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Mr. B. Ram Vara Prasad,
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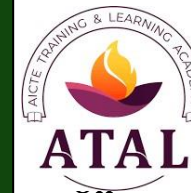
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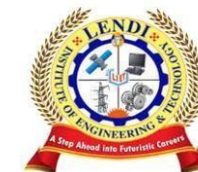


One-Week Faculty Development Program

Sponsored by



AICTE Training and
Learning (ATAL)
Academy



Future Trends in Energy managements for Smart Cities

19th- 24th August 2024



Organized by
**Department of
Electrical & Electronics
Engineering**

Lendi Institute of Engineering & Technology
Autonomous Institution

*Accredited by NAAC with 'A' Grade & NBA
(EEE, ECE, ME and CSE)*

Approved by AICTE and permanently affiliated
to JNTUG, Vizianagaram, A.P. – 535005

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www.lendi.org

ABOUT THE INSTITUTION

Lendi Institute of Engineering & Technology, Vizianagaram popularly known as Lendi, was established in 2008 by Sai Dhamam Educational Trust, Visakhapatnam, with primary objective of providing quality technical education to meet the scientific and technological needs of the society. LIET is recognized by the AICTE, New Delhi. At present LIET is an autonomous institute under Jawaharlal Nehru Technological University, Vizianagaram. It is accredited by the NAAC with “A” grade and accredited by NBA (EEE, ECE, CSE and ME). It is one of the premier institute in the state of Andhra Pradesh. It has attracted academicians of proven competence on to its faculty, augmented the infrastructural facilities, modernized laboratories, placed its products in reputed organizations all over the world and gained recognition amongst industry and academic circle. At present, it is offering UG in EEE, ECE, CSE, ME, CSSE, CSIT and CSE (AI-ML) of engineering, PG in four engineering specializations.

ABOUT EEE DEPARTMENT

Department of Electrical and Electronics Engineering established in 2008 with an intake of 60. The department has grown significantly and currently offers Electrical and Electronics Engineering in UG programme with an intake of 120 and Power Systems and Control Automation in PG programme with an intake of 18. To meet the requirement of these courses the department has set up modern laboratories with all latest software's. The department is accredited by NBA. The department has team of experienced, highly qualified with good research faculty members. Also, the Department has good no. of patents and SCI journals. The Department is envisaged by participating actively with Govt. funded projects and IIT sponsored workshops etc. The department is well committed to explore students and provide a quality of students out to the country.

OBJECTIVE OF THE FDP

Sustainable energy management is the way of the future for smart cities for reasons of economic, environmental, and energy security. Rooftop solar, tiny wind turbines and local battery storage have been widely used in many nations recently to build affordable micro grids for smart cities and preserve the dependability of power networks. The conventional power grid system becomes unstable as the integration of sustainable energy sources increases. In order to preserve supply stability, it will be necessary to make revisions to the management of the national grid and smart micro grid in the coming decades. The one week course on “Future Trends in Energy Management for Smart Cities” aims to create a platform for the young professionals to rethink the architecture of the grid and cutting edge technologies. This will enhance the researchers/ teachers/ industry persons to strengthen their academic and research activity

RESOURCE PERSONS

- **Dr D. M. Vinod Kumar**, Ex-Professor (HAG), Department of Electrical Engineering, NIT Warangal
- **Dr. Ranjan Kumar Behera**, Associate Professor., Department of Electrical Engineering, IIT Patna
- **Dr. Nishant Kumar**, Assistant Professor., Department of Electrical Engineering, IIT Jodhpur
- **Dr. Hanumantha Rao. B**, Assistant Professor., Department of Electrical Engineering, NIT Rourkela
- **Mr. G. Surya prakash**, CEO, Archimedes Green Energys private limited, Hyderabad
- **Mr. L. N. Sastry Varanasi**, Founder & Director of Radhanu Technologies Pvt Ltd, Tadepalligudem
- **Mr. N. Damodara**, Deputy Executive Engineer, APSPDCL Tirupathi
- **Dr. Thammineni. Hari Babu**, Professor., Department of English, LIET, Vizianagaram

ELIGIBILITY

Faculty members and research scholars belonging to AICTE approved technical institutions and also industry personnel.

REGISTRATION GUIDELINES

- There is no registration fee
- Last date of registration is 12th August, 2024
- Participants can register for this FDP through AICTE ATAL portal. Registration link <https://atalacademy.aicte-india.org/signup>

TOPICS

- Energy management for smart cities across globe
- Hybrid energy management and storage solution in smart cities
- Advanced metering infrastructure in smart cities
- IoT and AI based centralized energy management System
- Power electronic controllers for smart cities
- An electric power trading framework for smart residential community in smart cities
- Block chain-based peer-to-peer transactive energy system for community Microgrid with demand response management
- Role of artificial intelligence in smart cities

OUTCOMES

The outcomes of the faculty development program on recent trends in energy management for smart cities include enhanced understanding of innovative technologies such as IoT, AI, and renewable energy integration. Participants gained insights into sustainable practices for urban energy consumption, fostering collaboration among academia, industry, and government sectors. Additionally, the program facilitated the development of curriculum updates and research initiatives tailored to address the evolving needs of smart city energy management.

One-Week Faculty Development Program on “Future Trends in Energy managements for Smart Cities”

Technical program schedule

FDP Application Number: 1716361600

Title of the FDP: Future Trends in Energy Managements for Smart Cities

FDP Start Date: 19/08/2024

FDP End Date: 24/08/2024

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
<p>9:00 – 9:30 Inauguration</p>					
<p>9:30 – 12:00 Session 1</p> <ol style="list-style-type: none"> Name of the Expert: <i>Mr. L. N. Sastry Varanasi</i> Designation: <i>Founder & Director</i> Organization: <i>Radhanu Technologies Pvt Ltd</i> Experience in Years: 11 Topic to be taught: Energy management for smart cities across global 	<p>9:30 – 12:00 Session 3</p> <ol style="list-style-type: none"> Name of the Expert: <i>Dr. Nishanth Kumar</i> Designation: <i>Assistant Professor</i> Organization: <i>IIT Jodhpur</i> Experience in Years: 11 Topic to be taught: <i>Advanced metering infrastructure in smart cities</i> 	<p>9:30 – 12:00 Session 5</p> <ol style="list-style-type: none"> Name of the Expert: <i>Dr. Ranjan Kumar Behera</i> Designation: <i>Associate Professor</i> Organization: <i>IIT Patna</i> Experience in Years: 17 Topic to be taught: <i>Power electronic controllers for smart cities</i> 	<p>9:30 – 12:00 Session 7</p> <ol style="list-style-type: none"> Name of the Expert: <i>Dr. Hanumantha Rao. B</i> Designation: <i>Assistant Professor</i> Organization: <i>NIT, Rourkela</i> Experience in Years: 07 Topic to be taught: <i>An electric power trading framework for smart residential community in smart cities</i> 	<p>9:30 – 12:00 Session 9</p> <ol style="list-style-type: none"> Name of the Expert: <i>Mr. N. Damodara</i> Designation: <i>DEE, APSPDCL, Tirupathi</i> Organization: <i>DEE, APSPDCL, Tirupathi</i> Experience in Years: 30 Topic to be taught: <i>Energy policy and regulations in energy management practices in smart cities</i> 	<p>9:00 – 1:00 Industrial visit on solar and wind generation units</p> <ol style="list-style-type: none"> Name of the Organization: Visakhapatnam Port trust 10 MW solar power plant Complete address with pincode: Kaparada (Village), Opp.HPCL, Visakhapatnam, Andhra Pradesh, Pin-530014 Industry Type: Small Scale Area of specification: Solar Power Generation
<p>12:00 – 1:00 Article Discussion</p> <ol style="list-style-type: none"> Title of the Research Paper : <i>Future of energy management systems in smart cities: A systematic literature review</i> Name of the journal: <i>Elsevier</i> Year of Publication: 2024 	<p>12:00 – 1:00 Article Discussion</p> <ol style="list-style-type: none"> Title of the Research Paper : <i>Probabilistic Peak Load Estimation in Smart Cities Using Smart Meter Data</i> Name of the journal: <i>IEEE Transactions on Industrial Electronics</i> Year of Publication: 2019 	<p>12:00 – 1:00 Article Discussion</p> <ol style="list-style-type: none"> Title of the Research Paper : <i>A Reduced Switch Count Seven-Level Boost ANPC Based Grid Following Inverter Topology with Photovoltaic Integration</i> Name of the journal: <i>IEEE Transactions on Industrial Application</i> Year of Publication: 2023 	<p>12:00 – 1:00 Article Discussion</p> <ol style="list-style-type: none"> Title of the Research Paper: <i>Block chain-based peer-to-peer transactive energy system for community Microgrid with demand response management</i> Name of the journal: <i>CSEE journal of power and energy system</i> Year of Publication: 2022 	<p>12:00 – 1:00 Article Discussion</p> <ol style="list-style-type: none"> Title of the Research Paper: <i>An electric power trading framework for smart residential community in smart cities</i> Name of the journal: <i>IET</i> Year of Publication: 2019 	
<p>01:00 – 02:00 Lunch</p>	<p>01:00 – 02:00 Lunch</p>	<p>01:00 – 02:00 Lunch</p>	<p>01:00 – 02:00 Lunch</p>	<p>01:00 – 02:00 Lunch</p>	<p>01:00 – 02:00 Lunch</p>
<p>02:00 – 04:30 Session 2</p> <ol style="list-style-type: none"> Name of the Expert: <i>Mr. G. Suryaprakash</i> Designation: <i>CEO</i> Organization: <i>Archimedes Green Energy, Hyderabad</i> Experience in Years: 08 Topic to be taught: <i>Hybrid energy management and storage in smart cities</i> 	<p>02:00 – 04:30 Session 4</p> <ol style="list-style-type: none"> Name of the Expert: <i>Dr. Nishanth Kumar</i> Designation: <i>Assistant Professor</i> Organization: <i>IIT Jodhpur</i> Experience in Years: 11 Topic to be taught: <i>IOT and AI based centralized energy management system</i> 	<p>02:00 – 04:30 Session 6</p> <ol style="list-style-type: none"> Name of the Expert: <i>Dr. Thammineni. Hari Babu</i> Designation: <i>Professor</i> Organization: <i>LIET, Vizianagaram</i> Experience in Years: 25 Topic to be taught: <i>Life Skills such as time and stress management</i> 	<p>02:00 – 04:30 Session 8</p> <ol style="list-style-type: none"> Name of the Expert: <i>Dr. Hanumantha Rao. B</i> Designation: <i>Assistant Professor</i> Organization: <i>NIT, Rourkela</i> Experience in Years: 07 Topic to be taught: <i>Block chain-based peer-to-peer transactive energy system for community Microgrid with demand response management</i> 	<p>02:00 – 04:30 Session 10</p> <ol style="list-style-type: none"> Name of the Expert: <i>Dr D. M.Vinod Kumar</i> Designation: <i>Ex-Professor</i> Organization: <i>NIT Warangal</i> Experience in Years: 41 Topic to be taught: <i>Role of artificial intelligence in smart cities</i> 	<p>2:00 – 4:00 MCQ & Reflection Journal</p>
<p>4:30 – 5:30 Practical session on Archimedes wind turbines</p>	<p>4:30 – 5:30 Practical session on smart energy meters for smart cities</p>	<p>4:30 – 5:30 Practical session on solar PV installation</p>	<p>4:30 – 5:30 Lab session on an electric power trading framework for smart residential community in smart cities</p>	<p>4:30 – 5:30 Practical session on solar charging station for electric vehicles</p>	<p>4:00 – 5:00 Valedictory Session</p>