KINGS COLLEGE OF ENGINEERING
Recognised under 2(f) & 12(B) of UGC
Approved by AICTE, New Delhi.
Affiliated to Anna University, Chennai.

ACCREDITED WITH GRADE B++ NAAC

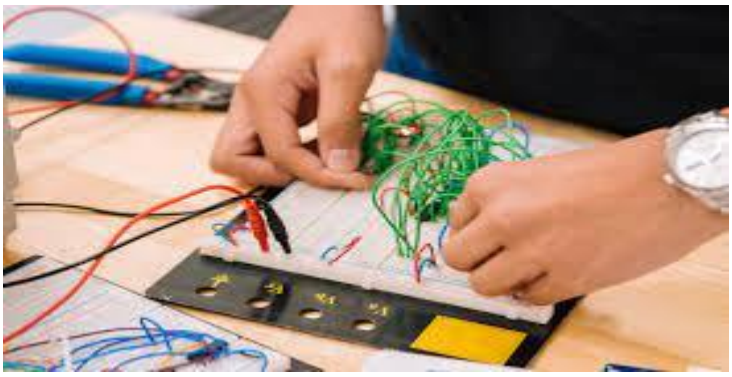
WORKSHOP REPORT

In the title of

"RECENT TRENDS IN ELECTRICAL ENGINEERING"

ON

04th OCTOBER 2023



Organized by

Department of Electrical and Electronics Engineering

KINGS COLLEGE OF ENGINEERING, PUNALKULAM

A NAAC Accredited Institution

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
ACADEMIC YEAR (2023-2024) ODD SEM
REPORT ON ONE DAY WORKSHOP

Title of the Workshop : "Recent Trends in Electrical Engineering"

Date : 04.10.2023

Resource Person : 1. Dr.S.Sivakumar, Vice Principal & Head T&P, KCE

2. Dr.G.Suganya, AP/EEE, KCE

3. Dr.A.Prabha, AP/EEE, KCE

4. Dr.P.Narasimman, AP/EEE, KCE

No of students participated : Internal participants : 50

External participants : 35

Total No. of Participants: 85

Objectives of Workshop : To provide knowledge and exposure to students about:

- Introduction to MATLAB
- Exploring High Voltage: Applications and Innovations
- Optimization and Intelligent Algorithms
- Electrical Lighting Design and Calculation

Welcome address by workshop coordinator Dr. A.Prabha,AP\EEE

Felicitation Address by Dr.S.Sivakumar, Vice Principal

Dr.S.Sivakumar, Vice Principal delivered the Presidential Address. He emphasized that; this workshop will provide more knowledge about the various technical skills and the future scope for electrical engineers. He insisted the students to ask more doubts and have a clear idea about the recent trends in Electrical Engineering.

Chief Guest Honoured by **Dr.Albert Martin Ruban, HOD/EEE**

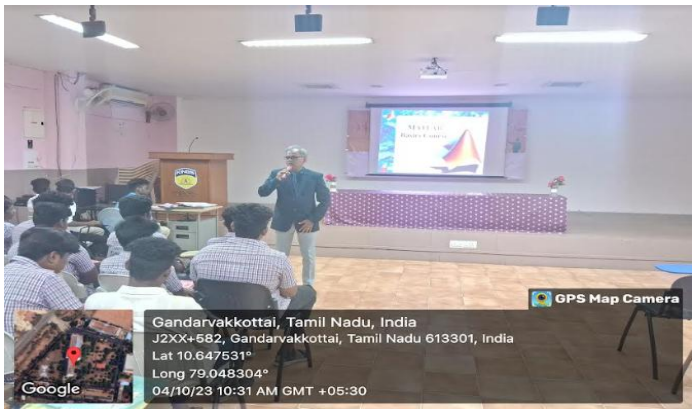
Session: 1

Title: Introduction to MATLAB

Resource Person: Dr.S.Sivakumar, Vice Principal

The following points were discussed during the session 1:

- MATLAB is a software used for high-performance visualization, mathematical computation, and programming. MATLAB stands for "Matrix Laboratory," as it was originally known as the matrix programming language.
- MATLAB is a programming and numeric computing platform used by millions of engineers and scientists to analyze data, develop algorithms, and create models.
- MATLAB is used to analyze data for homework, conduct research, and develop programming skills that prepare the students for future career.



Snapshot of Session: 1

Session: 2

Title: Exploring High Voltage : Applications and Innovations

Resource Person: Dr.G.Suganya,AP\EEE

The following points were discussed during the session 2:

- High voltage engineering is a key technology used to ensure the power supply and also plays a major role in many technical sectors such as industrial manufacturing or the automotive industry.
- High voltage testing is a crucial kind of testing used to guarantee sufficient proper insulation in a wide variety of industrial processes.
- Evaluating the insulation is critical for establishing cable quality and safety and decreasing the likelihood of electrical shocks and accidents.
- They are used in electro spinning and electro spraying in the pharmaceutical and automobile industries.

Snapshot of Session: 2

Session: 3

Title: Optimization and Intelligent Algorithms

Resource Person: Dr.A.Prabha, AP\EEE

The following points were discussed during the session 2:

- In optimization of a design, the design objective could be simply to minimize the cost of production or to maximize the efficiency of production.
- An optimization algorithm is a procedure which is executed iteratively by comparing various solutions till an optimum or a satisfactory solution is found.

- The optimal size of DG is calculated at each bus using the exact loss formula and the optimal location of DG is found by using the loss sensitivity factor.
- The proposed technique is tested on IEEE bus test system and the obtained results are compared with the exhaustive load flows.

Snapshot of Session: 3

Session: 4

Title: Electrical Lighting Design and Calculation

Resource Person: Dr.P.Narasimman, AP\EEE

The following points were discussed during the session 2:

There are three basic types of lighting you should layer in a room in order to accomplish this:

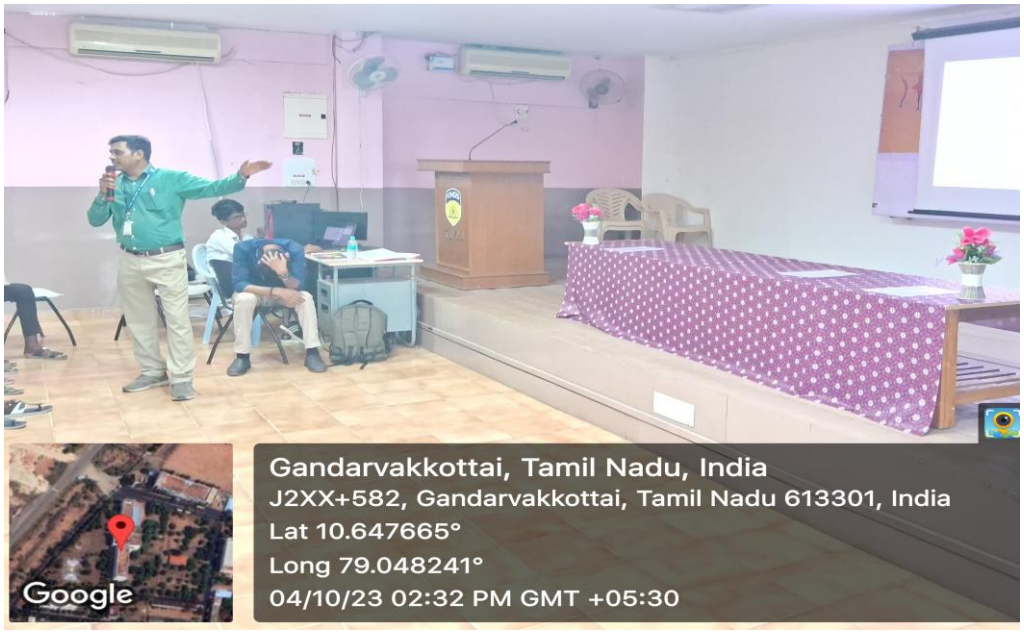
- Ambient or general lighting.
- Accent lighting.
- Task lighting.

- LIGHTING DESIGN USING THE LUMEN METHOD

  The lighting installation may be designed using the following steps:-

  1. Decide upon the illumination required in Lux Calculate the room index

  2. Calculate the room index 3. Find the utilization factor for the luminaire to be used.



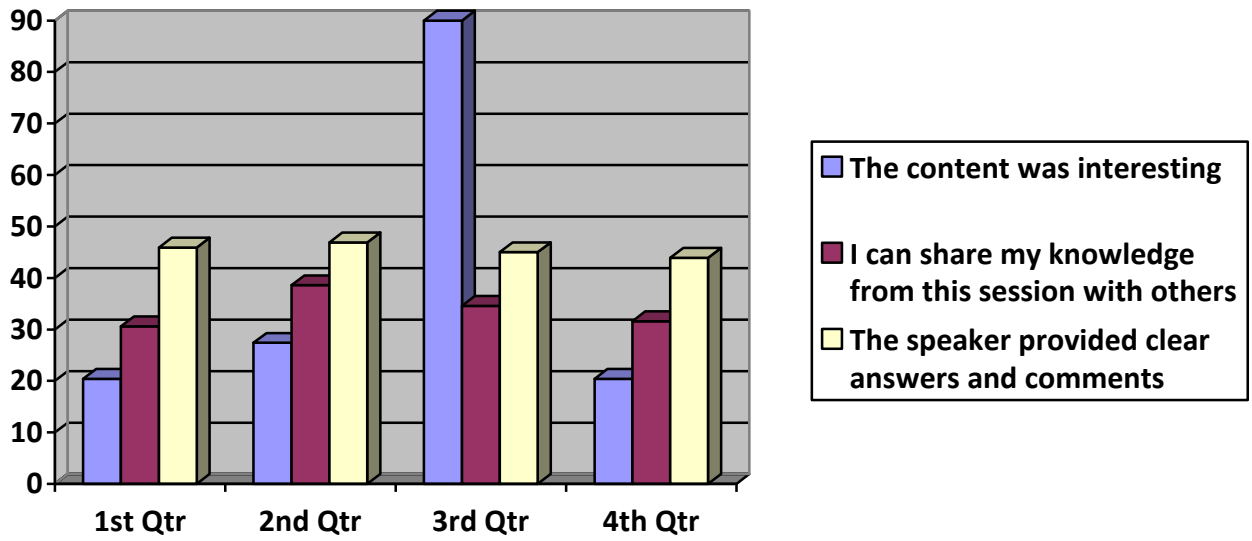
Snapshot of Session: 4

After the sessions was completed, Feedbacks were collected from the students to know their opinion about the Workshop.

Feedback from student

FEEDBACK ANALYSIS REPORT

S.NO	CONTENTS	EXCELLENT	VERY GOOD	GOOD	SATISFIED
1.	The content was interesting	35	20	18	12
2.	I can share my knowledge from this session with others	30	30	19	06
3.	The speaker provided clear answers and comments	35	20	18	12



Students receiving the workshop completion certificate from the HoD/EEE.

Finally, Event coordinator Mrs.P.Thirumagal, AP/EEE delivered the vote of thanks. Workshop ended up with National Anthem successfully.

OUTCOME:

- At the end of the Workshop, students gathered more knowledge about the MATLAB, high voltage, optimization and electrical lighting.
- Students gained various technical skill sets needed regarding placement. Thus we created the way to get into the MNC through the technical skills in our core field.
- Students get more knowledge and exposure on recent trends in electrical engineering.

Coordinators
Dr. A. Prabha
Mrs. P. Thirumagal

HOD/EEE

PRINCIPAL