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DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
ACADEMIC YEAR 2021-22 EVEN
Internal Students Seminar – Report

Title of the seminar : “Hybrid Energy Systems”
Date : 23.05.2022
Resource Person : Mr.J.Arokiaraj, AP/EEE, KCE
Beneficiaries : EEE Students - 52
Venue : III -EEE - ICT Classroom – Hall No: 133

THE MAIN OBJECTIVE OF THE INTERNAL SEMINAR:

- The main objective of the internal seminar is to provide exposure to various research areas to our students.
- To provides a critical view into the behaviour of Hybrid Energy Systems.
- Hybrid systems can increase the amount of dispatchable renewable energy generation as well as the reliability of rural energy access.
- A hybrid energy system combines multiple types of energy generation and/or storage or uses two or more kinds of fuel to power a generator.

THE FOLLOWING POINTS WERE DISCUSSED DURING THE SESSION:

- Hybrid systems simplify technology refreshment by easing the process of combing existing equipment with newer technologies. This way you maximize use out of both existing hardware and software but can still take advantage of other technologies.

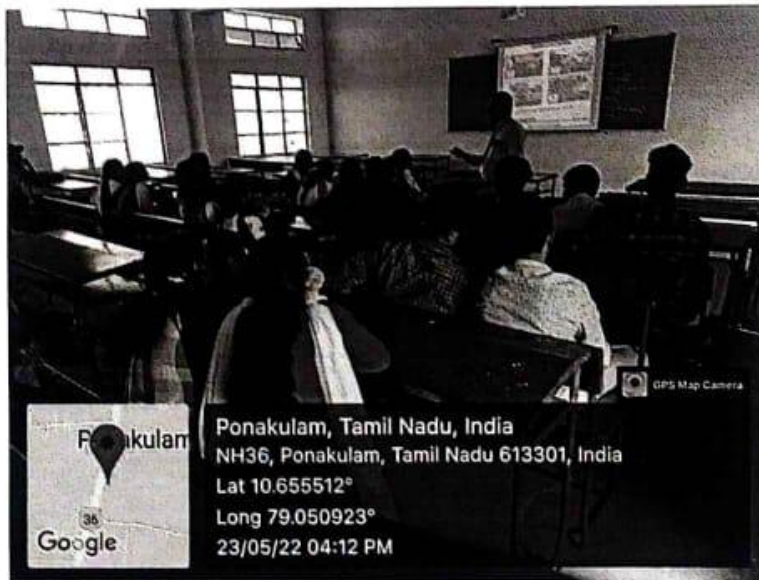
THERE ARE TWO DIFFERENT TYPES OF HYBRID SYSTEMS:

- Parallel and series hybrids.
- In a parallel hybrid bus, the combustion engine and the electric motor are connected to the transmission independently.
- A series hybrid bus is exclusively propelled by the electric motor.

Along with mild hybrids, the parallel hybrid system is generally considered the best hybrid option for drivers who rack up lots of miles. Also, it's important to remember that EV mode might cut pollution in town, but the electricity you're using is mainly generated by burning fuel in the engine.

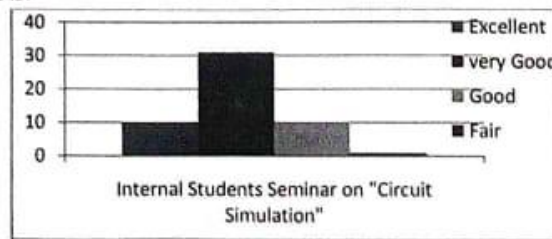
OUTCOME:

- Hybrid energy systems are still an emerging technology.
- It is expected that technology will continue to evolve in the future, so that it will have wider applicability and lower costs.
- There will be more standardized designs, and it will be easier to select a system suited to particular applications.
- There will be increased communication between components.
- This will facilitate control, monitoring, and diagnosis.
- Finally, there will be increased use of power electronic converters.
- Power electronic devices are already used in many hybrid systems, and as costs go down and reliability improves, they are expected to be used more and more.



Snapshot from Seminar

Feedback Analysis:



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Faculty In-Charge

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Principal