Four Week Student Summer Internship / Training Programme

on "PSIM-Software -Enriching the latest Technological advancements in Electrical & Electronics Engineering" o5th June to 04th July, 2025

Registration Form :

Name:	
Roll Number:	
College:	
Branch:	
Address:	
WhatsApp Mobile No	
E-Mail:	
Signature of the Participant: Date:	
Note: Participants need to maintain full attendance	
Mr./Msbe	•
aring Roll Nois permitted t	0
attend Internship / Training Programme at KITS Waranga	ıl
during 05 th June to 04 th July, 2025.	

MODE OF CONDUCTION:

Offline Mode

Hands-on sessions will be conducted; all the participants are informed to attend all the sessions without fail.

CERTIFICATION:

Certificates will be issued to those participants who attend all the sessions of the programme and clear the online exam as per the norms

Chief Patron

Capt. V. Lakshmikantha Rao, Ex-M.P. (Rajya Sabha) Chairman, KITS Warangal (KITSW)

Patron Sri. P. Narayana Reddy, Treasurer, KITSW

<u>Chairman</u> Prof. K. Ashoka Reddy, Principal

Convener:

Dr. G. Rajendar, Head, Dept. of EEE

Coordinator:

Dr A. Rajasekhar, Asst. Professor Dept. Of EEE

Organizing Committee :

Department of EEE, KITS Warangal

&

тесньАвз

Hyderabad



"Four Week Student Summer Internship / Training Programme on "PSIM-Software - Enriching the latest Technological advancements in Electrical & Electronics Engineering" Organized by Department of E E E, KITSW o5th June to 04th July 2025



Coordinator: Dr A. Rajasekhar, Dept. of EEE

Organized by DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Kakatiya Institute of Technology & Science, Warangal

(An Autonomous Institute under Kakatiya University) (Accredited by NAAC with 'A' Grade) Opp: Yerragattu Gutta, Hasanparthy (M), Warangal-506015 (TS), INDIA.

ABOUT THE INSTITUTE

Kakatiya Institute of Technology and Science, Warangal popularly known as KITSW, was established in 1980 by Ekasila Educational Society (EES), Warangal, a philanthropic society, with a primary objective of providing quality technical education. KITSW is recognized by the AICTE and also under section 2(F) and 12(B) of UGC act 1956. The UGC has granted autonomous status in 2014 under Kakatiya University (KU), Warangal. It is accredited by NAAC with A grade (CGPA: 3.21) and all the UG engineering programmes are accredited by NBA, New Delhi. KITSW is Located in 68 acres of lush green sprawling campus, it is one of the premier institutes of Telangana. Over the years, it has attracted academicians of proven competence onto its faculty, augmented the infrastructural facilities, modernized laboratories, placed its products in reputed organizations all over the world and thus received recognition in industry and academia. At present, it is offering UG in nine branches of engineering, PG in six engineering specializations and MBA. The KU recognized CE, ME, E&I, EEE, ECE and CSE departments as research centers for PhD programmes. The faculty at KITSW is now integrating research, innovation and incubation culture into course teaching to prepare students to gain tech skills for industry 4.0. The institute is located on Warangal - Karimnagar highway.

ABOUT DEPARTMENT OF EEE:

The Department of Electrical & Electronics Engineering was started in the year 1994 with an intake of 60 and Post Graduate Program (M.Tech.) in Power Electronics was started in the Academic year 2012-13 with an intake of 18. At present the department has 3 Professors, 5 Associate Professors and 15 Assistant Professors). The Department established its uniqueness in developing laboratories like Power Systems, Electrical Simulation, Power Electronic Simulation, Power Electronics, Electrical Drives, Control Systems, Electrical Networks and Simulation, Electrical Machines, Measurements, Renewable Energy Systems and Basic Electrical Engineering laboratories. The overall success of the Department can be traced to a vast majority of its students who are well settled in reputed organizations like NTPC, BHEL, APGENCO, TSGENCO, APTRANSCO, TSTRANSCO, TCS, GE, Microsoft, HCL, CTS, Infosys, Wipro etc., and guite a good number of successfully functioning entrepreneurial ventures started by them. The department also holds a key role in installation of two 400KW roof top Solar Plants.

About Internship / Training Programme:

KITSW's Internship Policy, established in 2020, mandates internships for all undergraduate and postgraduate students. The policy outlines three types of internships:

Social Internship (SI): Community service lasting up to one week.

- Industry Internship: A minimum of two weeks in a single spell.
- Academic Internship: A minimum of two weeks in a single spell.

These internships aim to provide students with realworld experience, aligning with the graduate attributes defined by the National Board of Accreditation (NBA).

About - PSIM -Software

PSIM is an Electronic circuit simulation software package, designed specifically for use in power electronics and motor drive simulations but can be used to simulate any electronic circuit. Developed by Powersim, PSIM uses nodal analysis and the trapezoidal rule integration[2] as the basis of its simulation algorithm. PSIM provides a schematic capture interface and a waveform viewer Simview. PSIM has several modules that extend its functionality into specific areas of circuit simulation and design including: control theory, electric motors, photovoltaics and wind turbines PSIM is used by industry for research and product development and it is used by educational institutions for research and teaching.

PSIM is simulation software used for the design, analysis, and simulation of power electronics, motor drives, and electrical control systems. It is widely used by engineers and researchers for tasks such as:

- Power electronics circuit simulation
- Control system design
- Motor drive simulation
- Renewable energy system modeling

Objective of the Internship / Training Programme: The objective of this Internship / Training Programme is to:

- Provide
- Explore
- Teach participants about
- Offer hands-on sessions.

Benefits and Outcomes of the Internship / Training Programme:

- Develop a strong
- Gain practical experience in implementing
- Learn best practices.
- Enhance problem-solving skills by applying

Major Contents of the Internship / Training Programme: Week 1. Introduction to PSIM Software

- Overview of the PSIM environment
- Workspace layout and navigation
- Creating, editing, and saving projects
- Running simulations and analyzing waveforms

Week 2. Basic Circuit Simulation

- Simulation of basic electrical circuits (RLC, diode, etc.)
- Using voltage and current sources
- Measurement tools and probes

Week 3. Power Electronics Applications

Simulation of power electronic converters:

- AC-DC (Rectifiers)
- DC-DC (Buck, Boost, Buck-Boost)
- DC-AC (Inverters)
- AC-AC Converters

Week 4. Advanced Features of PSIM

• Sim Coupler and Simulink Co-simulation

Internship / Training Fee:

- Rs. 2000 per each participant including GST to be paid towards registration for Internship / Training for 4 weeks.
- Registration fee includes training material, certificate of participation.
- No TA / DA will be provided to outstation participants.
- Accommodation & Food for outstation participants will be provided at institute hostels on payment basis.

Important Dates:

Course Duration: 05th June to 04th July, 2025 Last Date for application: 01st June, 2025. **Resource Persons:**

Dr A. Rajasekhar, Dept. of EEE Address for Communication

Dr A. Rajasekhar, Dept. of EEE, 8374932678 Assistant Professor, Dept. of EEE Kakatiya Institute of Technology& Science, Warangal-15