

## RESOURCE PERSONS

- Prof. Nedmohan, *University of Minnesota*
- Prof. Patrick Wheeler, *University of Nottingham, UK*
- Prof. Marco Rivera, *Universidad de Talca, Chile.*
- Prof. Ebrahim Babaei, *University of Tabriz, Iran.*
- Prof. Gerardo Espinoza, *FI –UNAM, MEXICO*
- Prof. Vivek Agarwal, *IIT-Bombay*
- Prof. Thankaraj Chellai, *IIT Roorkee*
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- Prof. M.P. Selvan, *NIT Trichy,*
- Prof. Kuntal Mandal, *NIT Sikkim*
- Prof. A. Kavitha, *Anna University, Chennai*
- Prof. Balasubramonian, *ACCET, Karaikudi*
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- Prof. T. Deepa, *VIT-Chennai*
- Prof. R. Rajasingh, *VIT Vellore*
- Prof. S. Ganesh Kumar, *Anna University, Chennai*
- Prof. CH Ramulu, *NIT Warangal*
- Prof. Mini Rajeev, *Fr.C.Rodrigues Inst of tech, Bombay*
- M/s. Yokogawa, *India*
- Prof. T. Thandapani, *RRT Electropowwer, Chennai.*
- Mr. Jesurajan, *JSK Lab Instruments, Chennai.*
- M/s, PWSIM, *Chennai*
- M/s, National Instruments, *Chennai*

## 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,

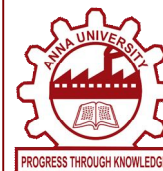
Online Faculty Development Programme on

***"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 I**

**(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.
3. Passive controllers.
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.
14. Converters for electric vehicles.
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.
24. Converters for induction heating applications.
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.

### Chief patron

**Dr. M. K. Surappa**

Vice Chancellor  
Anna University, Chennai

### Patron

**Dr. L. Karunamoorthy**

Registrar  
Anna University, Chennai

### Chair

**Dr. S. Iniyan**

Dean i/c  
CEGC, Anna University, Chennai

### Co-Chair

**Dr. S. Chandramohan**

HOD, DEEE,  
Anna University, Chennai

### Co-ordinator

**Dr. S. Ganesh Kumar**

Assistant Professor (Selection Grade), DEEE,  
Anna University, Chennai

## REGISTRATION & CERTIFICATE

The registration is free for faculty members working in colleges approved by AICTE. E Certificates will be issued to the eligible participants who attended the course fully and secured 60 % of marks in the test (will be conducted after the completion of course).

### DATES TO REMEMBER Last date

for

Receiving application (Email) : 31-01-2021

**(Send the Scanned registration form after getting approval from the head of the institute)**

Intimation of selection (Email) : 03-02- 2021

Acknowledgement by email : 05-02-2021

**Note: Coordinator's decision is final**

## REGISTRATION FORM

### FACULTY 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 :