

# Short Term Training Program (STTP)

on

Challenges in Electric Vehicular
Battery Charging & Grid Integration Issues
26\*-31\* March, 2020

# REGISTRATION FORM

Name:	
Qualification:	
Experience:	
Research Area:	
Designation:	
Department:	
Organization:	
Address:	- Anna Carlotte
Mobile:	
Email:	
Declaration:	

The information provided by me in the registration form

For Online Registration

Signature of the Applicant

is true to the best of my knowledge.

Place:.....

Date:....

Signature of Head of the Organization (with Seal)

### **Chief Patron**

Dr. M. Santhiramudu Chairman, RGMCET

### Patron

Er. M. Sivaram MD. RGMCET

### **Program Chair**

Dr. T. Jayachandra Prasad Principal, RGMCET

# Technical Chair

Dr. D. V. Ashok Kumar Director-Admin & Placements, RGMCET

### Chief Technical Advisor

Dr. B. Rami Reddy Professor - EEE, RGMCET

### **General Chair**

Dr. V. Naga Bhaskar Reddy Professor & HOD- EEE, RGMCET

### Co-ordinator

Dr. D. Lenine Professor - EEE, RGMCET

# **Organizing Committee**

Dr. J. Surya Kumari, Assoc. Prof., EEE

Dr. P. Rama Mohan, Assoc. Prof., EEE

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Mr. K. Niteesh Kumar, Asst. Prof., EEE

Mr. S. Rahamthulla, Asst. Prof., EEE

# **Web Committee**

Mr. S. Krishnarjuna Rao, EEE, RGMCET

# For more details please Contact:

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# **AICTE Sponsored**

Short Term Training Program (STTP) on

CHALLENGES IN ELECTRIC VEHICULAR
BATTERY CHARGING
&

**GRID INTEGRATION ISSUES** 

26th-31st March, 2020

Organized by:

Department of Electrical & Electronics Engineering



# RAJEEV GANDHI MEMORIAL COLLEGE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS)

NH-40, NANDYAL - 518501, KURNOOL (Dt.), ANDHRA PRADESH, INDIA

Approved by AICTE - New Delhi, Affiliated to J.N.T University Anantapur, Ananthapuramu Accredited by NBA of AICTE - New Delhi, Accredited by NAAC of UGC with A<sup>+</sup> Grade Participated in TEQIP-I, An ISO 9001: 2008 Certified Institution

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# AICTE Sponsored Short Term Training Program (STTP) on Challenges in Electric Vehicular Battery Charging & Grid Integration Issues

### **About RGMCET & Nandval:**

RGM College of Engineering and Technology (RGMCET) was establised in the year 1995. It is located on a sprawling 32 acre campus on NH-40 at Nandyal, Andhra Pradesh, India, As a result of the dedicated effort of Chairman, the man with the vision, "Vidyarathna" Dr. M. Santhi Ramudu, the institution was started with a motto "EDUCATION FOR PEACE & PROGRESS". RGMCET is on an elegant educational journey, yet path breaking in different dimensions. RGMCET has been conferred Autonomous status by the UGC and subsequently incorporated a number of changes in their curriculum and regulations including the introduction of practice oriented syllabi and valueadded courses for the benefit of the students. RGMCET is one of the best institution selected for funding under the World Bank aided TEQIP-I programme.

# **About Nandyal:**

The name Nandyal is from the phrase "Nandi Alayam" and is approximately the center point of nine Nandi temples. The nine Nandies surrounding Nandyal includes Pradama Nandi, Naga Nandi, Soma Nandi, Krishna Nandi, Surya Nandi, Vishnu Nandi, Garuda Nandi, Vinayaka Nandi, Maha Nandi. It has been an

# **About the Department:**

The Department of EEE has been actively engaged in teaching and research in diverse fields of Electrical Engineering with well qualified, and experienced faculty and adequate research facilities. The department with an updated curriculum, offers a UG (B.Tech) Program, PG (M.Tech) Program in the Power Electronics Specialization and offers Full Time Ph.D. Program.

### Overview of the Course:

Electric Vehicles are considered as a promising solution for the current fossil-based energy shortage and pollutant emission problems. Companies such as TATA, Tesla, the Nissan and Mahindra Electric are in the process of creating mass markets for electric vehicles in India. If the use of EVs increased (25%) in modern transportation system then, the current infrastructure in India would have a difficult time to support the charging of these Evs and substantial technological, infrastructure and behavioral changes would be required to establish in a scalable and efficient manner. As the Electric Vehicles increases power demand also increases and existing power utilities may not able meet the growth of power demand by the EVs, The best option available is renewable energy based Microgrid. Also, distributed generation in the form of microgrids has recently attracted with the increasing research interest. In this venture, integrating renewable energy sources into microgrids presents number of challenaes.

This course provides deeper insight and knowledge to the participants about the technological developments on integration of EVs into Migrogrid, issues and challenges of integration of EVs into the Microgrid. In addition to the above, the challenges associated with the current vehicular design and the charging problems are also the part of the program.

# Expected Outcomes:

- · At the end of this short term training program, the participants are able to identify the real problems occurring in the manufacturing of electric vehicles.
- Participants are able to identify the selection of charging method depending on the vehicular application.
- · Participants will get the knowledge of charging station placement / location for electric vehicles

### **Course Outline:**

- Introduction to Electric vehicles.
- Design considerations of EV's.
- Control of Electric vehicles.
- Control strategies for the on-board charging system in electric vehicles.
- Selection of Electrical motors for Electric vehicles applications.
- Developing Microgrid lab in Educational institutions
- · Challenges faced by researches in control optimization.
- Real time problems faced by the industries.

## Who are the Beneficieries:

Whether you are a academician or industry person working in the field of electric vehicles and who needs to understand more about what are the future challenaes.

On the otherside all the UG & PG students who are interested in advances of RES & Ev's can also attend

# Registration:

The registrations are limited. The selection will be done on first come first serve basis.

Traveling expenses will not be reimbursed. Free Accommodation will be provided for outstation participants with the prior intimation.

#### **Resource Persons:**

The Experts are invited from the recorganized research centers, National Institutions & Premiere Institutions,

# Important Dates:

**Application Submission** : 20th March, 2020 Acceptance Confirmation : 22<sup>nd</sup> March, 2020

