### PROFILE OF THE INSTITUTE

The main aim of Vaagdevi College of engineering is to impart quality education to U.G. and P.G. student in innovative ways. The college is established in 1998 and has become one of the most preferred colleges for engineering education in this part of the state. Vaagdevi College of Engineering has 380 faculty members and all of them have postgraduate qualification and 10% faculty members have doctoral degrees from prestigious institutions. Majority of the faculty members of the Institute are Life members of ISTE and other professional bodies like IETE, IEEE.

The College is known for its discipline and imparting skills to mould the students to face the challenges in the technologically advancing world and to become successful engineers and devote their energies in the service of humanity and National development.

The Central Library. Digital Library and E-Library are set up to enrich the knowledge of the students within and beyond their curriculum. The purpose of life is the pursuit of Excellence and it is the duty of every teacher in Vaagdevi College of Engineering to make the student excel not only in academics but also in sports, co-curricular games and extracurricular activities. It is the duty of every student should learn to excel and excellence always leads to success in life and to remain invaluable to the community in which we serve and Vaagdevi College of Engineering provides a right atmosphere in that direction.

### **Patrons**

### Sri C.Janga Reddy

Ex.MP-Chairman

### Dr Ch.Devender Reddy

Secretary & Correspondent

### Dr C.Satyapal Reddy

Joint Secretary

### Prof. K.Prakash

Principal - Vaagdevi College of Engineering

### Prof. P.Prasada Rao

Principal - Vaagdevi Engineering College

### Dr.A.Chandramouli

Dean Student Academics & Industry Interactions

### Convener

### Dr Y. Hareesh Kumar

Associate Professor & Head-E.E.E.

### **Coordinators**

### 1. Mr.CH. RAJU

Assistant Professor of E.E.E. Coordinator -IIIC

### 2. Mrs.Ch.Ushasri

Associate Professor of E.E.E.

## **Advisory Members**

Dr.M.Sydulu, Professor, NITW

Dr.K.Prakash, Professor, VCEW

Dr.A.Chandramouli, Professor, VCEW

Dr.B. Venugopal Reddy, Asoc.Prof. NIT Goa

Mr.P.Sadanandam, Assoc Prof, VCEW

Mr.P.Purnachander Rao, Assoc Prof, VCEW

Dr.M. Vishnu Prasad, Asst Prof, VCEW

Dr.D.Hari Kiran.B, Asst Prof, VCEW

Mr.B.Nagaraju, Assoc Prof, VCEW

Mr.T.Vengugopal, Assoc Prof, VCEW

Mr.T.Rajesh, Assoc Prof, VCEW

# Two-day Workshop

## Real-time Simulator for Power Systems & Power Electronics Using Typhoon HIL

30<sup>th</sup> & 31<sup>st</sup> January - 2019



In Association with **Industry Institute Interaction Cell** 



Organized by

Mr.CH.RAJU & Mrs.CH.USHASRI

Department of

## Electrical & Electronics Engineering VAAGDEVI COLLEGE OF ENGINEERING

UGC Autonomous
Accredited by NBA
Permanently Affiliated to JNTU -Hyderabad
Approved By AICTE
An ISO 9001-2000 Certified Institution
Bollikunta, Warangal-T.S, INDIA- 506005
Website: http://www.vaagdevi.edu.in/

### ABOUT THE DEPARTMENT

The Department of Electrical & Electronics Engineering offers U.G & P.G programs. The B.Tech (EEE) course started in the year 1998. The PG programs include Power Electronics and Power Systems Control & Automation were established in 2004 and 2012 respectively. The UG program has been accredited by NBA in the years 2008 and 2017.

The department comprises of 48 qualified and well-experienced faculties. The department having 9 PhD holders and 8 are pursuing their PhDs from reputed institutes and having broad areas of expertise includes Artificial Intelligence, Meta-Heuristic Techniques, Distribution Automation, Power System Deregulation, Micro Grid Control, Power Electronics Applications to Power Quality Improvement, Power Converters ad Adjustable Speed Drives.

The Department striving hard academic excellence and having strong industry collaborations & MOUs to make the student's industry ready. The department encourages the student workshops, internships. The Laboratories are all well-equipped and that comprise Power Systems, Power Converters, Power Simulation and Control Systems laboratories. A good number of EEE graduates seek admission to higher studies abroad, IITs, NITs and IIMs.

### AIM & OBJECTIVE OF THE WORKSHOP

Providing continuous-education and lifelonglearning courses for students and teachers of technical institutions to help them improve their competence, Training and accrediting teachers of technical institutions and industry professionals, Developing and helping implement new curriculum based on using HIL technology in new energy applications (smart grid, renewable energy and distributed generation, electric vehicles, electrification of vessels and offshore installations, etc.) Conducting research and providing consultancy in technical education.

### FEATURES HIGHLIGHTED

- Typhoon HIL model library is developed for direct REAL TIME execution on the FPGA. There is no need to develop the first offline model and then retransforming the same into real time.
- HIL Connect interface to connect real converter and Micro Grid controllers.
- Signal processing and DSP interface solutions for easy control prototyping and easy deployment of target platforms.
- > Completely integrated Typhoon HIL software toolchain.

### SCOPE OF THE RESEARCH

Researchers and engineers now have access to affordable, high-performance simulation tools that were previously too cost-prohibitive, except for the largest manufacturers and utilities. This workshop introduces the role and advantages of using HIL real-time simulation by answering three fundamental questions: what is HIL Real-Time simulation; why is it needed and where does it best fit. The tool is being used by a number of industries and has a good demand for trained engineers in Real-Time Simulation.

### AREAS OF APPLICATIONS

Power Electronics, Power System, Power Quality, Renewable Sources like PV, Wind, etc, Micro Grid, Smart Grid, Inverters, Electric Vehicle, Energy Storage, Drives, HVDC, FACTs Devices, Hardware-in-Loop Studies, Rapid Control Prototyping, PV Cell integration, Pre Certification, Different loads (variable resistance, inductance), Power electronics converters, etc.

### **PARTICIPANTS**

- > Faculty & Research Scholars from Local Engineering Institutions.
- > PG & UG Students from the Vaagdevi.

### BENEFITS

## Labs that can be established with Typhoon HIL's Simulator

- 1. Power Electronics HIL Lab
- 2. Power System HIL Lab
- 3. HIL for Electrical Machine & Drives Lab
- 4. HIL Emulation Lab
- 5. Renewable Energy HIL Simulation Lab
- 6. Real-time Protection and Switchgear Lab
- 7. Real-time Control System Lab

### REGISTRATION

- ❖ Last Date of Registrations: 25 -01-2018.
- The number of participants 100 only.
- Students 500/-only.
- Local Colleges faculty/HODs-FREE
- Participants are advised to bring your own Laptops for Free Software Installation and Practices.



### ADDRESS FOR CORRESPONDENCE:

### Mr CH.RAJU

Assistant Professor & Coordinator IIIC

### **Industry Institute Interaction Cell**

Mobile: 955 350 3231 Email: rajuphdvnit@gmail.com Department of

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