Instructions to Participants:

Target Audience

The participant must be a teaching faculty from constituent and affiliated colleges of JNTUA, Ananthapuramu.

Guidelines

- No Registration Fee.
- Participants will be selected on First-Come First-Serve basis.
- An evaluation test will be conducted at the end of the FDP.
- Certificates will be issued based on the attendance percentage, test score and submission of feedback.
- Paid Accommodation will be provided on request

Registration

To register for the FDP: Scan the QR Code:



or Click on the below Link https://forms.gle/2M95dPGTZAnVKBV69

No Objection Certificate Link: https://no-objection-certificate.tiiny.site

Mode of Conduct : OFFLINE

Timing : 9:30 AM to 5:00PM Venue : Seminar Hall.

Sree Rama

Engineering College,

Tirupati

Last date to apply for FDP : 28.08.2025 Confirmation to participants : 29.08.2025 Acceptance from participants : 30.08.2025

Chief Patron

Prof. H. Sudarsana Rao

Hon'ble Vice Chancellor, JNTUA, Ananthapuramu

Patron

Prof. S. Krishnaiah

Registrar, JNTUA, Ananthapuramu.

Programme Director

Prof. G. Prasanthi

Director, Faculty Development Center, JNTUA, Ananthapuramu.

Chair Person

Sri Mannem Rami Reddy Chairman, SRET

Programme Convener

Dr. K. JayachandraPrincipal, SRET

Programme Coordinator

Dr. A. Muni Sankar HOD of EEE, SRET

Programme Co-Coordinators

Mr. T. Kosaleswara Reddy
Assistant Professor of EEE. SRET

Mr. B. Anil Kumar Assistant Professor of EEE, SRET

Contact for More Information:

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Mr. B. Anil Kumar

Organizing Committee:

Dr. B. Thrivikram

Associate Professor, Department of EEE, SRET

Mr. P. Ramanjaneyulu

Assistant Professor, Department of EEE, SRET

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Ms. M. Sangeetha

Assistant Professor, Department of EEE, SRET

Ms. C. Sakila Banu

Assistant Professor, Department of EEE, SRET

Ms. M. Likitha

Assistant Professor, Department of EEE, SRET



A Five-day Faculty Development Programme

On

INTRODUCTION TO QUANTUM TECHNOLOGIES AND APPLICATIONS

01-09-2025 to 05-09-2025

Organized by

Department of Electrical and Electronics Engineering

SREE RAMA ENGINEERING COLLEGE

(Autonomous)

Tirupati

and

Faculty Development Centre
Jawaharlal Nehru
Technological University Anantapur
(JNTUA)
Ananthapuramu



About JNTUA:

The College of Engineering, Anantapur was started at Guindy, Madras in 1946 and shifted to Anantapur in 1948. The college was initially affiliated to Madras University during 1946–1955 and to Sri Venkateswara University, Tirupathi during 1955–1972. In 1972, by an Act of State Legislature, JNT University was established at Hyderabad and the College of Engineering, Anantapur went into the fold of JNTU. Later in the year 2008, by an Act of AP State Legislature, JNTU was trifurcated into three independent universities viz., JNTU, Hyderabad, JNTU, Kakinada and JNTU Anantapur. JNTU College of Engineering, Anantapur became a constituent college of JNTUA and was renamed as JNTUA College of Engineering, Anantapur. The JNTUA College of Engineering, Pulivendula, established in the year 2006 and Oil Technology Research Institute (OTRI), Anantapur, established in the year 1948 also became constituent units of JNTUA. A new constituent college - JNTUA College of Engineering, Kalikiri established in 2013 also came under the fold of JNTUA. The OTRI was later renamed as Oil Technology and Pharmaceutical Research Institute (OTPRI), in 2016. In addition to the above four constituent colleges, the JNTUA has 98 Engineering Colleges, 33 Pharmacy Colleges and 29 stand-alone MBA/MCA colleges affiliated to it. Since its inception, JNTUA is committed to develop and nurture technological education and intends to produce technical man power of high quality, comparable to the best in the world.

About the College:

Sri Mannem Rami Reddy garu, the founder of Sree Rama Educational Society started SREE RAMA ENGINEERING COLLEGE (SRET) with an aim to impart quality education to the student community of backward region of Rayalaseema in the year 2008. His outstanding personality, acumen and magnificent vision have made him a benevolent patron of the institution. We are very much pleased to introduce ourselves as one of the upcoming Engineering Colleges aspiring to provide high standards of technical education. SRET fosters a vision of educational transformation in keeping pace with the times. It emphasizes a symbiotic relationship among the students, faculty, academic curriculum and industries. The institution offers a holistic approach to technical education, personality development and soft skills.

Sree Rama Engineering College was started with an annual intake of 240 students in 4 branches. At present, the college offers 7 B.Tech programmes and 4 M.Tech. Programmes. The institute offers MBA programme as well. This educational institution aims to provide an academically exhilarating environment allowing the students to enjoy a first class education and social experience. Our college has accredited by NAAC with 'A' grade and NBA accreditation for UG – CSE & ECE The college has conferred with autonomous status by University Grants Commission (UGC) for a period of ten years with effect from 2024-25.

About the EEE Department:

The Electrical and Electronics Engineering Department was established in the year 2008. The department is running with well-qualified dedicated and experienced faculty. The faculty guides the students through the annals of this discipline which is multi-faceted covering various fields, to name a few, Electrical Machines, Power Systems, Electrical Measurements, Power Electronics, and Control systems. The present intake of students for B.Tech. Program is 60. The department is equipped with well-established labs that give hands-on practical knowledge in the subjects. The laboratories are well equipped and sufficiently staffed for the applications of the theories to satisfy the curiosity of the students. The department consists of Electrical Circuits Lab, Electrical Machines Lab, Networks Lab, Control Systems Lab, Power Electronics Lab and Power Systems Lab. The department initiates all student chapter activities through the Institution of Electrical and Electronics Engineers – IEEE, which is a global authority on the standardization of all aspects of Electrical and **Electronics Engineering.**

About the FDP:

Faculty Development Programme (FDP) on "Introduction to Quantum Technologies and Applications" aims to provide faculty members with fundamental knowledge and emerging insights into the rapidly growing field of quantum science and engineering. The programme introduces the principles of quantum mechanics that form the basis for quantum computing, communication, and cryptography. It also emphasizes practical aspects using quantum programming platforms such as Qiskit and Cirq. Exposure to real-world applications of quantum technologies in diverse domains such as AI, secure communications, healthcare, and materials science.

Objectives of FDP:

- Introduce the basic principles of quantum mechanics relevant to computing, communication, and sensing technologies.
- Help faculty understand the fundamental differences and advantages of quantum systems over classical approaches.
- Cover topics like quantum computing, quantum cryptography, quantum sensing, and quantum communication.
- Share insights into the latest breakthroughs, challenges, and future directions in quantum technology.
- Equip faculty members with the knowledge and resources to incorporate quantum technology topics into engineering, physics, and computer science syllabi.
- Encourage cross-domain understanding and collaborative research opportunities among departments such as Physics, Computer Science, and Electronics.
- Raise awareness about India's National Mission on Quantum Technologies and Applications (NM-QTA) and similar global efforts.

Outcomes of FDP:

After successful completion of this FDP, Faculty will be able to

- understand the basic concepts of quantum mechanics and its modern applications.
- gain the ability to integrate quantum computing, quantum communication, and cryptography topics into academic curricula, aligning with current industry and research trends.
- acquire practical exposure to quantum simulation platforms like IBM Qiskit and Microsoft Azure Quantum, enhancing their teaching effectiveness.
- foster interdisciplinary collaboration and initiate research projects and mentor students in this emerging domain.
- develop new academic programs and research proposals under national missions like the NM-QTA.

Resource Persons:

The sessions in the Faculty Development Programme will be conducted by a distinguished panel of eminent experts representing prestigious academic Universities, institutions, leading research organizations, and prominent industry sectors. Their diverse backgrounds will ensure that participants receive a balanced mix of academic insight, technological advancements, and practical applications.