

**AICTE Training and Learning
(ATAL) Academy Sponsored online
FDP on**

**Power Electronics for Power
systems**

6th – 10th December 2021

Sponsored by

AICTE Training and Learning (ATAL)



**Organized by
Department of Electrical
Engineering**



**Rajiv Gandhi Institute of
Technology, Kottayam
Velloor P. O., Kottayam
Kerala – 686501**

**AICTE Training and Learning
(ATAL) Academy**

AICTE Training and Learning (ATAL) Academy is established to empower faculty to achieve goals of Higher Education such as access, equity, and quality. AICTE is committed for the development of quality technical education in the country by initiating various schemes launched by Govt. of India, Ministry of Human Resource Development e.g. SWAYAM, MOOCs, Start-up Initiatives, Prime Minister Kaushal Vikas Yojana, Sansad Adarsh Gram Yojana (SAGY), Swachh Bharat/ Unnat Bharat Abhiyan, Yoga Activities etc. Council understand that there is a need of the day to train the young generation in the skill sector and having faculty & technicians to be trained in their respective disciplines. It was felt that training with the latest tools and technologies is vital to keep an institute competitive and more productive. Training is required for increasing the knowledge and skills of students to make them more employable to acquire global competencies. It also transforms them to

harmonize with society and most importantly to make them a good citizen of the country.

About the institution

Rajiv Gandhi Institute of Technology (RIT) Kottayam, established in the year 1991, is a premier technical institution in Kerala. It is governed by the Directorate of Technical Education, Government of Kerala. The College is situated 16 km away from Kottayam railway station, towards east on NH220 at Pampady. It offers undergraduate courses in six major streams, eight post graduate courses, and doctoral research programmes.

Department of Electrical Engineering
The Department of Electrical Engineering was started in the year 1991. The Department offers four year B.Tech programme in Electrical and Electronics Engineering, two year M.Tech programme in two Industrial Drives & Control , Power systems and renewable energy and doctoral research programmes. The B.Tech and MTech Programmes are affiliated to APJ Abdul Kalam Technological University (KTU).

Course duration

There will be 14 sessions in 5 days. All the sessions will be conducted through online platform.

About the course

The main aim of the proposed course is to develop a good understanding about the role of power electronics in power system Engineering. Power Electronic devices plays an important role in integration of renewable energy sources into electrical grid. Common and future trends in renewable energy systems, power converters and its advances in renewable energy integration will be covered. Power quality issues with renewable energy integration into power system, impact of grid integration in operation and the protection of power systems and the research and development trends in energy-storage systems will also be explored in the course. The soft computing techniques used for modelling of various power electronic devices used in power system application will be presented.

Topics Covered

- Role of power electronics in power system engineering
- Renewable energy systems

- Power converters for renewable energy integration
- Advances in converter technology
- Development in energy-storage systems
- Impact of renewable energy integration in the operation and protection of power system
- Power quality issues with renewable energy integration into power system

Course outcomes

On completion of this course, participants are expected to be capable of understanding the role of power electronic devices in power systems, advances in converter technologies, and its application in integration of renewable energy systems.

Resource Persons

Experts from Academic Institutions like IITs, NITs, state universities and industries will be handling the sessions.

Who should attend?

- The participants to the course will be faculty, Ph.D Scholars and PG Students from AICTE approved technical institutions.
- **No Registration fee from any participant** (Max. 200 participants).

Selection and Certification Criteria

Selection is made based on a first-come, first-serve basis. The confirmed candidate will be notified on or before **4th December 2021**.

- On completion of the programme on all the days, participants will be awarded an E-Certificate of participation by respective ATAL Academy.
- Minimum 80% attendance and 60% marks in the online test at the end of the FDP are compulsory for certification.

How to Apply?

The participant has to register through ATAL portal <https://atalacademy.aicte-india.org/signup>

Course coordinators: Dr. Manju B, Associate Professor, RIT, Kottayam, manjub.@rit.ac.in

Dr. Prince A, Professor, RIT, Kottayam prince@rit.ac.in

Dr. Aryanandiny B, Associate Professor, RIT, Kottayam, nandiny.arya@rit.ac.in