

ELIGIBILITY

The faculty members of AICTE approved Institutions, Universities, research scholars, PG scholars; participants from Government, Industry (Bureaucrats / Technicians/ Industry experts etc.) and professionals from R&D labs.

TEST & CERTIFICATE

The certificates shall be issued to those participants who are registered on ATAL portal and attend the program with minimum 80% attendance and score minimum 70% marks in the test.

REGISTRATION FOR FDP

There is **NO REGISTRATION FEE** for the program. Selected participants should attend the program for the entire duration through online mode. Certificates will be provided upon successful completion of the FDP. Participants are required to register at:

- <https://atalacademy.aicte-india.org/login>
- Then register and login as a 'participant'.
- Then click on 'FDPs'.
- Then select Type 'ATAL'.
- Select month 'February'.
- Select thrust area 'Engineering'.
- Select mode 'Online'.
- Use 'Ctrl+F' and search for FDP Application No: 1730872997.
- Then click on '+' sign to apply by uploading NOC.

Title: Antennas & RF Circuits for Radio Frequency Energy Harvesting Applications for energizing low power devices
Application No: 1730872997
Mode of FDP: **Online**

STARTS Feb 24, 2025	ENDS Mar 1, 2025
-------------------------------	----------------------------

Institute: **Tripura University**
Thrust Area: **Engineering and Management**



ORGANIZING COMMITTEE

CHIEF PATRON

Prof. Ganga Prasad Prasain,
Hon'ble Vice Chancellor, Tripura University

ADVISORY COMMITTEE

Prof. Debajyoti Bhattacharjee
Dean (Faculty of Sciences), Tripura University

Prof. Swapan Majumder
Director, R & D Cell, Tripura University

ORGANIZING COMMITTEE MEMBERS

Dr. BishankaBrata Bhowmik, Dept. of ECE
Dr. Alak Roy, Dept of IT, TU
Dr. Jayanta Pal, Dept of IT, TU
Dr. Swarup Nandi, Dept. of IT, TU
Sri.SumantaSaha, Dept. of IT, TU
Dr. Mrinal Kanti Bhowmik, Dept. of CSE, TU
Dr. Abhishek Majumder, Dept. of CSE, TU
Dr. Somen Debnath, Dept. of CSE, TU
Dr. Champa Nandi, Dept. of EE, TU
Smt. Sangita Das Biswas, Dept. of EE, TU
Dr. Gagari Deb, Dept. of EE, TU

For any further information please contact:

COORDINATOR

Dr. Anirban Karmakar
Department of Electronics and Communication Engineering

Tripura University, Suryamaninagar
anirbanatal2025@gmail.com
Mob: +91-9231997302/ +91-9038017206

CO-COORDINATOR

Prof. Swanirbhar Majumder
Department of Information Technology
Tripura University, Suryamaninagar
Mob: +91-9436229406

6-Days Online FDP (Faculty Development Program)

on

Antennas & RF Circuits for Radio Frequency Energy Harvesting Applications for Energizing Low Power Devices

from

24th February to 1st March'25

Organized by:



Department of Electronics & Comm. Engg.
&
Department of Information Technology
Tripura University (A Central University),
Suryamaninagar, Tripura

Sponsored by



**AICTE Training and Learning (ATAL)
Academy, AICTE New Delhi**

TRIPURA UNIVERSITY

Tripura University epitomizes the aspirations of the state's people for academic excellence at the highest level and a quest for knowledge. The first institution of higher education had commenced functioning from 1947 with affiliation from Calcutta University but in the immediate aftermath of partition, the population of the state registered a steep growth and so did the number of students aspiring for higher education. Subsequently, it was on October 2, 1987, the birth anniversary of Mahatma Gandhi that Tripura University formally came into being as a towering embodiment of the hopes and aspirations of the people. The University was converted into a Central University on 2nd July, 2007 under the Tripura University Act, 2006 as enacted by the Parliament.

THE ECE DEPARTMENT

The Department of Electronics and communication Engineering (ECE) was established in 2016 with initial intake of 15 students in PG program. The department has been contending to provide quality technical education since its inception. The department lays special stress on research and development activities both on the part of the faculty members as well as the students. At present the department offering M.Tech in Electronics and Communication Engineering along with Ph.D program.

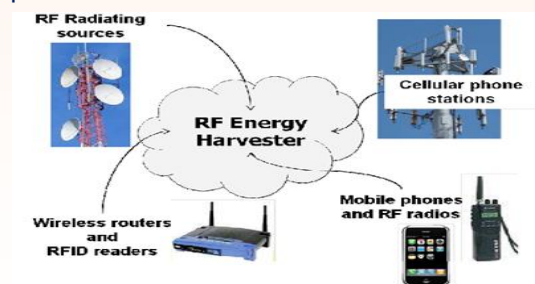


THE IT DEPARTMENT

The Department of Information Technology (IT) was established in 2009 with initial intake of 60 students in Master of Computer Applications (MCA) program. The vision of the department is to become a Centre of Excellence and contribute to the society through excellence in scientific and knowledge-based education utilizing the potential of Information Technology with a deep passion for wisdom, culture and values. To produce quality IT professionals capable of adapting to the changing environment and contribute to the growth of the Nation. At present the department offering AICTE affiliated 2 years MCA, M.Tech in Information Technology along with Ph.D in Information Technology.

ABOUT THE FDP

With the development of very-low-power wireless systems, thanks to rapid advancement in fabrication technique, device technology and circuit architecture, numerous researchers have focused their attention on the feasibility of powering energy constrained mobile networks through the harvesting of ambient electromagnetic (EM) energy. It can be anticipated that an RF power harvester, generating a sufficient amount of dc power to drive the operation of various wireless sensors and portable devices, could be instrumental in the development of future wireless systems with limited use of batteries or even with a self-powered scheme.



Therefore, RF energy harvesting (WPH) has become a refreshed and refocused technology for wireless applications. A rectenna, made up of a receive antenna and a rectifier circuit, is an important device to convert RF power into dc power. The antenna collects microwave incident power, and the rectifier circuit converts it to dc power. Therefore, the RF energy harvesting capability allows the wireless devices to harvest energy from RF signals for their information processing and transmission.

FDP CONTENT (SESSIONS)

The sessions by eminent speakers (from India as well as overseas) from reputed Institutions/ Industries shall be as under:

1. Antennas & RF Circuits for Next Gen Communication Systems (6.30pm-8pm **DAY1**)
2. Metamaterials - Based RF Energy Harvesting: The Current State of the Art (8pm-9.30pm **DAY1**)
3. Dielectric Resonator Antennas for RF Energy Harvesting (6pm-7.30pm **DAY2**)
4. Reconfigurable Filtering Antennas: Enabling Multi-Functionality in Wireless Systems (7.30pm-9pm **DAY2**)
5. Energy Harvesting Based on Reconfigurable Intelligence Surfaces (6pm-7.30pm **DAY3**)
6. Rectenna Array System for RF Energy Harvesting Design Challenges (7.30pm-9pm **DAY3**)
7. Filter design challenges in RF Energy Harvesting (6pm-7.30pm **DAY4**)
8. A Reconfigurable Wideband MIMO Antenna combines RF Energy Harvesting (7.30pm-9pm **DAY4**)
9. RF Energy Harvesting for low power Electronics (6pm-7.30pm **DAY5**)
10. An Overview of Metamaterial-inspired Rectennas for RF Energy Harvesting (7.30pm-9pm **DAY5**)
11. Designing an Efficient Antenna and Rectenna Systems for RF Energy Harvesting Applications (2pm-3.30pm **DAY6**)
12. Advanced Antenna Configurations for Efficient RF Energy Harvesting (3.30pm-5pm **DAY6**)
13. Advanced Antenna Configurations for Efficient RF Energy Harvesting: Part 2 (5 pm -6.30pm **DAY6**)