



National Institute of Technology, Rourkela

# SUMMER INTERNSHIP CUM SKILL ENHANCEMENT PROGRAM

on

Internet of Things (IoT) and Data Analytics

8th June - 7th July, 2024

## ORGANIZED BY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, NIT ROURKELA

**Last date of submission of application - 30th May 2024**

## WHO CAN APPLY

B.Tech / Diploma / 10+2 Students of any discipline

## About NIT ROURKELA & Department of Computer Science and Engineering

NIT Rourkela, with excellence in academia, research, and innovation, cultivates a generation of global leaders driven by passion, commitment, and a vision to propel India to the forefront of technology and science. NIT Rourkela's Computer Science Department: Bridging theory and practice, shaping ethical professionals for the digital age

## OBJECTIVES

The summer school cum skill enhancement program aims to provide deep understanding of the fundamental concepts, hardware, software, data management, networking, and applications of IoT. The program will bring several benefits to the participants, such as increased employability and earning potential. Learning the design and development of smart systems will make the participants more marketable to the potential employer. The study of data analytics will further enable to extract actionable insights from raw data to make efficient choices and accurate predictions on IoT data. The classes will be held from 9 am to 1 pm every working day.

## Registration Details

- **Registration By** - 30th May, 2024
- **Registration Fee** - ₹4000
- **Account Name** - Continuing Education, NIT Rourkela
- **Bank Account Number** - 10138951784
- **Bank Name** - State Bank of India (02109)
- **Branch** - NIT Campus Rourkela
- **IFSC Code** - SBIN0002109
- **Registration Link** - <https://forms.gle/iDrj6BkTZifvWgJS8>

## Chief Patron

**Prof. K. Umamaheshwar Rao**  
Director, NIT Rourkela

## Patron

**Prof. BIBHUDATTA SAHOO**

Professor & HOD

Department of  
Computer Science  
and  
Engineering

## Convener

**Prof. Suchismita Chinara**

Associate Professor

Department of  
Computer Science  
and  
Engineering

## Course Details

### Internet of Things (IoT)

- Introduction to IoT
- IoT ecosystems
- IoT enabling technologies
- IPV4 VS IPV6
- Arduino programming
- Introduction to ESP32, raspberry pi
- Microcontroller programming
- IoT-based mini-project

### Data analytics:

- Installation of Python environment
- Introduction to Python
- Data handling using CSV file
- IoT-based data collection
- Data cleaning
- Data argumentation
- Data analysis

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