only one auxiliary circuit is used to provide the soft switching condition for all of the semiconductor elements. The proposed converter, which is simulated by ORCAD software, is theoretically analyzed. To confirm the validity of the theoretical analysis, a prototype of proposed converter was constructed. Simulation and experimental results confirm the theoretical analysis. An efficiency comparison shows a one percent improvement at nominal loads.

Keywords—Boost, Multi Input Converter (MIC), Renewable energy systems, Soft switching, ZVT

Introduction

In the last decade, the use of renewable energy sources has rapidly increased due to fossil fuel crisis, global warming and environmental pollution. Due to the Kyoto Protocol, clean energies including fuel cells, Photovoltaics, wind energy, etc. have been quickly promoted [1]-[7]. Photovoltaics and wind energy have the ability to supply the demand energy, even in remote or off grid places and in densely populated areas. Since obtaining power from renewable energy sources depends on environmental conditions such as different seasons and climate, the concurrent use of these resources is inevitable to ensure a continuous supply energy . Although the multi-input structure was first proposed in 1999, it has a scientifically traditional background. The count of passive elements and the cost semiconductor elements can be reduced by using a multi-input converter (MIC). For example, as a result of using a single output filter for several converters, the size and losses of these converters is decreased. The Possibility of easier control, higher flexibility and better management of energy sources are other advantages of MICs. although the various table text styles are provided. The formatter will need to create these components, incorporating the applicable criteria that follow. MICs fall in two categories including Electrically Coupled Converters (ECCs) and Magnetically Coupled Converters (MCCs). ECCs have both advantages and disadvantages. Some of the advantages are easier control in the presence of a variable input and high reliability when compared to MCCs. The disadvantages include non-isolation between the input and output and non-multilevel outputs. The main goal of researchers has been to improve the efficiency and reliability, and reduce the cost of systems. Therefore, different soft switching techniques have been proposed in the literature to improve the efficiency of switching converters. These soft switching techniques also reduce Electromagnetic Interference (EMI) by lowering dv/dt and di/dt; while decreasing the switching losses. The authors sought to provide the soft switching condition and enhance the efficiency of multi input converters by adding one auxiliary circuit. A major problem of these topologies is to provide the soft switching condition for main switches while the auxiliary switch is switched under the hard switching condition. In this paper, a soft switching dual input converter for the simultaneous or independent use of solar and wind energy is proposed. The proposed converter simultaneously provides soft switching for all of the semiconductor elements with only one auxiliary circuit. It also solves the above mentioned problems and provides soft switching condition for all forms.



Proposed ZVS system

I. Proposed System

The proposed converter consists of two combined boost converters with one auxiliary cell that provides the ZVS condition for all of the semiconductor elements. The auxiliary circuit is illustrated in the dotted box. The presented converter can work with two input sources simultaneously or with one source independently. The following assumptions are considered to analyze the presented converter in the steady state operation and during a switching cycle. The input

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Implementation of Zero-Voltage-Switching

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***Abstract*—A new zero-voltage-switching (ZVS) push-pull forward converter with a parallel resonant network is presented in this paper. The novel topology can provide a releasing loop for the energy storage in a leakage inductor for the duration of the power switching by the resonant capacitors paralleled with the primary windings of the transformer. Then the transformer leakage inductor is utilized to be resonant with the parallel capacitor, and the ZVS operation is achieved. This converter exhibits many advantages such as lower duty-cycle losses, limited peak voltage across the rectifier diodes and a higher efficiency. Furthermore, the operating principles and key problems of the converter design are analyzed in detail, and the ZVS conditions are derived. A 500W experimental converter prototype has been built to verify the effectiveness of the proposed converter, and its maximum efficiency reaches 94.8%.**

Keywords*—High efficiency, Parallel resonant, Push-pull forward, Zero voltage switching (ZVS)

I. INTRODUCTION

In applications where the input source exhibits a low voltage and a high current, such as photovoltaic energy and fuel cells, the push-pull converter is a desirable DC-DC converter topology. Compared with the conventional push-pull converter, the push-pull forward converter (PPFC) can solve the problems of high turn-off voltage spikes across switches and it can improve the efficiency of the magnetic core [1]. In order to further improve the efficiency and reduce the size, the technology of integrated magnetics is applied [2], [3]. All of the magnetic components including the input filter inductor, step-down transformer and output filter inductors are integrated into a single EE core. Moreover, the improved structure can make the converter more compact and less expensive. A novel PPFC has been proposed to achieve a high reliability and high input voltage applications in [4]. In this topology, the high utilization factor of the transformer is achieved by using two forward cells coupled via an integrated magnetizing core and operating the two cells in an interleaving fashion. In addition, the high reliability is guaranteed since no direct-short path exists in the proposed converter. A three-level converter has been proposed to reduce the voltage stresses of the switches, the size of the input filter and the output filter [5]. A novel three-level PPFC has been proposed to reduce both the input current ripple and the output filter inductor current ripple in [6], [7]. Moreover, the voltage stress of the rectifier diode can be reduced by this control strategy and an appropriate external paralleled capacitor. However, in three-level topologies, the circuit topology needs more active devices and the drive circuit is complicated. In order to increase the power density and to reduce the size and weight of the magnetic element, the switching frequency needs to be increased. Then, the turn-off voltage spikes of the transistors cannot be eliminated in the hard switching mode for the conventional PPFC, resulting in severe EMI and a high switching loss. In the dc-dc converter family, soft-switching technology is proposed to solve the above mentioned problems [8], [9]. An LCL resonant Push-Pull dc/dc converter was presented in [10], [11], with C-L resonant components located behind the output stage rectifiers. The MOSFET switches in the primary side operate under the zero-voltage switching (ZVS) conditions due to the commutation of the transformer magnetizing current and the snubbing effect of the inherent drain-source capacitance. A pair of auxiliary circuits was added to the primary side of the transformer to clamp the voltage spike and to recycle the energy trapped in the leakage inductors in [12]. As a result, the main switches can be turned on with ZVS. In isolated bidirectional applications, the symmetric structure with the phase-shift control enables the ZVS operation for all of the power switches in [13].The magnetizing inductance should be sufficiently small. Therefore, the transformer must be designed with the appropriate air-gap. However, a small magnetizing inductance causes a large magnetizing current. As a result, all the no-load loss, the reactive current and current stress increases. As shown in Fig.1, a novel zero voltage switching push-pull forward converter with a parallel resonant network is proposed. The converter is analyzed and designed. Due to the presence of parallel capacitors and transformer leakage inductors, the resonance makes the switches maintain zero voltage switching even under light loads. The proposed converter operates with soft-switching, which reduces the switches losses and rectifier diodes turn-off voltage. The efficiency can be significantly enhanced. This paper is organized as follows. The steady-state operation and different intervals of operation in the proposed converter are analyzed in Section II. The design issue of the converter is described in detail in section III.

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INTELLIGENT SAFETY SYSTEM FOR MOBIKES

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[2]R.Kishore kumar, [3]M.Vijay Chandran, [4]K.Yuvaraj, [5]G.Srinivasan

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ABSTRACT

Intelligent safety system for mobikes is used for improving the safety and performance of bikes by adding the following parameters - fuel theft protection system, bike theft protection, tire pressure monitoring system, GPS/GSM tracking system, accident alert & protection system. This system will help the rider with the improved safety measures using above added parameters. The project consists of a microcontroller which is interfaced with the GPS module, GSM modem and a vibration sensor. Location data of the bike is fetched from the GPS module. Once the microcontroller senses a strong vibration, it assumes as an accident. The controller assumes it as an emergency and starts the GSM modem by sending the latitude and longitude information to the specified mobile numbers, by fetching the information from the GPS. It also consists of an ultrasonic sensor which was placed at the lid of the fuel tank. This sensor senses the level of the fuel input at the time of fuel filling at fuel stations. The sensed value is displayed at the display interfaced with the controller. This system will be helpful in finding the fuel theft at the fuel stations. Tire pressure, Side stand position are also monitored and cautioned for the rider's safety.

Introduction

The main aim of this system is to provide security for all the vehicle. This system enables the user to observe and track particular vehicle and find out vehicle movement and its past activities. When the vehicle is stolen, the location data from tracking system can be used to find the theft and to inform the police for the further action.

In GPS/GSM system is one of the important system of the project. GPS track the location of vehicle and GSM module send the message to the server. (GPS)Global Positioning system modem requires minimum 3 satellites to calculate the exact location this modem communicates in unidirectional way with microcontroller. Which means it can only transmit data to microcontroller.

GPS modem cannot receive any data from microcontroller. In the same way GPS modem does not send data to satellite, it only receive signal from satellite.

When the conditions are satisfied then ignition will start. The main issue is accident and late medical help. If the rider met accident with him he cannot receive medical help instantly, its big reason for deaths. Around every second people die due to late medical help or the accident place is unmanned. In fall detection, we place accelerometer at the bike unit. Due to these mechanism we detect the accident occurs or not.

Multilevel Inverter Based Single Phase AC-DC-AC Converter

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ABSTRACT

Background: Single-Phase AC-DC-AC converters are employed in vast of applications such as UPS Systems, Motor Drives, Yaw Drives, Traction and Micro Grids. **Materials and Methods:** This paper introduces an incipient topology for multilevel inverter based Single-Phase AC-DC-AC converter for different types of loads. The proposed converter consists of two stages; a full bridge rectifier converting AC supply to DC supply and a multilevel inverter converting DC supply to AC supply cascaded to the rectifier. **Results:** Multilevel inverter is preferred for the proposed system, since it increments the number of output voltage level and hence the Total Harmonic Distortion (THD) is diminished. Thus, the loads are fed with less harmonic AC voltage, which will increases the overall efficiency of the system. **Conclusion:** The converter proposed here reduces the harmonics in the output voltage effectively and decrease THD in AC-DC-AC converter by utilizing Multilevel Inverter. The simulation results are obtained from MATLAB® Simulink platform and a hardware prototype of the inverter is done.

Key words: Multilevel Inverter, AC-DC-AC converter, Filter design, Total Harmonic Distortion.

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This is to certify that Mr./Ms. S. AMARNATH Participated and presented a Paper entitled DESIGN AND IMPLEMENTATION OF SPY CAM VEHICLE FOR USING MILITARY AND SEA SHORES APPLICATION

in the National Conference on "Cutting Edge technologies in Electrical, Communication and Soft Computing techniques" (NCCEECS'18) held on 9th March 2018 organized by Department of EEE, Saranathan College of Engineering, Tiruchirapalli, under the sponsorship of The Institution of Engineers (India), Kolkata.

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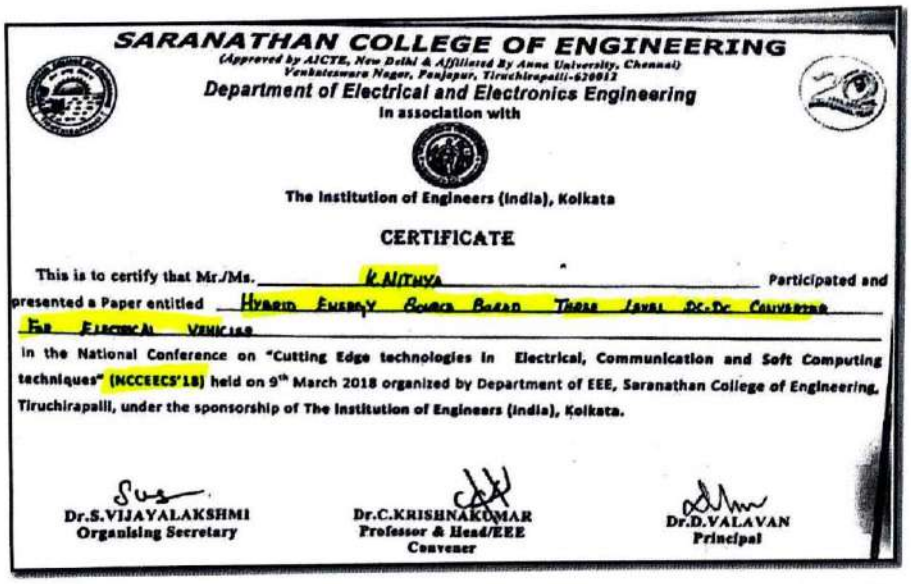

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CERTIFICATE

This is to certify that Mr./Ms. K.NITHYA Participated and presented a Paper entitled HYBRID ENERGY BASED BRAND THREE LEVEL DC-DC CONVERTER FOR ELECTRICAL VEHICLES

in the National Conference on "Cutting Edge technologies in Electrical, Communication and Soft Computing techniques" (NCCEECS'18) held on 9th March 2018 organized by Department of EEE, Saranathan College of Engineering, Tiruchirapalli, under the sponsorship of The Institution of Engineers (India), Kolkata.

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NCETME-2018

Proceedings

28/3/2018
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Organized by Department of Mechanical Engineering

Published by:

Department of Mechanical Engineering

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Punalkulam-613303,

Pudukkottai Dt.

Fax : **04362-282494**

Phone : **04362 - 282474 / 282676**

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ISBN: 978-93-85057-13-7

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PREDICTION OF OPTIMAL MACHINING RATE ON TITANIUM IN CNC-WIRE CUT ELECTRICAL DISCHARGE MACHINING USING RESPONSE SURFACE METHODOLOGY.

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ABSTRACT

Wire Electrical Discharge Machining (Wire-EDM) is an electro thermal production process in which a thin single strand metal wire along with de-ionized water (used to conduct electricity) allows the wire to cut through metal by the use of heat from electrical sparks. The accuracy and the surface finishes obtained from WEDM makes it perfect for applications of manufacturing stamping dies, extrusion dies and extrusion tools. Without the WEDM it requires a lot of time for grinding and finishing the parts. Present study has been made to optimize the MRR and surface roughness during machining of Titanium alloy grade-2 by wire electrical discharge machining (WEDM) using response surface methodology (RSM). Three input process parameters of WEDM namely pulse-on time (T_{on}), pulse-off time (T_{off}) and wire tension (WT) were chosen as variables to study the process performance in terms of MRR and surface roughness (Ra). The analysis of variance (ANOVA) was carried out to study the effect of process parameters on process performance and the results of the process were validated using MINITAB software.

Keywords: *Wire electrical discharge machining (WEDM), Response surface methodology (RSM), Central composite face centre (CCF) design, Material removal rate (MRR) and Surface roughness (Ra)*

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PERFORMANCE STUDY OF MACHINING ON COATED CARBIDE TOOL USING RESPONSE SURFACE METHODOLOGY IN CNC

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ABSTRACT

Wire Electrical Discharge Machining (Wire-EDM) is an electro thermal production process in which a thin single strand metal wire along with de-ionized water (used to conduct electricity) allows the wire to cut through metal by the use of heat from electrical sparks. The accuracy and the surface finishes obtained from WEDM makes it perfect for applications of manufacturing stamping dies, extrusion dies and extrusion tools. Without the WEDM it requires a lot of time for grinding and finishing the parts. Present study has been made to optimize the MRR and surface roughness during machining of Titanium alloy grade-2 by wire electrical discharge machining (WEDM) using response surface methodology (RSM). Three input process parameters of WEDM namely pulse-on time (Ton), pulse-off time (Toff) and wire tension (WT) were chosen as variables to study the process performance in terms of MRR and surface roughness (Ra). The analysis of variance (ANOVA) was carried out to study the effect of process parameters on process performance and the results of the process were validated using MINITAB software.

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ISBN 978-93-85057-13-7

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MANUALLY OPERATED ECO-FRIENDLY FLOOR CLEANING MACHINE

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ABSTRACT :

Cleaning hygiene manner is the process of keeping environment good for living. In the history of medical the major cause for diseases are unclean and nasty surroundings. Because of hurry in life no one have time to concentrate in our surrounding cleanliness. High cost of equipment and need of more human effort tentatively reduce the concentration of cleaning. Cleaning and sanitizing also prevent the breeding of pest in our surrounding which literally improve our healthy as they are the main cause for spreading of major diseases. Cleaning surroundings helps to eliminate micro dust and dirt, which are the major source for oral related health illness. Cleaning work can be done by conventional method but due to lack of workers and their wages to cleaning workers leads the task getting difficult and costlier. Floor cleaning robots are getting more popular now-a-days, but in India, especially in summer days, there is power demand we are not able to use this type of robots, the cost of power also leads to higher working cost. So we are kept in mind of all drawbacks and interest to make a cleaning machine with low cost independency of power and low labour cost. We are implementing the manual and mechanical linkage power transmission. Hence, the present work is focused on design, development and evaluation of manually operated eco-friendly floor cleaning machine.

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ISBN 978-93-85057-13-7

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EXPERIMENTAL INVESTIGATION ON THE PERFORMANCE AND EMISSION CHARACTERISTICS OF A DIESEL ENGINE FUELLED WITH ETHANOL WITH ADDITIVES, DIESEL AND 1-PENTANOL, JATROPHA BASED BIODIESEL BLENDS.

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ABSTRACT

Increasingly stringent emissions regulations and environmental concerns have caused interest in the development of alternative fuels for internal combustion engines. Recently biobutanol, bioethanol and biodiesel emerged as an alternative fuels due to their oxygenated nature. This paper investigates the physical stability of ethanol-diesel blends using Jatropha oil methyl esters and enerdiesel emulsifier as additives, subsequently analysis of physico-chemical properties. Furthermore, experimental tests were carried out to study the performance (fuel consumption, thermal efficiency, exhaust gas temperature) and emissions (CO, NOx, HC and smoke) of Direct Injection (DI) engine fuelled with the various blends compared with those fuelled by diesel. The blends used for this study were B0D95E5, B0D90E10, B15D70E15 and B20D60E20. It is revealed from the observations that the test fuel blends are physically and thermally stable upto 17 days at room temperature. The physico-chemical properties of the all blends show good resemblance with that of diesel except the flash point. The performance results show that B0D95E5 fuel blend has maximum brake thermal efficiency and minimum Brake Specific Fuel Consumption (bsfc) at higher loads. Similarly, the overall emission characteristics are found to be best for the case of B0D90E10 over the entire range of engine operations.

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S. No	Name of the teacher	Title of the book/chapters published	Title of the paper	Name of the conference	ISBN/ISSN number of the proceeding	Name of the publisher
1	Dr.V.Suresh Kumar	-	A Study on Homocysteine status Myocardial infection among Tamilians	Adroit Conference on Emerging Trends in Chemistry - National Level conference	978-93-86590-65-7	Jeppiaar SRR Engineering College, Padur, Chennai
2	Dr.S.Udayakumar	-	Thermal studies on Transition metal ion doped ZnO nanoparticles by simple chemical precipitation method	Adroit Conference on Emerging Trends in Chemistry - National Level conference	978-93-86590-65-7	Jeppiaar SRR Engineering College, Padur, Chennai
3	Dr.P.Saravanan	-	Effect of Chitosan and mordants on Dyeablity of silk fabrics with natural dye from barks of odinawodier	Adroit Conference on Emerging Trends in Chemistry - National Level conference	978-93-86590-65-7	Jeppiaar SRR Engineering College, Padur, Chennai
4	Dr.AL.Kavitha	-	Low cost of Coloured Emulsion Paints with IR Resistant Coatings over Asbestos Sheets	National seminar on 6-7thSep 2018,	-	N.S.SHindu College, Changanacherry.
5	Dr.AL.Kavitha	-	Synthesis and Characterization of Antiscalants for Cooling Water Applications	International Conference on Chemical and Environmental Research	-	Jamal Mohamed College, Trichy.
6	Dr.AL.Kavitha	Book of Environmental Science and Engineering	-	-	978-93-86712-03-5	Jeyalakshmi publications
7	Dr.V.Sureshkumar	-	Evaluation of Synthesized water system Application	National conference on RACS – 2017	978-1-947099-00-5	Sri Ramakrishna Institute of Technology, Coimbatore.
8	Dr.S.Udayakumar	-	Kinetic study of removal of Fe III from aqueous	National conference on RACS – 2017	978-1-947099-00-5	Sri Ramakrishna Institute of Technology,

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9	Dr. AL.Kavitha	-	Synthesis and Characterization of Iron oxide-Chitosan Nano composite	International conference on ICAMST 2017, Center for crystal Growth	-	VIT University, Vellore
10	Dr. AL.Kavitha	-	Multifunctional application of Iron Oxide-Chitosan Composite	National Seminar, School of Chemistry	-	Alagappa University, Karaikudi.
11	Dr.V.Suresh Kumar	-	Influence of polythiophene derivatives on corrosion inhibition of mild steel in acidic solution	International conference on Innovations in Science, Engineering and Technology for sustainable Development	-	Muthayammal Engineering College, Rasipuram.
12	Dr.S.Udayakumar	-	Optical studies on Transition Metal ion doped ZnO Nano rods by simple precipitation method	International conference on Innovations in Science, Engineering and Technology for sustainable Development	-	Muthayammal Engineering College, Rasipuram.
13	Dr.P.Saravanan	-	Effects of Chitosan & Mordants on the dye ability of silk fabrics with a Eco-friendly Natural Dye from the Barks of Ficus Religiosa Lion	International conference on Innovations in Science, Engineering and Technology for sustainable Development	-	Muthayammal Engineering College, Rasipuram.
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ISBN : 978-93-86590-65-7

PP7

A Study on Homocysteine status and acute Myocardial infarction among Tamilians

Dr.V.Suresh Kumar

Department of Chemistry, Kings College of Engineering, Punalkulam.
E-Mail : drvsk@kingsindia.net

Abstract

Homocysteine is a sulphydryl-containing aminoacid derived from the metabolic demethylation of dietary methionine, which is abundant in animal protein. It is present in plasma in four forms: about 1% circulates as the free thiols; 70-80% is disulphide-bound to plasma proteins, chiefly albumin; and remaining 20-30% combines with itself to form the dimmer Homocysteine or with other thiols, including cysteine, with which it forms the Homocysteine-cysteine mixed disulphide. The term "Total Plasma Homocysteine" refers to the combined pool of all four forms of Homocysteine. Biochemical studies were carried out in patient suffering from different cardiovascular disease such as unstable angina, myocardial infraction to ischemic heart disease. As such any one of us can be a candidate for coronary artery disease, but there are certain factors and predisposing causes, which aid for a heart attack. Homocysteine level were significantly increased with the other parameters that were taken into the account. Thus prospective and case control studies have shown that modestly elevated level. Homocysteine concentration is a risk factor for coronary heart disease. Thus the result presents evidence and suggestion on the use of Homocysteine as a biological marker for the triage diagnosis of cardiovascular diseases. Currently, Homocysteine is the marker that most effectively fits the role as an early marker; where as "definitive" markers were enzymes, acute phase proteins and lipid profiles. Since the sensitivity of the initial Electro Cardio Gram is 50% for detecting Cardio Vascular Disease, the use of Homocysteine is an extremely significant biochemical marker, which may contribute to the early diagnosis.

PP8

Thermal studies on Transition metal ion doped ZnO Nanoparticles by simple chemical precipitation method

S.Udayakumar[1] and K.Kavitha[2]

[1]Department of Chemistry, Kings College of Engineering, Thanjavur, Tamil Nadu, India.
[2]Department of Chemistry, S.T.E.T Women's College, Mannargudi, Tamil Nadu, India.
E-Mail : drps1977@gmail.com

Abstract

The Mn doped ZnO nanoparticles (Where Mn in different concentrations) have been synthesized via a chemical precipitation method using zinc acetate hydrate and $MnCl_2$ in alcoholic medium with optimum dopant concentration (2%). The structural characteristics

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Danish Physician Christian Grams, discovered the differential staining technique known as Gram staining, which differentiates the bacteria into two groups "Gram positive" and "Gram negative", Gram positive bacteria retain the crystal violet and resist decolorization with acetone or alcohol and hence appear deep violet in colour; while Gram negative bacteria, which loose the crystal violet, are counter-stained by saffranin and hence appear red in colour. As we compare the zone of inhibition by microorganisms Klebsilla *pneumoniae* (Gram negeative) and Staphylococcus aereus(Gram positive) with stannous chloride doped with glycine at various concentrations 1000 µg to 125 µg, the zone of inhibition by *Staphylococcus aereus and Klebsilla pneumoniae increases slowly as the concentration increases from 125* µg *to 1000* µg *and Staphylococcus aereus will show highest zone of inhibition 20mm at 1000* µg while it is 16 mm with *Klebsilla pneumoniae at the same concentration. This shows that gram positive shows greater zone of inhibition for the sample* stannous chloride doped with glycine.

PP6

Effect of Chitosan and Mordants on Dyeability of Silk Fabrics with Natural dye from Barks of *Odina wodier*

Dr. P.Saravanan

Department of Chemistry, Kings College of Engineering, Punalkulam, Thanjavur-613303,
E-Mail : drps1977@gmail.com

Abstract

Natural dyes can be anything that comes from natural sources such as barks, flowers, leaves, roots, insects, shells, and mineral substances. They are used for food coloring, painting and textile dyeing. Using natural dyes in textile processing have been shown a greater interest because they are more eco-friendly than synthetic dye and show a variety of colors from one natural dye depending on dyeing process and types of mordants. In present study, the silk fabric was treated with chitosan at different concentrations to find a suitable concentration on dyeability with natural dye from barks of *Odina Wodier*. The influence of dyeing methods with mordants, i.e. pre-mordanting, post-mordanting and simultaneous mordanting was determined. The light and wash fastness of chitosan treated samples were measured compared with untreated samples. Chitosan treated silk fabric improved both dyeability and fastness compared with untreated silk fabric. The silk fabrics treated with chitosan not only provided better depth of shade but also provided better wash fastness and light fastness than those of the untreated fabrics. The use of different mordants and mordanting methods affected the dye shade and depth of shade differently on the dyed fabrics both with and without chitosan. The range of colour developed on dyed materials were evaluated in terms of (L*a*b*) CIELAB Coordinates and the dye absorption on the silk was studied by using K/S values.

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04/8/2018
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August 2018

Adroit Conference on Emerging Trends in Chemistry (ACETIC-2K18)

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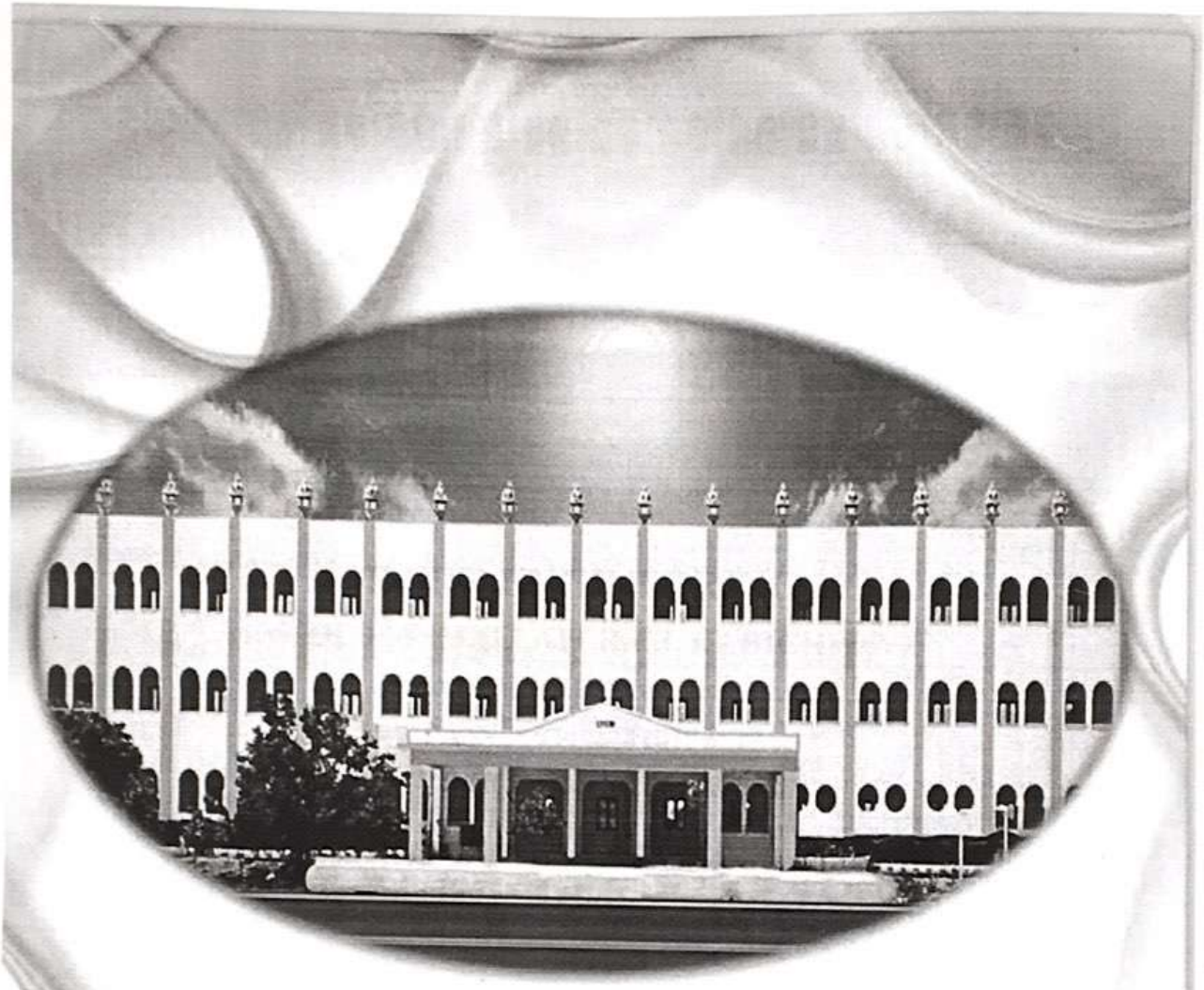

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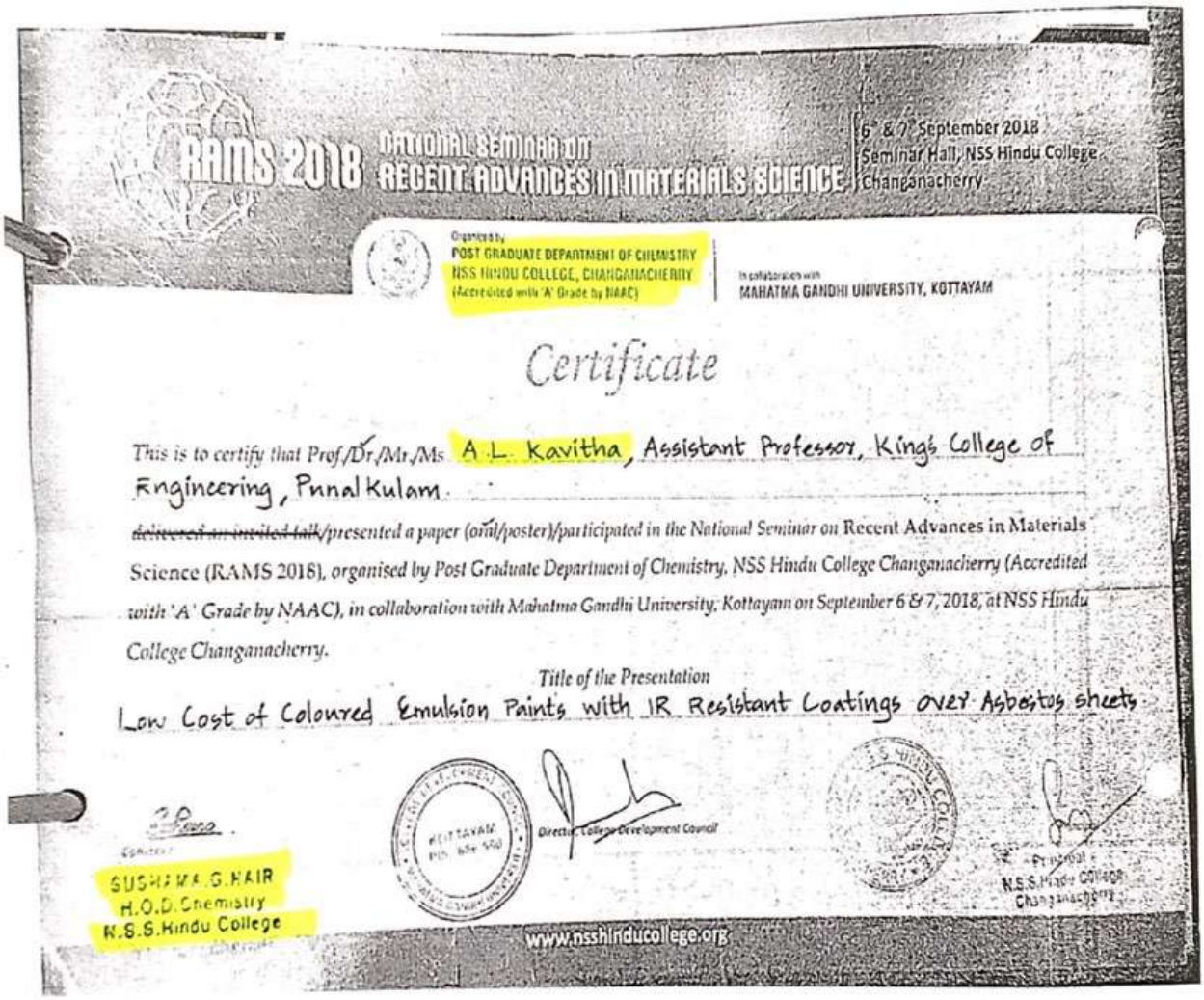

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Low Cost of Coloured Emulsion Paints with IR Resistant Coatings over Asbestos sheets

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OP-47 Synthesis and Characterization of Antiscalants for Cooling Water Applications

Dr.AL.Kavitha

Assistant Professor, Department of Chemistry, Kings College of Engineering, Punalkulam – 613303, India

***Corresponding author: alkavitha82@gmail.com**

Mineral scales are formed in cooling water systems and they cause heat transfer problems. This study has been carried out to reduce the carbonate and sulphate scales of calcium. To inhibit the scale formation in cooling water systems, polyacrylic acid was synthesized, characterized and the ability of the polymer to mitigate the calcium carbonate and calcium sulphate scale formation was tested through chemical screening and electrochemical impedance techniques. X-ray diffraction (XRD) and scanning electron microscope (SEM) studies were performed to understand the morphological changes of the scales in the presence of the polymer. The gelation and iron dispersion ability of the polymer were also noted. The synthesized polyacrylic acid was compared with the commercial product AQUASUPER B99, which is basically a polyacrylamide. It was observed that this polyacrylic acid could be used for the cooling water applications. Among the two inhibitors, polyacrylic acid shows slightly better antiscaling properties even at higher temperatures and pH for both $CaCO_3$ and $CaSO_4$ scales compared to the commercial product.

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Title of the Book : GE6351 / Environmental Science and Engineering for B.E / B.Tech Anna University Syllabus

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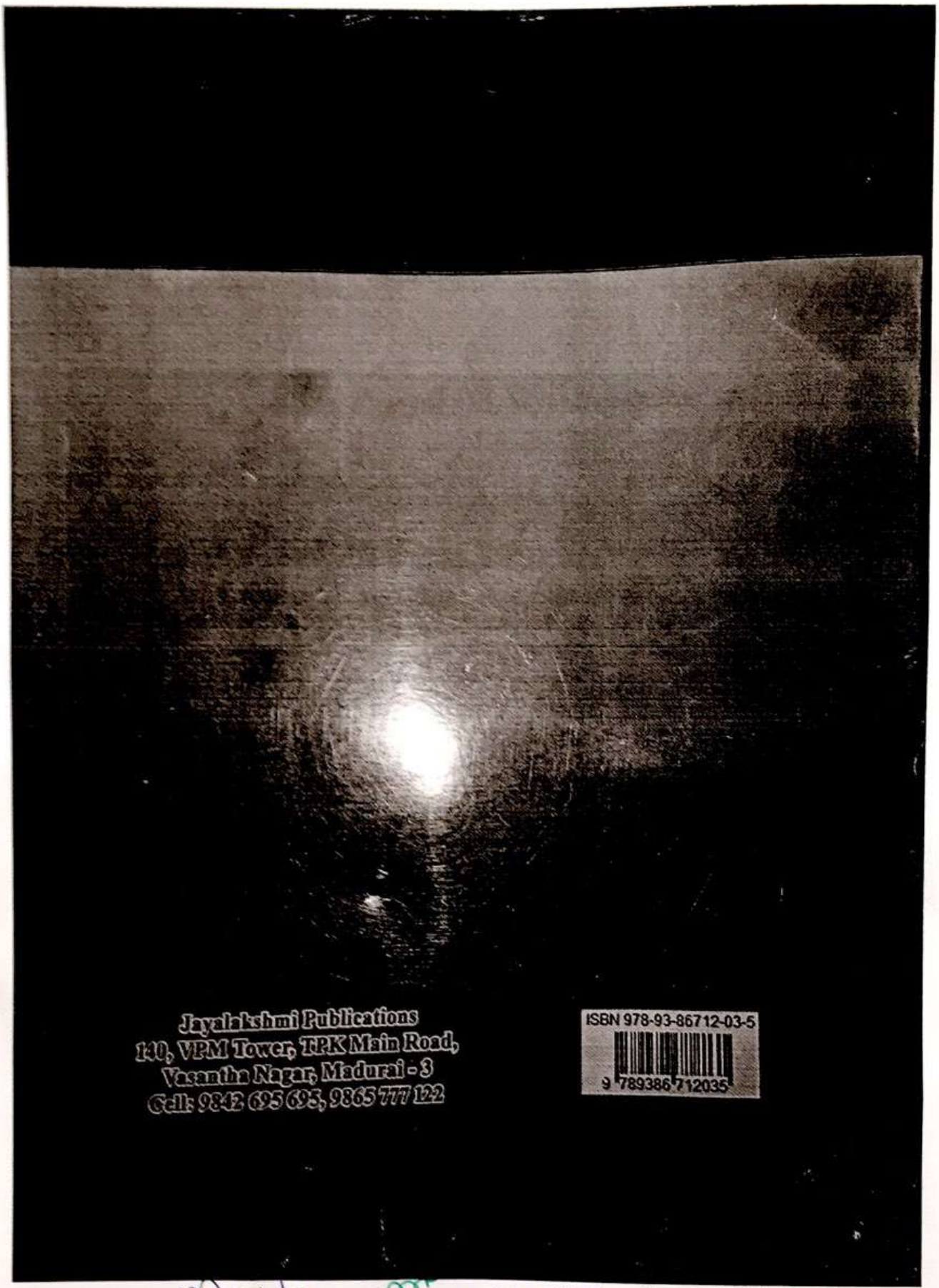

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OP-07

Evaluation of Synthesized antiscalants for cooling water system application

Dr.V.Suresh Kumar

Department of Chemistry, Kings College of Engineering, Punalkulam, Thanjavur-613303, India.

Abstract:

To mitigate the problem of scaling, corrosion and fouling, a number of chemical formulations have been made use of in industries to treat cooling waters. Because of the proprietary and the patented nature of most of the chemicals, a systematic and scientific approach for their working behavior is lacking. In the present study, it is planned to synthesize polyacrylic acid for evaluation and characterization as antiscalant. To inhibit the scale formation in cooling water systems, polyacrylic acid was synthesized, characterized and the ability of the polymer to mitigate the calcium carbonate and calcium sulphate scale formation was tested through chemical screening and electrochemical impedance techniques. X-ray diffraction (XRD) and scanning electron microscope (SEM) studies were performed to understand the morphological changes of the scales in the presence of the polymer. The synthesized polyacrylic acid was compared with the commercial product AQUASUPER B99, which is basically a polyacrylamide. It was observed that this polyacrylic acid could be used for the cooling water applications. Among the two inhibitors, synthesized polyacrylic acid shows slightly better antiscaling properties even at higher temperatures and pH.

Keywords: Antiscalant, Scale deposition, Temperature, Polyacrylic acid, Impedance

* **Corresponding Author:** drvsk@kingsindia.net

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OP-02

Kinetic Studies on the Removal Iron (III) On to Acid Activated Vitex Negundo Stem

S.Udayakumar1, K.Kavitha2
Kings College of Engineering, Thanjavur.
S.T.E.T Women's College, Mannargudi.

Abstract:
The present study is on adsorption of Fe (III) by Acid Activated Vitex Negundo Stem. It uses batch adsorption techniques. The influence of contact time, initial concentration, dosage of adsorbent and effect of solution pH were investigated. The isotherm studies of RL values showed that the adsorption process was favorable. Thermodynamic parameters such as ΔH°, ΔS° and ΔG° were evaluated. The data indicate that, the adsorption was spontaneous and is an endothermic nature. Adsorption kinetics was tested with pseudo- second –order, Elovich model and intra – particle diffusion models. Kinetic studies indicate an adsorption pseudo – second –order reaction. This study shows that intra – particles played a major role in the adsorption of Fe (III) ions mechanism. The Acid Activated Vitex Negundo Stem has high adsorption capacity and adsorption rate for the removal of Fe (III) ions from aqueous solution.

Keywords: Adsorption, Iron (III) ions, Kinetics, Vitex Negundo Stem, Thermodynamics.

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PCM – 1

Synthesis and Characterization of Iron Oxide-Chitosan NanoComposite

A L.Kavitha

Assistant Professor, Department of Chemistry, Kings College of Engineering, Punalkulam, Thanjavur-613005, India.
alkavitha82@gmail.com

The focal point of this paper, nanocomposite of hybrid materials Chitosan(CH) with α -Fe_2O_3, Chitosan with γ-Fe_2O_3 was synthesized. The α-Fe_2O_3 and γ-Fe_2O_3 nanoparticles were synthesized by the self-assembly and microwave method and characterized. The average particle size was found to be 27–30nm by XRD and AFM. The synthesized nanoparticles were dispersed into the prepared chitosan (CH) solution. After the dispersion, the CH-α-Fe_2O_3, CH-γ-Fe_2O_3 nanocomposite was subjected to characterizations such as UV-Visible, FT-IR, XRD and SEM with EDX. The CH-α-Fe_2O_3 nanocomposite to impart good antibacterial activity compared to that of pristine α -Fe_2O_3 and pristine chitosan. Electrochemical response studies were carried out using CH-γ-Fe_2O_3 nanocomposite with carbon paste modified electrode.

PCM – 2

Tensile, Flexural and Impact Properties of Luffa Cylindrica and Pineapple Reinforced Polymer Matrix hybrid Composite

K.ArunPrasath[1], P. Amuthakkannan[2], V. Arumugaprabu[3], R. Deepak Joel Johnson[4], R. Jegadheesan[5]

Department of Mechanical Engineering
Kalasalingam University, Krishnankoil, India

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Composites are emerging as realistic substitutes to the metal alloys in many applications like automobiles, marine, aerospace applications, sports goods, etc. Fiber composites offer many benefits such as low specific gravity, tensile strength and modulus, compressive strength, better fatigue strength, etc. Owing to the low specific gravity, the strength weight ratio and modulus weight ratio of these composite materials are markedly superior to those of metallic materials. Composites also afford design flexibility because many of them can be made into different compound shapes. The problem is probably the cost may higher for synthetic fiber also it will not be easily available in the mean time of the fabrication. Even though the resulting product is more efficient, and eco-friendly in working environment the raw materials are often costly. In this paper, we started with natural fiber and a natural resin. Due to some bonding difficulties with fiber and its properties we started our work with Luffa Cylindrica and pine apple fiber which is naturally available in native regions and also at low cost. General-purpose polyester resin is used as the bonding matrix. In this research paper we intended to carry out basic mechanical testing's like tensile, flexural and impact to identify the behavior of this type of hybrid materials and also its real time applications which satisfy some of our day-to-day usage of products or to make a new different fields.

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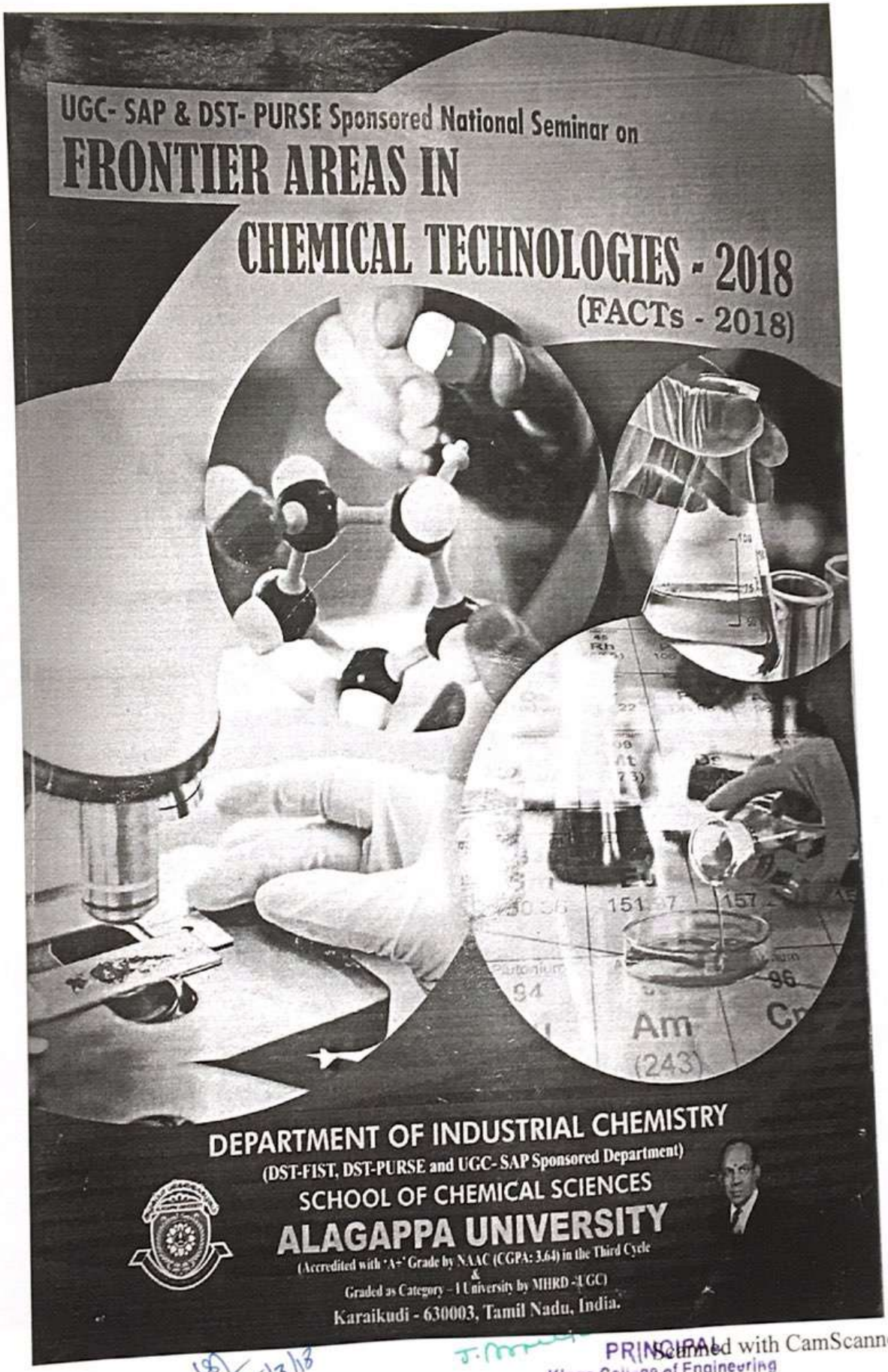

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Conference Organised by:
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Price : ₹ 1,000/- $ 30

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Conclusion

The silver nanoparticles were successfully synthesized using the leaf extracts of *Dodonaea viscosa* and characterized by optical and microscopic methods. The cytotoxic property of the extract mediated nanostructures showed IC_{50} values at very low concentrations proved that the AgNPs combined with the extracts have good inhibition efficiency against the A549 NSCLC cells.

References

K.M. Metz, S.E. Sanders, J.P. Pender, M.R. Dix, D.T. Hinds, S.J. Quinn, A.D. Ward, P. Duffy, R.J. Cullen, P.E. Colavita, ACS Sustainable Chemistry & Engineering. 3 (2015) 1610-1617.

E.C. Njagi, H. Huang, L. Stafford, H. Genuino, H.M. Galindo, J.B. Collins, G.E. Hoag, S.L. Suib, Langmuir. 27 (2011) 264–271.

P. Sivasankar, P. Seedevi, S. Poongodi, M. Sivakumar, T. Murugan, L. Sivakumar, K. Sivakumar, T. Balasubramanian, Carbohydrate Polymers. (2017).

OP 9 Multifunctional Application of Iron Oxide – Chitosan Composite

AL. Kavitha*[1] and H. Gurumallesh Prabu*[2]

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Abstract

This work was aimed to develop reusable iron oxide – chitosan composite for multifunctional applications.γ-Fe_2O_3 and α-Fe_2O_3 particles were synthesized by two different methods such as Microwave and Self assembly. Chitosan is to be prepared and characterized by using XRD and SEM techniques. Glucose oxidase(GOx) enzyme was used to prepare γ-Fe_2O_3-chitosan composite(1:3) containing carbon paste electrode for sensitive detection of glucose. The immobilized enzyme retained its bioactivity, exhibited a surface confined reversible electron transfer reaction, and had good stability. The surface parameters like surface coverage (τ), Diffusion coefficient (D_0), and rate constant (k_S) were studied. The shelf life of the developed electrode system is about 12 weeks under refrigerated conditions.

Keywords: γ-Fe_2O_3, α-Fe_2O_3, Chitosan, Composite, Glucose Biosensor, Glucose Oxidase

Introduction

In recent years, iron oxide nanoparticles have attracted the interest of researchers from various fields such as physics, medicine, and material science due to their multifunctional properties with small size, superparamagnetism, and low toxicity.[1–5]. chitosan (CH) along with nanoparticles has been utilized as a stabilizing agent due to its excellent film forming ability,

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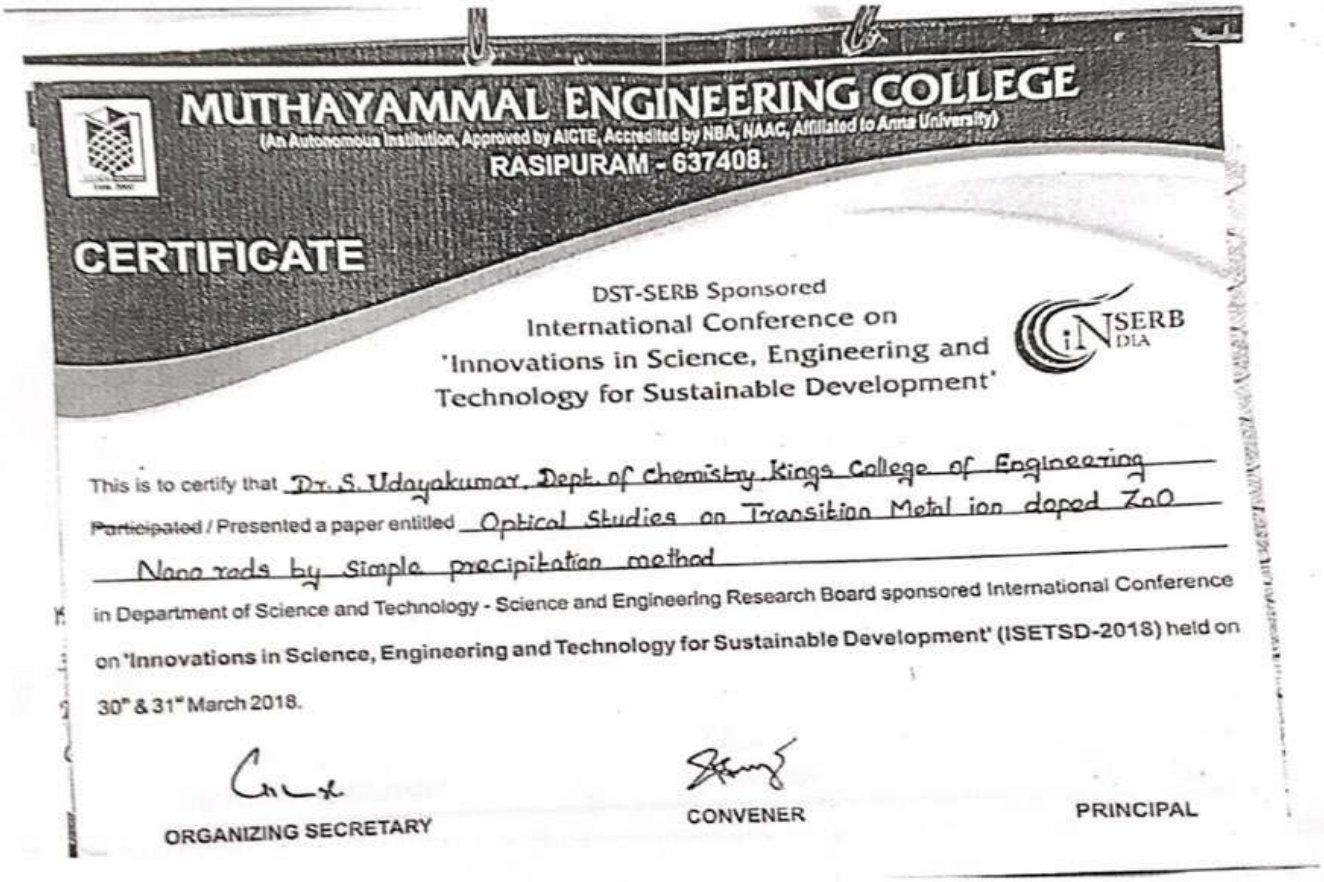

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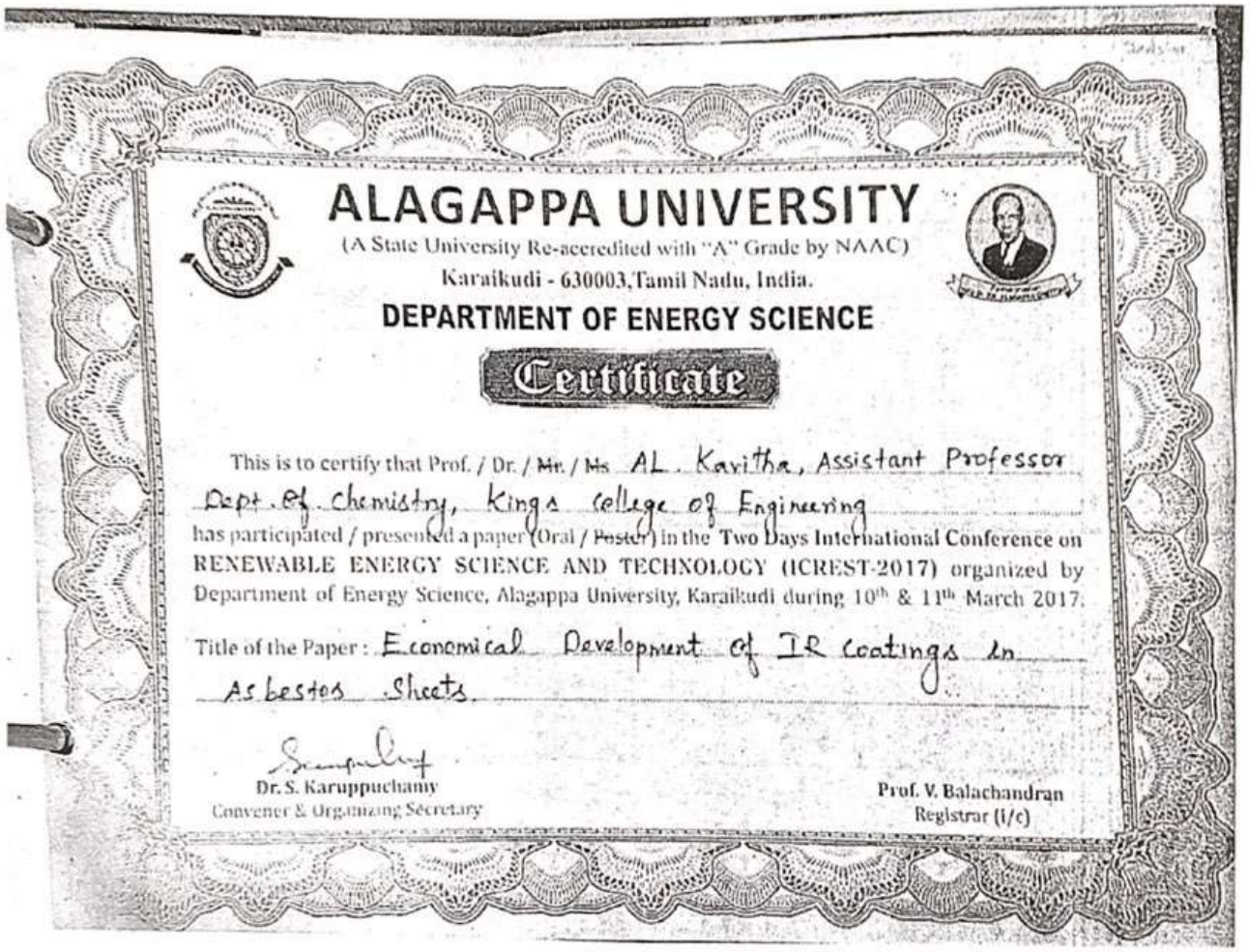

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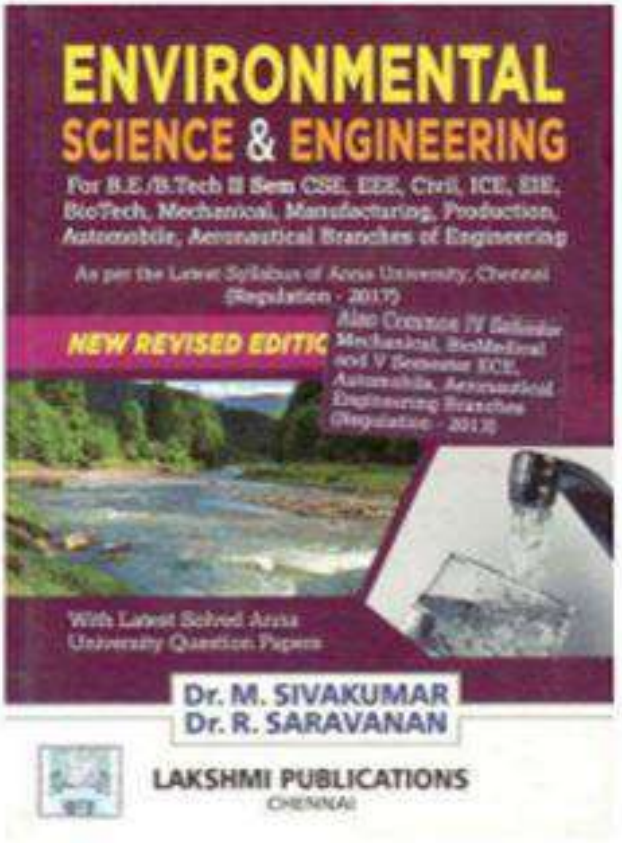

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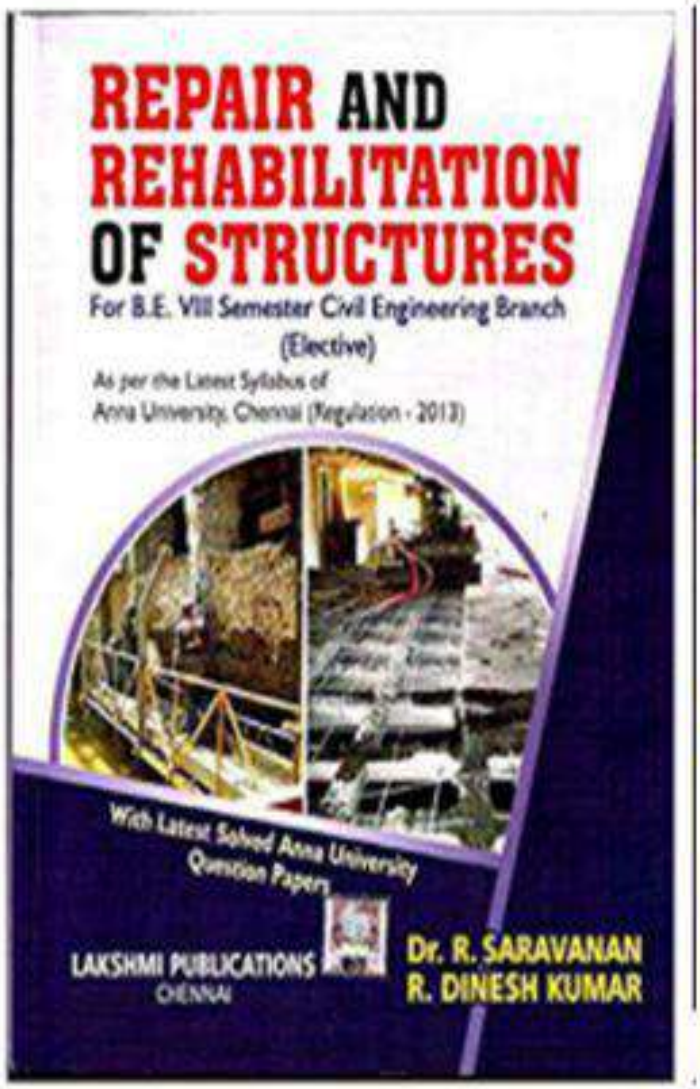

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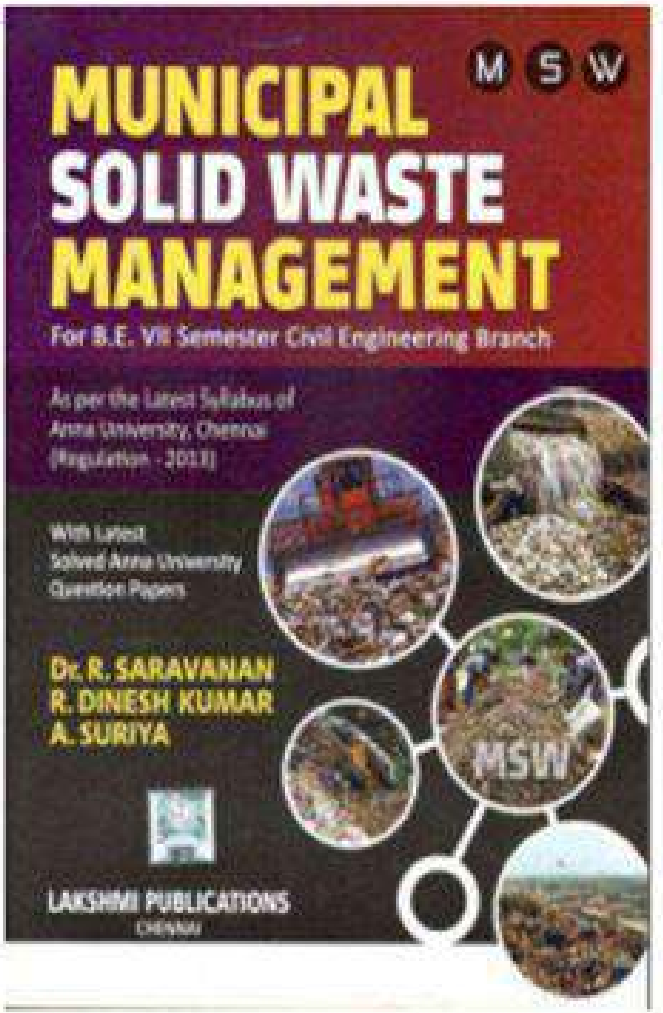

MUNICIPAL SOLID WASTE MANAGEMENT

by Dr. R. SARAVANAN
R. DINESH KUMAR
A. SURIYA

First Edition : August 2015
Second Edition : June 2016

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Price : Rs. 280/-

ISBN 978-93-85180-65-2

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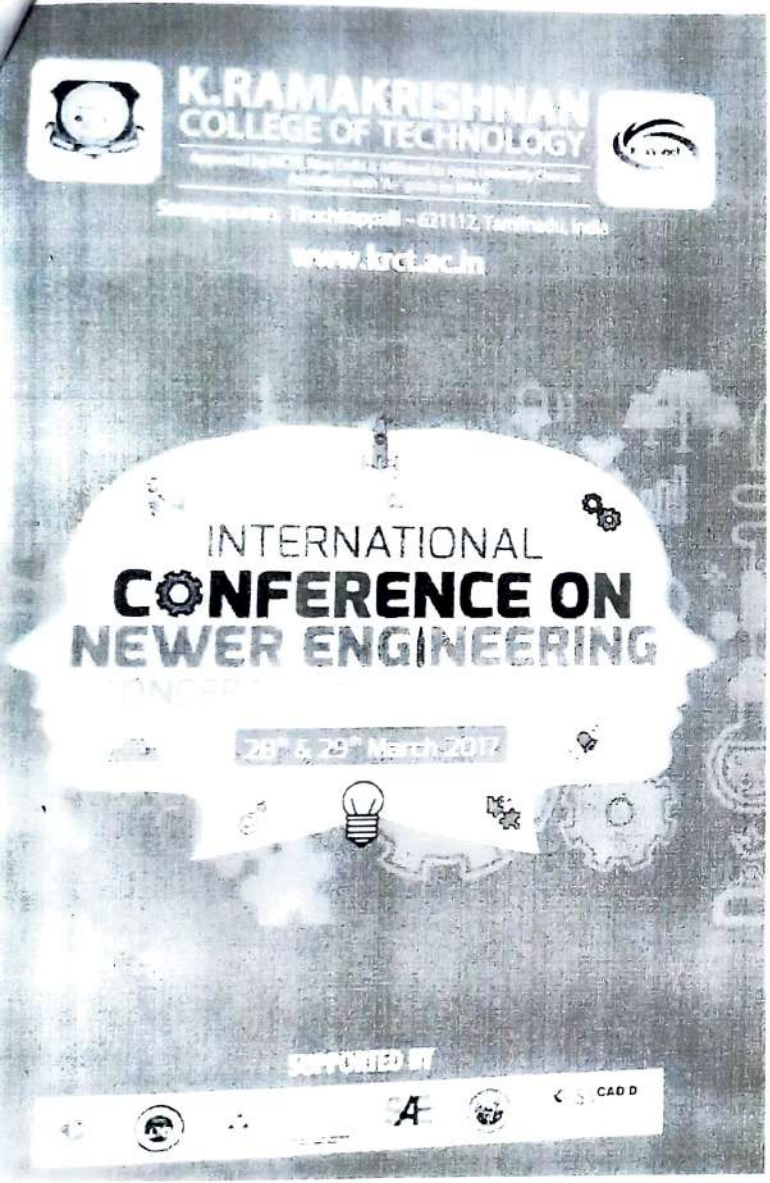

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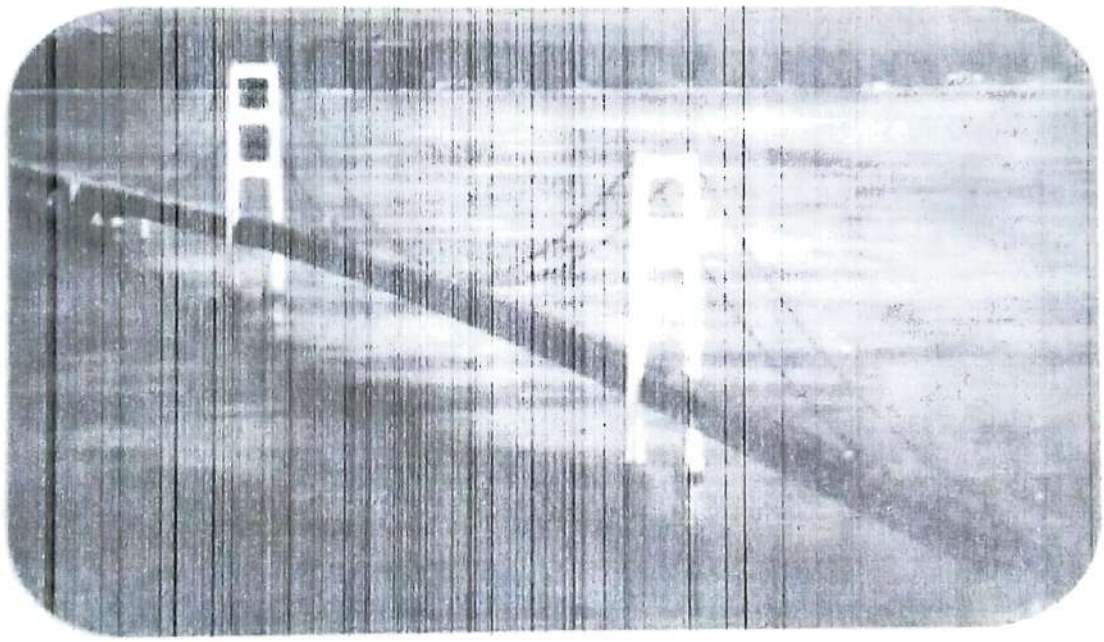

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CE15

FLEXURAL BEHAVIOUR OF RC BEAM WITH WELDED MESH AS SHEAR REINFORCEMENT

[1]Arun. K[1]Assistant Professor, [2]Neka.A , [3]Ishwarya.C, [2,3]II Year civil Engineering[2,3]Department of Civil Engineering[2,3]Kings College of Engineering[2,3]Punalkulam, Thanjavur

ABSTRACT

An alternative reinforcement system, Welded mesh is proposed to perform the function of transverse steel in Reinforced Concrete Beams. Welded mesh is made from cold-drawn steel wires. Welded mesh reinforcement eliminates some of the detailing problems inherent in traditional rebar in the Reinforced Concrete Construction resulting in easier and faster construction, and better economy and quality control. An experimental investigation on the behaviour of Rectangular concrete beams with Shear reinforcement by Welded mesh was done.

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CE22

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M.Maheswari ,M.Ragavi Final year students Kings College of Engineering , Punalkulam

ABSTRACT:

In this project studied about the behavior of self-curing concrete using M20 grade of concrete and additionally added wood powder for various percentages of 2%, 4%&6% by required volume of concrete. Were compared the strength of self-curing concrete and conventional concrete. The function of wood powder is reduced for water evaporation and increase the water in tensing capacity of concrete. The self-curing concrete can reduced settlement and formation of plastic shrinkage and internal cracks. The ACI-308 Code states that "self-curing refers to the process by which the hydration of cement occurs because of the availability of additional internal water that is not part of the mixing Water." Conventionally, curing concrete means creating conditions such that water is not lost from the surface i.e., curing is taken to happen 'from the outside to inside'. In contrast, 'self-curing' is allowing for curing 'from the inside to outside' through the internal reservoirs (in the form of saturated lightweight fine aggregates, superabsorbent polymers, or saturated wood fibers) created. 'Self-curing' is often also referred as 'Internal–curing.' The concept of curing and recognition of its contribution to obtain desirable properties of concrete is not novel. This technique has been adopted to maintain moisture and temperature conditions in a freshly placed cementious mixture to allow hydraulic cement hydration and pozzolanic reactions to occur so that the potential properties of the mixture may develop.

Keywords: self-curing; wood powder; Test on concrete; Mix design; Potential materials; Compressive strength of concrete.

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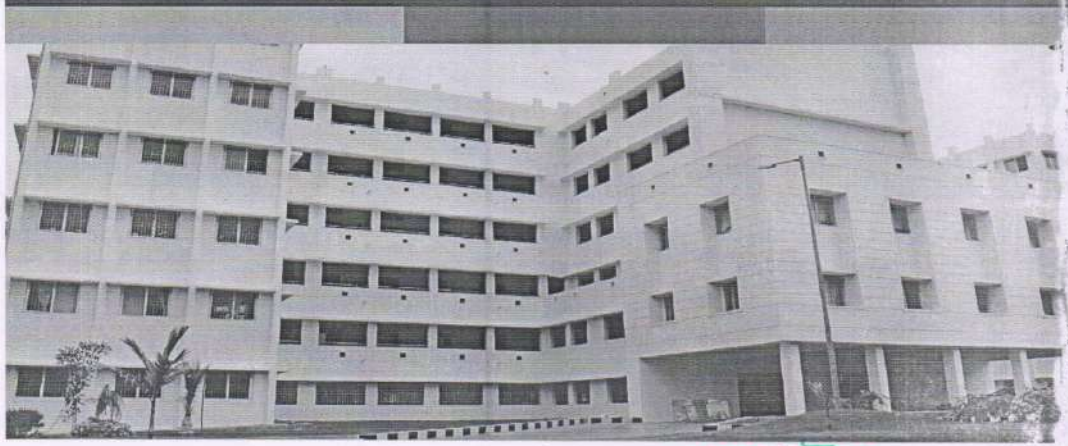

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ADAPTIVE CROWDSOURCING IN MEDICAL BIGDATA PLATFORMS

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Two novel algorithms for adaptive crowd sourcing in medical imaging big-data platforms is considered, namely, a max-weight scheduling algorithm for medical cloud platforms and a stochastic decision-making algorithm for distributed power-and-latency-aware dynamic buffer management in medical devices. In the first algorithm, medical cloud platforms perform a joint queue-backlog and rate-aware scheduling decisions for matching deployed access points (APs) and medical users where APs are eventually connected to medical clouds. In the second algorithm, each scheduled medical device computes the amounts of power allocation to upload its own medical data to medical big-data clouds with stochastic decision making considering joint energy-efficiency and buffer stability optimization. medical imaging big-data platforms, namely, a max-weight scheduling algorithm for medical cloud plat-forms and a stochastic decision-making algorithm for distributed power-and-latency-aware dynamic buffer management in medical devices

WTSR: WAITING TIME BASED SMART ROUTING PROTOCOL

Nandhini[1], Sanjay M[2] , Akshaya Narayan Hegde[3]

Routing the data packets in an effective way from source node to destination node is an important phase in communication network. Numerous routing algorithms are proposed for performing the task in an efficient way. The efficiency of the routing depends on many factors such as service time, transmission time, waiting time, shortest and feasible path etc. The earlier contributions towards this concept discussed about the implementation of shortest path along with transmission time and also only one shortest path is considered which may lead to congestion, especially in bottlenecks. To overcome these drawbacks, a smart routing protocol, WTSR – Waiting Time based Smart Routing Protocol is proposed in this paper, which combines the feature of shortest path and the waiting time of the packets, to choose the best path for the transmission.

In Phase I, multiple possible paths from source to the destination are found out. This can be achieved by implementing Breadth First Search Algorithm (BFS). Using BFS algorithm, all paths from source to destination are identified and cost for traversing each path is calculated. In the second phase, each link can be considered as M/M/1 queuing model and the total waiting time is calculated for every path. Total cost of the path is then, the Cost of the chosen path * Total waiting time of the path. Path corresponding to the least total cost is considered for routing. In case of the link failure or congestion in the chosen path, next path with least total cost becomes the best path and considered for routing.

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SURVEY ON FILE RECOVERY SYSTEM FOR HADOOP USING GRID BASED QUERY LANGUAGE

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In our modern world and fastest growing technology we create many number of files but data recovery system is most challenging aspects in the internet or World Wide Web applications. Now a day evens a tera bytes (TB) and peta bytes (PB) of data is not enough for storing large chunks of database (DB). Sensitive information that is stored in Hadoop clusters can potentially be retrieved without permission or access granted. In addition, the ability to recover deleted data from Hadoop clusters represents a major security threat. Hadoop clusters are used to manage large amounts of data both within and outside of organizations. Fault-tolerance has long been a feature of database systems, with transactions supporting the structuring of applications so as to ensure continuation of updating applications in spite of machine failures. For read-only queries the perceived wisdom has been that support for fault-tolerance is too expensive to be worthwhile. Distributed query processing (DQP) is coming to be seen as a promising way of implementing applications that combine structured data and analysis operations in dynamic distributed settings such as computational grids. Accordingly, a number of protocols have been described that support tolerance to failure of intermediate machines, so as to permit continuation from surviving intermediate state. However, a distributed query can have a non-trivial mapping onto hardware resources. In this paper, we examine the behavior of Name node and what are the issues of Name node failure. This paper presents a Scenario to overcome this failure our scheme replicates the Name node on the other Data node so that the availability of the metadata is increases and also D

ENERGY EFFICIENT DISTRIBUTED HASH TABLE BASED ROUTING IN MOBILE WSN

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Wireless sensor networks (WSN) contains resource constrained characteristics in terms of limited storage capacity and limited energy. Energy consumption is the major resource in WSN. For that reason, need to implement energy efficient routing protocol in WSN. Routing is one of the most important problems in mobile WSN. The proposed work is called hierarchical Distributed Hash Table (DHT) based routing protocol for mobile WSN with mobile sensor nodes and static sink. This protocol is energy efficient and reliable routing protocol. The protocol uses the deputy cluster head (DCH) to curtail the re-clustering time and energy necessities. The procedure of joining and leaving the cluster members to or from clusters are handled by this protocol. It also handles the cluster head leave operation from the cluster. Simulation results show that DHT based routing protocol provide more network lifetime and throughput than the E^2R^2 protocol. It requires less average communication energy compared to E^2R^2 protocol.

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International Journal of Emerging Technology in Computer Science & Electronics (IJETCSE)
ISSN: 0976-1353 Volume 24 Issue 4 – MARCH 2017.

Compressing Video using Asymmetric Algorithm and implementing Blind Video Watermarking Techniques

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Abstract— **Compression is to reduce the file size of image , audio and video files. All the web images you get on the site are compressed, typically in the JPEG or GIF formats, most modems use compression, HDTV will be compressed using MPEG-2, and several file systems automatically compress files when stored, and the rest of us do it by hand. The neat thing about compression, as with the other topics we will cover in this course, is that the algorithms used in the real world make heavy use of a wide set of algorithmic tools, including sorting, hash tables, tries, and FFTsthe capacity and speed of storage devices have been tremendously improving. Today, new kinds of cheaper and more efficient memory devices are constantly emerging . In my paper the Discrete Cosine Transform (DCT) based blind video watermarking algorithm is proposed, which is perceptually invisible and robust against rotation and collusion attacks and pixels will not be broken so that after compression of video we can get the quality as orginal. To make the scheme resistant against rotation, watermark is embedded within the square blocks, placed on the middle position of every luminance channel. Then Zernike moments of those square blocks are calculated.**

Index Terms— **DCT, DAS, LZW, WMT, Zernike**

I. INTRODUCTION

Video compression is the process of encoding a video file in such a way that it consumes less space than the original file and is easier to transmit over the network/Internet. It is a type of compression technique that reduces the size of video file formats by eliminating redundant and non-functional data from the original video file. Video compression techniques were started in 1984 when the images and audio files where gone through wide range of focusing level by the people Lossy audio compression is used in a wide range of applications. In addition to the direct applications (MP3 players or computers), digitally compressed audio streams are used in most video DVDs, digital television, streaming media on the internet, satellite and cable radio, and increasingly in terrestrial radio broadcasts. storage media like diskettes, hard disks, CDs, USB Flash Disks, and tapes. Most data that we store in our computer devices are digital each unit of information packed in binary form. This binary nature of the source is how much information it really contains, and which better way to represent that information in a smaller number of binary digits, or bits. The compressed file is ultimately a concatenation of thousands or even millions of bit strings. Clearly, the cost of sending data over communications networks is minimized if the files are highly compressed. Digital watermarking is the method of embedding data into digital multimedia content. This is used to verify the credibility of the content or to recognize the identity of the digital content's owner. Using Watermarking techniques The rotation invariance property of the Complex Zernike moments [2] is exploited to predict the rotation angle of the video at the time of extraction of watermark bits. To make the scheme robust against collusion, design of the scheme is done in such a way that the embedding blocks will vary for the successive frames of the video.

Visible Digital Watermarking: Visible data is embedded as the watermark. This can be a logo or a text that denotes a digital medium's owner. Invisible Digital Watermarking: The data embedded is invisible or, in case of audio content, inaudible. Robust watermarks involve blending signal amplitude with large bandwidth sizes and a short message length. Frequency domain capabilities and mixed-domain techniques, when added to signals, are believed to provide the right amount of robustness in order to guard against watermark attacks.
The publisher Playboy has used an invisible form of digital watermarking to detect where its copyrighted material has been illegally posted on other websites.

A Pseudo Random Number (PRN) generator and a permutation vector are used to achieve the goal. The experimental results show that the scheme is robust against conventional video attacks, rotation attack and collusion attacks. A PRNG suitable for cryptographic applications is called a cryptographically secure PRNG (CSPRNG). A requirement for a CSPRNG is that an adversary not knowing the seed has only negligible advantage in distinguishing the generator's output sequence from a random sequence. In other words, while a PRNG is only required to pass certain statistical tests, a CSPRNG must pass all statistical tests that are restricted to polynomial time in the size of the seed.

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50. SECURE COST AWARE ROUTING PROTOCOL FOR WIRELESS SENSOR NETWORKS

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Lifetime optimization and security are two conflicting design issues for multi-hop wireless sensor networks (WSNs) with non-replenish able energy resources. In this paper, we first propose a novel secure and efficient Cost-Aware Secure Routing (CASER) protocol to address these two conflicting issues through two adjustable parameters: energy balance control (EBC) and probabilistic based random walking. We then discover that the energy consumption is severely disproportional to the uniform energy deployment for the given network topology, which greatly reduces the lifetime of the sensor networks (problem). To solve this problem, we propose an efficient non-uniform energy deployment strategy to optimize the lifetime and message delivery ratio under the same energy resource and security requirement. We also provide a quantitative security analysis on the proposed routing protocol. Our theoretical analysis and OPNET simulation results demonstrate that the proposed CASER protocol can provide an excellent tradeoff between routing efficiency and energy balance, and can significantly extend the lifetime of the sensor networks in all scenarios. For the non-uniform energy deployment, our analysis shows that we can increase the lifetime and the total number of messages that can be delivered by more than four times under the same assumption. We also demonstrate that the proposed CASER protocol can achieve a high message delivery ratio while preventing routing trace back attacks.

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51. DESIGN OF EARLIER FLOOD AND LANDSLIDES MONITORING SYSTEM BASED ON WEATHER FORECASTING DATA USING WIRELESS SENSOR NETWORK

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This research proposal is basically for flood and landslides monitoring system based on weather forecasting data using wireless sensor networks. Our system measures temperature, humidity, soil moisture level and water level through wireless sensor nodes and also we can forecast possibility of future disasters by datamining algorithm on our database. Hazardous condition information and forecasted information employed for early– warning with the use of servers to mobile phones by SMS and also a common voice play signal indication. we use PIC micro-controller for connecting the server to the different sensors like water level sensor , humidity sensor, electrode sensor and GY80 sensor. We apply Naive Bayes Data mining on our database for forecasting, Naïve Bayes algorithm is simple probabilistic classifier which finds output for YES & NO Probability.

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52. A SECURE AND EFFICIENT POWER SAVING ANALYSIS FOR WIRELESS SENSOR NETWORK

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Continuous mobile sensing applications are emerging. Many users are turned away by the drastic battery drain caused by continuous sensing and processing. A novel cooperative context monitoring system, which addresses the energy problem through opportunistic cooperation among nearby users. A benefit-aware negotiation method to maximize the energy benefit of context sharing. Mobile Ad-hoc Networks (MANETs) assume that mobile nodes voluntary cooperate in order to work properly. This cooperation is a costintensive activity and some nodes can refuse to cooperate, leading to a battery power low behavior.

53. VHDL IMPLEMENTATION OF PUBLIC KEY CRYPTOGRAPHY BASED IMAGE ENCRYPTION AND DECRYPTION USING REVERSIBLE DATA LSB ALGORITHM

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Abstract -This paper proposes a lossless, image encryption and decryption using LSB algorithm, and combined reversible data hiding schemes for cipher text images encrypted by public key cryptosystems with probabilistic and homomorphic properties. In the lossless scheme, the cipher text pixels are replaced with new values to embed the additional data into several LSBPlanes of cipher text pixels by multi-layer images.Then, the embedded data can be directly extracted from the encrypted domain, and the data embedding operation does not affect the decryption of original plaintext image. In the reversible scheme, a pre-processing is employed to shrink the image histogram before image encryption, so that the modification on encrypted images for data embedding will not cause any pixel oversaturation in plaintext domain. Althougha slight distortion is introduced, the embedded data can be extracted and the original image can be recovered from the directly decrypted image. Due to the compatibility between the lossless and reversible schemes, the data embedding operations in the two manners can be simultaneously performed in an encrypted image. With the combined technique, a receiver may extract a part of embedded data before decryption, and extract another part of embedded data before decryption, and extract another part of embedded data and recover the original plaintext image after decryption. The proposed architecture of thispaper will be planned to implement in video and also analysis the logic size, area and power consumption using Xilinx 14.2.

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QUICK RESPONSE SYSTEM APP FOR SERVICE SUPPORT

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The aim of our project is to develop an integrated Web and mobile phone application prototype for connecting household service seekers and providers using Android. The Web interface is used by the service seeker who has household problems and they use the web interface to post their problems through their respective accounts. The service providers must belong to a company or they themselves can be a company for getting registered to the web application. The mobile application is to be installed on the mobile phone.

CHAOTIC MAP COMBINED WITH MSIS SCHEME FOR SECURE DATA TRANSMISSION

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Steganography refers to information or a file that has been hidden inside a digital image, video or audio file.The common method used for hiding the information in the cover image is Least Significant Bit(LSB) steganography.The chaotic map is highly sensitive to initial values and parameter of the system. The logistic map is used to generate the random series used for choosing the pixels randomly for hiding data. So,the proposed algorithm provides added security to steganographic technique. In our project sensitive text are encrypted and hide in the image using Multi-Secret Image Sharing (MSIS) scheme and chaotic map.

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International Journal for Modern Trends in Science and Technology
Volume: 03, Issue No: 04, April 2017
ISSN: 2455-3778
http://www.ijmtst.com

Design and Performance Analysis of Gravity Assisted Power (GAP) Generating System for Harvesting Electrical Energy

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To Cite this Article
T.Pasupathi, S.Noorjahan, K.Padmapriya, R.Salma Begum and S.B.Sangeetha, "Design and Performance Analysis of Gravity Assisted Power (GAP) Generating System for Harvesting Electrical Energy", *International Journal for Modern Trends in Science and Technology*, Vol. 03, Issue 04, April 2017, pp. 136-140.

ABSTRACT

In this paper we proposed a new kind of system for harvesting electrical energy using Gravity Assisted Power (GAP) system. This proposed system design consists of a weighted pendulum made up of copper wire, which hangs between two bar magnets arranged in a parallel manner. As per the faraday's law an emf is produced when a coil is dropped in between the magnetic field. Copper coil is made to oscillate back and forth freely using the perpetual motion generator. Then we made wireless power transmission (WPT) for transmitting the data by the harvesting electrical energy. The entire design is simulated and modeled using MATLAB and MINITAB software. This is new kind of idea to harvesting electrical energy, which is no pileup and to provide energy for 24X7 hours with more ecological and high efficient set up.

KEYWORDS: *pendulum, perpetual motion, gravity assisted power, WPT, simulation*

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I. INTRODUCTION

All around the world people are trying to generate new forms of energy to satisfy their increasing needs. Generally energy harvesting using natural resources include airflow ,sunlight etc is entirely different from energy generation involving the intake of non-renewable energy such as fossil fuels, lignite etc. The main difference is that for energy generation, the resource must be available in the direct environment for the application. First-generation technologies include fossil fuels, lignite etc. A fossil fuel power station have machinery to convert the heat energy into mechanical energy, which then operates an electrical generator. Variations between countries generating electrical power where only 10% of electricity is generated from non-transient source like fossil fuels in France, US and China are at higher rate of production with 70% and 80% respectively. In US, other than any source, power generation causes around 40% of the hazardous emissions. Also, fossil fuel combustion for electricity generation is the major reason for 65% of the emissions of SiO2, which is the main component causing acid rain. Another existing energy generation systems includes nuclear power generation which costs high. The cost spent for nuclear accidents are high and it will be a tedious process in rebuilding the nuclear power plant although it needs additional charges. Second-generation technologies include solar, wind, hydro and other power generation systems. In 2015 Hydropower generated 16.6% of the world total electricity and 70% of all renewable electricity. It also disturbs the water flow and lower the

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SFRDS – AN INSIGHT TO RESEARCH FOR UG STUDENTS

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Abstract

Research is a vital tool that measures the learning outcome of theoretical and practical skills the student has acquired during his four years of technical education. Promotion of research offers UG students to better understand published works and explore the area of research interest and research requirements. Promoting research culture among UG students significantly contribute the **transformation of** project based learning and **research ideas into patents/products and hence** extends employability and understanding of the research environment. The Student Faculty Research Development Scheme (SFRDS), instituted by Kings College of Engineering (KCE), Thanjavur, Tamil Nadu, is a scheme to encourage students of all engineering disciplines to participate in research and research related activities such as participation in department and institutional level technical activities and publication in refereed national/international journals & conferences. An amount of Rs.12 lakhs per year is allotted for carrying out undergraduate research and development activities under this scheme. SFRDS promotes untapped creativity of individual innovators in the department and supports to carry out socially relevant technical projects that lead to IPR generation under their curriculum. Financial assistance for publication encourages undergraduate students to publish their scientific and technological ideas to reach outside world through journals / magazines. Grants provided under this scheme make the recipients with the opportunity to carry out their research under faculty supervision.

SFRDS at KCE is a mechanism used to promote research culture among undergraduate students and to measure desired learning outcomes. The study conducted clearly establishes the need to explore the research opportunities for UG students and the need for financial support. The survey conducted based on effectiveness of students' participation in research related activities devices SFRDS which promotes research ambience at KCE.

Keywords: Promotion of research, financial assistance, SFRDS

1. Introduction

Research is investigating new knowledge in a methodical way. Promoting research culture among UG students appreciably contribute the **conversion of** theoretical and practical skills to **research ideas and hence to patents/products**. The undergraduate research experience may be the epitome of engaged learning (Lopatto, 2006).The best human resource for today's research that should be effectively utilized is UG students. The importance of UG research is acknowledged worldwide (El-Dakhs, 2010). Promotion of research among UG students was first conceptualized by Undergraduate Research Opportunity Program (UROP) devised by Massachusetts Institute of Technology (MIT) in the year 1969. The objective of UROP is to provide "hands on" research experience through providing financial assistance or academic credit to create a program that would encourage and support research-based intellectual collaboration of MIT undergraduates with Institute faculty members. The Imperial College, London, established Council on Undergraduate Research (CUR) in 1978 to strengthen UG research in the US educational institutions. The CUR focuses on providing undergraduate research opportunities for faculty and students at all

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PEAK – AN INNOVATIVE PRACTICE TO ENGINEERING STUDENTS

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Abstract

Engineering deals with solving of society's problems in a sustainable way and these problems to be solved are defined by the society, which also defines the acceptability of any prescribed solution. Programme to Enrich Attitude and Knowledge (PEAK) is an Integrated Skill Enhancement programme introduced by Kings College of Engineering, Punalkulam, Tamil Nadu, for the undergraduate engineering students at the entry level. This program is meticulously aiming at overall grooming of the students and instill attitude required for becoming a successful engineer. Being a special course uniquely offered beyond the curriculum, it focuses on learners' career development that is enhanced through various activities which stimulate and strengthen their curriculum progression. Planned with structured modules in a self paced method it gives the young minds with the essential skills like Social Skills, Management Skills, Mathematical Skills, Department Orientation and Physical Grooming, required to endeavor into engineering study and feel comfortable with technical learning. The activities are focused to catalyze the ability of a student to manage a team, solving quantitative, logical, analytical, puzzle kind of problems. In order to inspire the learner to undertake the degree with involvement and research insight the program is also concentrated in guiding students in goal setting, by creating enough awareness about the scope of discipline, courses, challenges and opportunities. In order to validate the effectiveness of the programme, a survey is also conducted after the completion of the programme, based on factors like learning outcomes, usefulness and recommendation for next batch of students. It is found that the impact created by this programme among the learners has proven to have concern over reforming engineering education.

Key words: Attitude, Integrated skill, Engineering, Innovative practice.

1. INTRODUCTION

"GurukulaKalvi", the ancient Indian Educational Systemis recognized to be a successful system of learningwhich practices andtrains the learners with multiple skills gained during the stipulated duration. In modern world, students excels in their career not only with the theoretical knowledge they gain during their study period but it is essential that they must gain skills to expose their knowledge for the benefits of others. Analogous to the Gurukula system of training the students, the institution focuses in transforming a student into multitalented and marketable engineers. To achieve this, it is essential to integrate more than one skill into a student, relevant to his discipline of study in addition to other practices adopted by the institution and other professional societies. PEAK is an innovative programme initiated to enhance the integrated skills and hence enrich both attitude and knowledge of a student to adapt to the fast growing technology. Further being employed as professionals in nation building organizations and industries, it becomes the prominent role of institutions to impart professional ethics and social management skills. Pertaining to this PEAK is conducted in regular working hours sparing 30 minutes during the last session of the day not only to shape the character but also to update their knowledge so as to enhance their research insight. Senior Faculty members of the department handles session as per the course plan framed at the beginning of the course. If necessary, experts are invited from external sources to catalyze the programme. A special team functions in the institution to

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SEGMENTATION AND VOLUME ESTIMATION OF THYROID NODULES USING ULTRA SOUND IMAGE

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Abstract: Thyroid is an endocrine gland, which produces hormones that helps to control body metabolism. Hyperthyroidism, Hypothyroidism, goiter, and thyroid nodules (benign/malignant) are the different thyroid disorders. When radiologists and physicians manually draw a complete shape of nodule, extracting heterogeneous features is a difficult task and it is difficult to distinguish what type of nodule is exists. This paper provides a concise overview about segmentation and volume estimation of thyroid nodules. Segmentation separates the affected region or region of interest from the other tissues. The PNN classifier is used to classify Thyroid data. The parameters for evaluating the thyroid volume are estimated using a particle swarm optimization algorithm. Ultrasoundsystems have accomplished an excellent tradeoff between image qualities, low-cost, portability and fortune of any form of radiation.Simulation results of the thyroid shows that the region segmentation can be automatically achieved and the volume of thyroid nodule can be precisely estimated.

Key words:Thyroid nodules, Ultrasound Imaging, Segmentation, PNN classifier

1. INTRODUCTION

In this paper, we present aneasy guide ofconclude the thyroid nodules in the thyroid with its quantityevaluation by using ultrasound image Thyroid nodules larger than 1cm may be detected clinically by palpation. Thyroid nodules less than 1 cm in diameter not clinically measurableif notto be found on the outside of the gland are much more frequent. The advantages of using ultrasonic imaging comprise its mobility and low cost as well asthe facility to evaluate the measurement of the gland verify for the attendance of masses or cysts and calculate the arrangement. A thyroid ultrasound examination provides an intention and accurate method for detection of a modify in the size of the nodule,used to estimate the US features, which include size, and composition, as well as presence or absence of coarse or, a halo and unbalanced margins. The improvementimage is used for more processing of segmentation the thyroid and estimates its capacity.

1.1 Thyroid

The thyroid is a small gland, created something like a butterfly. It is situated in the lesser front part of the neck, just lowerthe voice box and environment trachea. The thyroid produces hormones that are accepted in the blood to every tissue in thebody. It helps normalize metabolism, or how the body turns food into energy.It participates in these processes by producing thyroid hormones. But extremely less or excessive amount of these hormones causes a variety of thyroid disorders.The thyroid gland is shown in the figure 1.1.

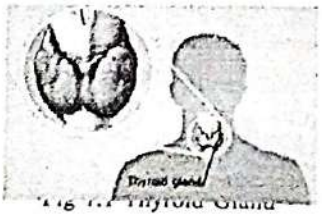

Fig 1.1 Thyroid Gland

People in the age collection of 20 to 40 are typicallyexaggerated by thyroid disorders. Women are having more danger than men in increasing thyroid disorders. They can expand thyroid disorders for the period of their pregnancy also. Thyroid sickness is caused by the following factors which can be classified as convenient and contributing factors. 1. Age 2. Sex 3. T3-Serum triiodothronine4. T4-Serum thyroxine 5. TSH-Thyroid Stimulating Harmone 6. Iodine Intake 7. Medication for thyroid problems

1.2 Different thyroid disorders and theirsymptoms

The thyroid diseases can be classified into two groups. First group affects the function of the thyroid and the second group consist neoplasms, or tumors of the thyroid. General population is affected by both the types of disorders. Abnormalities of thyroid function are caused by the abnormal production of thyroid hormones. There are

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Improvement of Speaker Identification System Using MFCC and Pitch Based MFCC in Noise Environment

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Abstract—This paper presents design and development of speaker identification system that is insensitive to noise. This paper deals with a combination of modified MFCC and Pitch based MFCC for feature extraction. Nowadays, the Mel-frequency cepstral coefficient (MFCC) is the most widely used feature in speech recognition, speech synthesis and speaker identification. However, the performance of identification systems significantly degrade in noise environment because of MFCC is very sensitive to noise. To improve the noise sensitivity in speaker identification systems by applying combined piecewise function in the standard MFCC analysis. In this work uses the Pitch based MFCC, which is modeled on human auditory system and it integrates the change in speaker specific pitch information to improve the act of speaker identification. The simulation results of the system shows very good identification rate in 91 % comparison with using only MFCC with Pitch based MFCC in noisy environment.

Keywords— Mel Frequency Cepstrum Coefficients; Pitch based MFCC; feature extraction; combined piecewise function.

I. INTRODUCTION

Speech is the most natural form of human communication. It is an immensely information-rich signal exploiting frequency-modulated, amplitude-modulated and time-modulated carriers to convey information about words, speaker identity, accent, expression, style of speech, emotion and the state of health of the speaker. The speech signal is produced from the vocal tract system by varying its dimension with the help of articulators and exciting with a time varying source of excitation. The physical structure and dimension of the vocal tract, as well as of the excitation source, are unique for each speaker. So the voice information available in the speech signal can be used for speaker recognition. The two basic methods for speaker recognition are speaker verification and speaker identification. Speaker identification (SI) refers to the process of identifying an individual by extracting and processing information from his/her speech it is a task of finding the best-matching speaker for unknown speaker from a database of known speakers. it is mainly a part of the speech processing [2].The SI system enables people to have secure information and property access. In case of speaker identification the similarity is computed between the input utterance and the closest reference stored pattern of speakers.

A speaker identification system has many applications including in telephone, banking, reservation services, and so on. In speech identification system, the main goal of acoustic module to extract the features of speakers. The LPC parameters most preferred speaker/speech recognition [9, 11] because of their simplicity and effectiveness. Other mostly preferred feature parameters in identification system namely, the mel-scale frequency cepstral coefficients (MFCC) [3, 4].

The modeling technique is to generate models for each speaker using specific feature vector extracted from each speaker using GMM classifier. GMM training is relatively fast and the models can be scaled and updated to add new speakers with relative ease [1, 5].

II. SPEAKER IDENTIFICATION SYSTEM

The functioning of the Speaker identification system is portrayed in Fig.1.This study depicts the functional process.

- Front-end processing
- Speaker modelling
- Speaker database
- Decision logic

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MITIGATION OF LOW-ORDER ATMOSPHERIC TURBULENT EFFECTS USING SENSORLESS ADAPTIVE OPTICS IN TERRESTRIAL FREE SPACE OPTICAL COMMUNICATION

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Abstract— **Tip-Tilt and wavefront distortion in the Free Space Optical Communication (FSOC) can be mitigated with Conventional Adaptive Optics (AO) which is widely used in many optical systems to improve the quality of an optical system by manipulating the optical wavefronts using suitable techniques thereby improving BER. This paper describes Sensorless Adaptive optics (SLAO) technique which replaces the high cost wavefront sensor and corrects aberrated optical wavefront by comparing a test wavefront to a perfect, reference wavefront, and then modifying the test wavefront in order to reach the reference wavefront. Artificial Neural Networks (ANN) based reconstruction technique is proposed. The neural network is designed to use the information of tilt in the wave-front acquired by the science camera by extracting the parameters as inputs and estimate the turbulence in terms of Zernike coefficients. Multi-Layer feed forward Neural Network is used to train the inputs and to find actuator control voltages which are applied to DM. In this paper we present a practical implementation of Adaptive Optics system at 850 nm based on a wave-front sensorless architecture. Proposed experimental set-up reduces the complexity and the cost of the conventional adaptive optics system. SLAO provides fast and effective wave-front correction. When compared with the conventional AO systems, the sensorless technique offers the advantage of not requiring the high cost wavefront sensor.**

I. INTRODUCTION

Free-Space Optical Communication (FSOC) offers line-of-sight, wireless, high-bandwidth communication link between remote sites using lasers as signal carriers. FSOC offers significant advantages over conventional RF wireless communications and fiber optics technology, including higher bit rates, Ease of deployment, License-free operation, Low bit error rates (BER), Immunity to electromagnetic interference (EMI) and Increased security[1],[2].

Free Space Optical Communication (FSOC) uses a modulated laser beam to carry the information over the free space atmospheric path. Basically Free Space Optical Communication system composed of three main components namely Laser transmitter, which encodes the message into an optical signal, a channel, which carries the signal over the turbulent free space atmosphere and photo detector as receiver, which reproduces the message from the optical signal. Fig.1 shows the schematic of Terrestrial Free Space Optical Communication system[3].

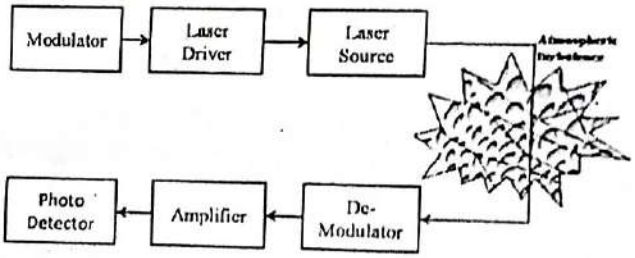

Fig 1. Schematic of Terrestrial Free Space Optical Communication system

The performance of FSOC is mainly affected by internal parameters that are related to the system design which includes (i)wavelength, (ii)Power of the optical source (iii)Transmission bandwidth and BER. Internal parameters are otherwise called as System specific parameters. External parameters that are otherwise called as Non-system specific parameters which includes (i) Atmospheric visibility (ii) Atmospheric attenuation (iii) Scintillation and (iv) Link range. Among the internal and external parameters the variables that can be controlled are the transmitted power, receiver aperture size, beam divergence and link range[4].

The primary parameters affecting the performance include atmospheric attenuation (rain, drizzle, fog and haze scattering), scintillation, alignment or building sway and line of sight obstruction. Quality of the optical signal may be heavily degraded severely due to wave-front aberrations In free-space optical communication, both intensity and phase of the received optical signal is heavily affected by turbulent atmosphere, thereby affecting the link performance and

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FPGA Based Frequency Synthesizer for 14-Band MB-OFDM UWB Transceivers

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Abstract-**The design of the All Digital Receiver circuit in this paper uses Delay Locked Loop (DLL) as the main core as a replacement for of PLL. A 14 -band CMOS frequency synthesizer using DLL is designed for spur reduction in MB-OFDM UWB system. DLL reduces the design complexity since the main difference when considering with PLL is there is no internal voltage control oscillator. The feedback more specific sub harmonics are obtained from SSB mixer for 14 band generation. This DLL based frequency synthesizer reduces the interference and provides efficient signal with negligible bit error rate. The proposed frequency synthesizer provides 0.620jenergy consumption, 210Ps delay, 18Gbps data rate, 210mwstatic power.**

Index Terms-**Delay Locked Loop (DLL), Multiband Orthogonal Frequency Division Multiplexing (MB-OFDM) ultra-Wide band (UWB), frequency synthesizer, Phase Locked Loop (PLL).**

I. INTRODUCTION

Frequency synthesizer is an electronic system for producing any range of frequencies from a single fixed time base or oscillator. A frequency synthesizer can combine frequency multiplication, frequency division, and frequency mixing (generates sum and difference of frequencies) operations to produce the desired output signal. Some approaches include phase locked loops, double mix, triple mix, harmonic, double mix divide, and direct digital synthesis (DDS). The choice of approach depends on several factors, such as cost, complexity, frequency step size, switching rate, phase noise, and spurious output. Concentrating on spurs and bit error rate a DLL based frequency synthesizer is used. Spur is the major issue in frequency synthesizing. Source of spur generation is mainly by Mixer nonlinearity, I/Q imbalance of sub harmonics.

II. RELATED WORK

This paper deals with single phase-locked loop and two-stage frequency mixing architecture, it lessens harmonics mixing and frequency pulling to reduce spurs generation. Also, only divide-by-2 dividers are needed in the feedback path of the PLL. The spurs generations mainly stem from two reasons, the mixer nonlinearity and I/Q imbalances of the sub-harmonics. Here I/Q calibration algorithm are used. It leads to spur generation at the mixer output. The I/Q vectors of the odd harmonics of 264 MHz travel through different traces and inevitably suffer from gain and phase mismatches when they reach the 2nd stage SSB mixers [1]. In this work the frequency is little bit small, that is 3.1-10.6 GHZ ultra wideband radio frequency (RF) receiver system is presented. Wideband-pass multistage RF preamplifier using a cascade of a three-segment band-pass LC Π-selection filter with a common-gate stage as the front end. It consumed around 30mW from a 2.5-V supply voltage. It had a minimum pass band noise figure of around 4.7 dB, an input-referred third-order intercept point of -5.3 dBm, and reverses -65 dB [2]. The proposed architecture provides 37 dB sideband rejection consuming 48 mW from 2.2 V power supply. In this paper also acquired frequency only 3-8 GHZ for the seven band synthesizer. Switching time is also small. So, we cannot cover wide area, this one of the major drawback [3]. UWB RF frequency range required for the section filters with a common–gate stage as the front end. It consumed around 30mW from a 2.5-V supply voltage. It had a minimum pass band noise figure of around 4.7 dB UWB communications. Closed-form analytical model for the conversion gain of the mixer is presented [4]. This paper has been proposed DLL can be employed as a building block for a frequency synthesizer which generates a seven-band hopping carrier for multiband orthogonal frequency division multiplexing (MB-OFDM) ultra wideband (UWB) radio. To achieve fast loop settling, integer architecture that operates with 528-MHz reference frequency is implemented and a wideband active-loop filter is integrated. An improved phase-frequency detector (PFD) is proposed for faster loop settling [5].

In this paper the use of frequency range is very low that is 3.1 GHZ-8 GHZ, each with a bandwidth of 528 MHZ. Here only 9- Band MB-OFDM UWB transceivers are used. So, we cannot cover wide area. This is the major drawback for communication. Moreover, a modified transformer-coupled quadrature VCO and interconnection-loading-insensitive. Operated at 1.5 V, the synthesizer measures phase noise of -127.4 dBc/HZ at 10 MHZ offset, integrated phase noise of 4.43□, sideband suppression of better than -22 dBc and switching time of less than 1ns [6].

III. SYSTEMS ARCHITECTURE

Fig.1 shows the 14-band frequency synthesizer. In 14 band frequency synthesizer composed of one DLL and two stage SSB mixer and two stage MUXERS. The DLL is operated at a particular frequency and is locked to a reference

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Comparison of Modulation Techniques for Underwater Optical Wireless Communication at Mallipattinam, Tamil Nadu

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Abstract— **In this survey, we explore the possessions of water attenuation on an underwater optical wireless communications system by using different modulation techniques(QPSK,ASK and OOK) and laser based systems .For underwater light propagation ,scattering and absorption are the leading sources that may bound the transmission length. We consider the parameters such as transmitter optical power, transmitter divergence angle, transmitter efficiency, receiver efficiency, receiver diameter, receiver sensitivity, chlorophyll concentration and water concentration and also converse the other considerations. The laser based wireless communication systems are feasible solution to high speed and large distance data transmission applications with data rate of 155 Mbps, wavelength of 650 nm and power of 19 mw.**

Keywords—underwater communication, modulation, optical wireless communication

I. INTRODUCTION

A most important challenge facing ocean exploration and surveillance is how to rapidly and precisely communicate the data obtained by the unmanned system to a surface ship or shore-based station. Underwater communication is broadly used in military, industry, and scientific communities. This communication interface with data rates in the range of few to tens of Mbps. Optical fiber or copper cabling can be used for sufficiently large devices, a wireless link is desirable in many situations. Radio frequencies are profoundly attenuated in seawater. For short-range links, optical communication shows potential alternative. LED-based systems are used for low-cost, low power, and compact systems. Laser-based systems can be used for extended ranges, high data rates and low latencies. Underwater optical wireless communication is an attractive alternative for high speed data links and is mono directional in nature [1]. It is important to understand not only the spatial properties of scattered light in the ocean, but scattering will affect the temporally encoded information. Optical links appear to be an attractive alternative to acoustic methods as laser sources in the blue/green region of the spectrum, which shows a minimal absorption in seawater. In addition, data rates are not limited by frequency-dependent absorption as they are in acoustic. Underwater optical communications have the potential to achieve much higher data transfer rates than an acoustic communication system at considerably lower power consumption, simple computational complexity, and smaller packaging. The physical or geographical location of the optical link plays an important part in the total attenuation of the signal [2]. Various types of ocean water are used for analyzing the water quality and according to that quality various modulation and line coding techniques are used.

II. BACKGROUND AND RELATED WORK

Shlomi Arnon (2010) has presented for three different types of optical wireless communication links: (a) a line-of-sight link, (b) a modulating retroreflector link, and (c) a reflective link. From their results, it is clear that as the water absorption increases, the communication performance decreases dramatically [3]. Tejbir Singh Hanzra et al (2012) investigated the performance of the modulation techniques-BPSK and QPSK in the Nakagami channel and the Rician Channel. It is clear from experimental results, QPSK modulation provides double data rate than the BPSK modulation technique. Certain impairments associated with the FSO system, effect of scintillation index and Free Space Path Loss (FSPL) are also discussed [4]. Vavoulas, A et al (2014) using set of numerical results revealed the relations between various parameters such as error probability, wavelength, node density, transmitted power, data rate, etc., in order to achieve k-connectivity. They proposed model forms the basis of deploying reliable underwater optical networks suitable to deliver broadband services at far distances [5]. Mazin Ali A. Ali (2015) investigated the effect of water attenuation on an underwater optical wireless communication based on LOS model. Experimental results show that the performance of OOK and 2DPSK is more suitable for the underwater optical wireless communication [6].

Mazin Ali A. Ali (2015) theoretically analyzed the performance of an underwater optical wireless communications system using different modulation techniques and an avalanche photodiode APD receiver over underwater environment channels. Characteristics of bit error rate.BER for different optical modulation techniques are studied [7].

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Dynamically Reconfigurable Multilevel Multiphase Space Vector Pulse Width Modulator for Over-modulation Region

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Abstract— **This paper proposes multi-level multi-phase Space Vector Pulse Width Modulator (SVPWM) modulator for over modulation region of operation. The space vector pulse width modulation technique assures linearity till an output of 90.7% of the installed inverter capacity. If higher inverter output is desired, beyond this capacity, the operation is termed as over modulation. The speed control scheme incorporates two reported regions of over modulation, region-I & region-II, and assures a smooth switch over of the operation till 100% of its rated speed and also beyond that in the field damping region. Over modulation is a non-linear process and it necessitates two modes of operation depending on modulation index (MI). Mode-I for compensating the voltage vector to be applied while mode-II uses the concept of continuous application of a specific voltage vector in order to achieve the desired average voltage vector and hence angular velocity. In this paper, mode-I operation of over modulation is extended beyond usual modulation index thus far reported 0.9535 in the literature survey, thus stretching the arrival of Mode-II further towards six steps. This delay in the arrival of over modulation Mode-II decreases the non linearity effect as the lower order harmonics are reduced, thereby improving the controllability of the angular velocity. This helps in compensating the current and torque ripples in the motor. The acceptable operation of the extensive range of mode-I and the smooth transition into mode-II and six steps is verified using simulation results.**

Keywords— *Space Vector Modulation, Over Modulation, and Modulation Index*

I. INTRODUCTION

The main advantage of SVPWM is its increased linear range of operation till a modulation index of 90.7% unlike the conventional Sinusoidal PWM (SPWM) method having linear range till a modulation index of 78.5%. The concept of linear or non-linear region operation is based on modulation index (MI) that indirectly provides information about the inverter utilization capability. This facility of SVPWM puts on edge over other PWM techniques. Till MI = 0.907 SVPWM technique operates in the linear region means that the modulation index is directly proportional to the fundamental component of the line side voltage. Beyond MI = 0.907 SVPWM method operating in the non-linear or in other words over modulation region. This over modulation region is further divided into two zones:

Zone I : 0.907 < M I = 0.9535 and

Zone II: 0.9535 < M I = 1

The main aim of any type of PWM method is to utilize the inverter to its maximum capacity that is achieved only with six-step operation but at the price of loss of controllability. In SVPWM, the operation from under modulation to over modulation finally leads to the six step of operation. The normal and six step operating regions of a modulator can be easily programmed, but to maintain continuity two regions, over modulation is required. Besides this, over modulation helps in showing the voltage capability of the inverter and therefore is necessary to improve the dynamic response of the drive. Several methods to achieve the over modulation are suggested in literature. The over modulation range is divided into two sub regions and the switching characteristics is defined based on the unique characteristics [3]. In the first sub region, a pre processor modifies the absolute value of the reference voltage vector before the conventional SVPWM modulator processes it. In the another sub region, the pre processor alters both the phase angle and magnitude of the reference voltage vector. In order to avert the solution of non-linear equations, two look up tables (LUT) are used and continuous control of voltage is derived until six step region. While the fundamental voltage cannot be obtained in every sampling period, it can be achieved in fundamental cycle [3].

The other over modulation schemes reported in literature [6], [8], [10], [11] uses the basic geometrical understanding provided in [3]. However, these methods varies from each other in the manner they implement the over modulation switching strategy. In terms processing time, the method given in [6] is the fastest. However, due to large harmonic content in the voltage waveform, it results in distorted current and flux waveforms. The method described in [10] uses computationally intensive algorithms to achieve over modulation. Instead of pre-processing the voltage vector an approximated piecewise linearized equations are used in [8], [11] to achieve over modulation switching. All these methods have effectively extended the DC bus utilization of the inverter until the six step mode and all the methods are tested for the open loop v/f drives. During over modulation, lower order harmonics are added to improve the fundamental voltage gain of the modulator. However, when used in a closed loop torque and flux vector control scheme, these harmonics interfere with the working of linear current controllers, [9]. A compensation method [9] is proposed that uses an inverse model to estimate the harmonic component of the current vector during over

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A Fuzzy-logic Based Management System in Smart-Microgrid for Residential Applications

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Abstract-**The main objective of this system is to provide Uninterruptible power to the load. This system consists of the power sources, storage system, and DC bus regulator system. The power sources employed here is the PV panels, Wind turbine, and fuel cell. The generating source, and the fuzzy algorithm are simulated using the MATLAB/Simulink software. The Energy Management System (EMS) incorporates fuzzy responsible for the Energy Management and Battery Management. The EMS assisted by RS 485 and ZigBee network communication protocol. By the information provided by these communication systems, the EMS commands the generating sources when to operate. The load applications are Electric Vehicle (EV charging), and Lighting Systems.**

Index terms-**Uninterruptible Power, Energy Management, Battery Management, EV charging.**

I Introduction

The smartgrid and microgrid systems are the developing grid system for the distributed generation technology. The smartgrid and microgrid system are the hot topics to discuss. The development of the renewable energy sources has overcome all the disadvantages of the conventional power generation systems, such as the coal power generation system, diesel power generation system. There are many research groups of the smart-microgrid systems [1]-[10], have conducted many researches in the microgrid system for residential and industrial applications. The smartgrids and the microgrids systems are responsible for distributed generation. The typical architecture of the microgrid systems are discussed [11]. The microgrid systems are exists in Chicago, USA, and in Maldives. These microgrid system, the employed many load applications, here this system was employed for the vehicle charging applications. The Electric Vehicles (EV), the charging strategies has to be managed, the charging of the vehicles cause significant challenges to the electrical grid. In addition to the Energy Management, this fuzzy system along with the employment of the arm processor that dynamically controls the charging of the electrical vehicles to maintain the proper operation of the local distribution grid and minimize the environmental impacts. In this paper the charge scheduling parking slots for the charging of the hybrid electrical vehicles are discussed. The block diagram of the proposed system is shown in the fig.1.

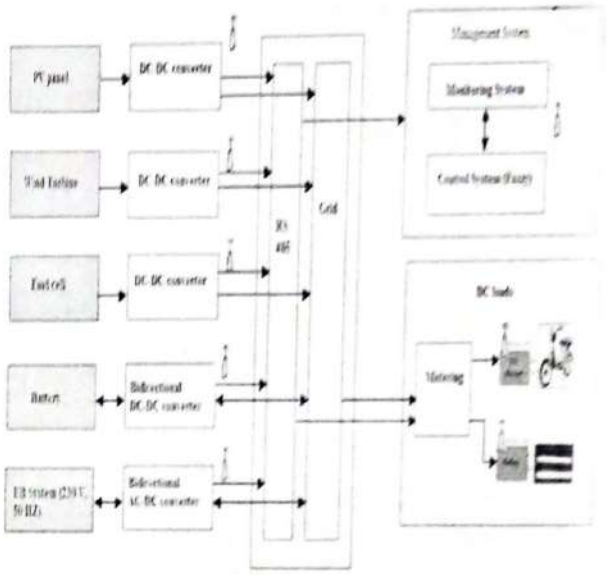

Fig.1. Block diagram of the proposed system

This system consists of the power sources that obtain its power from the PV panels, wind turbine, and fuel cell. The battery acts as a storage system. The DC bus regulator consists of the EB source. These sources are connected to the grid through DC-DC converters, Bidirectional DC-DC converters (BDC), and Bidirectional DC-AC converter. The DC loads directly fed its power from the microgrid. The DC load applications employed are EV charging systems, and lighting systems. The Management System incorporates the fuzzy responsible for the Energy Management (EM) and Battery Management (BM). In the case of the EM the fuzzy is responsible for the unit commitment. In the case of the BM, the fuzzy is responsible for maintaining the SoC of the battery. The SoC of the battery is directly proportional to life span of the battery. The Management are supported by the RS 485 and ZigBee network communication protocol. The generating status of the power sources are done by this communication systems. Based on this information the EMS commands the generating sources as per the SoC of the battery. The Maximum Power Point Trackers are associated with PV and Wind Energy Conversion System. When the PV is high, then the generated power was equally distributed to the load systems, battery, and EB systems through the AC grid. During the power failure condition, the power can be taken

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Parametric Analysis of a Novel Reconfigurable Wireless Sensor Network Architecture

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Abstract— Wireless Sensor Networks (WSN) plays a vital role in the modern communication mechanism. These are more vulnerable to attacks due to their basic limitations such as communication distance, memory, processing, throughput and power. In this paper we analyze communication delay and energy consumption of a WSN. We propose a Novel Dynamic Reconfigurable Network Monitoring Node (DRNMN), which controls the data transactions in a WSN and reduces the delay incurred and improves the performance with energy optimization. This paper focuses using analysis of DRNMN model with LEACH protocol using NS2 simulator considering the delay, energy, throughput and performance parameters.

Keywords— WSN, Energy consumption, Delay, LEACH, Reliability, Throughput, Reconfigurability, Dynamic Power Management (DPM)

I. INTRODUCTION

WSNs are a cluster of sensor nodes distributed randomly in the network environment to detect input signal and forwards the same to the end user through the sink node via cluster head as in Fig.1. WSN nodes are limited by the resources such as energy, memory, computation and communication capabilities for physical and environmental monitoring.

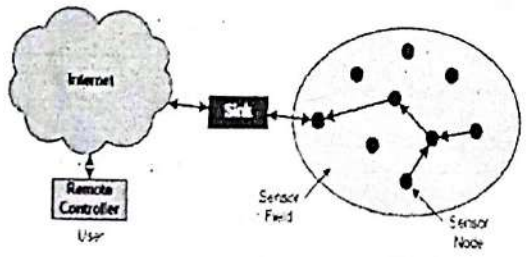

Fig 1 General wireless sensor network Architecture

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1. Distance: Sensing range of a sensor node is limited. As the range increases its efficiency in sensing the events gradually reduces.
2. Memory: captured sensor data will be saved in the memory for the processing of information
3. Processing: Microcontroller has been widely used in WSN nodes whose processing capabilities are limited.
4. Power: Power consumption is maximum for transmission and reception of the signals in a sensor network in processing of data.
5. Energy: Energy is the amount of battery source utilized for every transition of a node. Maximum energy consumed for transmission and reception process [1],[2] than data gathering.
6. Throughput: It is the rate at which data is processed successfully at a given time. It depends upon the efficiency of hardware units involved and protocols that were used in the system. The more the throughput the better the performance.
7. End to end communication delay: Has been defined as amount of delay occurred from the time of sensory event till it reaches the end user. Once the data is sensed, the WSN Node has to pass to other neighboring nodes and to cluster head and to the sink or base station.

The energy, end to end communication delay is the important parameters in the field of WSNs for reliable communications. Energy drain problems may lead result in a node to die early or lack of sufficient source of energy the sensory data may not be reachable to the end users. Energy optimization is essential for enhancing the life time of a node. Dynamic Power Management (DPM) techniques discussed [1] ,[17] are in achieving optimized power consumption in WSNs

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Finite State Markovian Model for Trustworthy Reliable Communication in Dynamic Reconfigurable Wireless Sensor Network Architecture

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Abstract — Wireless Sensor Networks (WSNs) are constrained by a limited energy sources. Trust in a WSN is defined as the amount of confidence obtained from the individual node with respect to its data collecting, composing and communication (C^3) probability with other peered nodes. Trustworthiness and energy optimization of Wireless Sensor Networks (WSNs) is an active research topic. Trustworthiness of a WSN majorly influenced by security, reliability, mobility and communication models.

As the topology of the network alters according to mobility of the node, getting trustworthiest system is very difficult. Reconfigurable techniques modify the system in a controlled manner, and provides adaptability, proposed a Reconfigurable Wireless Sensor Network Architecture (RWSNA) using Markovian chain model for the enhancement of the trustworthiness of the WSN system for reliable communication at runtime with energy optimization.

The trust values have been simulated based on the Markovian model based Finite State Machine (FSM) logic of our proposed RWSNA system has been simulated using MATLAB and Simulink and corresponding waveforms of the WSN has been captured and presented.

Keywords— Reconfigurable Architecture; Wireless Sensor Network; Markovian chain Model; Trustworthiness; Energy Optimization .

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I. INTRODUCTION

Wireless sensor networks (WSNs) is a collection of tiny sensor nodes which are constrained by limited battery and memory source distributed randomly in the environment to monitor the events for data collection and transfer the collected data back to the base station [1]. In military surveillance or monitoring applications the nodes are in mobile, hence the topology of the WSN changes dynamically. Controlling such a network by adopting reconfigurable methods is an active research topic or much advantages compare to general method.

Reconfigurability makes the system adapt to changes and reduces frequent hardware and software redesign aspects. It can also be used as a method of capability to modify the system in a controlled manner. Dynamic reconfiguration helps in monitoring WSNs more efficiently when the network topologies change at run time. It is also adaptable for future enhancement with little change of software as in [17]. Trustworthiness of the system can be enhanced by the reconfigurable method. The RWSN architecture considers about the energy source of each node and protects from battery drain in a mobile state. Thus it optimizes the energy utilization.

Most of the researches have been proposed and developed different trustworthy architectures [2, 3, 4, 6]. This paper contributes in calculation of trust in an RWSNA by Finite

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Efficient Mobile Transporter in WSNs Lifetime Enhancement

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Abstract— Mobile wireless sensor network is one of the intensifying and emerging technologies for various application of new generation networks, the massive concerns of these networks are data gathering with energy efficiency. Cluster formation system, randomly selection of cluster heads to equally balance the energy consumption among the sensor nodes and finally forward the data collected by admin node to base station by the support of Mobile Transporter (MT). MT gets the data from the Admin Node and Admin node is static and nearer to MT. The normal cluster heads send the aggregate data to the Admin Node. The Admin Node again aggregates the data and then sends to base station via MT which is placed away from the node deployment area. In the existing system there is only 10% of energy is saved but in the proposed system 40% of energy is saved, ultimately it increase the network lifetime and executed the implementation through NS-2 simulator (network simulator).

Index Terms—Wireless sensor network, Energy efficiency, Mobile Transporter, Cluster head, Admin node.

I.INTRODUCTION

A wireless sensor network (WSN) consists of spatially distributed autonomous sensors to agreeably monitor physical or ecological conditions like temperature, sound, vibration, pressure, motion or pollutants etc. The maturity of wireless sensor networks was goaded by military applications such as battlefield supervision. They are now worn application areas, including industrial process monitoring and control, machine health monitoring, environment and habitat monitoring, healthcare applications, home automation, and traffic control. Each node in a sensor network is characteristically outfitted with a radio transceiver or other wireless communications apparatus, a small microcontroller, and an energy source, usually a battery. WSNs characteristics are Limited power they can yield or store, Ability to withstand callous environmental conditions, Ability to cope with node failures, Nodes mobility, Network topology in static and dynamic, Communication failures, Heterogeneity of nodes, Wide scale of deployment, Unattended operation, Scalable node capacity, limited bandwidth of gateway node. The network routing protocol must take care the issues and challenges like self configuration, reliability, quality of service, throughput, fault tolerance, delay, scalability etc.

The important criterion in the design of WSN is data delivery time which is one of the critical issues in much type of applications like battlefield and medical care and security monitoring system. These systems are essentially required to receive the data from individual sensor nodes within some time limit and slot. Designed communication routing protocols are being affect the efficiency and overall performance of WSNs by an equal distribution of available energy load and decreasing their energy consumption and therefore extending their lifetime or life span. Thus, designing energy efficient routing protocols is critical for extending the lifetime of WSNs. So, we described a novel innovative energy efficient and lifetime increased proposed routing protocol, which is one enhanced from normal LEACH protocol. The remainder of this paper we introduce a novel constant clustering based data gathering approach which is having admin node to MT and to base station, in turn the WSNs increases the lifetime with total energy consumed.

The organized paper is as follows: A brief introduction with related works of LEACH protocol is presented in Section I. Section II explains the relevant related works with literature survey analysis. Section III describes the design of our novel proposed protocol enhanced version of LEACH with Mobile Transporter techniques in detail. Discussion of simulation results contains in section IV. Finally, conclusions are described in section V.

II.RELATED WORKS

In this following segment, a concise presentation of the presented works related to proposed scheme. A lot of data aggregation routing protocols have been proposed for wireless sensor networks so far. These can be classified into two major classes; hierarchical clustering protocols, and chain-based aggregation protocols [1], [2], [3]. Underneath hierarchical clustering routing protocol, the key routing protocol for wireless sensor networks is called LEACH protocol presented by Heinzelman et al 2000. [4]

The clustering based LEACH protocol incorporates distributed cluster formation, local processing to reduce global communication, and randomized rotation of chance of cluster-heads. In concert, these features allow LEACH protocol to accomplish the desired properties. Nevertheless, there is no guarantee that sensor nodes selected as cluster head are consistently dispersed throughout the network because procedure to select cluster head is based on the random cluster formation method having local probability. To overcome this

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Comparative performance analysis of forward error correcting codes for Free Space Optical communication

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Abstract—**Free Space Optical communication system communicates data's which are interleaved with errors during the transmission. These errors occur because of various atmospheric turbulence conditions. The Bit Error Rate (BER) is an important measurement in laser communication link to estimate the quality of the data link connection. Forward Error Correction (FEC) codes are used to detect and correct the errors, so that the original data can be recovered at the receiving end. The performance of Hamming code, Low Density Parity Check (LDPC) code and Turbo code are compared based on Bit Error Rate. Simulation is done using MATLAB and it is observed that LDPC code exhibits low bit error rate compared to other two codes.**

Keywords—FSO, SNR, Optical communication, Bit Error Rate, channel, turbulence, Forward Error Correction

I. INTRODUCTION

Free Space Optical communication system (FSO) is a technology that uses air as a medium to transmit signal from one end to other end. Laser beam light can travel in free space without wire from one place to other place. The Free Space Optical (FSO) channel has more capacity than the Radio Frequency path [1]. Large number of customers can make use of it and thereby large bandwidth applications can be backed [10].

FSO system is moving in a fast pace in the recent days due its wide benefits such as fast and easy installation of the link, cost free operation, reliable security in transmission, ability to transmit more bits per second, duplex transmission, and last mile access [2].The Free Space Optical (FSO) technology can transfer very high data bit and also has the ability to transmit audio, video and data. But there are some limitations from which it suffers. Free Space Optical (FSO) technology is strongly influenced by various weather conditions like rain, haze, fog and snow [7-9]. Apart from this the main weather condition to be looked into is the turbulence and scattering which degrades the transmitted signal level drastically and ends in large bit error rate or signal level reduction at the receiver end. But in real time distortion in laser link comes in the form of atmospheric turbulence. Its influence degrades the communication link and shoots up the bit error rate. The degradation is predominantly due to the noise generated in the electronic circuits and atmospheric disturbances [2]. Fig.1 shows the general block diagram of FSO.

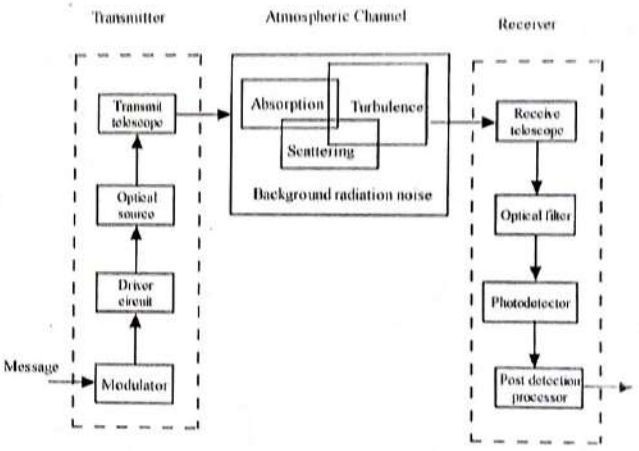

Fig. 1. Block diagram of FSO

Various types of error correcting code are used in Free Space Optical and digital communication network. The codes are Linear block code, Convolution code, Binary cyclic code. The Bose, Chaudhuri, and Hocquenghem(BCH) code, Reed Solomon code, Hamming code, Turbo code and Low Density Parity Check (LDPC) code. All the codes differ from each other on the basis of their implementation and complexity. In order to have a reliable and good communication with a tolerable Bit Error Rate (BER) and good Signal to Noise Ratio (SNR) these codes are used. Forward Error Correction codes are introduced in order to detect and correct a good amount of errors in the communication system, which may arise for the period of transmission of message over the channel. Detection

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A Survey on Wireless Ad Hoc Network

Issues and Implementation

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Abstract- Wireless Ad hoc Network is the collection of wireless mobile nodes (devices) that are able to dynamically form a temporary network without the use of any existing network infrastructure or centralized administration. This paper discusses the roles of ad hoc networking in future wireless communications. In this paper we surveyed the different types of ad hoc networks such as isolated ad hoc networks with large and small sizes and integrated ad hoc networks for the mobile access networks. This paper gives various advantages and applications of ad hoc network. In addition, this paper also surveyed on ad hoc networks challenges in terms of Quality of Service (QoS), power control and security. This work discusses the implementation issues in ad hoc network and performance improvement by MIMO and cognitive radio techniques.

Index Terms—Ad hoc network, isolated and integrated Ad hoc networks, challenges, MIMO, Cognitive Radio, NoC

I. INTRODUCTION

An ad hoc network is a group of communications devices or nodes that communicate with each other without fixed topology (infrastructure) and without pre-determined organization. Hence one can define the ad hoc network as dynamic network. Individual nodes have capacity to communicate directly with other nodes. An ad hoc network can be created by using wireless technologies such as Bluetooth, Wi-Fi etc. such a network is called wireless ad hoc network. Under emergency situation these type of network is very useful to communicate with the service centers. The wireless ad hoc network can be classified as [1]: wireless mesh network, wireless sensor networks, Mobile Ad hoc network, Vehicular Ad hoc network, etc. routing of packets between communication devices takes place through several ad hoc routing protocols which allows the nodes to reach the destination effectively. Following chapters will discuss the different forms of ad hoc network, advantages, applications, MIMO and cognitive ad hoc networks in detail.

II. DIFFERENT ARCITECTURES OF AD HOC NETWORK

A. AD HOC NETWORK- ISOLATED

If all nodes communicate with each other within the same ad hoc network then it is called isolated ad hoc network. The isolated ad hoc network has no link with any infrastructure-based communication network, such as the global Internet as shown in figure 1. The classification of the isolated ad hoc networks are:

- large scale isolated ad hoc networks
- small scale isolated ad hoc networks.

A large scale isolated ad hoc network may consist of thousands of nodes. It is not suited to transmit huge quantity of data because these types of networks that causes higher security problems, high network architecture costs and very low level traffic performance.

Small size ad hoc networks may have elevated commercial uses in smart home environments, business meeting places, hotspots, and also in some private areas. The promising wireless LAN technologies that enable the small size ad hoc networks are:

- IEEE 802.11
- HiperLAN2
- Bluetooth

B. AD HOC NETWORK - INTEGRATED

In this section, smart phone integration of ad hoc networks [2] among Internet are discussed and such scenario is shown in figure.2.

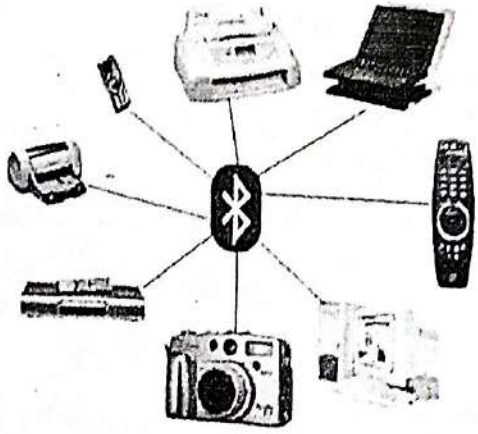

Fig. 1. Isolated ad hoc network

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Medical Imaging Modalities: A Survey

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Abstract - **Now a day's Medical Imaging is playing more and more important role in many clinical procedures and in detecting and diagnosing different human diseases. The interior parts can be reached without really opening too much of the body. The three dimensional view of the body can be viewed and imaged by Ultrasound, Computed Tomography(CT) Scanner and Magnetic Resonance Imaging which took over X-Ray imaging. By using the CT Scanner, body's ailing region can be recognized with ease and this technique cause no pain to the patient. Ultrasound imaging is mostly used to detect and classify abnormalities of the glands. The Ultrasound Imaging is less expensive, invasive, and very easy to use. The Ultrasound Imaging can be done by many image processing algorithms which consist of image pre-processing, segmentation, feature extraction, feature selection and classification. The above mentioned techniques have been summarised in this paper.**

Key words - **Medical imaging, Image processing, ultrasound imaging, thyroid.**

I. INTRODUCTION

Recently, Medical imaging is witnessing a vast revolution with the invention of rapid, more in precision and less invasive instruments. Accuracy in clinical practices and development of equipments is a necessity in medical field. Greater light should be shed to kindle the hidden knowledge from medical large data called big data and more efficient analysis of large data. The hidden data and the relationship of data items help in the medical practices. Medical imaging is taking on an increasingly critical role in health industry as it is striving to lower the costs and to achieve early disease detection.

The technology and process by which the interior parts of the body is visually represented for medical inspection and intrusion is called medical imaging. Medical imaging establishes a database of normal framework for identifying abnormalities. The procedures by which imaging of the organs and tissues that are removed for clinical purposes are the components of pathology. With the advent of high technology and various imaging modalities, more challenges of producing high quality information arises by processing and analysing significant volume of images for disease diagnosis and treatment. Worldwide there has been 5 billion studies conducted on medical imaging till 2010 [1]. About 50% of total ionizing radiation exposure in the United States in 2006 was made up of radiation exposure from medical imaging [2]. Fig.1 illustrates a medical imaging system.

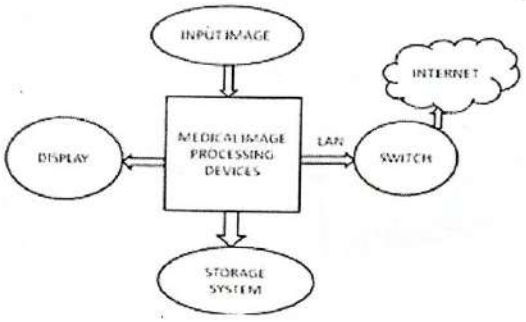

Fig. 1. A typical medical imaging system

II. IMAGING MODALITIES

After the 19th century there has been a vast development in the imaging technology. Many imaging techniques were discovered for clinical purposes. These imaging techniques are called as imaging modalities. The imaging modalities are classified as anatomical modalities and functional modalities. Few imaging modalities are shown in Fig. 2.

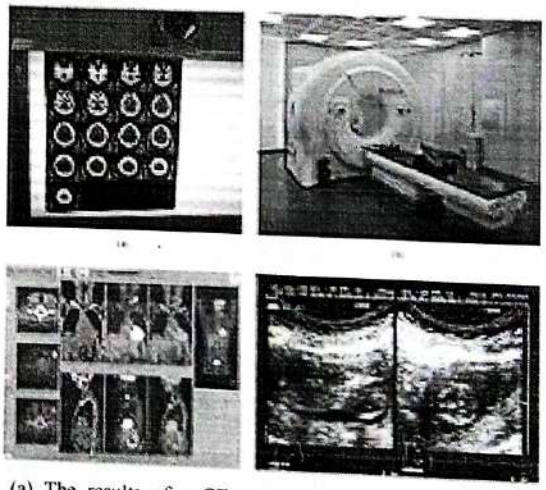

Fig. 2. (a) The results of a CT scan of the head (b) An MRI machine generates a magnetic field around a patient. (c) PET scans (d) Ultrasound technology

A. Radiography

After the discovery of X-Rays, medical imaging had begun with radiography. Radiography is an imaging technique that makes use of the X-Rays, which were used in diagnostic procedures before the effects that are very harmful for human beings due to the radiation of ionization was discovered. Penetration of X-rays inside the body and the absorption of their radiation is differential and depends on the tissue's density. The X-Ray image is produced on the fluorescent screen or the photographic film by the different densities of

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Survey on Soft Computing Assisted Controller Driven Insulin Injection Gadget

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Abstract-Soft computing is an sprouting set of methodologies, which aims to exploit tolerance for imprecision uncertainty, and partial truth to achieve robustness, tractability, and low cost. Soft Computing provides attractive opportunity to represent the ambiguity in human thinking with real life uncertainty. Fuzzy logic Neural Networks, and Evolutionary Computation are the core methodologies of soft computing. However, Fuzzy Logic, Neural Network, and Evolutionary Computation should not be viewed as challenging with each other, but synergistic and complementary, instead. Soft Computing is actually the combination or fusion of each methodology which yields new computational capabilities (hybrid systems). In this paper a closed-loop control algorithm is developed for blood glucose regulation in type I diabetes mellitus patients. The control skill incorporates expert awareness about treatment of disease by using Mamdani-type fuzzy logic controller to alleviate the blood glucose concentration in normoglycaemic level of 70 mg/dl. Controller performance is assessed in terms of its capability to reject the multiple meal disturbances resulting from food intake, on an averaged nonlinear patient model. Robustness of the controller is tested over a group of patients with model parameter varying considerably from the average model. In addition, proposed controller provides the possibility of more perfect control of blood glucose level in the patient regardless of ambiguity in model and measurement noise

***Key words*: Soft computing, Fuzzy Logic, Neural Network, Evolutionary Computation, Insulin Pump**

I. INTRODUCTION

Soft computing is a division, in which, it is tried to erect intelligent and wiser machines. Intelligence provides the influence to enlarge the answer and not simply disembark to the answer. Simplicity of thinking, machine intelligence, liberty to work, proportions, difficulty and fuzziness managing capability enlarge, as we go higher and higher in the hierarchy . The final aim is to develop a device which will work in a similar way as human beings can do, i.e. the perception of human beings can be simulated in computers in some artificial manner. Sensitive awareness intelligence is also one of the significant areas in the soft computing, which is always refined by indication this is indeed, an extraordinary challenge and virtually a new phenomenon, to include awareness into the computers.

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II. SOFT COMPUTING TECHNIQUES

Soft computing is defined as a set of techniques across many fields that fall under different categories in computational intelligence. Soft-computing has three main branches fuzzy Systems , evolutionary computation , artificial neural computing , with the final subsuming machine learning and probabilistic reasoning , belief networks, chaos theory, parts of learning theory and wisdom based system etc..

III. COMPONENTS OF SOFT COMPUTING

A. Support vector machine

Support vector machines are supervised learning models with coupled learning algorithms that examine data and recognize patterns, used for arrangement and regression analysis [1]. Given a set of training examples, each marked for belonging to one of two categories, an Support Vector Machine training algorithm builds a model that assigns new examples into one category or the other, making it a non-probabilistic binary linear classifier. A Support Vector Machine model is a illustration of the examples as points in space, mapped so that the examples of the separate categories are divided by a clear gap that is as thick as feasible.

1) History: The original support vector machines algorithm was invented by Vladimir N.Vapnik and Alexey Ya. Chervonenkis in 1963. In 1992, Bernhard E. Boser, Isabelle M. Guyon and Vladimir N. Vapniksuggested a way to create nonlinear classifiers by applying the kernel trick to maximum-margin hyperplanes[2].The current standard incarnation (soft margin) was proposed by Corinna Cortes and Vapnik in 1993 and published in 1995[1].

2) *Motivation:* Classifying data is a common task in machine learning. Suppose some given data points each belong to one of two classes, and the target is to choose which class a *new* data point will be in. In the case of support vector machines, a data point is viewed as a P-dimensional vector, and we want to know whether we can separate such points with a (P-1) mensional hyper plane. This is called a linear classifier. There are many hyper planes that might organize the data. One reasonable choice as the best hyper plane is the one that represents the largest separation, or margin, between the two classes. So we choose the hyper plane so that the distance from it to the nearest data point on each side is maximized. If such a hyper plane exists, it is known as the maximum-margin hyper plane .The linear classifier i

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Testing in VLSI: A Survey

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Abstract - As the compactness of VLSI circuits increase, it becomes striking to integrate devoted test logic on a chip. Starting with a general idea of test problems, this survey paper reviews test applications and its terms, common test methods and analyzes the basic test procedure. The concept of Built-in Self-Test (BIST) is introduced and discussed, incentives and architecture principles of BIST are shown. This BIST approach not only offers economic profit but also provides interesting technical opportunities with respect to hierarchical testing and the reprocess of test logic during the application of the circuit. Recently BIST Research is being highly used in wireless transmitter and receiver system for the detection of mismatch and non-linear parameters. Also, BIST Circuit plays an important role in the measurement of bit error rate in the communication system.

Key words- Built-in Self-Test (BIST), Test Pattern Generation, Scan path, Boundary scan.

I. INTRODUCTION

Testing becomes a demanding task under the limits of high quality and low cost because of increasing functional complication of electronic components and systems. Nearly 70% of total product cost is reported to be a key cost factor of testing in the production process [1,2,3], an optimal test policy becomes a large competitive benefit in a the market which comprises billions of electronic components and systems. Testing has become an important concern in the manufacturing process of each electronic system, board or VLSI chip. In all major electronic companies, substantial part of production cost and engineering assets for testing is spent on design for test. The incentive for this becomes understandable from a more global point of view. Testing finally becomes a significant way of reducing overall cost even though, it includes a lot of efforts.

In individual production stage, the repairing cost is increased by a factor of 10, which the material cost forms only a small portion of product value [4]. Finding and exchanging a fault chip becomes cheaper in a complete system. As a result no customer is willing to tolerate the risk of using defective components and therefore (a) only accepts suppliers who provides assurance of low defect rate and (b) often performs an incoming test for supplied parts. Low defect rate of the product can be assured by extensive outgoing product tests only.

VLSI chips have reached a massive complexity and still their compactness doubles every 2 years [5]. In addition to ruling out fault during design and production, better design tools and fabrication processes can also be delivered. However, short time-to-market is dangerous to productivity. If testing facilitates fast diagnosis and thus provides a mean to avoid deadly production delays resulting from extreme debug time or shipping defective products, it is worth the additional cost. Factory testing is a typical area of application in testing. Another equally important incentive for testing comes from the area of reliable computing. The increasing level of combination results in small feature size, small charges in the storage elements and high closeness of functional units. This not only requires great care in the chip layout and built-up process, but also makes the circuits highly vulnerable to external faults. High clock frequency and low power consumption degrades the situation.

Testing has been familiar as a valuable means to (a) check system installation and configuration, after maintenance activities, (b) guarantee correct system functionality at start-up, and (c) avoid masking and accumulation of errors during operation. Accessibility of a system (or of redundant system components) can be considerably increased, if testing is worked to allow rapid diagnosis after a failure. These essentials clearly show the economic potential of a well-organized test strategy in the quickly growing area of reliable system.

The above two fields in the application of testing have to be merged technically and economically. An integrated test approach for electronic system's life cycle requires built-in self-test as an ideal starting point.

II. FAULT MODELS FOR TESTING

A. Physical models

Faults [6] in electronic components can be categorized into 3 groups depends on their origin: extrinsic failure mechanisms, intrinsic failure mechanisms and electrical stress failures.

Global classification of component failures

Failure group	Relevant parameter	Time distribution of failures
Extrinsic	packaging	wear-out, rarely infant
	Process	yield loss
	Radiation	Continuous
Intrinsic	technology	predominantly infant but also wear-out
Electrical stress	Handling	Continuous

In the abstraction of next level, it can be investigated in which way the faulty functional block degrades the proposed functionality of the device. Based on the knowledge of the functionality of a given device a specific solution can be

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A Survey on Smart Grid

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Abstract--Smart Grid (SG) is the rising technology which defines the modernization of electrical grid by implementing communication involving its links. With the world heading for a disaster energy. SG is an expanding research topic that deals energetically with the present problems and future challenges. The important components of smart grid are Reliable supply of electricity, monitoring and advanced generation and production management. Communication is the backbone of Smart Grid and the survey tries to highlight the available communication technologies for smart grid applications. The survey discusses overview of smart grid, smart metering technology as well as most suitable wireless communication technologies used for this purpose.

Index terms- Advanced metering infrastructures (AMI), Local Area Network (LAN), Wide Area Network (WAN), Home Area Network (HAN).

I. INTRODUCTION

SMART GRID (SG) is an electric grid that uses information and communication technology to gather data and act on information about the behaviour of suppliers and consumers in an automated fashion. The current power network was designed as a centralized system such that the electric power flows unidirectional from side to side transmission and distribution lines from power plants to the customer premises. The intelligence is concentrated in central locations and only partially in substations, while remote terminations (i.e., loads) are almost or totally passive. The new systems would provide higher and widely distributed intelligence embedded in local electricity production, two-way electricity and information flows, thus achieving reliable, flexible, efficient economic and secure power delivery and use.

The operation process of electrical grid has not distorted in great level since its improvement over 100 years ago, even though there is huge developments and modification in the field of science and technology. Internationally, the use and require of energy is increasing day by day and the electrical grid is one of the major elements which supplies energy to the consumers but the present electrical grid has lots of unsolved issues. Which Smart grid tries to resolve. The non renewable sources which generate energy are demoted nowadays because they directly supply to emission of greenhouse gases.

The end users which are the final consumers of electricity are somewhat not participating in the electricity market because of lack of modernization in traditional grid. The lack of good electric storage device that can store energy for more duration of time results to the fritter away of generated energy, in the same time some needy consumers are disadvantaged of this exhausted energy because of lack of information shared.

There are many requirements in electrical distribution in 21's century which cannot be addressed by traditional grid, that's why the modernization in traditional grid is necessary. In Fig. 1, the represent electricity flows in power grid. In this SG paradigm, every domain encompasses several actors as well as blue arrow-lines show bidirectional communication links among these domains and the red dotted lines show electricity flow in grid.

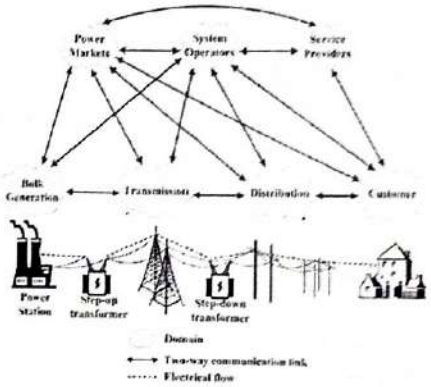

Fig.1. Interactions among different smart grid domains.

In this SG concept, each domain encompasses several actors and applications. Actors contain devices or systems that make decisions and exchange information necessary for implementing SG applications. On the other hand, applications are the tasks performed by one or more actors within a domain. Whenever energy demand occurs, the customer has to exchange information with power markets, service providers, and delivery domains. The power market involves energy trade and it exchanges information with all domains to equilibrium supply and demand. Service providers offer the services to support business activities of power producers, distributors and customers.

System operators exchange information with all domains to provide smooth operation of the complete system. With market and operation information, the generation domain, transmission domain, and distribution domain work together to distribute power to the customer domain.

In this chapter there is some key terms are that need to be discussed. These key terms are determined below.

Throughput - Describes the rate of which data packets or data that is effectively transmitted over the communication link or path. This rate is usually presented in bits per second (bit/s). The throughput is generally slower than the advertised

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A Survey on wireless communication

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Abstract: Both wireless communication networks and handheld procedure have nonstop their rapid realistic development, supporting a growing focus on increased end-user effectiveness and new opportunities for convincing wireless applications in many aspects of people's lives. The advances in cellular network air interfaces and communications has included improved data rates, spectral efficiency, and wider bandwidths, with more recent focus on the, efficient support of various types of network heterogeneity. Wireless operator deployments of Wide Area Network (WAN) macro cells are now being coordinated with intended lower power Pico-cells and also allowing for the addition of unexpected but auto configuring user-deployable indoor femto cells. These varying sized cells are optimized to accomplish both high capacity and good coverage, sharing the same licensed spectrum to meet the high bandwidth needs of users who might be very tightly packed at a large sporting event, moderately clustered in an office or mall, or more geographically isolated.

Key word- wireless communication, WAN, Wireless Local Area Network (WLANs), Wide Personal Area Networks (WPANs).

I INTRODUCTION

Wireless communications maintain to be fond of exponential growth in the cellular telephony, wireless Intimate, and wireless home network area. The wireless networks, include Wireless Local Area Networks (WLANs) and Wireless Personal Area Networks (WPANs) a list of communications acronyms. WPANs are differentiating from the WLANs by their smaller area of coverage, and their ad-hoc-only topology. It was a small-size, low-power, inexpensive network, with modest bandwidth, which related personal. Motivated by this development, a WPAN group started in 1997 as a part of the standardization group list of communications organizations. The group has been answerable for set the standards in wireless LANs, focus on the bottom-two layers of the Open System Interconnect model a similar effort is being conducted by for the wireless PANs.

II EVOLUTION

Wireless technology has a long history, and it began around the time that James C. Maxwell theoretically predicted and then prove the continuation of electromagnetic waves in the 1860s, and when Heinrich R. Hertz experimentally confirmed the real existence of the electromagnetic wave in 1888. In 1895, Guglielmo Marconi succeeded in getting Morse code on a radio wave transmitted by a spark-gap transmitter with a receiver 2.4 km away. This experiment demonstrated the basic idea and structure of wireless communication today. After that, research into wireless communication was highly developed mainly for military use, and a variety of wireless technologies were developed and improved. Wireless communication was also expanded on a commercial source in the area of broadcasting, one of the major applications of wireless communication. Radio broadcasts ongoing in the first half of the 20th century and TV broadcasts started in the second half. Since the late 1980s, wireless communication has been widely used in mobile phones and other mobile terminals by individuals as these technologies, principally in semiconductor and software, have rapidly developed in line with the extend of the new infrastructure of the Internet. These are also even varying models of business and social life.

III. WIRELESS COMMUNICATION

Wireless communication is, by any evaluate, the fastest growing segment of the communications industry. As such it has captured the attention of the media and the imagination of the public. Cellular systems have qualified exponential growth over the last decade and there are currently around two billion users worldwide. Really, cellular phones have become a critical business tool and part of everyday life in most developed countries, and are rapidly sub planting anticipated wire line systems in many developing countries. Many new applications, including wireless sensor networks, automated highways and factories, smart homes and appliances. However, many technical challenges remain in designing robust wireless networks that deliver the performance necessary to support emerging applications.

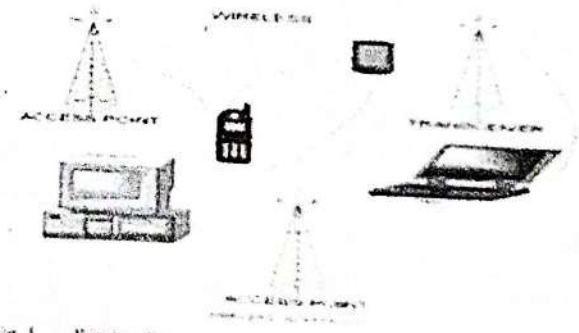

Fig 1 Wireless Communication

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A Low-Power Multiplier with the Spurious Power Suppression Technique

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Abstract

This paper provides the experience of applying an advanced version of our former spurious power suppression technique (SPST) on multipliers for high-speed and low-power purposes. To filter out the useless switching power, there are two approaches, i.e., using registers and using AND gates, to assert the data signals of multipliers after the data transition. The SPST has been applied on both the modified Booth decoder and the compression tree of multipliers to enlarge the power reduction. The simulation results show that the SPST implementation with AND gates owns an extremely high flexibility on adjusting the data asserting time which not only facilitates the robustness of SPST but also leads to a 40% speed improvement. Adopting a 0.18- m CMOS technology, the proposed SPST-equipped multiplier dissipates only 0.0121 mW per MHz in H.264 texture coding applications, and obtains a 40% power reduction

Index Terms—H.264, low-power, multiplier, spurious power suppression technique (SPST).

I. Introduction

Lowering down the power consumption and enhancing the processing performance of the circuit designs are undoubtedly the two important design challenges of wireless multimedia and digital signal processor (DSP) applications, in which multiplications are frequently used for key computations, such as fast Fouriertransform (FFT), discrete cosine transform (DCT), quantization, and filtering. To save significant power consumption of a VLSI design, it is a good direction to reduce its dynamic power that is the major part of total power dissipation.

The designs are existing works that reduce the dynamic power consumption by minimizing the switched capacitance. The design proposes a concept called partially guarded computation (PGC), which divides the arithmetic units, e.g., adders, and multipliers, into two parts, and turns off the unused part to minimize the power consumption. The reported results show that the PGC can reduce power consumption by 10% to 44% in an array multiplier with 30% to 36% area overheads in speech related applications. Design proposes a 32-bit 2's complement adder equipping a master-stage flip-flop and a slave-

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LOW COST HYBRID SOLAR CAR CONCEPT

A technique that challenges the conventional cars in efficiency and usability

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Abstract — This work, is focused on an idea about hybrid solar car technology which solves the major problem of fuel and pollution in present days. To determine how feasible widespread change to hybrids would be in future with all information taken into account, it is concluded that hybrids have several advantages as fuel efficient, low pollution. In the present work a complete experiment of hybrid solar car has been prepared using small car. After complete analysis of this car the beat capability of load, stress, and strain of front & rear collision of car frame are found. A complete data analysis is to be done to examine the technical aspects of the hybrid car technology. On the whole, hybrid technology has a lot of potential in industries today and therefore it can lead to new solutions. However let's find a solution.

Keywords - Hybrid solar vehicle, solar energy, IC engine, Electric operated system

I. INTRODUCTION

The use of hybrid solar car can be efficient in our daily life because nowadays pollution and fuel rate are very big problems. Many people are using fuel cars. Use of solar energy is done for car, besides the control of vehicular pollution in the city, less consumption of fuel. Hybrid solar cars are effective in reducing global warming and environment problem in big frame. In the present work, the objective is to estimate the potential of both energy & PV energy and mechanical engine power and to implement a new car or a conventional old car. The hybrid solar car is one of the potential items for weight reduction as it accounts for 5% - 10% of the weight. Various advantages for hybrid solar car by using this technology are mentioned as follows

1. It helps to reduce the conventional car demand in urban city.

2. It helps to minimize the pollution problem in urban city.

3. It helps to provide clean energy which will reduce the carbon dioxide emission every month.

4. It also helps to importantly reduce the fuel demand.

A hybrid car is a vehicle which uses three power sources such as solar energy with electric motor, electrical operation and a small combustion engine to run a car.
They are slowly gaining popularity with the auto buyers because they are seeing the benefits that owning a car will help them to reduce their carbon emission and is also energy efficient. It also makes the environment clean.

In this paper, we are going to create a design of hybrid solar car by using a remote controlled toy car to measure the solar efficiency. After that we can perform using a conventional car. Modelling is done on a remote controlled toy car or on an old conventional car.

II. LITERATURE REVIEW

In this paper, I am going to present a detailed study of optimal sizing, fuel consumption of a solar car based on a longitudinal vehicle dynamics mode and energy flow, weight, overall cost of vehicle. It is shown that fuel saving can be achieved for intermittent use with average power and economic feasibility.

Hybrid Solar Vehicles (HSV), derived by integration of Hybrid Electric Vehicles with Photo-Voltaic sources, may represent a valuable solution to face both energy saving and environmental issues, particularly in urban driving. This paper also focuses on general, the technological issues and challenges ahead of plug-in hybrid electric vehicles in relation to major components which can be used for design consideration and selection of component for electric motor and battery bank, control strategy.

Our technical challenge is that most of the normal solar cars are built using light weight carbon fibre materials. Using this tech in conventional car body platform and improving efficiency is a riskier task. Also we are in a situation to investigate the use of photovoltaic systems as auxiliary power generators in hybrid and electric vehicles.

This technology provides yet unexploited possibility with the advantages of a new power source, which is light, noiseless, maintenance-free and continuous working operation. A notable reduction of air emissions can be achieved through a synergy of various technological breakthroughs, such as the method we present of introducing photovoltaic arrays and additional electrochemical energy storage capacity in vehicles. Solar cars

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Proceedings of the National Conference on

Flourishing Areas in Electrical and Electronics Engineering

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A STUDY ON SELF-MONITORING GLUCOSE SENSING WITH MULTI-PARAMETRIC SURFACE PLASMON RESONANCE

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Abstract:

Diabetes is a metabolic disease and in an ideal diabetic diet, a number of factors must be taken into consideration, including the amount and type of carbohydrates consumed as well as the amount of fiber, fat, and protein contained in foods. Glycemic index and glycemic load are further considerations. Foods with low glycemic index and load raise blood sugar more slowly than high glycemic index / load foods. In turn the glycemic index refers to a standardized measurement, while glycemic load takes a typical portion size into account. The total daily calories are evenly divided into three meals. By the Electrochemical Glucose Measurement electrically coupling glucose oxidase to nanoscale carbon structures modulates the electrical resistance of the structures. Many researches do their work on all add-on devices that could allow the smart phone to take pregnancy tests or monitor diabetes. A smart phone can be combined with a tiny sensor and wearable insulin pump, for pancreas to monitor the blood-sugar levels and to deliver insulin as needed. So this can be the future to monitor the diabetes foe evaluating the treatment. One among the technique is Multi-Parametric Surface plasmon resonance (MP-SPR) binding analysis methodology is used to study molecular interactions The Biosenser can determines the presence and concentration of a specific substance in any test solution. Biosensors can be incorporated with the add-on devices an it can be monitored according to the necessary period of time .With this usage we can have the better sensitivity, reproducibility, and easy maintenance as well as their low cost.

Index Terms: Blood glucose, Diabetes mellitus, Electrochemical Glucose Measurement, Self-monitoring of blood glucose, MP-SPR Biosenser

I. INTRODUCTION

A biosensor is a device that combines a biological recognition element together with a transduction system for the detection of a specific analyte. The biological component can comprise species such as a redox protein or enzyme, an antibody, a whole cell or a DNA strand and serves the purpose of imparting specificity to the sensor. The first biosensor, for the measurement of glucose was developed by Clark in 1962 and subsequently developed commercially with the first product released in 1973. Later then there have been an enormous number of reports on biosensors [3].

Biosensors are analytical tools for the analysis of bio-material samples to gain an understanding of their bio-composition, structure and function by converting a biological response into an electrical signal. The biological response of the biosensor is determined by the biocatalytic membrane which accomplishes the conversion of reactant to product. Immobilized enzymes possess a number of advantageous features which makes them particularly applicable for use in such systems. They may be re-used, which ensures that the same catalytic activity is present for a series of analyses. In an electrochemical cell, the oxidation can take place at the surface of an electrode, releasing electrons into an electrical circuit, which can be measured as a current [1].

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IMPLEMENTATION OF HYBRID BI-DIRECTIONAL DC/DC CONVERTER IN MICROGRID

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Abstract:
High efficiency power is attained using hybrid bidirectional DC-DC converter in micro-grid system Hybrid bidirectional dc/dc converter is based on photovoltaic (PV) and wind system that are driven by permanent magnet synchronous generator are fed to the grid through common single boost converter. A battery that connected to the bidirectional dc/dc converter charges from grid and discharges through grid to the load. Model of the proposed scheme in d-q axes reference frame is developed. Steady-state performance of the system and transient response of the controllers are also presented to demonstrate the successful operation of the new hybrid system. Simulation results are given to validate the simulation model.

Keywords: Bidirectional dc/dc converter, boost converter, micro grid, Photovoltaic, wind system.

I INTRODUCTION

The electricity requirements of the world including our nation are ever-increasing at frightening speed and the power demand has been running at the forefront of supply. It is also now widely known that the renewable and non-renewable energy resources, presently being used for generation of electrical energy, are not sufficient to bare the demand of electrical energy of future needs. We need to solve this problem by developing a new kind of hybrid system to generate electricity which provides energy for 24X7 hours with power quality and pollution free. With increasing concern of global warming and the depletion of fossil fuel reserves, many are looking at sustainable energy solutions to preserve the earth for the future generations. Wind and photovoltaic energy holds the most potential to meet our energy demands. Wind energy is capable of supplying large amounts of power but it is predictable by turbine only at 12m/sec. Similarly, solar energy radiation throughout the day vary due to sun intensity and unpredictable shadows cast by clouds, birds, trees, etc. As the wind and photo voltaic system depends on meteorological conditions, we cannot fully depend on them, because of their reliability. However, by combining these two intermittent energy sources and by incorporating Maximum Power Point Tracking (MPPT) algorithms, the systems power transfer efficiency and reliability can be improved significantly. The rest of the paper is organized as follows: section II describes the background and related works; section III describes about the proposed hybrid system.

II BACKGROUND AND RELATED WORK

Corresponding to developing technology demand of energy makes us seek new energy sources. Wind and solar energy have been popular ones due to its availability and convertibility to the electric energy. Prior work covers under a microcontroller to utilize the solar and wind power and implemented in accordance with available line-electricity. Batteries are charged by either wind power or solar power. The whole System control confide mainly on microcontroller. Separate boost converter connected to solar and winds to step up the voltage. Large number of power converters used to generate quality power.

Shuai Jiang et. Al, 2012 presented a novel boost-half-bridge micro inverter and its control implementations for single-phase grid-connected photovoltaic systems.

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Simulation of three phase five-level neutral clamped inverter (NPC) for Induction motor

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Abstract:

This paper presents a control for a three phase five-level neutral clamped inverter (NPC) for induction motor connected. The maximum power point tracking (MPPT) is capable of extracting maximum power from the each DC link voltage level. The MPPT algorithm is solved by fuzzy logic controller. The fuzzy MPPT is integrated with the inverter so that a DC–DC converter is not needed and the output shows accurate and fast response. A digital PI current control algorithm is used to remain the current injected into the induction motor sinusoidal and to achieve high dynamic performance with low total harmonic distortion (THD). The validity of the system is verified through MATLAB/Simulink and the results are compared with three phase three-level grid connected NPC inverter in terms of THD.

Keywords: Three phase five-level neutral clamped inverter; Maximum power point tracking (MPPT); Total harmonic distortion (THD)

I. INTRODUCTION

In recent years, the use of direct current energy resources instead of pollutant fossil fuels and other forms has increased. Any generation is becoming increasingly important as a direct current resource since it does not cause in fuel costs, pollution, maintenance, and emitting noise compared with other alternatives used in power applications. Higher power equipments require higher voltages, which limit the maximum DC voltage level.

Therefore a new family of multilevel inverters has emerged as the solution for solar applications, as the DC is directly connected to each level of the DC link. Different types of topologies are presented in the literature (Rodriguez et al., 2002; Colak et al., 2011). This paper uses the NPC topology since. Capacitance (Hussein et al., 1995), constant voltage (Hsiao and Chen, 2002), neural network (Hiyama and Kitabayashi, 1997), it has the advantages such as: (i) DC-link capacitors are common to three phases. (ii) Switching frequency can be low and (iii) reactive current and negative phase sequence current can be controlled.

Several methods of modulation techniques such as selective harmonic elimination PWM, sinusoidal PWM, space vector modulation, sigma delta PWM, closed loop modulation techniques exist to control the inverter (Colak et al., 2011).

The amount of power generated by a PV generator depends on the operating voltage of the PV array. The maximum power operating point changes with insolation level and temperature. The PV system operates at its highest efficiency at the maximum power point (Villalva et al., 2009a). In order to increase the efficiency, MPPT controllers are used. Such controllers are becoming an essential element in PV systems.

Different tracking control strategies such as perturbation and observation (Hua et al., 1998), incremental conductance (Won et al., 1994), parasitic and fuzzy logic control (Senjyu and Uezato, 1994) have been proposed to extract maximum power from the PV array. In this paper, an intelligent control technique using fuzzy logic control (FLC) is associated to an MPPT in order to improve energy conversion efficiency under different environmental conditions (Won et al., 1994).

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Implementation and Control of Multiple Input Single Converter Battery Charger for DC Nanogrid Applications

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Abstract:

In this paper a Multi input single converter battery charger is presented. Nowadays due to power failure, there is a great usage of UPS systems in our homes or in industries which leads to a great problem to the consumers. The amount of DC loads used in our buildings such as computers, televisions, mobile phones, induction based appliances and other electronics are increasing day by day. To meet out the concern renewable power and storage have made DC based distribution an attractive alternative solution. By using dc sources it is necessary to use converters. If using multiple sources it need separate converters for each stage. This multi input single converter reduce the system size and cost by reducing the number of components. In addition some other advantages are the system is reliable and its dynamic performance due to centralized control. The system is suitable for applications such as hybrid automobile charging and in residential buildings. The design circuit, performance of different operating modes, simulation results using Proteus software is presented here.

Keywords: Renewable energy sources, DC-DC converter and PI controller.

I. INTRODUCTION

Energy is a fundamental aspect to people's life, and is essential not only for individuals but also the fact for various sectors. It can be supplied from various resources which can be divided into two categories; renewable and non-renewable sources. Typical examples of non-renewable energy sources are petroleum, coal, and natural gas. As for renewable sources, these include energy generated from wind, solar, wave, fuel cell, geothermal, biomass and hydro. Both renewable and non-renewable energy sources can be used to produce energy sources including electricity and hydrogen. Solar and wind energy which are non-pollution, free in their availability and renewable are considered as a promising power sources. In recent days, the number of applications which require more than one power source is increasing. Distributed generating systems or micro-grid systems normally use more than one power source or more than one kind of energy source. Also, to increase the utilization of renewable energy sources, diversified energy source combination is recommended. The combination of more power sources and diversified power sources make it possible to obtain higher availability in a power system. Nowadays power electronics is covering a wide range of industrial and commercial applications, including computers, mobiles, telecommunication, aircraft, and transportation, information processing and power utilities. Renewable energy usage has been increasing day by day scenario. And by the parallel connection of converters has been used to integrate more than one input energy source in a power system. However this converter can generally have the following advantages compare to a combination of several individual converters like cost reduction, compactness, more expandability and greater manageability. Consumption of electricity has been rising at fastest rates in the world owing to growing population and economic development. Our economy has been put forth to increasing challenges since energy supply is struggling to meet the demand and there are energy shortages almost

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SMART TRACKING SYSTEMS FOR DOMESTIC CONSUMERS

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Abstract:

The motivation to manage energy usage at residential home in India is influenced by economics environment condition and technical reasons. Economically, it offers reduction of government subsidies and electricity bill. The environment condition aspect enables reduction of CO_2 level. We can limit the power supply to the home by pre-default setting the value to be consumed, so that energy can be managed by limiting. The power management system is consists of Digital Power meters installed in every consumer unit and an Electricity e-Billing system at the energy provider side.

Wireless sensor network to send its power usage reading using information back to the energy provider wirelessly. At the power provider side, they have the control to change priority of the devices when power distributed in low range.Human operator billing or prone to reading error as sometime the houses electric power meter is place in a location where it is not easily accessible. The concept of dynamic assignment of priorities to interrupts is discussed which reduces the time delay for a lower priority task which under some circumstances becomes a higher priority task. Slicing of interrupt timings is also discussed which can be used to improve the performance.

The highest priority task is serviced more number of times and with lesser time period. Hence it need not wait for the slack time of other previously higher priority interrupts. If power will be less in grid, automatically power will be manage.

Our proposed system when low power generation automatically goes to power management. All the devices controlled depends upon the priority based and timing based control the devices when low power generation.

I. OVERVIEW OF EMBEDDED SYSTEMS

An embedded system is a special-purpose computer system designed to perform one or a few dedicated functions, often with real-time computing constraints. It is usually embedded as part of a complete device including hardware and mechanical parts. In contrast, a general-purpose computer, such as a personal computer, can do many different tasks depending on programming.

Embedded systems have become very important today as they control many of the common devices we use. Since the embedded system is dedicated to specific tasks, design engineers can optimize it, reducing the size and cost of the product, or increasing the reliability and performance. Some embedded systems are mass-produced, benefiting from economies of scale. Embedded systems range from portable devices such as digital watches and MP3 players, to large stationary installations like traffic lights, factory controllers, or the systems controlling nuclear power plants. Complexity varies from low, with a single microcontroller chip, to very high with multiple units, peripherals and networks mounted inside a large chassis or enclosure.

In general, "embedded system" is not an exactly defined term, as many systems have some element of programmability. For example, Handheld computers share some elements with embedded systems such as the operating systems and microprocessors which power them but are not truly embedded systems, because they allow different applications to be loaded and peripherals to be connected.

II. BLOCK DIAGRAM OF AN EMBEDDED SYSTEM

An embedded system usually contains an embedded processor. Many appliances that have a digital interface microwaves, VCRs, cars utilize

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ISBN 9789385057076

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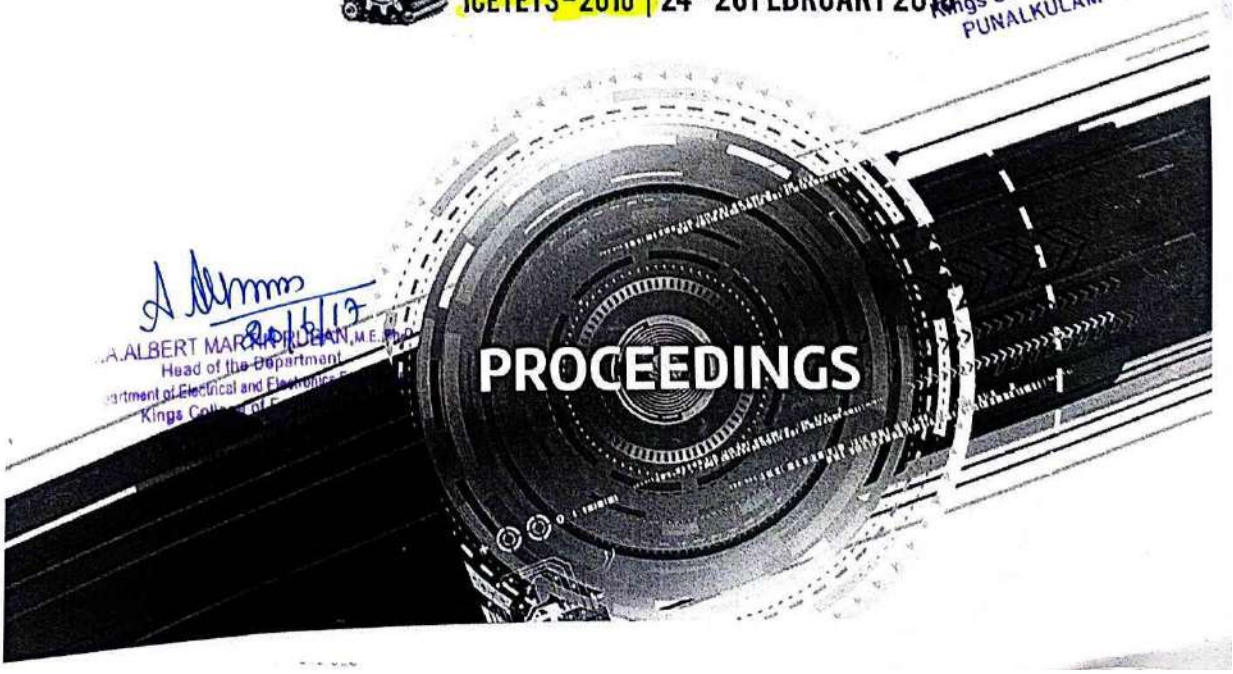

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Fuzzy Logic Based Quasi Z-Source Cascaded Multilevel Inverter with Energy Storage for Photovoltaic Power Generation system

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Abstract—**The quasi-Z-source cascaded multilevel inverter (QZS-CMI) have the advantages of minimum switches, balanced dc-link voltage, voltage boost capability and save one-third modules compared to conventional voltage and current source inverter. This system combines the QZS-CMI and energy storage by adding an energy stored battery in each module to balance the fluctuations of PV power. The voltage boost/ inversion and energy storage are integrated in a single stage inverter by using Fuzzy Logic Controller (FLC). The proposed system can achieve the distributed maximum power point tracking for PV panels, balance the power between different modules and provide the preferred power to the grid with reduced harmonics. A detailed design method of controller parameters is included. And also the MATLAB simulation results is included.**

***Index Terms*—Quasi-Z-source cascaded multilevel inverter, energy storage, fuzzy logic controller.**

I. Introduction

In recent years renewable energy sources gaining more and more attention because of its pollution free electricity production. Especially solar energy have advantages of abundant availability and ease of tracking by using photovoltaic panels and solar collectors. By using solar PV panels we get DC current and it is used for the standalone and grid integrated applications. Inverter is the most important component in grid integrated photovoltaic power generation systems. The conventional voltage and current source inverters are either a boost or buck converter and cannot be a buck-boost converter. They are vulnerable to EMI noise and their main circuits cannot be interchangeable.

Z-source inverter employ unique impedance network to couple the converter main circuit to the power source, thus provide unique features that cannot be obtained in the traditional voltage and current source inverters. Z-Source network is the energy storage/ filtering element for the Z-source inverter also it provide second order filter and suppress voltage and current ripple.

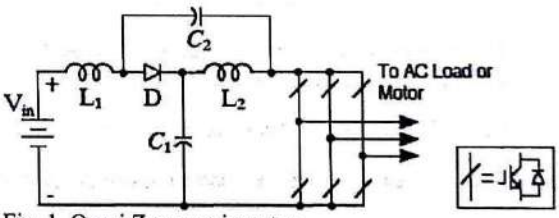

Fig. 1 Quasi Z-source inverter

Compared to ZSI the QZSI draws continuous dc current from the PV panel. It also reduce the EMI by a common dc rail between the PV panel and inverter, which is suitable for PV applications. The quasi-Z-source inverter (QZSI), implementing voltage boost/buck and inversion in a single stage.

The three different operating modes of QZSI are:

1) Active or Non-shoot-through state
2) Zero state
3)Shoot-through state

a)Active or Non-shoot through state:

In the non-shoot-through mode, the cascaded quasi Z source inverter performs only the voltage buck function. This kind of mode is mostly used at light load condition. In this state the load is directly connected to the supply

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Series Compensation Technique Based Energy Management At Micro-grid

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***Abstract*— This paper describes the series compensation method based Energy management at micro grid. A series compensator is attached to series with the power supply. The proposed system which provides relating to specific difference between the supply voltage and resultant voltage. A compensator gets the energy from the power assist circuit. The power assist circuit which is used to deliver the power into series voltage compensator without isolation problems and It is used to reducing the power loss of the converter. As the compensator produces positive voltage and negative voltage which evaluates the step-up and step-down mode of operation with respectively.As a result, the DC/DC converter power rating can be extremely minimized. The DC voltage is controlled by using power assist circuit and It consists of flyback converter. The proposed circuit result is minimized power loss of converter and improved the efficiency. A trail model 500W, 230V and 50-Hz has been evaluated. A series compensation technique based energy management can obtained the maximum efficiency and decreased the power rating.**

***Index Terms*— Grid connected solar inverter, power assist circuit, series compensator, Photovoltaic system, dc-ac power conversion.**

I.INTRODUCTION

Today the photovoltaic (PV) source has become one of the best renewable energy source and it generates the cheap and clean form of energy source. The power available from photovoltaic source is changeable in nature and Microgrid is a collection of electrical loads and generation. The microgrid which provides the power with distributed systems. The photovoltaic renewable source are involving the use of present energy and management.

This paper describes the Energy Management at microgrid using the series voltage compensator. Typically, the power conditioning system which includes multiple switching mode converter because it provides high level of controllability and flexibility of the power flow in this circuit. The Renewable photovoltaic source is converted into the dc power. The photovoltaic source delivered the maximum power to power conditioning system and it manages the power flow. It provides high output voltage regulation

In difference, the voltage evaluation of the designed circuit needs just the disparity voltage among the supply voltage and load voltage. The series converter makes a positive voltage and negative voltage to recognize the boost mode and the buck mode of operation, correspondingly. As a result, the converter power rating can be significantly minimized. A latest approach for series compensation converter is established in order to realized the maximum efficiency and minimized the power rating. A series voltage compensator is used for this energy management. The series voltage compensator is connected between the dc-link and the load. The compensator is used for balancing of voltage. The MOSFET switching devices are commonly used in applications. It has low voltage, high current and low on-state resistance. The grid connected solar inverter which includes the two stages of conversion the input side of the circuit connected with the boost DC/DC converter and the output grid side connected to DC/AC converter. The proposed circuit can provides the relating to specific difference between the supply voltage and the load voltage. The main purpose of this paper is minimized the power rating and improved the overall system efficiency of the grid.

II. PROPOSED SYSTEM

a.operation of proposed circuit

The series voltage compensator is connected between the supply and load. The system performed the two stages of power conversion. The first conversion stage is boost DC/DC converter. The boost converter which is connected between the photovoltaic panel and the dc-link. Second, the output side conversion stage is DC/AC converter. It is connected between the dc-link and micro grid. The compensator connected to the power assist circuit. The power assist circuit which consisting of

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Fault Diagnosis of Three Phase Squirrel Cage Induction Motor Due to Bearing by using Artificial Intelligence

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Abstract-Recently, research concerning condition monitoring and fault diagnosis of electrical machines. The increasing importance of these energy conversion devices and their widespread use in uncountable applications has motivated significant research efforts. Various faults are occurring in the stator as well as in the rotor of 3-phase squirrel cage induction motor such as bearing fault, broken rotor bar fault, etc. This paper presents an analysis of fault occurring in the bearing of 3-phase squirrel cage induction motor by using artificial intelligence method. Bearings are critical components in induction motor. Bearing fault is the most common fault in induction motor. Motor bearing data with single point faults and generalised roughness faults are used to validate the effectiveness of the proposed method for fault diagnosis.

***Keywords*- condition monitoring, fault detection, squirrel-cage induction motor, bearing**

I. INTRODUCTION

Motors are widely used in modern society. They consume over 50% of an electrical energy in industrial applications. Induction motor plays an important role in the field of electromechanical energy conversion. It is inherently reliable and requires a minimum maintenance. We know a variety of faults which can occur in induction machines, such as bearing faults .Out of these type of three phase induction motors, squirrel cage induction motor is mostly used compared to slip ring induction motor because of easy construction, easy to repair, less cost and high efficiency, even though it has a drawback of less starting torque. Out of all type of faults such as air gap eccentricity, internal short circuit, imperfection in the stator core, bearing fault and broken rotor bar fault, bearing fault are the most severe and common fault . if this faults are undetected, this may leads to catastrophic failure. Analysis of bearing fault will be considered as my topic. Varies techniques are where used for fault diagnosis of 3-phase induction motor such as fourier transform (Fast fourier transform), current signature analysis, wavelet techniques, etc. I have selected artificial neural network for bearing fault diagnosis of induction motor.

978-1-4673-6725-7/16/$31.00 ©2016 IEEE

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II. INDUCTION MOTOR

Fig.1 squirrel cage induction motor

The above figure shows that 3-phase squirrel cage induction mo of rating 415v, 1Amp, 373w, 50HZ.

SPECIAL FEAUTURES

1) Easy construction
2) Low cost
3) Reasonably small size
4) Ruggedness
5) Low maintenance and operation
6) Easy to repair
7) High efficiency

III. FAULTS IN 3-PHASE SQUIRREL CAGE INDUCTION MOTOR

Fault in the system is generally classified into two types as internal and external faults.

A. Internal Faults
   1) Air gap eccentricity
   2) Inter turn short circuit
   3) Imperfections in the stator core
   4) Broken rotor bar
   5) Bearing fault

B. External Faults
   1) Single phasing
   2) Unbalanced voltage
   3) Voltage sag
   4) Voltage swell
   5) Mechanical overload
   6) Short circuit

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Design and Implementation of SEPIC Converter with Low Ripple Battery Current for Electric Vehicle Applications

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Abstract—**This paper focuses on the energy management of battery for electric vehicle applications.The ultra capacitors are used in electric vehicle which protects the batteries from high peak current and therefore extend the life time of battery. The combination of ultra capacitor and battery are used to improve the power density in electric vehicles. The proposed system contains SEPIC converter which reduces the losses of converter and battery current ripple is minimized. The energy of electric vehicle consumption is increased due to converter losses .**

***Index Terms*— SEPIC converter, ultra capacitors, electric vehicle, energy management, battery.**

I. INTRODUCTION

Electric vehicle plays a major role to provide clean transportation technology. .The use of green energy is becoming increasingly more important in today's world. Normally, the fuel vehicles which are used in the today's environment makes more pollution due to evolution of gases. Comparing with the fuel vehicles, the electric vehicles which causes less pollution. The environment is protected and consumption of fuel is reduced. By using this vehicle, the conservation of energy is more and cost is saved. Therefore, electric vehicles are currently the best choice for the environment in terms of public and personal transportation.

In today and future the cost of fuel rises and also demand of fuel is increasing. There are various alternatives for fuel vehicle. There are two kinds of electric vehicle such as pure electric vehicle and hybrid vehicles. Battery operated vehicles are becoming more popular in the upcoming years. The battery can be used in this vehicles are rechargeable. The recharging of battery depends on the source of electricity. Battery electric vehicles are called environment friendly vehicles by avoiding the pollution. The vehicle consists of electric motor such as AC or DC motor by means of propulsion.

The electric vehicle which has numerous advantages and benefits. The main advantage in vehicle is regenerative braking is used. During braking they are capable of restoring the energy and used for acceleration. Compared with fuel vehicles, it twice the distance. The benefits of using the electric vehicle are it can reduce on foreign oil, improves the quality of life, decrease the utility price, cheaper than fuel vehicles, it leads to development of economic challenges and create a various opportunities. Electric vehicles which has enormous benefits which leads to consumption of energy and environment protection and this can be used for future transportation. It has no fuel source. The market of electric vehicle is expected which will show the growth in upcoming years. Super capacitors are used in electric vehicle to improve the power density. It also reduces the peak current which is produced by battery.

Ultra capacitors absorb or provide peak current and battery also kept constant power. The batteries which are used in electric vehicle such as lithium-ion battery, lead-acid battery, sodium nickel chloride, battery and nickel zinc battery and zebra battery . Mostly, lithium ion batteries are used in electric vehicle compared to other types of batteries. The combination of battery and ultra capacitor act as hybrid system for the purpose of improving the energy in electric vehicle. In world-wide, some countries such as Canada, China and America are electric vehicles are manufactured and used now-a-days. Purely battery oriented electric vehicles are play a vital role in environment because of development of battery technology and recharging from various sources.

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A Fuzzy-logic Based Management System in Smart-Microgrid for Residential Applications

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Abstract-**The main objective of this system is to provide Uninterruptible power to the load. This system consists of the power sources, storage system, and DC bus regulator system. The power sources employed here is the PV panels, Wind turbine, and fuel cell. The generating source, and the fuzzy algorithm are simulated using the MATLAB/Simulink software. The Energy Management System (EMS) incorporates fuzzy responsible for the Energy Management and Battery Management. The EMS assisted by RS 485 and ZigBee network communication protocol. By the information provided by these communication systems, the EMS commands the generating sources when to operate. The load applications are Electric Vehicle (EV charging), and Lighting Systems.**

Index terms-**Uninterruptible Power, Energy Management, Battery Management, EV charging.**

I Introduction

The smartgrid and microgrid systems are the developing grid system for the distributed generation technology. The smartgrid and microgrid system are the hot topics to discuss. The development of the renewable energy sources has overcome all the disadvantages of the conventional power generation systems, such as the coal power generation system, diesel power generation system. There are many research groups of the smart-microgrid systems [1]-[10], have conducted many researches in the microgrid system for residential and industrial applications. The smartgrids and the microgrids systems are responsible for distributed generation. The typical architecture of the microgrid systems are discussed [11]. The microgrid systems are exists in Chicago, USA, and in Maldives. These microgrid system, the employed many load applications, here this system was employed for the vehicle charging applications. The Electric Vehicles (EV), the charging strategies has to be managed, the charging of the vehicles cause significant challenges to the electrical grid. In addition to the Energy Management, this fuzzy system along with the employment of the arm processor that dynamically controls the charging of the electrical vehicles to maintain the proper operation of the local distribution grid and minimize the environmental impacts. In this paper the charge scheduling parking slots for the charging of the hybrid electrical vehicles are discussed. The block diagram of the proposed system is shown in the fig.1.

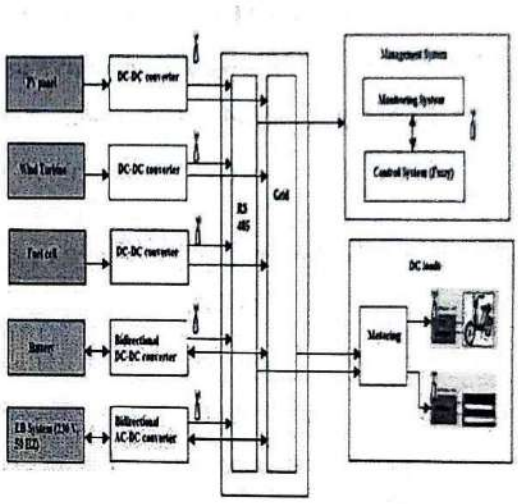

Fig.1. Block diagram of the proposed system

This system consists of the power sources that obtain its power from the PV panels, wind turbine, and fuel cell. The battery acts as a storage system. The DC bus regulator consists of the EB source. These sources are connected to the grid through DC-DC converters, Bidirectional DC-DC converters (BDC), and Bidirectional DC-AC converter. The DC loads directly fed its power from the microgrid. The DC load applications employed are EV charging systems, and lighting systems. The Management System incorporates the fuzzy responsible for the Energy Management (EM) and Battery Management (BM). In the case of the EM the fuzzy is responsible for the unit commitment. In the case of the BM, the fuzzy is responsible for maintaining the SoC of the battery. The SoC of the battery is directly proportional to life span of the battery. The Management are supported by the RS 485 and ZigBee network communication protocol. The generating status of the power sources are done by this communication systems. Based on this information the EMS commands the generating sources as per the SoC of the battery. The Maximum Power Point Trackers are associated with PV and Wind Energy Conversion System. When the PV is high, then the generated power was equally distributed to the load systems, battery, and EB systems through the AC grid. During the power failure condition, the power can be taken

978-1-4673-6725-7/16/$31.00 ©2016 IEEE

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VIBRATION ANALYSIS OF 3-PHASE SQUIRREL CAGE INDUCTION MOTOR DUE TO BROKEN ROTOR USING ARTIFICIAL INTELLIGENCE

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PG student 1# Associative Professor #2,
Department of Electrical and Electronics Engineering,
Kings college of engineering, *Punalkulam Tamilnadu,*
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ABSTRACT- Recently, research concerning condition monitoring and fault diagnosis of electrical machines have experienced extraordinarily dynamic activity. The increasing importance of these energy conversion devices and their widespread use in uncountable applications have motivated significant research efforts. Various faults are occurring in the stator as well as in the rotor of 3-phase squirrel cage induction motor such as bearing fault, broken rotor bar fault, air gap eccentricity etc..This paper presents an analysis of fault occurring in the rotor bar of 3-phase squirrel cage induction motor by artificial intelligence method.

Keywords-condition monitoring, fault detection, squirrel-cage induction motor, broken bar.

I.INTRODUCTION

Induction motor play an important role in the field of electromechanical energy conversion. It is inherently reliable and require minimum maintenance. We know a variety of faults which can occur in induction machines, such as rotor faults as broken bar or end ring .Out of the two types of three phase induction motors, squirrel cage induction motor is mostly used compared to slip ring induction motor because of easy construction, easy to repair, less cost and high efficiency, even though it has a drawback of less starting torque. Out of all type of faults such as air gap eccentricity, internal short circuit, imperfection in the stator core, bearing fault and broken rotor bar fault, broken rotor bar fault are the most severe and common fault . if this faults are undetected, this may leads to catastrophic failure. Analysis of broken rotor bar will be considered as my topic. Varies techniques are where used for fault diagnosis of 3-phase induction motor such as fourier transform(FT) Fast fourier transform, current signature analysis, Wavelet techniques. I have selected Artificial neural network for fault diagnosis of induction motor. In Artificial Neural network Multilayer feed forward back propagation is chosen for Fault Analysis. Multilayer Feed Forward Back Propagation method is used to analyse the vibration and fault diagnosis of 3-phase squirrel cage induction motor. Vibration in the system is calculated in unit of both the voltage and decibel unit.

II. INDUCTION MOTOR

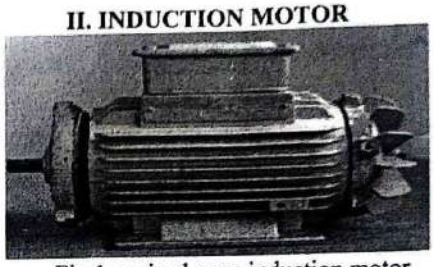

Fig 1 squirrel cage induction motor

the above figure shows that 3-phase squirrel cage induction motor of rating 415v,1amp,375w,50HZ.

A)SPECIAL FEAUTURES:

1)Easy construction 2)Low cost 3)Reasonably small size 4)Ruggedness 5)Low maintenance and operation 6)Easy to repair 7)High efficiency.

III.FAULTS IN 3-PHASE SQUIRREL CAGE INDUCTION MOTOR

Faults in the system is generally classified into two types as internal and external faults.

A)INTERNAL FAULTS:

1)Air gap eccentricity 2)Inter turn short circuit 3)Imperfections in the stator core 4)Broken rotor bar 5)Bearing fault

B)EXTERNALFAULTS:

1)Single phasing 2)Unbalanced voltage 3)voltage sag 4)voltage swell 5)Mechanical overload 6)Short circuit 7)Abnormal speed.

IV.STATUS OF ROTOR BAR:

Fig 2 (a) Half broken rotor bar

Fig 2 (b) Fully broken rotor bar

Performance of 3-phase squirrel cage induction motor with broken rotor bar varies from the performance of healthy 3-phase induction motor. If a rotor bar is damaged, It may be either half broken rotor bar as shown in Fig 2(a) or fully broken rotor as shown in Fig2(b) . It is also possible to have more than one fully broken rotor

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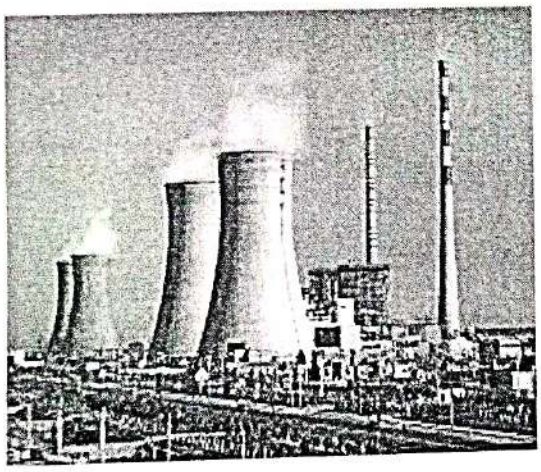

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DEVELOPING A MODEL FOR INSTITUTIONAL CAPACITATED VEHICLE ROUTING PROBLEM

D.YOGENDRAN

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ABSTRACT

This project is deals with scheduling and routing the institutional buses to transport students to and from colleges in speediest and shortest path to minimize the total distance travelled by each vehicle and in most economical with convenient manner. And also this thesis deals with proposing VRP model to get the optimal paths to each bus to avoid tedious process on heuristic method. This thesis develops a college bus routing and scheduling prototype model for an educational institution and any other management. The objective function is to minimize the transportation cost by obtaining shortest path. The decision variable is the operating cost. To obtain optimized route to serve students, genetic algorithm has been used and the problem has been solved at MATLAB for typical institutional transportation system. This thesis gets the optimized route by heuristics methods with various constraints such that capacity of each bus, time constraint, distance constraint and each of the bus stops must be served. Finally, the developed generalized model for college bus scheduling with the help of heuristics algorithm to obtain speediest and shortest path has been achieved. And the typical institutional transportation model has been concluded with minimum transportation cost.

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EFFECT OF SURFACE ROUGHNESS ON TITANIUM ALLOY IN CNC-WEDM USING RESPONSE SURFACE METHODOLOGY.

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ABSTRACT

Wire Electrical Discharge Machining (Wire-EDM) is an electro thermal production process in which a thin single strand metal wire along with de-ionized water (used to conduct electricity) allows the wire to cut through metal by the use of heat from electrical sparks. The accuracy and the surface finishes obtained from WEDM makes it perfect for applications of manufacturing stamping dies, extrusion dies and extrusion tools. Without the WEDM it requires a lot of time for grinding and finishing the parts.

Present study has been made to analyze the effect of surface roughness during machining of Titanium alloy grade-2 by wire electrical discharge machining (WEDM) using response surface methodology (RSM). Three input process parameters of WEDM namely pulse-on time (T_{on}), pulse-off time (T_{off}) and wire tension (WT) were chosen as variables to study the process performance of surface roughness (Ra). The analysis of variance (ANOVA) was carried out to study the effect of process parameters on Ra and the results of the process were validated using MINITAB software.

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EFFECT OF SURFACE ROUGHNESS ON AA6061 WITH TITANIUM NICKEL COMPOSITE FABRICATED VIA FRICTION STIR PROCESSING

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ABSTRACT

Now days, fabrication of metal matrix composite (MMCs) with high mechanical properties and modified wear properties has attracted many attentions. One of the methods to produce MMCs is Friction stir processing (FSP) which is a novel modifying technique. Aluminum matrix reinforced with Titanium Nickel (Al-TiN) has good potential. In this investigation via friction stir processing, metal matrix composite (MMC) was fabricated on surface of AA6061 by means of 5 µm and10 nm TiN particles. Mechanical properties like hardness and wear of AA6061/TiN MMC was analyzed. Results show that change of tool rotational direction between FSP passes, increases in number passes and decreases of TiN particle size enhances hardness and wear properties. Finite element analyses were done for AA6061 and AA6061/TiN MMC by using Ansys software.

Keywords: Metal matrix composites, Friction stir processing, Ansys Modeling software.

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FUELS FOR FUTURE

SPLITTING OF HYDROGEN FROM WATER BY CARBON-GRAPHITE METHOD

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Mr.M.Babu,
Assistant professor,
Mechanical Department
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ABSTRACT

Fuels of the Future, it is very important in the research field. In this research work, we researched on hydrogen as a fuel. It will easily made by the separation of hydrogen and oxygen from the water molecules by heating the water at 600°C temperature, when the water becomes vapor. Heating of water is done by the superconductor which is connected to the 3 ceramic plates by wire made up of copper, aluminium and iron steel. The water is heated by the heat produced by the super conductors. The hydrogen is separated using carbon and graphite water separation method. Then 2% of oxygen and 98% of hydrogen is passed to the engine. It is more efficient than other fuels.

"Healthy food leads you the healthy life likewise the good fuel can keep our nation healthier"

Keywords: hydrogen fuel, superconductors heating, carbon-graphite separation.

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EXPERIMENTAL INVESTIGATION ON THE EFFECTS OF ACETONE ADDITIVE WITH CASHEW NUT SHELL LIQUID BIO-OIL BLENDS IN DIESEL ENGINE

T.Pushparaj 1a, P.P.Shantharaman 2
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a tpushparaj2006@gmail.com,.

ABSTRACT

The purpose of this study is to investigate the impact of Acetone additive added to 20% cashew nut shell liquid (CNSL) bio oil blended with No.2 diesel fuel, in terms of the performance and exhaust emissions on a 4-cylinder naturally-aspirated direct-injection diesel engine. Experiments were conducted under five engine loads at a steady speed of 1500 rpm. The influence of blends on carbon monoxide (CO), nitrogen oxide (NO), carbon dioxide (CO_2), hydrocarbon emission and smoke opacity were investigated. . The experimental results showed that the Acetone additive improves the performance parameters and decreases CO emission by 13% and HC emission by 15% as compared to biodiesel. Acetone additive reduces the NO emission remarkably by 55% as compared to biodiesel.

Keywords: Cashew Nut Shell Liquid (CNSL), Emission, Pyrolysis, Acetone.

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FINITE ELEMENT ANALYSIS OF WELDING INDUCED RESIDUAL STRESSES FOR DUPLEX STAINLESS STEEL WELD JOINT USING CONTOUR METHOD

V.Vijayakumar[1],G.Mathivanan[2]
1,2 Asst.professor, Department of Mechanical Engineering,
Kings College of Engineering, Punalkulam,Thanjavur

ABSTRACT:

In fusion welding, thermal cycle leads to undesirable metallurgical structure and causes residual stresses gets induced near the weld zone which plays an important role in determining the reliability of the weld joint. In this present work, the prediction of residual stresses in a welded joint has been done using Contour method. The measurements of the cross-sectional residual stress profile in a Duplex stainless steel 2205 welded with ER 2209 filler material are validated in the longitudinal direction. This method is simple in principle and easy in use. According to this method, the weld metal containing residual stresses is cut along the plane perpendicular to the weld line. The deformations occurring at the cut surfaces as a result of relaxation of the residual stresses are measured. The measured deformations are given as displacement boundary conditions to a finite element model to calculate the corresponding stresses normal to the cutting plane. This superposition principle assumes that the material behaves elastically during relaxation of residual stresses and that the cutting process does not introduce any new stresses to influence the measured displacements. It requires only one straight cut through a sample on the plane of interest, followed by measurement of the surface contour produced by relaxation of the internally stored stress field. This study indicates that the contour method is a powerful novel technique to obtain an accurate full three-dimensional map of residual stress field.

Keywords: Residual Stresses, Contour Method, Surface Fitting

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A COMPREHENSIVE ANALYSIS OF THE LATEST TECHNOLOGIES FOR CONTROLLING NOx AND SOx EMISSIONS IN MOBILE AND STATIONARY SOURCES AND THEIR SCOPE FOR IMPROVEMENT

Arun M[1], Ramesh[2], K. JothiBasu[3],

1Research scholar in Energy Engg,NIT, Trichy
2 Assistant professor, department of Energy Engg, NIT, Trichy
3 Asst. Professor, department of mechanical engineering,
kings college of Engg, punalkulam

ABSTRACT

In today's world, any implementation of technology has to address the environmental impacts and ensure the safety compliance with the environmental standards. This paper deals with the latest technology such as SCR, SNCR, FGD, LTC etc to control the gaseous emissions such as NOx and SOx in the mobile and stationary sources.This paper touches the basics of gaseous pollutants and processes of treatment such as separation from the inert air stream through condensation, absorption and adsorption, etc. This paper also deals with the technology under research such as plasma exhaust treatment, electron beam reactor etc., and explore the scope for improvement in the existing technology. The best possible method to control the emission will be given as conclusion.

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EXPERIMENTAL INVESTIGATION OF ALUMINIUM ALLOY REINFORCED WITH ZrSiO4 – B4C BY USING AMC's

* N.ANATHARAMAN, V.VINOTH KANNAN

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ABSTRACT

Composite materials are a mixture or a combination of two or more constituents differing in form and/or material composition and that are essentially insoluble in each other. Aluminium alloys have been gaining great importance as structural materials, but for many applications it is necessary to improve their wear resistance. In particular, uses of Aluminium alloy in automotive applications, nozzle designs and ship buildings have been limited due to their inferior strength, rigidity and wear resistance, as compared to those of ferrous alloys. Particle reinforced Aluminium composites; Nevertheless, offers reduced mass, high stiffness and strength and improved wear resistance. This project deals with the investigation in Adhesive wear behaviour of Aluminium alloy reinforced with Zircon sand ($ZrSiO_4$) wt5% due to the effect of various composition of Boron carbide (B_4C)(wt3%, wt5%, wt7%) and testing their Mechanical properties. Here, the fabrication is done by stir casting process which involved mixing the required quantities of additives into stirred molten Aluminium. After solidification, the samples are prepared and tested to find the various mechanical properties like hardness, tensile, compressive and wear property. The microstructure of the composite was observed using Scanning Electron Microscope (SEM).

Key Words: Hybrid composite, AMC, Stir casting, SEM analysis.

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ISBN 978-93-85057-13-6

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OPTIMIZATION METHODS, TECHNIQUES AND THEIR THEMES FOR RENEWABLE ENERGY CONVERSION SYSTEM- A REVIEW

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** Department of Mechanical Engineering,Kings College of Engineering, Thanjavur, Tamil Nadu,India. *Corresponding author: E-mail- bobbyb4u@gmail.com*
***School of Computing, SASTRA University, Thanjavur, Tamilnadu, India*

ABSTRACT

Energy is a vital input for social and economic development. As a result of the generalization of applications the demand for energy has increased, especially in developing countries. This has meant rapid grower in the level of greenhouse gas emissions and the increase in fuel prices, which are the main driving forces behind efforts to utilize renewable energy sources more effectively. The advantages of renewable energy, it presents important drawbacks, such as the discontinuity of generation, as most renewable energy resources depend on the climate, which is why their use requires complex design, planning and control optimization methods. Fortunately, the continuous advances in computer hardware and software are allowing researchers to deal with these optimization problems using computational resources, as can be seen in the large number of optimization methods that have been applied to the renewable and sustainable energy field. This paper presents a review of the optimization methods, techniques available and their compiler themes, which can be applied to renewable energy conversion systems.

Keywords: Renewable energy systems, optimization, techniques and compiler themes

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OPTIMUM DESIGN OF DYNAMIC VIBRATION ABSORBER FOR BORING PROCESS

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Asst.professor, Department of Mechanical Engineering, Kings College of Engineering, Punalkulam.

ABSTRACT

Mechanical systems with flexible dynamics often suffer from vibration induced by changes in the reference command or from external disturbances. The technique of adding a vibration absorber has proven useful at eliminating vibrations from external disturbances and rotational imbalances.Vibrations are present in many machines and structures. In general, vibrations adversely affect the performance of a machine. Vibrations may also cause fatigue failure or even damage the machine or structure by causing excessive levels of stress. The prevention or control of the vibration of machines and structures is therefore an important design consideration. There are numerous ways of reducing and preventing vibrations, for example, by changing the stiffness of a structure, increasing damping by using materials that have high damping properties, or by using control. Three types of control can be distinguished: active, semi-active and passive control.A dynamic vibration absorber (DVA) is a typical example of a passive controller. It consists of an auxiliary mass-spring system which tends to neutralize the vibration of a structure to which it is attached. The basic principle of operation is vibration out of phase with the vibration of such structure, thereby applying a counteracting force. An important advantage of a DVA in comparison with other methods that reduce vibrations is that it can also be applied to structures which are already in operation and appear to have unsatisfactory dynamic properties. DVA's are also advantageous because they are able to reduce the vibration level of a structure at a comparatively low cost of a few additional materials. In this paper, the application of a Dynamic Vibration Absorber for suppression of chatter vibrations in the boring manufacturing process is presented. The boring bar is modeled as a cantilever Euler–Bernoulli beam and the DVA is composed of a mass and a spring and elements. After formulation of the problem, the optimum specifications of the absorber such as spring stiffness, absorber mass and its position are determined. The analog-simulated block diagram of the system is developed and the effects of various excitations such as step, ramp, etc. on the absorbed system are simulated. In addition, chatter stability is analyzed in dominant modes of boring bar.

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INFLUENCE OF FRICTION STIR WELDING PARAMETERS ON MICROSTRUCTURAL AND MECHANICAL PROPERTIES OF DISSIMILAR AA6061 AND AA7075 ALLOY JOINTS

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1,2Asst.professor, Department of mechanical Engineering, Kings College of Engineering, Punalkulam, melwinsri@gmail.com

ABSTRACT

The main objective of this research is to investigate the effect of welding parameters on the microstructural and mechanical properties of friction stir (FS) welded butt joints of dissimilar aluminum alloy AA6061 and AA7075. Friction stir welding (FSW) is a relatively new solid-state joining process. This joining technique is energy efficient, environment friendly, and versatile. This will be used to join high-strength aerospace aluminum alloys and other metallic alloys that are hard to weld by conventional fusion welding, in this process 6mm thickness sheet is welded by different welding parameters like tool rotation speed and transverse feed. The effect of welding parameters was evaluated in different mechanical properties of hardness distribution and tensile properties for axial welded zone. The significant optical transverse feed is achieved by with high weld quality. In this transverse feed produce excellent result was obtained both hardness and tensile strength in order to improve productivity.

Keywords: Aluminium Alloy, AA6061 and AA7075, Friction Stir Welding, conventional fusion welding, Tensile Strength, Hardness and microstructure.

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EFFECT OF MOLASSES AS A BLENDING AGENT WITH METONAL GASOLINE FUEL ENGINE EMISSION

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ABSTRACT

The transportation consumes 72 percent of total petroleum product supplied in India. From that product, we are getting some of the emission of CO, CO2, NOX, and particulate matter (PM). Reduce dement ratio of fossil fuel increase and emission increase, should be a move to alternative fuel. Methanol extracts from molasses and Blended with petrol on some of the ratio for used as alternative fuel in a gasoline engine.

Methanol has been displaced by ethanol as oxygenate of choice in gasoline blends. Nevertheless, these programs have demonstrated that methanol is a viable transportation fuel. Large scale production of methanol from natural gas and coal is a well -developed technology. Methanol prices today are competitive with hydrocarbon fuels (on an energy basis). There is progress on the economic conversion of biomass to methanol using thermo-chemical processes. Sufficient feedstock of natural gas and coal exists to enable the use of non-renewable methanol as a transition fuel to renewable methanol from biomass. Analysis of the life cycle biomass-to-fuel tank energy utilization efficiency shows that methanol is better than Fischer-Tropsch diesel and methanol-to-gasoline fuels; Methanol has attractive features for use in transportation: ¾ It is a liquid fuel which can be blended with gasoline and can be used with today's vehicle technology at minimal incremental costs. ¾ It is a high octane fuel with combustion characteristics that allow engines specifically designed for methanol fuel to match the best efficiencies of diesel the while meeting current pollutant emission regulations. ¾ It is a safe fuel. The toxicity (mortality) is comparable to or better than gasoline. It also biodegrades quickly (compared to petroleum fuels) in the case of a spill. ¾ Produced from renewable biomass, methanol is an attractive green house gas reduction transportation fuel option in the longer term.The resulting transportation system could then reduce emission and increased the performance of an engine.

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DESIGN AND FABRICATION OF SOLAR WATER HEATER

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3 Kings College Of Engineering, Punalkulam.

ABSTRACT

Energy is the prime source of human activities in all sectors of life. Traditionally fossil fuel has been the prime source of energy. It is being widely realized that for sustainable development presently used energy mediums such as fossil fuel and nuclear power have to be quickly replaced by renewable energy sources. So there is a need to look for some other energy sources that could meet this growing demand. One such source is solar energy, which is cheap available in abundance. Solar energy has been utilized in many ways. Solar water heater is equipment which uses the solar energy and heats the water. There is lot of literature available for solar water heaters and solar collectors most of authors experimented or analyzed the flat plate collector with straight tube, in the area of heat transfer, optimization etc., and no one used bend tubes in place of straight tubes.

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EXPERIMENTAL INVESTIGATION ON EMISSION CHARACTERISTICS OF A DIESEL ENGINE USING SUNFLOWER OIL AND DIESEL BLENDS

*Mrs.K.R.Kavitha1**

Mr.R.Suriya Murthy2

Mrs. Lilly Mercy3

Assistant Professor, Faculty of Mechanical Engineering, Sathyabama University, Chennai1& 3*

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Biodiesel is a renewable, biodegradable fuel manufactured domestically from vegetable oils, animal fats, a cleaner-burning replacement for petroleum diesel fuel.A Vertical 4-stroke cycle, single acting single cylinder, high speed compression, ignition diesel engine was used for experiments. In this engine an experimental setup which consist of Diesel Oxidation Catalyst (DOC), Diesel Particulate Filter (DPF) and Selective Catalytic Reduction (SCR) are aligned in the exhaust system of the engine to get the maximum output of the system. This system is fitted in the exhaust manifold where the exhaust gas passes through the DPF and DOC which reduces .CO, unburnt hydrocarbons and soot.

In this paper exhaust emissions with neat diesel fuel and diesel–biodiesel blends have been investigated for varying load before blending the fuel with biodiesel and after blending the fuel with biodiesel.The experimental investigation is to measure carbon monoxide, carbon dioxide, hydrocarbons, oxygen, nitrogen oxides and smoke emission level on diesel engine with SCR, DOF and DPF using biodiesel blends of sunflower oil which was compared with conventional diesel fuel.Diesel–biodiesel blends showed lower carbon monoxide (CO),smoke emissions and nitrogen (NO*x*) emission. However, compared with the diesel fuel, NO*x* emission with diesel–biodiesel blends was slightly reduced when Exhaust Gas Recirculation (EGR) was applied. The experimental results prove that sunflower oil blends and new technique are potentially good alternate fuels for diesel engine in the future when the petroleum products become scarcer.

T. Ravi 06/12/2017.

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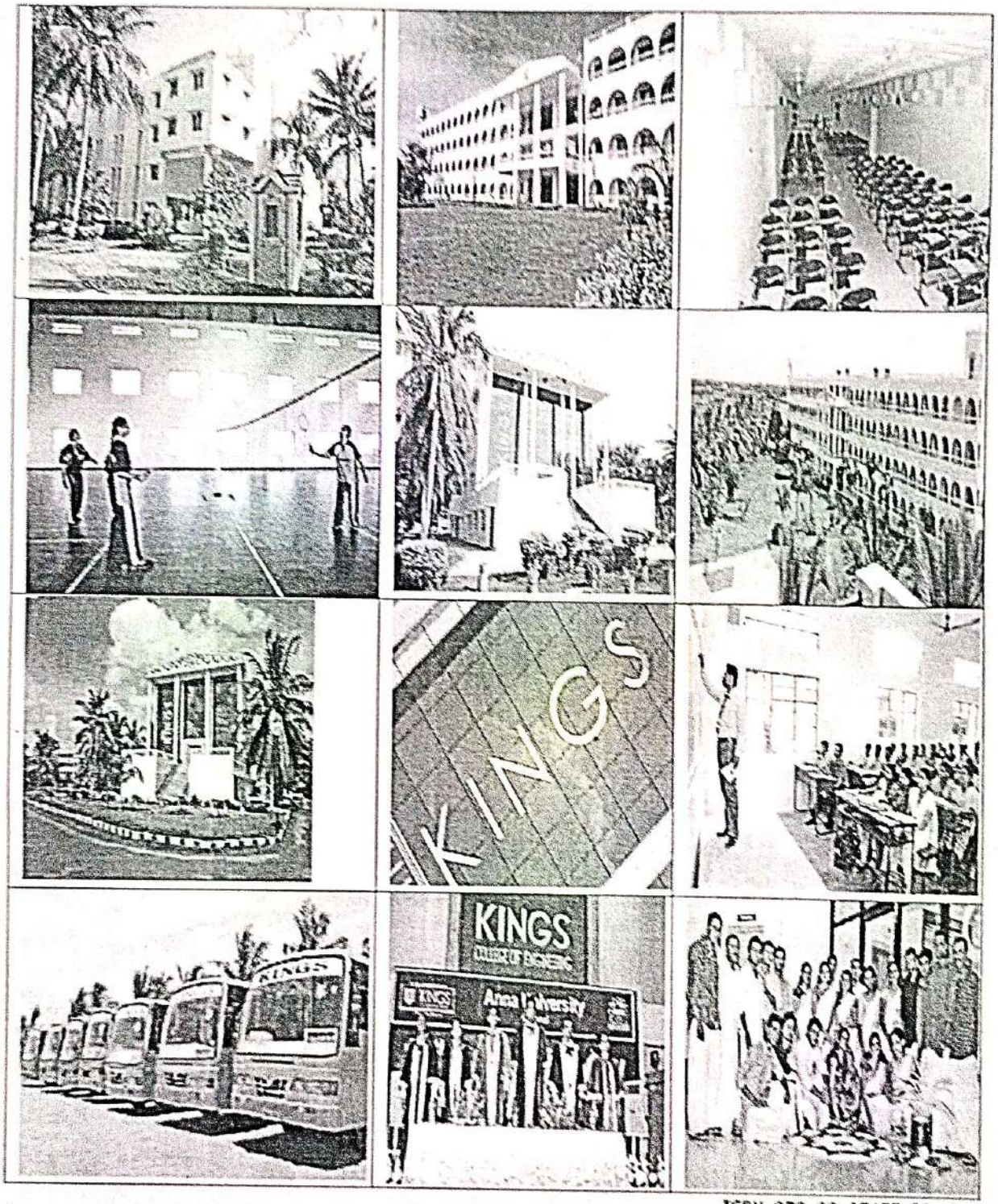

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Details of Faculty participation in books, chapters and conference / 2016-17

S & H

S. No	Name of the teacher	Title of the book/chapters published	Title of the paper	Name of the conference	ISBN/ISSN number of the proceeding	Name of the publisher
1	Dr.V.Suresh Kumar	-	Effect of immersion time on percentage inhibition efficiency of carbon steel in 1N HCl using polythiophene inhibitors	International Conference on "Advanced Polymers for Science and Technology"	-	VIT University, Vellore
2	Dr.P.Saravanan	-	Dyeing of polyester with Eco-Friendly Natural dye obtained from Barks of Odina Wodier	National Level Conference on "Chemistry of Heterogeneous Emerging Materials"	-	ERK Arts and Science College, Dharmapuri
3	Dr.AL.Kavitha	-	Study of interaction of γ-Fe2O3-CH composite carbon paste modified electrode	International conference ICECAFE2016	978-81-93199-53-4	Dhanalakshmi College of Engineering, Chennai
4	Dr.S.Udayakumar	-	Systematic Approaches to inculcate professional competencies and Holistic development among Engineering students	46th ISTE National Level Conference	-	Gulzar group of institutes, Ludhiana, (Punjab)
5	Dr.V.Sureshkumar	-	A comparative study of Poly thiophene...by weight loss method	National Conference on Research Advances in Materials Science and Applications	978-93-80622-14-9	Bharathidasan Institute of Technology Trichy
6	Dr.P.Saravanan	-	Dyeing of polyester ...from barks of ficus religiosa	National Conference on Research Advances in Materials	978-93-80622-14-9	Bharathidasan Institute of Technology Trichy

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				Science and Applications		
7	Dr.S.Udayakumar	-	Structural and Thermal studies of cotalt doped hexagonal ZnO by simple chemical precipitation method	National Conference on Research Advances in Materials Science and Applications	978-93-80622-14-9	Bharathidasan Institute of Technology
8	Dr.P.Saravanan	-	Technology-enabled, Eco-friendly modes of effective parent – Teaching communication supporting student progression	46th ISTE National Level Conference	-	Gulzar group of institutes, Ludhiana, (Punjab)
9	Mrs.T.Gnanajeya	-	Activity based learning approaches in handling Engineering mathematics enhancing problem solving skills	19th ISTET (N&P) Section Annual Convention	-	Dr.N.G.P. Institute of Technology, Coimbatore
10	Dr.R.Suresh	-	Activity based learning approaches in handling Engineering mathematics enhancing problem solving skills	19th ISTET (N&P) Section Annual Convention	-	Dr.N.G.P. Institute of Technology, Coimbatore

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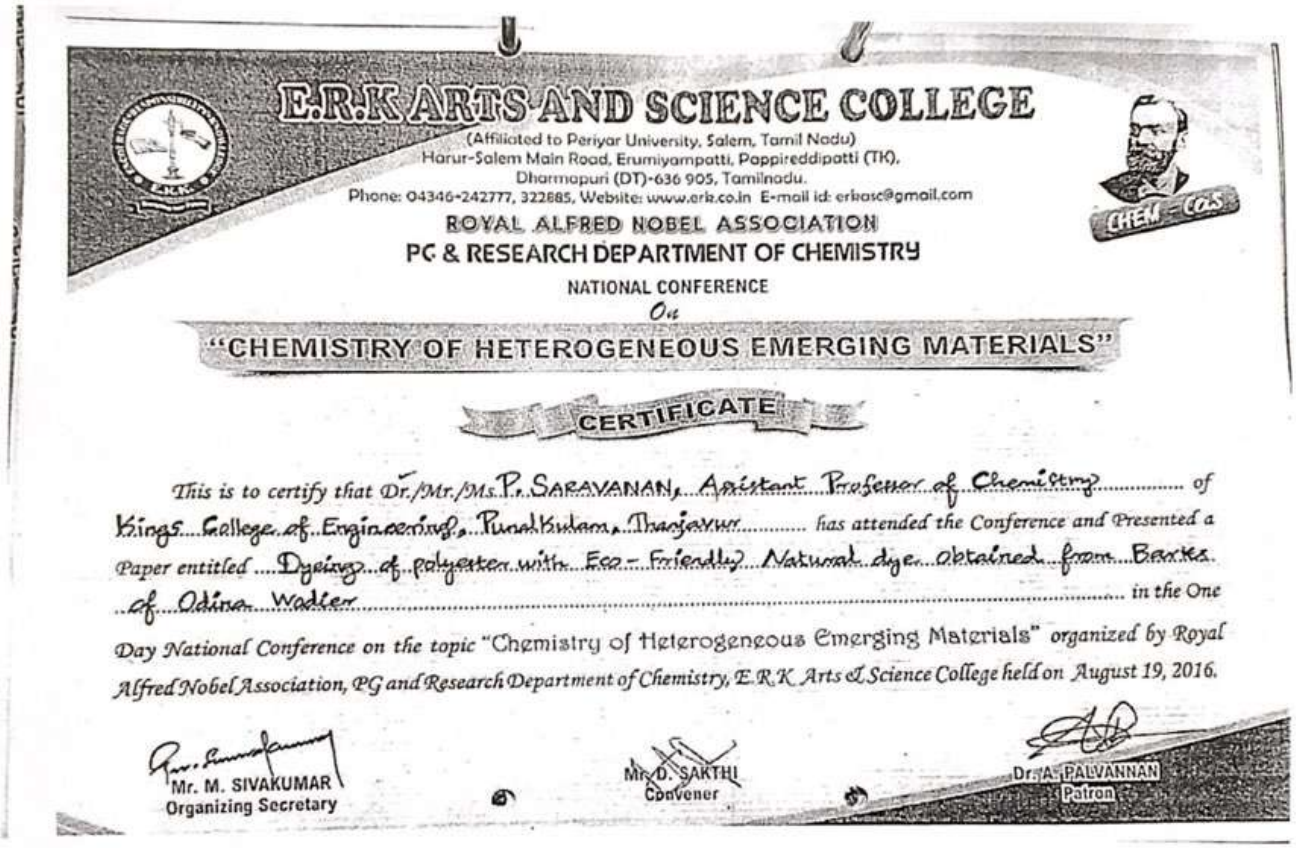

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This is to certify that Dr./Mr./Ms. P. SARAVANAN, Assistant Professor of Chemistry of Kings College of Engineering, Punalkulam, Thanjavur has attended the Conference and Presented a Paper entitled Dyeing of polyester with Eco-Friendly Natural dye obtained from Barks of Odina Wodier in the One Day National Conference on the topic "Chemistry of Heterogeneous Emerging Materials" organized by Royal Alfred Nobel Association, PG and Research Department of Chemistry, E.R.K Arts & Science College held on August 19, 2016.

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(ICECAFE – 2016)

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International Conference on Environment, Climate Change, Adaptation and Future Energy ICECAFE-2016

ISBN: 978-81-93199-53-4

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Published by

Sri Hariganesh Publications LLP
No 9A, 2nd floor, Kannagi Street, M. G. R. Nagar, Chennai-78
Mobile: +91 98411 68917/89393 31876
Email: hariganeshpublications@gmail.com
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STUDY OF INTERACTION OF γ-Fe_2O_3-CH COMPOSITE CARBON PASTE MODIFIED ELECTRODE

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Abstract

γ-Fe_2O_3 nanoparticles were synthesized by microwave method. The synthesized nanoparticles were characterized. The average particle size was found 22-50 nm by XRD and AFM. Chitosan was prepared from the crab shell and characterized. γ-Fe_2O_3-chitosan composite carbon paste modified electrode was prepared and characterized by using XRD,FT-IR and SEM technique. The electrochemical responses of this γ-Fe_2O_3-CH composite electrode have been studied in potassium ferrocyanide/KCl system using cyclic voltammetry and electrochemical impedance spectroscopy. The cyclic voltammetric and EIS studies indicated better electron transfer ofγ-Fe_2O_3-CH composite(3:1) carbon paste modified electrodes compared to bare, γ-Fe_2O_3 chitosan composite electrodes. The surface parameters like surfaee coverage (τ), Diffusion coefficient (D_0), and rate constant (k_S) were studied. The shelf-life of the developed electrode system is about 12 weeks under refrigerated conditions.

Keywords: Nanoparticles, chitosan, carbon paste, modified electrode

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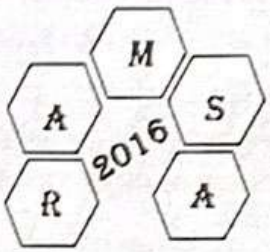

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38. A Comparative study of Polythiophene (PTh) derivatives on corrosion inhibition of mild steel in I N HCL solution by weight loss method

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Department of Chemistry, Kings College of Engineering, Thanjavur - 613 303
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Abstract

A new and effective polymeric corrosion inhibitor, Polythiophene (PTh) and its derivatives- Polythiophene Citric acid (PTh-CA), Polythiophene Anthraquinone sulphonic acid PTh-AQSA, Polythiophene-*p*-Toluene Sulphonic acid (PTh-*p*-TSA), Polythiophene –β-Napthol sulphonic acid (PTh- β -NSA), has been prepared and characterized by UV-Visible and FTIR spectroscopy studies. Its influence on corrosion inhibition of mild steel in 1N HCl solution was studied using chemical (weight loss method) technique. It was found that the maximum inhibition efficiency for a period of 3 h of immersion time obtained for PTh was 85.2% at 900ppm, PTh-CA 88.7% at 700ppm, PTh-p-TSA 92.5% at 700 ppm, PTh-AQSA 95.2 % at 700 ppm and PTh- β -NSA 95.2% at 700ppm . It indicates that 700ppm is the optimum concentration to get maximum corrosion protection for mild steel 1N HCl solution. From results obtained from weight loss method maximum inhibition efficiency was found in both PTh-AQSA and PTh- β -NSA was 95.2% which is the maximum inhibition efficiency. The surface characteristics of the inhibited and uninhibited mild steel were investigated by scanning electron microscope studies.

Keywords : Corrosion inhibitors, Mild steel corrosion, Polythiophene-Anthraquinone sulphonic acid, Polythiophene-*p*-Toluene Sulphonic acid, Polythiophene–β-Napthol sulphonic acid, Polythiophene Citric acid.

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34. Dyeing of Polyester with Eco – Friendly Natural dye obtained from Barks of *Ficus religiosa*

Dr. P.Saravanan

Department of Chemistry, Kings College of Engineering, Punalkulam, Thanjavur - 3

Abstract

Natural dyes have become a part of human life since time of immemorial. The Alchemy of colours started its use from an early time. Use of natural dyes in colouration of textile materials and other purpose is just one of the consequences of increased environmental awareness. Natural dyes are preferred nowadays in developed countries, because they are non-allergic, non-carcinogenic and have lower toxicity and better biodegradability than the synthetic dyes. In present study, a natural dye was extracted from the barks of Ficus religiosa using water as the solvent. It was observed that the natural dye has good affinity towards polyester fabrics. Three methods of mordanting namely Pre-mordanting, post-mordanting and simultaneous mordanting were followed. Chemical mordants like $CuSO_4$, $NiSO_4$, $FeSO_4$, alum, $K_2Cr_2O_7$ and $SnCl_2$ were used to obtain different colours. Natural mordants like myrobolan and cow dung were also used. The effect of time and temperature on dye uptake was also being studied. The light fastness, washing fastness and rubbing fastness properties of the dyes polyester fabrics were studied. The colour strength (K/S values) and hues produced by the natural dyes on the polyester fabrics were measured by computer colour matching method. The extracted natural dye was characterized by UV, FT-IR and ICP-OES studies.

Key words — Natural dye, Extraction, Ficus religiosa, barks, polyester

References

1. N. Pruthi, G. Chawla and S. Yadav, 2008, Natural Product Radiance, 7(1), 40-44.
2. Ibrahim Abdullahi Umar, 2013, Journal of Natural Sciences Research, Vol.3, No.4.
3. K. Anitha, S. N. Prasad, 2007, Current Science, Vol. 92, No. 12.
4. Vankar, P. S. and Shanker R., 2009, Colouration Technology, Vol.125,No.3, pp.155 160.

22/8/2016
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37. Structural, And Thermal Studies Of Cobalt Doped Hexagonal Zno By Simple Chemical Precipitation Method.

S.Udayakumar[1] *K.Kavitha*[2]

1. Asst Prof, Kings College of Engineering punalkulam, Thanjavur.
2. Asst Prof, S.T.E.T Womens College, Mannargudi.

Abstract:

Cobalt doped zinc oxide nanoparticles were prepared through simple chemical precipitation method. X-ray diffraction studies confirm the prepared particles are in Wurtzite structure. Scanning Electron Microscopy and TEM studies show the shape and morphology of the particles. To identify the presence of cobalt in ZnO, XRD and FTIR studies were done. A thermal property of undoped and doped ZnO was studied by TGA &DTA analysis. Thermal property of this nanoparticles Shows the synthesized nanoparticles can withstand up to higher temperature.

Keywords : Wurtzite Structure, ZnO, TGA & DTA.

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IUPAC Periodic Table of the Elements

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ISBN 978-93-80622-14-9

Yazhini Publications
Cuddalore District - 606 302.

Printed @ The Printing House, Try-23. Ph : 0431 2420121

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Organising Secretary Convention & Dean (Research & Development), Head (Deptt. of Mech. Engg.) GGI, Ludhiana	Organising Chairman Convention & Campus Director GGI, Ludhiana	Convention Co-Chair & Executive Director GGI, Ludhiana	President, ISTE New Delhi

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Dr. N.G.P. INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)
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INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE)

19th ISTE TN & P Section Annual Convention for Faculty Members of Engineering Colleges - 2016

CERTIFICATE

This is to certify that Dr./Mr./Ms. T. GINANAJEYA of KINGS COLLEGE OF ENGINEERING has presented paper titled ACTIVITY BASED LEARNING APPROACHES IN HANDLING ENGG MATHEMATICS ENHANCING PROBLEM SOLVING SKILLS / participated in 19th ISTE TN & P Section Annual Convention for Faculty Members of Engineering Colleges - 2016 (Theme: "Internationalization of Engineering Education - Empowering the Future") organized by Dr.N.G.P. Institute of Technology, Coimbatore - 641048 during December 2 & 3, 2016.

Dr.S.Suresh Kumar	Dr.K.Porkumaran	Dr.K.Ganesan	Dr.A.K.Natesan
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