

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### REPORT ON ONE WEEK ONE (6 DAY) ONLINE FACULTY DEVELOPMENT PROGRAM ON

### “RESEARCH CHALLENGES IN ELECTRICAL ENGINEERING-2020 (RCEE-2020)”

<b>Event Type</b>	:	Faculty Development Program
<b>Duration</b>	:	ONE WEEK (6 Days)
<b>Dates</b>	:	18-05-2020 to 23-05-2020
<b>Session Time</b>	:	4.00 PM to 6.00 PM (2 Hours) through <b>GOOGLE MEET</b> platform
<b>Resource Persons</b>	:	Day-1 (18-05-2020) : Dr. Y. Chandra Sekhar, NIT Warangal Day-2 (19-05-2020) : Dr. P. Chandra Sekhar, IIT Bhuvanewar Day-3 (20-05-2020) : Dr. K. Sri Kumar, JNTUK Kakinada Day-4 (21-05-2020) : Dr. P. Srinivasa Varma, KLU, Vaddeswaram Day-5 (22-05-2020) : Dr. B. Ravi Kumar, IIT, Hyderabad Day-6 (23-05-2020) : Dr. A. Pandian, KLU, Vaddeswaram
<b>Name of Coordinator</b>	:	Mr. S. Subramnaya Sarma, Associate Professor, EEE, RCE
<b>Target Audience</b>	:	Faculty members from different engineering colleges, Research Scholars and industrial persons
<b>Total no of Participants</b>	:	200 Faculty members from various Engineering colleges across globe
<b>Objective of the event</b>	:	The main objective of this one week online FDP is to enrich and explore the research challenges and opportunities in detail in Electrical Engineering and to make the COVID-19 holidays as more productive to all participants.
<b>Outcome of event</b>	:	Participants (Faculty members) have enriched and explored with advanced technologies and updated with the latest knowledge on research challenges in electrical engineering.
<b>Inaugural Session</b>	:	The esteemed personalities present in the inauguration of the program:  Dr. Y. Chandra Sekhar, NIT, Warangal Sri K. Venugopal, Secretary & Correspondent, RCE Dr. Dola Sanjay S, Principal, RCE Dr. S. Jayalakshmi, Professor & HoD, EEE, RCE Dr. J Ranga, Professor, EEE Department & Dean R & D, RCE & All HoDs of other Departments & Faculty members of EEE Department of RCE and All participants

**Technical Sessions : 1st Day (18/05/2020)**

**Dr. Y. Chandra Sekhar, Assistant Professor, Electrical Engineering, NIT, Warangal** has delivered keynote address on “**Research aspects of Electric vehicle charging station and its effect on distribution systems**”. In this session participants were learned the concepts of electric vehicle charging station, installation of DG units with minimum cost of materials and also how to enhance the efficiency of charging stations.

**2<sup>nd</sup> Day (19/05/2020)**

**Dr. P. Chandra Sekhar, IIT Bhuvanewar** has delivered a interactive lecture on “**Smart Grid Challenges-Virtual Synchronous Machines**”. In this session participants were learned the details of smart grid challenges and integration of renewable energy based DG units and Process of design of virtual synchronous machines and their impact on smart grid.

**3<sup>rd</sup> Day (20/05/2020)**

An informative lecture on “**Significance of PV system and it’s Efficacy**” was delivered by **Dr. K. Sri Kumar, JNTUK Kakinada**. In this session participants have learned the step by step procedure and different techniques for integration of Photovoltaic systems into grids.

**4<sup>th</sup> Day (21/05/2020)**

**Dr. P. Srinivasa Varma, Chairman-RPAC & Associate Professor, EEE Department, KL University, Guntur** has delivered a informative lecture on “**Research opportunities in restructured power systems**”. In this session participants were taught characteristics of restructured power systems, types and classifications of restructured power systems and research opportunities in that area.

**5<sup>th</sup> Day (22/05/2020)**


**Dr. B. RAVI KUMAR, Professor, EE Department, IIT, Hyderabad** has illuminated the session on “**Performance Improvement in Renewable Energy Based Microgrids with Virtual Electrical Machines based Control scheme**”. In this session participants were gained with the knowledge of the performance improvement through renewable energy based micro grids and design of micro grids through virtual synchronous machines and also gave some guidelines on control schemes to be deployed for integration.

**6<sup>th</sup> Day (23/05/2020)**

**Dr. A. Pandian, Professor, EEE Department, KL University, Guntur** has explained “**Introduction to Big Data Analytics in Smart Grid Applications**”. In this session participants realized the significance of big data analytics and evaluation phases in smart grid applications.

**Feedback :**

All the sessions were very much informative. The discussed areas are of great benefit for the participants as the topics match with the current research domain. Participants were enlightened with the most widely used advance technologies in this domain. This in turn will help in research activity.

  
HoD, EEE

  
PRINCIPAL