



DTE Sponsored Five Days Faculty Development Program on

Grid-connected Power Converters for Renewable Energy Systems

15th January to 19th January, 2024



Organized by

Department of
Electrical & Electronics Engineering
Government Engineering College Idukki
Painavu P.O, Idukki, Kerala - 685603

www.gecidukki.ac.in

About the Institution

The Government Engineering College, Idukki (GECI) was established in the year 2000 under the Directorate of Technical Education, Government of Kerala. GECI is located in the beautiful high range district of Kerala known for its mountainous hills and dense forests. The location of the institute in the idyllic environment makes it perfect for academic pursuit. The education system followed in the college enables the students to achieve academic success as well as develop interpersonal skills. The college offers B. Tech in 5 Engineering branches and M. Tech in 4 specializations.

About the Department

The department of Electrical and Electronics Engineering started functioning right from the beginning of Govt. Engineering college, Idukki, in the year 2000. The four year B-Tech course is accredited by NBA with an intake of sixty students every year. The Department also offers PG program in Power Electronics & Control started in the year 2011.

Department Vision

To impart state-of-the-art technological education and facilitate students pursue excellence in electrical and electronics engineering and research through ingenuity, innovations, and teamwork.

Department Mission

1. Ensure quality technical education to students in electrical and electronics engineering through state-of-the-art facilities and well-qualified teachers, encouraging research and innovation.
2. Equip students to be professionally competent and ethically compliant in order to accomplish self-development through higher education and provide service to the industry and society.

3. Encourage lifelong learning and team-oriented problem solving through modern tools and cutting-edge technology.

Course Description

Use of renewable energy sources are increasing rapidly across the world to lessen the environmental impact of fossil fuels. Power electronics converters are essential to inject extracted power from renewable sources into the power grid. However this poses many technical challenges to the engineers and thus it has become a hot research area nowadays. Distributed generation and highly unreliable nature of renewable energy sources aggravate this issue further. International standards impose power quality and grid fault protocols while injecting power into the grid. The objective of this faculty development program is to investigate the challenges faced by industries & academia and to suggest solutions to mitigate these issues while adhering to international standards.

Course Content

- Control of DC-DC converters and Multi-level inverters
- Renewable energy sources
- Grid-connected power converters - grid synchronization and filter design
- Mitigation of harmonic distortions produced by non-idealities in grid-connected PV inverters
- Battery energy storage systems (BESS) for renewable energy integration
- Hands-on session on solar system simulation using Python
- Hardware experiments on 3-phase AC grid-connected solar inverter
- Well-being and mental wellness

Important Dates

Start Date of Registration : 8th January 2024
Last Date of Registration : 14th January 2024
Selection Intimation : 14th January 2024
Dates for FDP : 15 - 19 January 2024

Who can apply?

Faculties of Engineering Colleges and Polytechnic Colleges, Research Scholars and Persons from Industry.

Registration fees

There is no registration fee for faculties from Govt. /Aided / Govt. Controlled institutions. A nominal fee of Rs. 1000/- will be collected from faculties of private self-financing colleges and persons from Industry payable at the time of registration.

How to register?

Departmental candidates can apply through DTE training portal given below:

<http://admissions.dtekerala.gov.in/tpms/>

Download sponsorship certificate from the same course link available in DTE portal. All candidates should fill up the Registration form before the last date using this registration link: [Registration link](#)

Note: All candidate must upload a scanned copy of Registration Form along with the Sponsorship Certificate duly signed by the Head of the Institution.

Resource Persons

Dr.Kaushik Basu, IISc Bangalore
Dr.Anirban Ghoshal, IIT(ISM) Dhanbad
Dr.Abhijit Kulkarni, Aalborg University, Denmark
Dr.Ramesh Palanisamy, CDAC Trivandrum
Dr.Rijil Ramchand, NIT Calicut
Dr.Johnson Mathew, RIT Kottayam
Mr.Mohamed Aslam, inQube Innovations Cochin
Mrs.Jiji Skariah, Counselor
Dr.Binoj Kumar A. C., GEC Idukki
Dr.Shanifa Beevi., GEC Idukki

Co-ordinators

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Advisory Committee

Dr.Suresh K., Principal, GEC Idukki
Dr. Arun Kishore W. C., Prof. and Head, EEE, GEC Idukki
Dr. Binoj Kumar A.C., FSDTC Co-ordinator, GEC Idukki
Dr. Sunil Kumar P. R., Professor, GEC Idukki
Dr. Joseph K.D., Assoc.Professor, GEC Idukki
Dr.Shanifa Beevi S., Assoc. Professor, GEC Idukki
Dr. Manju Manuel, Prof. and Head, ECE, GEC Idukki

Department of
Electrical & Electronics Engineering
Govt. Engineering College Idukki

Five days FDP on
Grid-connected Power Converters
for Renewable Energy Systems
(15 - 19 January 2024)

REGISTRATION FORM

Name:

Designation:

Address:

Moble:

Email:

Date:

Signature of Candidate

Note: No TA/DA will be provided for the participants
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SPONSORSHIP CERTIFICATE

Prof./Dr./Mr./Ms..... is an employee of our institute and he/she is sponsored for the Five days FDP on “**Grid-connected Power Converters for Renewable Energy Systems**” during 15-19 January 2024 at the Department of EEE, GEC Idukki. He/She will be permitted to attend the course, if selected.

Date:

Signature of the Head of Institute

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