

## National Institute of Technology Rourkela

# KARYASHALA

## High-End Workshop

on

## Futuristic Trends in Remote Sensing using IoT enabled UAVs with Microwave Sensor

22<sup>nd</sup> - 28<sup>th</sup> January, 2024



Organized by

Department of Electronics and Communication  
Engineering  
National Institute of Technology Rourkela  
Rourkela-769008, Odisha, India

Sponsored by

Science & Engineering Research Board  
(SERB), Government of India  
under the Accelerate Vigyan Scheme

## About the Workshop

In present context, the accuracy of remote sensing is increasing with advanced technologies like new airborne sensors, unmanned aerial vehicle (UAV), Internet of Things (IoT), cloud computing, artificial intelligence (AI), data science and signal processing tools. Currently the remote sensing is very hopeful for various IoT applications such as Agricultural automation, Telemedicine, Healthcare, Smart cities and homes, Vehicle, Asset and Animal Monitoring, Building Management, Wireless Sensor Network etc. All the IoT devices and UAVs are equipped with multiple sensors and current wireless communication technologies. The signal/image processing and AI tools are maximizing the accuracy of all remote sensing methods.

### Highlights of the Programme

- ✓ Microwave-based Remote Sensing
- ✓ Remote Sensing Platforms and Sensors
- ✓ Drone Technology and Internet-of-Things
- ✓ Radio Frequency Identification (RFID) and Sensing
- ✓ Antennas for Remote Sensing, IoT and UAV
- ✓ RF Energy Harvesting
- ✓ UAV Communication
- ✓ Image Processing and Artificial Intelligence
- ✓ Hands-on training on related topics
- ✓ Research scope in area of Microwave sensors, Remote Sensing, IoT and Drone Technologies

### Key Speakers

Academicians from premier institutions like IITs, NITs, State/Centrally Funded Universities, foreign universities, and scientists from ISRO and DRDO having expertise and experience in relevant domain knowledge.

## Target Audience

UG/PG/Ph.D. students and faculty members of colleges and universities are eligible for the program.

### Guideline

- Applications are invited from BE/B.Tech. (4th year), ME/M.Tech., and Ph.D students, as well as faculty members.
- Applicants should be able to present a "No Objection Certificate" from their Supervisor or Head of the Department, affirming that the institute/department has no objections to the selection and training of the applicant.
- Only 25 candidates will be selected to participate in the workshop.
- The selection process will prioritize applicants on a "first-come, first served" basis and may consider other criteria determined by the committee.
- **No registration fee** is applicable.
- **Free boarding, Lodging and TA will be provided as per norms.**

### Registration:

Last Date: 20-12-2023

[Click here](#) / Scan to register

Contact: Tel: +91-661-246-2479

Email: [events.ece.nitrkl@gmail.com](mailto:events.ece.nitrkl@gmail.com)



## About the Institute

The erstwhile Regional Engineering College (REC) Rourkela was converted into a deemed university and renamed as National Institute of Technology Rourkela on 26<sup>th</sup> June 2002. It was declared as An Institution of National Importance through the parliament act on 15<sup>th</sup> August 2007. The institute has made a rapid stride in earning a reputation as a place of higher learning in the field of engineering and technology during the last decade. The institute strives hard to become an internationally acclaimed institution of higher learning that will serve as a source of knowledge and expertise for society and be a preferred destination for undergraduate and post graduate students along with advanced research. <https://nitrkl.ac.in/>

### NITR Rankings - 2023

16

NIRF Engg.

8

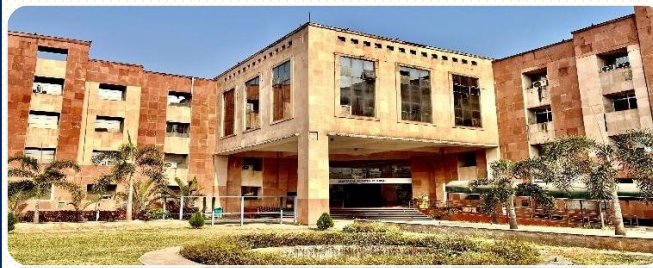
NIRF Arch.

29

NIRF Research

37

NIRF Overall



## Department of Electronics and Communication Engineering

The department was established with the vision to become a nationally acclaimed department of higher learning that will serve as a source of knowledge and expertise for the society. The department offers various UG and PG programs with the mission to advance and spread knowledge in the areas of electronics, communication, microwave and radar, instrumentation, signal processing and VLSI leading to creation of wealth and welfare of humanity. The department also offers M. Tech. in Microwave and Radar Engineering and Ph. D. for regular as well as sponsored candidates. The faculties of EC department are handling several externally funded research projects. Please visit <https://www.nitrkl.ac.in/EC/> to know more about the department of ECE.



## Organizing Committee

### PATRON

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National Institute of Technology, Rourkela

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