Workshop Objectives

- This one-week workshop, "Advancing Distributed Generation: Renewable Integration, Impacts, and Smart Grid Solutions," is designed to equip participants with a comprehensive understanding of Distributed Generation (DG) and Renewable Energy Integration.
- Exploring the Fundamentals of Photovoltaic (PV) Technology to understand its principles and applications.
- Analyzing the Potential Impacts of Distributed Generation on power systems, including voltage stability, reliability, and grid performance.
- Understanding the Role of Microgrids in enhancing energy resilience and supporting renewable integration.
- Exploring Smart Grid Technologies for efficient DG management, control, and optimization.

Workshop Outcomes

Upon successful completion of this workshop, participants will be able to:

- Gain an In-Depth Understanding of Photovoltaic (PV) Technology and Comprehend Distributed Generation (DG) Concepts in modern power systems.
- Identify and Analyze the Technical, Economic, and Environmental Impacts of DG, including its effects on voltage stability, grid reliability, and power quality.
- Interpret Real-World Case Studies related to DG-induced voltage variations and their mitigation strategies.
- Stay Updated on Cutting-Edge Technologies and Emerging Trends in distributed generation, microgrids, and smart grid solutions.
- Confidently Apply Voltage Control Strategies to ensure stable and efficient DG integration within the grid.

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Director, R&D

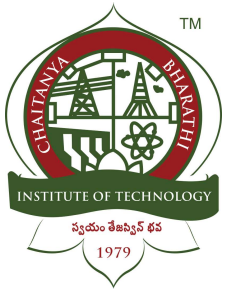
Department of Electrical and Electronics Engineering

One Week

Indo-US International Workshop on Advancing Distributed Generation: Renewable Integration, Impacts, and Smart Grid Solutions

10th – 14th March 2025

(Hybrid Mode)



Chaitanya Bharathi Institute of Technology

(Autonomous under UGC)
Affiliated to Osmania University
Kokapet (Village), Gandipet,
Hyderabad – 500075
Telangana State, India.

Chaitanya Bharathi Institute of Technology (CBIT)

CBIT is one of the premier Engineering Institutes in India, a pioneer in Telangana State, which is at the idyllic surroundings of Gandipet Lake, Hyderabad. The college offers 12 UG and 10 PG programs. It has been standing as a temple of knowledge for the past 45 years by producing more than 25,000 Eminent and skillful Graduate Engineers, who are successful in their Careers, serving all over the world. CBIT Students are prepared and perfected to secure Placements in reputed MNCs. The Institute has been accredited by NAAC – UGC with 'A++' Grade and several programs are accredited by NBA – AICTE. The UGC has granted Autonomous Status from the Academic Year 2013-14 onwards. Stringent Academic Standards, Industry Compliant Teaching Methodology, Research Projects from Private and Public Sector organizations Industries in Engineering and Management and Consultancy Practice, enabled the Institute to establish its Identity in Technical Education and is ranked as one of the best amongst Private Engineering Colleges in both the Telugu Speaking States.

About Department

CBIT started the Electrical & Electronics Engineering UG program in 1994 and has been accredited 5 times since 2004 by NBA. The recent accreditation in 2021 is for 6 years. The intake was increased from 60 to 120 in the Academic Year 2013-14. The Department started offering a PG course in Power Systems and power Electronics in 2006 with an intake of 18 and was accredited by the NBA in the year 2016. The department has received grants worth around ₹90 lakhs from AICTE under RPS, SPARC, MODROBS, FDP, STTP, etc. The Department is offering consultancy services worth ₹21 lakhs in collaboration with Foreign Universities in Renewable Energy Systems. The Department is also certified by ISO 9001:2015. The Department is recognized as a Research Centre in 2017 by Osmania University to carry out research for the award of Ph.D. degrees.

About Workshop

This one-week workshop, "Advancing Distributed Generation: Renewable Integration, Impacts, and Smart Grid Solutions," is designed to provide participants with a comprehensive understanding of Distributed Generation (DG) and Renewable Energy Integration. Through interactive sessions, real-world case studies, and technical discussions, participants will explore key concepts such as Photovoltaic (PV) Technology, DG impacts on grid stability, voltage control strategies, energy tariffs, demand response mechanisms, islanding detection, and smart grid solutions. The workshop will also cover the role of microgrids in modern power networks and introduce emerging trends in DG technologies. By the end of the program, participants will be equipped with practical knowledge and skills to navigate the evolving landscape of distributed energy systems and contribute to the efficient and sustainable integration of renewable energy into the grid.

The sessions will be conducted by renowned experts, distinguished faculty members from premier institutions, and professional educators from international universities, including the FAMU-FSU College of Engineering (USA), along with industry specialists.

Workshop Registration Link

https://forms.gle/5Lx6hUo49FrSQqDA6

No Registration Fee

Resource Persons

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Dr. Shimi Sudha Letha
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