

AICTE sponsored

Six Days

SHORT TERM TRAINING PROGRAMME

on

**MITIGATION OF POWER QUALITY ISSUES
IN DISTRIBUTED GENERATION SYSTEMS
USING CUSTOM POWER DEVICES**

Department of Electrical and Electronics Engineering

16/03/2020 to 21/03/2020

REGISTRATION FORM

Name Dr./Mr./Mrs. :

Qualification :

Designation :

Department :

Organization :

Category: (Please tick the appropriate one)

Academia Industry

Address :

:

Mobile :

Email ID :

Note: No Registration Fee will be charged

Signature of the
candidate

Signature of the Principal
(with seal)

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Shri.R.S.Munirathinam, Founder-Chairman

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ADDRESS FOR COMMUNICATION

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Organized by

Department of Electrical & Electronics Engineering

R.M.D. Engineering College

R.S.M Nagar, Kavaraipettai,
Gummidipoondi Taluk,
Tiruvallur District,
Tamil Nadu
PIN: 601 206.
Website: <https://rmd.ac.in>

ABOUT THE COLLEGE

R.M.D. Engineering College was established in the year 2001 by Sri Swaminatha Naidu Educational Trust. The Founder – Chairman of the Trust is Shri.R.S.Munirathinam, renowned for his philanthropic attitude and service. The college is approved by AICTE and affiliated to Anna University, Chennai. RMDEC offers 5 Undergraduate programmes and 1 Postgraduate programme. It is an ISO 9001-2015 certified Institution and also accredited by National Board of Accreditation (NBA) and NAAC. RMDEC is ranked one among the top premier Engineering Colleges affiliated to Anna University ,Chennai. Excellent academic standards, state-of-the art facility, dedicated staff and enterprising student community make RMDEC a favored destination for Engineering aspirants and Corporate giants.

We are proud to inform you that R.M.D. Engineering College was conferred with the prestigious Bharatiya Vidya Bhavan National Award for an Engineering College having Best Overall Performance-2010 by Indian Society for Technical Education (ISTE). R.M.D. Engineering College has entered into Memorandum of Understanding (MOUs) with several Industries and Institutions for enhancing the technical skills of our students.

ABOUT THE DEPARTMENT

The department has an intake of 60 students and it offers subjects relevant to current industrial needs like Power Electronics, Electrical Machines, Control & Instrumentation, Microprocessors and Micro controllers, Solid State Drives, High Voltage Engineering, Power System Engineering, Embedded Systems etc. The department has an engineering design and analytical software tools such as MATLAB / SIMULINK with necessary tool boxes, PSCAD and Anna University Power Lab for Power System Simulation Lab etc.

A well-equipped conference hall with LCD projector for guest lectures by eminent technologists is available. The students are taken for industrial visits and they undergo in-plant training in reputed organizations.

VISSION OF THE DEPARTMENT

To impart quality education with the sole intention to equip them with a global outlook to take up the challenging positions in the field of electrical and electronics engineering with highest professional standards.

MISSION OF THE DEPARTMENT

To provide strong knowledge in electrical and electronics engineering by enhancing their technical skills.

To collaborate with core industries through research activities and to undertake consultancy projects with them in several cutting edge technologies.

To inculcate the leadership qualities to meet the challenges of future with holistic spirits.

ABOUT THE PROGRAMME

Distributed Generation (DG) has become more popular in recent years due to technological advancement and plays a vital role in future energy generation systems and power system structure. It has become more important to understand the integration of these systems through Power Electronic interface with the existing electric power systems networks. The main purpose of the PE converters is to integrate the DG to the grid in compliance with power quality standards. At the same time, high frequency switching of Power Electronic interface has caused major Power Quality concerns, which has been tackled with the help of Custom Power Devices like STATCOM (Shunt Active Power Filter), DVR (Series Active Power Filter) and UPQC (Combination of series and shunt Active Power Filter) are the latest development of interfacing devices between DG and consumer appliances to overcome voltage/current disturbances and improve the power quality by compensating the reactive and harmonic power generated or absorbed by the load.

Custom Power devices interfaces with DG offers various benefits like ability to provide ancillary services, increased energy efficiency, increased functionality through improved power quality and voltage/ VAR support,improved electrical system reliability by reducing the fault contributions, reduces the overall interconnection costs and flexibility in operations.

The STTP is aimed at bringing the academia and technocrats in one platform and focuses on widespread use of DG through various Renewable Energy Sources, Power Quality issues associated with the use of Power Electronic interface and use of various Custom Power Devices to improve Power Quality.

OBJECTIVE

This STTP introduces fundamental theory, recent developments, applications and research outcomes addressing the related theoretical and practical aspects on, "Mitigation of Power Quality Issues in Distributed Generation Systems Using Custom Power Devices".

COURSE CONTENTS

- Enhancement of Power Quality using Distributed Generation
- Control Strategies of Distributed Generation Power Systems
- Power Quality Monitoring Techniques
- ADALINE based Detection Scheme
- Phasor Measurement Unit Structure
- Role of DG In Future Electricity Systems
- Impact of D-STATCOM in Distributed Generation
- Dynamic Voltage Restorer with DG in Custom Power Park
- Role of UPQC – Distributed Generation in Meeting Power Quality Criteria
- Recent Trends in Power Quality using Distributed Generation

RESOURCE PERSONS:

Experienced faculty from Reputed institutions, Experts from industries will deliver lectures and conduct hands on practical sessions.

ELIGIBILITY

This course is open to Faculty members and Research scholars of AICTE approved Engineering colleges, Polytechnic colleges, Engineers from R&D Institutions and Industries

TA/DA ACCOMMODATION DETAILS

TA will be paid to the participants as per AICTE norms. Accommodation will be provided to the selected outstation participants upon request

Important Dates

Last date for Registration: 09/03/2020

Intimation of Acceptance : 11/03/2020