

## About the Programme

Industry 4.0 demands skillset to device Artificial intelligence (AI) based solutions. The program is aimed to equip the attendees with basic understanding of Data-driven strategies and its frameworks which have established state-of-the-art performance in various fields of electrical engineering. The fields for current program are limited to power systems and control system. The resource persons of the program are indulged in wide spectrum of research ranging from academia to industry. This practice will expose the audience with practices of academia and industry including the enriched insights of the algorithms. This programme endeavours to provide conceptual clarity to popular techniques in optimization, machine learning, deep learning, etc. The course objectives are:

- Artificial intelligence foundations
- Optimization algorithms
- Modern techniques in smart power system
- Recent developments in modelling and control of smart grids
- Smart sensors, IEDs for data driven intelligent applications in digital substation
- Deep learning models using Python
- Developing grid of the future with advanced ai and simulation technologies
- AI techniques in guidance & control for missile system design.
- Application of advanced optimization techniques on hybrid power systems with electric vehicles
- Demand side management in smart grid

## Address for Correspondence

### Dr. Kiran Teeparthi

Assistant Professor, EED

Mobile No: +91 9533938371

E-mail: [kiran.t39@nitandhra.ac.in](mailto:kiran.t39@nitandhra.ac.in)

### Dr. Sri Phani Krishna Karri

Assistant Professor, EED

Mobile No: +91 9490863735

E-mail: [sriphani@nitandhra.ac.in](mailto:sriphani@nitandhra.ac.in)

## Eligibility

The faculty members of the AICTE approved institutions, research scholars, PG Scholars, participants from Government, Industry (Bureaucrats/Technicians/Participants from Industry etc.) and staff of host institutions.

## Registration and Other Details

There is no registration fee from any participant. The registrations are open through AICTE ATAL online portal <https://www.aicte-india.org/atal>. The certificates of participation by respective ATAL Academy shall be issued to those participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test. Speakers for the workshop are from reputed Academic Institutions and Industries.

## ATAL Academy Vision

AICTE Training and Learning (ATAL) Academy is established with the vision "To empower faculty to achieve goals of Higher Education such as access, equity and quality".

## About the Institute

National Institute of Technology, Andhra Pradesh is the 31<sup>st</sup> institution among the chain of NITs started by the Government of India. NIT Andhra Pradesh is established in the state of Andhra Pradesh from the academic year 2015–16. The institute is striving to offer excellent facilities for advanced research in the emerging areas of Science and Technology

## About the Department

The department is one of the pioneering departments of the Institute. The department is progressing at a rapid pace with development in both the spheres of infrastructure facilities and academic programmes. The department has highly qualified faculty members engaged in teaching and research with the aim of achieving excellence in the field of Electrical Engineering. The department offers Ph.D. and UG programme in Electrical Engineering and a PG programme in Power Electronics & Drives.

## AICTE Training and Learning (ATAL) Academy



**A Five-Day Online Faculty Development Program (FDP)**

**on**

**Data-Driven Strategies in Smart Power System and Control -2021**

**22-11-2021 to 26-11-2021**

### Coordinators

Dr. Kiran Teeparthi

Dr. Sri Phani Krishna K  
Assistant Professor, Dept. of EE

### Convener:

Dr. V. SANDEEP

Assistant Professor & HEAD, EED

### Patron

Prof. C.S.P. Rao

Director, NIT Andhra Pradesh



**Organized by**

**Department of Electrical Engineering  
National Institute of Technology, Andhra Pradesh**  
Tadepalligudem, Andhra Pradesh-534101, India.  
Website: [www.nitandhra.ac.in](http://www.nitandhra.ac.in)

Date	09:30 to 11:00	11:30 to 1:00	2:30 to 4:00
22Nov21	Registration, Inauguration and Technical Talk  <b>Prof. D. M. Vinod Kumar</b> Professor (HAG), Department of Electrical Engineering, NIT Warangal <i>Topic: Modern Techniques in Smart Power System</i>		Session-3 <b>Dr. Sahana Prabhu</b> Research Scientist and Technical Architect at Robert Bosch Engineering and Business Solutions Private Limited <i>Topic: Foundations of Deep learning techniques using python</i>
23Nov21	Session-4 <b>Dr. P. Sankar</b> Department of Electrical Engineering, NIT Andhra Pradesh <i>Topic: Optimization Algorithms</i>	Session-5 <b>Dr. Balakrishna. P</b> Senior Lead R&D Engineer in Smart Grid domain GE Grid Solutions, Hyd Technology Center, & Adjunct Faculty at IIT Bhubaneswar <i>Topic: Smart Sensors, IEDs for Data Driven Intelligent Applications in Digital Substation</i>	Session-6 <b>Dr. Sandeep V</b> Department of Electrical Engineering, NIT Andhra Pradesh <i>Topic: Applications of Cyber Physical Systems in Electric Power Engineering</i>
24Nov21	Session-7 <b>Dr. Vignesh V</b> Department of Electrical Engineering, IIT Tirupathi <i>Topic: Recent Developments in Modelling and Control of Smart Grids</i>	Session-8 and Session-9 <b>Dr. Sri Phani Krishna Karri and Dr. Kiran Teeparthi</b> Department of Electrical Engineering, NIT Andhra Pradesh <i>Hands on Session: Fundamentals on Deep learning models using Python and its applications in Power Systems</i>	
25Nov21	Session-10 <b>Dr. S Kayalvizhi</b> Department of Electrical Engineering, NIT Tiruchirappalli <i>Topic: Demand side management in smart grid</i>	Session-11 <b>Dr. Surender Reddy S</b> Dept. of Railroad and Electrical Engineering, Woosong University, Daejeon, Republic of Korea <i>Topic: Application of Advanced Optimization Techniques on Hybrid Power Systems with Electric Vehicles</i>	Session-12 <b>Mr. Srikant Srivastava</b> Scientist, Defence Research and Development Laboratory (DRDL), HYD. <i>Topic: The Impact of Artificial Intelligence on Missile Weapon Systems Design</i>
26Nov21	Session-13 <b>Mr. Ramana Anchuri</b> MathWorks India Pvt. Ltd <i>Topic: Developing Grid of the Future with Advanced AI and Simulation Technologies</i>	Sessio-14 <b>Hands on Session by Mr. Ramana Anchuri</b> <i>Topic: Simscape Onramp in MATLAB</i>	Session-15 <b>Dr. T. Karthikeya Sharma</b> Department of Mechanical Engineering, NIT Andhra Pradesh <i>Topic: Human values and Ethics</i>