

### Registration FEE:

(Includes Courseware, Working Lunch and Tea)

Industry Personnel : Rs. 3000/-  
Faculty : Rs. 2000/-  
Scholars : Rs. 1000/-

Interested participants are requested to fill the accompanying form and send the same to the workshop Coordinators. Registration fee will be accepted only in the form of **Demand Draft** drawn in-favour of “**Coordinators-RTSES**”, payable at **Hyderabad** along with the completed registration form.

Limited Accommodation can be provided on requisition on first cum first serve basis. Registration fee does not include accommodation charges.

### Dates To Remember:

Last date for Registration : 14<sup>th</sup> August 2018

Workshop Day : 17<sup>th</sup> - 18<sup>th</sup> August 2018

### Address For Communication:

The Coordinators  
Real Time Simulations of Electrical Systems  
EEE Department  
JNTUH College of Engineering  
Kukatpally, Hyderabad- 500085.

### Mobile :

+91-7680001214  
+91-9676495333

### Email:

kanna.bhaskar@jntuh.ac.in  
raghuram\_a@jntuh.ac.in

### Workshop Coordinators:

Dr. K. Bhaskar, Associate Professor  
Dr. A. Raghuram, Prof & HOD

### JNTUH-CEH Hyderabad Campus:

JNTUH College of Engineering for the past 50 years has made a mark in the field of higher education in India imparting quality education in a multi-cultural ambience, intertwined with extensive application oriented research. It persistently seeks and adopts innovative methods to improve the quality of higher education on a consistent basis. The College was established as Nagarjuna Sagar Engineering College in 1965 by the Government of Telangana. When the college was under the administrative control of the Department of Technical Education, it was affiliated to Osmania University, Hyderabad. With the formation of Jawaharlal Nehru Technological University on 2nd October 1972, it became a constituent college of the University and was later renamed as JNTU College of Engineering, Hyderabad.

### Vision

To be recognized as one of the top 10 institutes in the country offering technical education, sustaining and improving its repute of UG programmes, expanding need based PG and research programmes with global outlook, synergising teaching and research for societal relevance.

### Mission

- To identify technological advancements and build the right level of skills at the right time contributing to the industrial and national growth.
- To identify and keep abreast with the state of the art technology maintaining its legacy of striving for excellence in higher education
- To promote world class research of local relevance to society.
- With a research community of professors, research fellows and research centres, expand the scale and multidisciplinary character of its research activities.
- With a global outlook strive for collaborations to network with International Universities and National Institutes of Research and Higher Learning.



**JNTUH College of Engineering, Hyderabad**

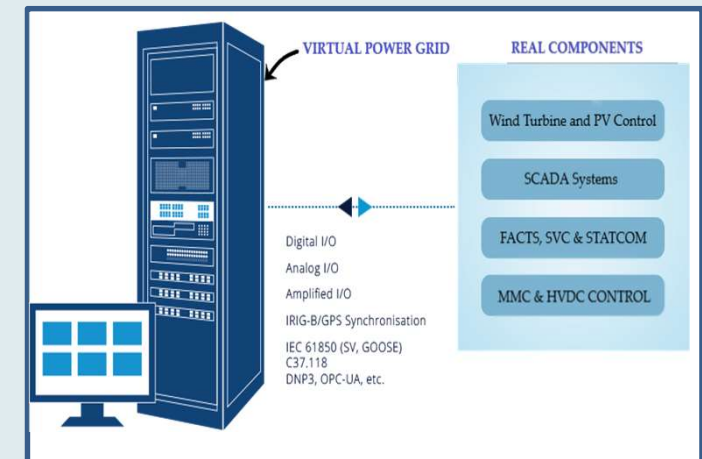
## Department of Electrical and Electronics Engineering

Organizes

A two day Workshop on

## REAL TIME SIMULATIONS OF ELECTRICAL SYSTEMS

(Under TEQIP-III)



In association with



**OPAL-RT Technologies India  
Pvt Ltd Bangalore**

**17<sup>th</sup> -18<sup>th</sup> August 2018**

### About EEE department

This department at JNTUH College of Engineering is established to impart state-of-the-art education, training and research in the field of Electrical and Electronics Engineering and allied areas. It offers B.Tech, M.Tech and Ph.D. Programme in the domain of Electrical and Electronics Engineering. The expertise of the faculty members includes Power Systems, Power Electronics and Drives, Control and Instrumentation and other frontier areas.

### About OPAL-RT

OPAL-RT is the world leader in the development of PC/FPGA Based Real-Time Digital Simulators, Hardware-In-the-Loop (HIL) testing equipment and Rapid Control Prototyping (RCP) systems to design, test and optimize control and protection systems used in power grids, power electronics, motor drives, automotive industry, trains, aircrafts and various industries, as well as R&D centers and universities.

Our unique technological approach integrates parallel, distributed computing with commercial-off-the-shelf technologies. Customers perform [Rapid Control Prototyping](#), System Integration, and [Hardware-in-the-Loop](#) testing. The company's core software, [RT-LAB](#), enables users to rapidly develop models suitable for Real-Time Simulation, while minimizing initial investment and their cost of ownership. OPAL-RT also develops mathematical solvers and models specialized for accurate simulation of power electronic systems and electrical grids. RT-LAB and OPAL-RT solvers and models are integrated with advanced field programmable gate array (FPGA) I/O and processing boards to form complete solutions for RCP and HIL testing.

### Objectives of Workshop

The aim of the workshop is to discuss about the necessity of real time simulations in Electrical and Electronics Engineering. Power systems, Power electronics and Control Applications will be the main focus.

### Topics

- Introduction to OPAL-RT Technologies
- Basics of Real Time Simulations (RTS)
- RTS Challenges & Solutions
- Hardware in Loop Simulation
- Rapid Control Prototyping
- Getting Started with RT-LAB
- Introduction to OPAL-RT Hardware
- eMEGAsim & Applications
- eFPGAsim & Applications
- MMC solution from OPAL-RT
- Introduction to HYPERSIM
- Protection Relay Testing
- ePHASORsim & Applications

### Who shall attend?

This workshop is aimed at the multi-facet audience from industries, academics, research scholars and students from engineering colleges in disciplines like EEE, EIE, ECE and Mechanical.



## A Two-Day Workshop on REAL TIME SIMULATIONS OF ELECTRICAL SYSTEMS

### Registration Form

Name: .....

Designation: .....

Organization: .....

Address for Correspondence: .....

.....

.....

PIN Code: .....

Phone: .....

E-mail: .....

### Payment Details

Amount: .....DD No: .....

Date: .....

(In favor of \_\_\_\_\_, payable at \_\_\_\_\_)

Name of the Bank & Branch:

.....

Date:

Signature