

About the Department

The department of EEE was established in the year of 2001 with an intake of 40 students and the present intake is 120 students. The department has center of excellence in solar applications. The department has state of the art laboratories with latest equipment, advanced version of software and demo units. The department has highly qualified faculty with Professors, Associate Professors and Assistant Professors with PhDs.

The department is geared up with out-come based education imparting innovative TLP. Students are trained in soft skills, aptitude skills, and core skills to become employable. Students are executing their projects in the emerging technologies. Students are exposed to industry environment through their internships, industrial visits and expert lecturers from the industry persons.

Registration fee: RS 500/-

Reg.Link & QR code

<http://surl.li/qsawk>



Name of the account	GURUNANAK INSTITUTIONS TECHNICAL CAMPUS – conference Account
Bank Name	Union Bank of India
Account no	138911100000797
IFSC Code	UBIN0813893
Branch	Ibrahimpattam, RR Dist, Telangana. 501506



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About the Institution

Guru Nanak Institutions Technical Campus (GNITC) is established in year 2001 by Guru Nanak Educational Society under the Chairmanship of Philanthropist Late Sardar Tavinder Singh Kohli. The campus is constructed on sprawling 31.46 Acres of land situated in Ibrahimpattam, RR District, Telangana State. The campus is very close proximity to Hyderabad Outer Ring Road; GNI Campus can be easily reached through all-weather concrete roads from Hyderabad city which is just 28 kilometers away distance from Hyderabad city or 26 kilometers from Rajiv Gandhi International Airport.

The college started with an intake of 240 students and four engineering branches (CSE, ECE, EEE and IT). At present GNITC is running UG courses like Civil, CSE, ECE, EEE,IT, Mechanical, CSE-AIMS, CSE DS, CSE CS, CSE IoT, AIDS, B.Pharmacy and PG courses like MBA, Pharm D, M.Pharm (Pharmaceutics) and M.Tech. Guru Nanak Institutions Technical Campus is conferred with Autonomous Status by University Grants Commission from the academic year 2016-17onwards.

This institute is committed to provide state-of-the-art technical education facilities to mould brilliant young talents in a variety of fields and also for facilitating transfer of knowledge in keeping with latest developments in pedagogy following outcome based education for youth.



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SERB-DST aided Seminar on AI Strategies for Next Generation Smart Grid Infrastructure (AINGSGI - 2024)

11-March-2024 to 15-March-2024

Convener

Dr. Y. V. Balarama Krishna Rao

Co-convener

Mr. S. Rajender Reddy



Organized by

Department of Electrical and Electronics Engineering
Guru Nanak Institutions Technical Campus
(Autonomous)

Ibrahimpattam, R.R.Dist, Hyderabad-501506
Telangana, India

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About the program

Developing AI strategies for the next generation smart grid infrastructure is paramount for achieving efficient, reliable, and sustainable energy distribution. At the heart of these strategies lies the utilization of advanced machine learning algorithms and data analytics techniques to optimize grid operations. One key focus area is predictive maintenance, where AI algorithms analyze data from sensors and historical maintenance records to forecast equipment failures before they occur, thus minimizing downtime and reducing maintenance costs.

Another crucial aspect is demand forecasting, where AI models analyze historical consumption patterns, weather data, and other variables to predict future energy demand accurately. This enables utilities to better plan for peak periods and optimize resource allocation.

Additionally, AI-driven optimization algorithms can enhance grid resilience by dynamically rerouting power flow during emergencies or grid disturbances, ensuring uninterrupted service to customers. Moreover, AI can facilitate the integration of renewable energy sources by forecasting their output and coordinating their integration into the grid effectively.

Overall, by harnessing the power of AI, next-generation smart grid infrastructure can become more adaptive, efficient, and resilient, paving the way for a sustainable energy future

OBJECTIVES

- Provide the Knowledge on smart grid and their applications
- Brief discussions on different types of problems occurring in smart grids
- Introduction to Artificial Intelligence and its applications in smart grid
- Compensation of power quality issues using Artificial Intelligence in smart grid system
- Utilize AI algorithms to predict and optimize demand response, matching energy supply with fluctuating demand in real-time.
- The review on different applications of AI-based techniques in micro grids such as energy management, load forecasting, power protection and cyber security

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OUTCOMES

- Participants can acquire awareness of various types of problems occurring in smart grids.
- Participants can gain insight into the role of Artificial Intelligence (AI) in smart grid systems.
- Participants can understand how AI can be utilized to compensate power quality issues in smart grids.
- Ability to utilize AI algorithms for predicting and optimizing demand response, thereby matching energy supply with fluctuating demand in real-time.

BENIFITS TO PARTICIPANTS

- Participants will have the chance to enhance their expertise.
- They will be involved in pioneering research concerning artificial intelligence as applied to smart grid infrastructure.
- Faculty members can impart this knowledge to students, enabling them to develop skills in this area.
- There will be opportunities for publishing findings, delivering presentations, and forming collaborations with industry partners.
- Participants will gain valuable insights into the newest advancements in AI technologies and how they are utilized in smart grid infrastructure.
- Practical skills will be acquired through engaging in hands-on workshops and projects related to AI and smart grid systems.

Venue:

Mini Auditorium, PG Block
Guru Nanak Institutions Technical Campus
Hyderabad, India.

For any query, please contact:

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