



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.



DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

TWO-WEEK STUDENT SUMMER INTERNSHIP PROGRAMME

on

AI-BASED SOLAR POWER FORECASTING SYSTEM

2 WEEKS

60 HOURS

OFFLINE MODE

Venue:

Block-III

Digital Simulation Lab

29TH JUNE TO 11TH JULY, 2026

INTERNSHIP HIGHLIGHTS



Two-week Internship Certification



MATLAB intensive module-wise training



Hands-on practice on Python platform



Knowledge on real-time data acquisition



Knowledge and skills in utilization of simulation and analysis



AI model development using Python

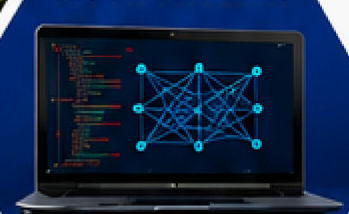
DATA ACQUISITION



SOLAR PLANT

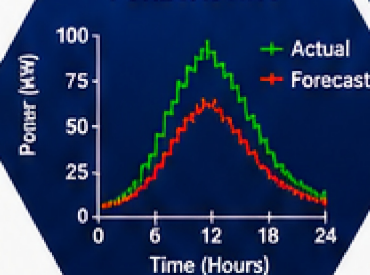


AI / ML MODELING

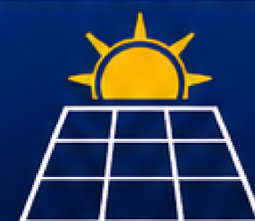


python MATLAB

FORECASTING



SMART FORECASTING



DASHBOARD & VISUALIZATION



WHO CAN PARTICIPATE?

- B.Tech Students
- M.Tech Students
- Research Scholars



CERTIFICATES WILL BE ISSUED

to participants who attend
all sessions and clear the
online exam as per norms



PROGRAMME OUTCOMES

- ✓ Improved accuracy of solar power prediction using AI techniques
- ✓ Enhances efficient utilization of renewable energy resources
- ✓ Supports better power system planning and grid stability
- ✓ Analyze the influence of weather parameters on solar power output
- ✓ Apply AI/ML techniques for smart forecasting in energy systems

TOOLS & TECHNOLOGIES



ORGANIZED BY:

Department of Electrical &
Electronics Engineering (EEE)
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.

FOR REGISTRATION CONTACT:



9866218295
8374932678



IMPORTANT DATES:

Course Duration:
29th June to 11th July, 2026
Last Date for Application:
25th June, 2026

NO TA / DA

Accommodation & Food for outstation
participants will be provided at institute
hostels on payment basis.



MODE OF CONDUCTION: OFFLINE MODE

Hands-on sessions will be conducted;
all the participants are informed to
attend all the sessions regularly.

**PREDICT TODAY,
POWER TOMORROW!**



Two-Week Student Summer Internship Program
(SSIP)

on

**“AI-Based Solar Power
Forecasting System”**

29th June to 11th July 2026

Registration Form

Name: _____

Roll Number: _____

College: _____

Branch: _____

Address: _____

WhatsApp 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 29th June to 11th July, 2026.

Principal / HoD sign with Seal

MODE OF CONDUCTION: Offline Mode

Hands-on sessions will be conducted; all 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

Chairman

Prof. K. Ashoka Reddy, Principal

Convener:

Dr. M. Narasimha Rao, Head, Dept. of EEE

Resource Persons:

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

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

Organizing Committee Members:

Prof. V. Ramaiah, Professor, Dept. of EEE

Prof. C. Venkatesh, Professor, Dept. of EEE

Prof. V. Rajagopal, Professor, Dept. of EEE

Dr. G. Rajender, Assoc. Professor, Dept. of EEE

Dr. B. Jagadish Kumar, Assoc. Professor, Dept. of EEE

Dr. G. Sudheer Kumar, Assoc. Professor, Dept. of EEE

Dr. B. Vijay Kumar, Assoc. Professor, Dept. of EEE

Dr. P. Nagarjuna Reddy, Asst. Professor, Dept. of EEE

Dr. C. Pavan Kumar, Asst. Professor, Dept. of EEE

Sri K. Ajith, Asst. Professor, Dept. of EEE

Sri T. Praveen Kumar, Asst. Professor, Dept. of EEE

Dr. D. Rakesh Chandra, Asst. Professor, Dept. of EEE

Dr. G. Sunil Kumar, Asst. Professor, Dept. of EEE

Sri M. Srinivas, Asst. Professor, Dept. of EEE

Sri K. Srinivas, Asst. Professor, Dept. of EEE

Dr. B. Subhash, Asst. Professor, Dept. of EEE

Smt. A. Swathi, Asst. Professor, Dept. of EEE



Two-Week Student Summer Internship Program
(SSIP)

on

**“AI-Based Solar Power
Forecasting System”**

Organized

by

Department of EEE

29th June to 11th July 2026



Coordinators:

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

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

Dr. G. Sunil Kumar, Asst. Professor & SPOC, I3C, EEED

Organized by

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Kakatiya Institute of Technology & Science, Warangal

(An Autonomous Institute under Kakatiya University)

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**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 programs 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 programs. 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 THE 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 plays a key role in installation of two 400 kW rooftop solar plants.

About Student Summer Internship Program:

This Student Summer Internship Program is designed for the **AI-Based Solar Power Forecasting System** designed is for **B.Tech students, M.Tech students, and research scholars** interested in renewable energy, artificial intelligence, machine learning, and smart grid technologies. The programme provides hands-on experience in developing intelligent forecasting models for solar power generation using AI and data analytics techniques.

Participants will learn concepts related to solar energy systems, weather data analysis, machine learning algorithms, forecasting techniques, and simulation tools such as MATLAB/Python. This program also focuses on practical applications in smart grids, energy management systems, and renewable energy integration for improving power system reliability and efficiency.

About: MATLAB and Python

The **AI-Based Solar Power Forecasting System** training programme is designed to provide hands-on experience in forecasting solar power generation using **MATLAB and Python** tools. Participants will learn to collect and analyze solar and weather data, develop AI/ML-based forecasting models, and simulate renewable energy systems using modern computational techniques.

Objective of the Student Summer Internship Program:

The objective of this Internship / Training Programme is to:

- understand the fundamentals of solar photovoltaic (PV) systems and renewable energy generation.
- explore the impact of meteorological parameters such as solar irradiance, temperature, humidity, and wind speed on solar power output.
- acquire and preprocess solar and weather datasets for forecasting applications.
- develop knowledge of Artificial Intelligence (AI) and Machine Learning (ML) techniques used in renewable energy systems.
- implement forecasting models using MATLAB and Python.

Benefits and Outcomes of the Student Summer Internship Program:

- Improves the accuracy of solar power prediction using Artificial Intelligence techniques.
- Enhances efficient utilization of renewable energy resources.
- Supports better power system planning and grid stability.
- Analyze the influence of weather parameters on solar power output.
- Collect, preprocess, and visualize solar and meteorological datasets.
- Apply Artificial Intelligence and Machine Learning techniques for solar forecasting.

Major Contents of the Student Summer Internship Program:

- Introduction to Solar Energy Systems & Smart Grids
- Data Acquisition and Preprocessing
- Time Series Forecasting Methods
- Machine Learning Models for Solar Forecasting

Internship / Training Fee:

- Rs.1500/- per participant including GST to be paid towards registration for the Student Summer Internship Program for 4 weeks.
- Registration fee includes training material and certificate of participation.
- No TA / DA will be provided to outstation participants.
- Accommodation & Food for outstation participants will be provided at the institute's hostels on a payment basis.

Important Dates:

Course Duration: 29th June to 11th July, 2026

Last Date for application: 25th June, 2026.

Address for Communication

Dr. G. Sunil Kumar

Asst. Professor & SPOC, I3C, Dept. of EEE
Kakatiya Institute of Technology & Science, Warangal

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Two-Week Student Summer Internship Program (SSIP)

on

“AI-Based Solar Power Forecasting System”

(29th June to 11th July, 2026)

REGISTRATION & PAYMENT DETAILS

Step 1: Pay Registration Fee

💰 Registration Fee: ₹1500/- per participant

UPI Payment Details

- Name: Kakatiya Institute of Technology and Science
- UPI ID: kitswarangal@sbi

SCAN & PAY



Step 2: Fill Registration Form & Upload Payment Details

<https://forms.gle/MMCPqMctmng5EZbJ6>

After payment, upload:

- Payment Screenshot
- Transaction ID / UTR Number

inside the registration form.

Contact for Queries

Dr. G. SUNIL KUMAR

SPOC, I3C, Dept. of EEE

☎ +91 9618931612

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Two-week Student Summer Internship Programme (SSIP) on "AI-Based Solar Power Forecasting System", 29.06.2026 to 11.07.2026

Key benefits to the students:

1. Two-week Internship certification
2. MATLAB intensive module-wise training
3. Hands-on practice on the Python platform
4. Knowledge of real-time data acquisition
5. Knowledge and skills in the utilisation of Simulation and analysis
6. AI model development using Python

SCHEDULE of SSIP- AI-Based Solar Power Forecasting System

Venue: Block-III: Digital Simulation Lab

Date	Topic	Objectives	Activities
29.06.26 (Monday)	Introduction to Solar Energy Systems & Smart Grids	Overview of PV systems and forecasting applications	✓ Internship briefing ✓ Install solar PV systems ✓ Introduction to Python
30.06.26 (Tuesday)	Solar Radiation and Weather Parameters	Learn the impact of irradiance, temperature, humidity, and wind speed on PV output	✓ Weather data collection ✓ Visualization using python/MATLAB
01.07.26 (Wednesday)	Data Acquisition and Preprocessing	Understand data cleaning, normalization, and feature extraction techniques	✓ Import and preprocess solar datasets
02.07.26 (Thursday)	Introduction to AI and Machine Learning	Learn AI concepts and forecasting algorithms	✓ Implement simple regression models ✓ compare results
03.07.26 (Friday)	Time Series Forecasting Methods	Understand forecasting techniques and accuracy metrics	✓ Time-series prediction and error analysis
04.07.26 (Saturday)	Hands-On Session		
06.07.26 (Monday)	Machine Learning Models for Solar Forecasting	Develop ML-based forecasting models	✓ Implement Linear Regression, Decision Tree, and Random Forest models
07.07.26 (Tuesday)	Deep Learning Techniques	Learn ANN and LSTM-based forecasting methods	✓ Build ANN/LSTM models using Python/MATLAB
08.07.26 (Wednesday)	SmartGrid Integration	Understand renewable integration and energy management	✓ Smart grid case studies and simulation discussion
09.07.26 (Thursday)	Real-Time Forecasting and Visualization	Learn real-time monitoring and visualization techniques	✓ Develop dashboards ✓ Perform real-time plotting
10.07.26 (Friday)	Project Development and Presentation	Integrate all concepts into a mini project	✓ Project implementation, presentation, and assessment ✓ Report & Feedback ✓ Certificate distribution
11.07.26 (Saturday)	Assessment/Test on the contents covered on AI-Based Solar Power Forecasting System, Valedictory Session and Certificate Distribution		