

Four Week Students Summer  
Internship /Training Programme  
on

**“Mi-power-Power System Analysis  
Software”**

**05<sup>th</sup>June to 04<sup>th</sup>July,2025**

**RegistrationForm**

Name: \_\_\_\_\_

Roll Number: \_\_\_\_\_

College: \_\_\_\_\_

Branch: \_\_\_\_\_

Address: \_\_\_\_\_

Whats app Mobile No \_\_\_\_\_

E-Mail: \_\_\_\_\_

**Signature of the Participant**

Date: \_\_\_\_\_ Place: \_\_\_\_\_

**Note: Participants need to maintain full attendance**

Mr./Ms. \_\_\_\_\_ bearing Roll No. \_\_\_\_\_  
is permitted to attend Internship / Training  
Programme at KITS Warangal during 05<sup>th</sup>June to  
04<sup>th</sup>July, 2025.

**Principal / HoD sign with Seal**

**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, KITSWarangal (KITSW)*

**Patron**

**Sri.P. Narayana Reddy, Treasurer, KITSW**

**Chairman**

**Prof.K. Ashoka Reddy, Principal**

**Convener:**

**Dr. G. Rajendar, Head, Dept. ofEEE**

**Coordinator:**

**Dr. Y. Manjusree, Asst. Professor, Dept. of EEE**

**Organizing Committee:**

Department of EEE, KITS Warangal

&



Bangalore



**Four Week Students Summer Internship  
/Training Programme**

on

**“Mi-power-Power System Analysis  
Software”**

**Organized**

**by**

**Department of E E E**

**05<sup>th</sup>June to 04<sup>th</sup>July,2025**



**Coordinator: Dr.Y. Manjusree,**  
*Asst. Professor, 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: Yerragattugutta, 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 Machines, Networks and Simulation, Electrical 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 quite 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:

*This training Programme is designed for large transmission and distribution utilities. MiPower is the state-of-the-art Windows based Power Systems Software. MiPower is highly interactive, user-friendly software for all analysis, planning, design and simulation of any given Power System irrespective of the geographical and environmental constraints. As electric utilities have grown in size, and the number of interconnections has increased, planning for future expansion has become increasingly complex. The increasing cost of additions and modifications has made it imperative that utilities consider a range of design options, and perform detailed studies of the effects on the system of each option, based on a number of assumptions: like normal and abnormal operating conditions, peak and off-peak loadings, and present and future years of operation. A large volume of network data must also be collected and accurately handled. To assist the engineer in this power-system planning, digital computers and highly sophisticated computer programs have played an indispensable role.*

## About : MiPOWER

*MiPower® is driven by a robust power system analysis toolbox covering various aspects of power system studies from steady state analysis to stability and security assessment, including reliability and protection.*

*The toolbox caters to the needs of power system planners and operations engineers. Windows based platform makes it highly interactive and user-friendly. Professionally designed GUI and centralized databases add to the efficacy of the software tool.*

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

- *perform short circuit fault analysis on transmission lines*
- *Explore load flow calculations*
- *Teach participants about contingency analysis, and assessing system stability*
- *Offer hands-on sessions*

## Benefits and Outcomes of the Internship / Training Programme:

- *Develop a strong concept on determining fault currents on a transmission lines*
- *Gain practical experience in implementing contingency and stability analysis*
- *Learn best practices to improve voltage profile*
- *Enhance problem-solving skills by applying knowledge on protection coordination*

## Major Contents of the Internship / Training Programme:

### Week 1. Introduction to PRDC and Power System Software Tools

- Overview of PRDC and its role in power sector R&D.
- Introduction to MiPower software suite for power system analysis.
- Familiarization with the software interface and tools.

### Week 2. Power System Modeling and Data Entry

- Creation of Single Line Diagrams (SLDs).
- Input of system parameters: generators, transformers, lines, loads, etc.
- Use of geographic and schematic views.

### Week 3. Load Flow Analysis

- Understanding the need for load flow studies.
- Performing load flow analysis using MiPower.
- Interpreting results for voltage profile, power losses, and reactive power balance.

### Week 4. Short Circuit Analysis

- Types of faults: L-G, L-L, L-L-G, 3-phase.
- Fault level calculation using MiPower.
- Protection coordination basics.

## 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 and certificate of participation.*

## Important Dates:

**Course Duration:** 05<sup>th</sup> June to 04<sup>th</sup> July, 2025

**Last Date for application:** 25 May, 2025.

## Resource Person:

**Dr.Y.Manjusree**

*Asst.Professor, Dept.of EEE*

**Address for Communication**

**Dr.Y.Manjusree**

*Asst.Professor, Dept.of EEE ,KITSW*