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A Report on

"Smart Distribution Systems for Sustainable EV Infrastructure"

Organized by
Department of Electrical & Electronics Engineering (EEE), MITS Madanapalle
27.01.2024

Convener: Dr. AV Pavan Kumar, Professor and Head, Department of EEE, MITS.
Co-ordinator: Mr. Mr. RAJESH K S
Attendees: 19 members
Venue: WB120
Platform: **Google Meet**

The Department of Electrical & Electronics Engineering (EEE), MITS Madanapalle, successfully organized workshop titled "**Smart Distribution Systems for Sustainable EV Infrastructure**" on 27th Jan 2024.

Workshop Schedule

Time	Session	Resource Person
9:30 AM - 10:00 AM	Inauguration & Welcome Address	Host & Coordinator
10:00 AM - 11:30 AM	Fundamentals of Smart Distribution Systems	Dr. A Senthilkumar
11:30 AM - 11:45 AM	Break	-
11:45 AM - 1:15 PM	Integration of EV Infrastructure with Smart Grids	Dr. A Senthilkumar
1:15 PM - 2:00 PM	Lunch Break	-
2:00 PM - 3:30 PM	Case Studies and Real-Time Applications	Dr. A Senthilkumar
3:30 PM - 4:30 PM	Q&A and Discussion	Open Session

Faculty attended:

1. Dr. A V PAVAN KUMAR
2. Dr. K. ARUL KUMAR
3. Dr. LAKSHMIKHANDAN K
4. Dr. BALAJI DAMODHAR T S
5. Dr. GOURAV KUMAR SUMAN
6. Dr. V B THURAI RAAJ
7. Dr. SUMAN YADAV
8. Mr. N SRIDHAR
9. Mr. IBRAHIM ZAFAR
10. Mr. RAJESH K S
11. Mr. CHODAGAM SRINIVAS
12. Mr. SARAVANAN D
13. Mr. G MALLIKARJUNA
14. Mr. BONDU VIJAYAKUMAR
15. Mr. EJJIROTU RAGHU BABU
16. Mr. VENKATESH M
17. Mr. RAMESH KUMAR R
18. Ms. KODURI REVATHI
19. Ms. REVATHY GOPINATH

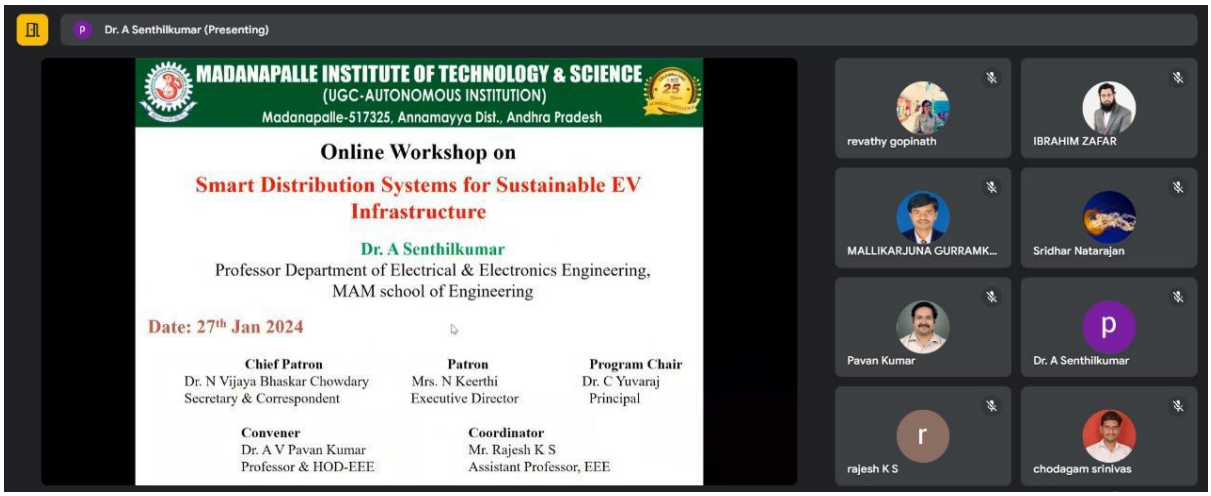
The online one-day workshop was inaugurated on 27th Jan 2024 at 9:30 AM with a welcome address to all attendees by, Dr. A V Pavan Kumar Head of the Department, EEE. This was followed by an inaugural address delivered by Dr. A Senthilkumar, emphasizing the importance of Smart Distribution Systems for Sustainable EV Infrastructure in modern power grids. The workshop agenda and the introduction of the resource person were presented by Mr. RAMESH KUMAR R.

This session focused on the architecture and components of modern smart distribution systems. Dr. Senthilkumar elaborated on:

- The evolution of distribution networks from conventional to smart grids
- The role of automation, communication, and control technologies in smart systems
- Benefits of real-time monitoring and distributed generation integration

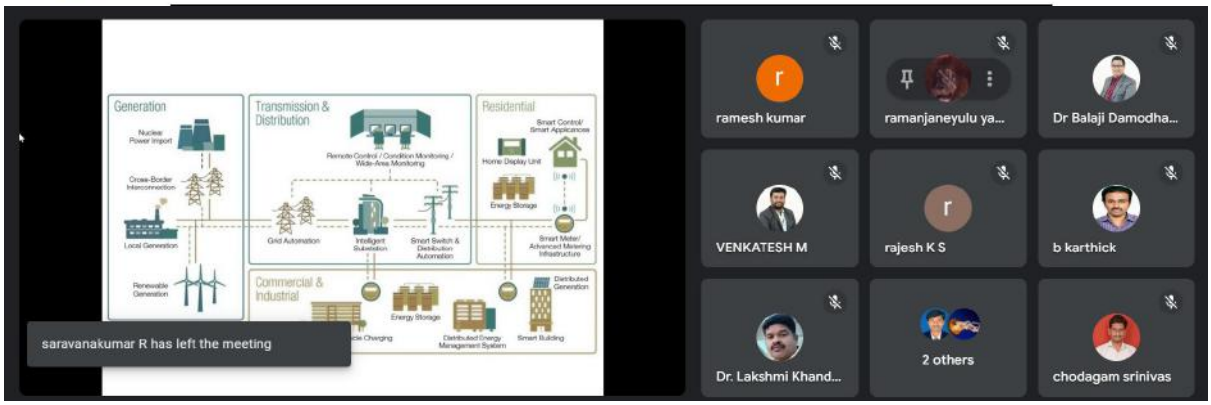
After break, the session addressed the core topic of the workshop—EV integration. Key points included:

- Load impacts of EV charging stations on distribution networks
- Optimal location and sizing of EV chargers using smart grid data
- Demand-side management and vehicle-to-grid (V2G) technologies
- Standards and protocols for EV grid integration



After lunch break, Dr. Senthilkumar presented practical insights through case studies on:

- Pilot projects involving smart EV charging systems
- Use of AI/ML in predicting EV charging demand
- Distribution automation in urban EV corridors



The workshop concluded with a Q&A and discussion session, where participants actively engaged with the resource person.

A vote of thanks was delivered by Mr. G Mallikarjuna, expressing gratitude to the Principal of MITS for fostering a culture that encourages such events, the Head of the EEE Department, Dr. A.V. Pavan Kumar, for his unwavering support and guidance in organizing the event, as well as to the faculty members, guest speakers, and student volunteers for their valuable contributions in making the event a grand success.

Mr. Rajesh K S
Assistant Professor,
Department of EEE
MITS, Madanapalle.

Signature of HOD-EEE