Detailed Session Planning

Basic AICTE ATAL FDP

Future Electric Mobility and Sustainable Energy Systems: Innovations and Trends

07th to 12th December 2026

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
9:00 – 9:30 Inauguration					
9:30 – 12:00 ***Session 1*** Mr. R.Kannan General Manager (Rtd.) BHEL R&D Division, Hyderabad	**9:30 – 12:00** ***Session 3*** Mr. K. Manikandan Senior Automotive Engineer TATA Elxsi Chennai	**9:30 – 12:00** ***Session 5*** Dr.M.Uday Bhasker Associate Professor Dept. of EE NIT, Warangal	**9:30 – 12:00** ***Session 7*** Dr. Pradeep Kumar Yemula Associate Professor, Dept. of EE IIT, Hyderabad	**9:00 – 1:00** Industrial Visit MOSart Labs Pvt Ltd Hyderabad	**9:30 – 12:00** ***Session 10*** Dr. S.Saravanan Professor Dept. of EEE BVRIT, Hyderabad
12:00 – 1:00 Article Discussion 1	**12:00 – 1:00** Article Discussion 1	**12:00 – 1:00** Article Discussion 2	**12:00 – 1:00** Article Discussion 2		**12:00 – 1:00** Article Summary
1:00 – 2:00 *Lunch*	**1:00 – 2:00** *Lunch*	**1:00 – 2:00** *Lunch*	**1:00 – 2:00** *Lunch*	**1:00 – 2:00** *Lunch*	**1:00 – 2:00** *Lunch*
2:00 – 4:30 ***Session 2*** Dr. K.Naga Sujatha Professor, Dept. of EEE JNTUH, Hyderabad	**2:00 – 4:30** ***Session 4*** Mr. K. Manikandan Senior Automotive Engineer TATA Elxsi Chennai	**2:00 – 4:30** ***Session 6*** Dr.M.Uday Bhasker Associate Professor Dept. of EE NIT, Warangal	**2:00 – 4:30** ***Session 8*** Dr. A. Krishnakanth Founder & Chief Technical Officer MOS-art Labs Pvt Ltd, Hyderabad	**2:00 – 4:30** **Session 9** Dr. P. Madhurima Reddy Founder and Chairperson La Winspire Hyderabad	**2:00 – 4:00** *MCQ & Reflection Journal*
4:30 – 5:30 *Hands on training/Labs*	**4:30 – 5:30** *Hands on training/Labs*	**4:30 – 5:30** *Hands on training/Labs*	**4:30 – 5:30** *Hands on training/Labs*	**4:30 – 5:30** *Hands on training/Labs*	**4:00 - 5:00** *Valedictory Session*

ARTICLE DISCUSSION

Article 1: Lin Liu, Youguang Guo, Shuangxia Niu, Wenliang Yin, Gang Lei, Jianguo Zhu, "A Material-Informed Multiphysics Modelling Framework for Full Range Performance Estimation of PMSMs in Electric Vehicles", IEEE Transactions on Transportation Electrification, 12 (1), pp. 3602 – 3616, March 2026.

Article 2: Alireza Zabihi, Pierluigi Siano, Kivanc Basaran, George Cristian Lazaroiu, " Second-Life Batteries as Enablers of Sustainable Electric Vehicle Infrastructure: Opportunities and Future Directions", IEEE Access, 14, pp. 45626 - 45647, March 2026.



J.B. INSTITUTE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

Approved by AICTE, Accredited by NBA (CSE, ECE, EEE, IT) & A Grade with NAAC and Permanently Affiliated to JNTUH

Website: www.jbiet.edu.in

FACULTY DEVELOPMENT PROGRAM ON

FUTURE ELECTRIC MOBILITY AND SUSTAINABLE ENERGY SYSTEMS: INNOVATIONS AND TRENDS

07th to 12th December 2026

Organized by
Department of Electrical and Electronics Engineering
J.B. Institute of Engineering and Technology
Bhaskar Nagar, Hyderabad - 500 075, Telangana, India
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Sponsored by
AICTE Training And Learning (ATAL) Academy

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ABOUT JBIET

J.B. Institute of Engineering and Technology (JBIET) was established in 1998 by JB Educational Society, founded by a group of dedicated academicians and visionary educationists. Over the years, JBIET has gained the trust of students and parents, emerging as a preferred institution for aspiring engineers. The institute holds autonomous status under **UGC**, is accredited with an **'A'** grade by **NAAC**, approved by **AICTE**, and is permanently affiliated with **JNTUH**. The **CSE, ECE, EEE**, and **IT** departments have earned Tier-1 accreditation from **NBA**. JBIET offers a diverse range of academic programs, including **12 B.Tech, 5 M.Tech**, and **1 MBA** program. The institution has received research grant **₹46 Lakhs from DST- FIST** and .**₹90 Lakhs from AICTE – IDEA Lab**. Faculty members are actively engaged in research, regularly publishing their work in reputed national and international journals and conferences. JBIET boasts state-of-the-art infrastructure spread across 106 acres, providing an ideal environment for academic excellence and innovation.

HIGHLIGHTS OF JBIET

- Strong innovation ecosystem with T-Hub, T-Works and IITM Pravartak
- Incubation center operates under JB Institute of Inventors Association India (JBIIAI) supporting innovation, startups and patents
- 9 student startups established under JBIIAI
- Entrepreneurship Training and BLITZ programs conducted with T-Hub
- Grants applied under MSME, TIDE 2.0 and MeitY
- 100 kW on-grid solar power plant
- Received WOW Awards 2026 under ITC CSR for sustainability
- Strategic Academic Partner for National Conclave on Sustainable Bharat 2047
- Ranked among Top 10 Engineering Colleges in Telangana – AAA+ (Careers360, 2025)
- Ranked 117th in India – Engineering Rankings (2025)
- Titanium+ Band in Green Rankings (2026)
- Platinum Band in Campus Wellbeing (MHW Rankings 2025–26)
- Diamond Band in Employability and Start-up Ecosystem (2025)
- Gold Band in Research Excellence (2025)

ABOUT THE DEPARTMENT (EEE)

The **EEE** Department at **JBIET**, established in **1998**, offers a **B.Tech** program with an intake of **30** and an **M.Tech in Electrical Power Systems** with an intake of **12**. The **B.Tech (EEE)** program is Accredited under **NBA Tier-I,** the department fosters research through **IEEE** and **IEI student chapters**, industry collaborations, and a **Centre of Excellence in Renewable Energy Systems**. **All doctorate faculty members are recognized research supervisors by JNTUH**. The curriculum aligns with AICTE guidelines, covering emerging fields like AI, Industrial Automation, and Electric Vehicles, equipping students with industry-relevant skills.

ABOUT ATAL

- The vision of the ATAL Academy is to empower the faculty to achieve goals of Higher Education such as access, equity. and quality.
- The academy supports technical institutions in fostering research, innovation, and entrepreneurship through training.
- ATAL Academy provides a variety of opportunities for training and exchange of experiences such as workshops, Orientations, learning communities. peer mentoring and other faculty development programmes.
- ATAL Academy stress upon empowering technical teachers and technicians using Information & Communication Technology.

ABOUT THE FDP

This FDP aims to provide knowledge and hands-on training on core and advanced topics in electric mobility and sustainable energy systems. It covers electric vehicle technologies, power conversion and control, smart grids, battery innovations, hydrogen fuel cells, and AI-driven EV systems with policy aspects. The program also includes research discussions and practical sessions on EV modelling, motor design, PV systems, and AI applications, offering comprehensive exposure to emerging trends.

OBJECTIVES

- To actively involve participants in the subject domain of Next Generation Electric Vehicles and Sustainable Energy, promoting collaboration that accelerates the development and real-world application of electric vehicles.
- To develop technical proficiency in the use of specialized tools, equipment, and methodologies in Electric Vehicle Technology and Renewable Energy Systems through lab activities, ensuring learners gain the applied skills necessary in their respective fields.
- To support the practical application of research endings toward areas such as Battery Technology, Energy Storage, and Power Electronics with high potential for industry relevance, ensuring that research efforts translate into tangible solutions for societal and national development.
- To design training programs for participants that simulate industry environments and enhance their readiness for immediate application in their professional careers in Electric Mobility and Sustainable Energy Solutions.
- To enhance teaching effectiveness by equipping participants with modern pedagogical strategies and tools that improve student engagement, learning outcomes, and classroom management in the domain of Electric Vehicles, Renewable Energy, and Smart Grid Technologies.

OUTCOMES

- Participants can use the knowledge of the domain and cultivate a culture of collective problem-solving and teamwork within the field of Electric Vehicles and Sustainable Energy.
- Participants will develop hands-on experience with the specialized tools, equipment and methodologies specific to the field and improving their technical competence.
- Practical applications of research can directly enhance participants quality of research by introducing innovative solutions to complex problems.
- By simulating industry environments, participants gain hands-on experience that closely help work in real-world settings.
- Modern pedagogical strategies encourages critical thinking, problem-solving and collaborative learning, all of which contribute to a deeper understanding of the subject matter in Electric Vehicle Technology and Sustainable Energy Systems.

TARGET PARTICIPANTS

Assistant Professors/ Associate Professors/ Ph.D. scholars/PG students

RESOURCE PERSONS:

Eminent Professors and experts from reputed Institutions like IITs, NITs. Central Universities and from Industries.

1. **Mr.R.Kannan**, General Manager (Rtd.)
   BHEL R&D Division, Hyderabad
2. **Dr.K.Naga Sujatha**, Professor
   Department of EEE, JNTUH, Hyderabad
3. **Mr.K.Manikandan**
   Senior Automotive Engineer, TATA Elxsi, Chennai
4. **Dr.M.Uday Bhasker**, Associate Professor,
   Department of Electrical Engineering, NIT Warangal
5. **Dr.Pradeep Kumar Yemula**,
   Associate Professor, Department of EE, IIT,Hyderabad
6. **Dr.A.Krishnakanth**, Founder & Chief Technical Officer, MOS-art Labs Pvt Ltd, Hyderabad
7. **Dr.P.Madhurima Reddy**
   Founder and Chairperson, La Winspire, Hyderabad.
8. **Dr.S.Saravanan**, Professor
   Department of EEE, BVRIT, Hyderabad

REGISTRATION :

ATAL FDPs are completely **FREE** for participants. The Participants can register for this FDP on AICTE ATAL by following link
www.aicte-india.org/atal

Number of Seats:
Maximum 50 (on first come first basis)

TEST & E-CERTIFICATE

- A test shall be conducted by the coordinator at the end of the program.
- The e-certificates shall be issued to those participants who are registered and attend the program with minimum 80% attendance and scored minimum 60% marks in the test.

CONTACT DETAILS

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