REPORT ON GUEST LECTURE: "SMART GRID TECHNOLOGIES: ADVANCEMENTS AND CHALLENGES"

EventOverview:

A guest lecture titled "Smart Grid Technologies: Advancements and Challenges" was organized by the Department of Electrical and Electronics Engineering (EEE) in collaboration with the Institution's Innovation Council (Ministry of Education Initiative). The event focused on the significance of smart grid technologies in modern power systems, emphasizing their role in powering the future with intelligence and sustainability.

SpeakerDetails:

The lecture was delivered by **Mr. M.V. Mahesh Babu**, an Executive Engineer at the **400KV Substation, Kalikiri**. With his vast experience in the power sector, Mr. Mahesh Babu provided valuable insights into the advancements and challenges associated with smart grids.

Date, Time, and Venue:

- Date: 12th February 2025
- **Time:** 10:30 AM
- Venue: Mechanical seminar hall

Key Topics Covered:

- 1. Introduction to Smart Grids: Evolution from traditional power grids to smart grids.
- 2. **Technological Advancements:** The integration of advanced metering infrastructure (AMI), sensors, and automation.
- 3. **Challenges in Implementation:** Cybersecurity threats, high initial investment, and interoperability issues.
- 4. **Sustainability and Future Trends:** Smart grids' role in enhancing renewable energy integration and promoting sustainability.

Organizing Committee:

- Co-Coordinators:
 - $\circ \quad Mr. \ Balamurugan$
 - o Ms. P. Roja

- o Ms. K. Santhosh Priya
- Mr. Raju
- Coordinators:
 - Dr. P. Sudheer (HOD-EEE)
 - Mr. N. Sathish Kumar (HOD-MECH)
- Principal:
 - o Dr. N. Venkatachalapathi

Event Highlights:

- The session commenced with a welcome address, followed by the speaker's detailed presentation.
- Mr. Mahesh Babu elaborated on real-time applications of smart grids, highlighting the importance of proactive maintenance and the role of automation.
- The interactive Q&A session allowed participants to seek clarifications and discuss potential research avenues in smart grid technologies.

Conclusion:

The guest lecture proved to be highly informative, offering a comprehensive understanding of smart grid technologies. The participants appreciated the practical insights shared by the speaker and recognized the importance of adopting smart grid solutions for a sustainable energy future.









Prepared by

(Dr.P.Sudheer)