ABOUT THE INSTITUTE AND DEPARTMENT

The College of Engineering, Guindy, a pioneer Institute in Engineering Education in India and in Asia was established in the year 1794. More than 200 years have gone by and today this college has evolved into Asia's largest technological University.

The Department of Electrical and Electronics Engineering is one of the oldest departments in College of Engineering, Guindy which has started in the year 1940. To the credit of the department, the First Ph.D in India was produced in the department of Electrical Engineering. The department has strong PG programme in the field of Power system, High Voltage engg, Control system, Power electronics & Drives, Embedded systems and Power Engineering & Management. The department was funded by FIST, UGC under DSA programme, COSIST programme and has the status of Centre for Advanced Studies (CAS) in the area of design of power apparatus and embedded system. The department also has strong computation facilities in various areas of PG specialization under the UGC and AICTE schemes. It also has well updated laboratories and has good coordination with industries and TNEB by instituting a Chair entitled “Appadurai Chair for Power System” where normally the retired member of distribution will be holding the post.

CONTACT ADDRESS
Dr.S. Ganesh Kumar
Assistant Professor (Selection Grade)
The Coordinator,
Online Faculty Development Programme on
“Trends and Challenges in Power Converters & Control”
DEEE, CEG, Anna University Chennai-600025.
Tamilnadu, India
Email : ganeshkumar@annauniv.edu

AICTE SPONSORED TWO WEEKS ON-LINE FACULTY DEVELOPMENT PROGRAMME ON
"Trends and Challenges in Power Converters and Control"
SLOT 1
(09.02.2021 to 23.02.2021)

Organised by
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING,
COLLEGE OF ENGINEERING, GUINDY
ANNA UNIVERSITY
CHENNAI - 600 025
TAMILNADU
INDIA

Coordinator
Dr. S. GANESH KUMAR
ASSISTANT PROFESSOR (SELECTION GRADE)
ABOUT THE PROGRAMME

Objective
To create the awareness in the issues related with power converters and control techniques used for sustainable technologies.

Content
To understand the concepts related with
1. Power management schemes in PV systems.
2. Modeling of converters and inverters.
4. Converters for hydro power plants.
5. Backstepping controllers
6. Model order reduction techniques.
7. Multilevel inverters.
8. Proportional Integral controllers.
9. MATRIX converters
10. Space Vector PWM techniques for converters.
11. Design of power converters
12. Converters with reduced switch count.
13. Demo related with power converters and control.
15. Wireless charging systems for electric vehicles.
16. One cycle control
17. Grid integration
18. Sliding mode control
19. Predictive control
20. Converters for induction generators
21. Closed loop operation of DC-DC converters
22. All electric aircraft
23. Observers.
25. Z source converters..
26. Special machines for sustainable technologies

After attending this course, faculty members will learn the following:
- To develop control algorithms for power converters.
- Ability to develop new converters.
- Ability to design converters with reduced number of switches.
- Ability to use processor for various applications.

ABOUT THE PROGRAMME

Objective
To create the awareness in the issues related with power converters and control techniques used for sustainable technologies.

Content
To understand the concepts related with
1. Power management schemes in PV systems.
2. Modeling of converters and inverters.
4. Converters for hydro power plants.
5. Backstepping controllers
6. Model order reduction techniques.
7. Multilevel inverters.
8. Proportional Integral controllers.
9. MATRIX converters
10. Space Vector PWM techniques for converters.
11. Design of power converters
12. Converters with reduced switch count.
13. Demo related with power converters and control.
15. Wireless charging systems for electric vehicles.
16. One cycle control
17. Grid integration
18. Sliding mode control
19. Predictive control
20. Converters for induction generators
21. Closed loop operation of DC-DC converters
22. All electric aircraft
23. Observers.
25. Z source converters..
26. Special machines for sustainable technologies

After attending this course, faculty members will learn the following:
- To develop control algorithms for power converters.
- Ability to develop new converters.
- Ability to design converters with reduced number of switches.
- Ability to use processor for various applications.

REGISTRATION FORM

FA CULTY DEVELOPMENT PROGRAMME ON
“Trends and Challenges in Power Converters and Control”
(09.02.2021 to 23.02.2021)

1. Name:

2. Age & Date of Birth:

3. Designation:

4. Institution/Industry:

5. Institution approved by AICTE: Yes / No

6. Address for Communication:
   E-mail address:
   Phone no. (with STD code):
   Office:
   Residential:
   Mobile phone:

7. Educational Qualifications:

8. Subjects taught in last one year:

9. Professional Experience (in years)
   Teaching:
   Industrial:

Signature of the Applicant:
Mr./Ms./Dr.______________________________________
is an employee of our Institute / Organization and is hereby sponsored for the above ONLINE FDP. He / She will be permitted to attend the program, if selected.

Signature & Seal of the Head of the Institute:
Date & Place: