



Scheme for Promotion of academic and  
Research Collaboration



SHRO-2026  
Smart Healthcare and Robotics



सत्यमेव जयते

शिक्षा मंत्रालय  
MINISTRY OF  
EDUCATION

SPARC SPONSORED

# INTERNATIONAL WORKSHOP ON SMART HEALTHCARE AND ROBOTICS

(SHRO-2026)



2<sup>nd</sup>-4<sup>th</sup> September 2026

Department of Computer Science and Engineering

**National Institute of Technology Rourkela**

Sponsored Workshop

Organized under Scheme for  
Promotion of Academic and Research Collaboration



**PATRON**

Prof. K. Umamaheshwar Rao  
Director, NIT Rourkela



**CHAIRMAN**

Prof. Pankaj Kumar Sa  
HoD (CS)



**CONVENERS**

Prof. Anup Nandy  
Prof. Ratnakar Dash



# Workshop Overview



## About the Workshop

The SPARC International Workshop on Smart Healthcare and Robotics (SHRO-2026) is an international forum focused on recent advances in smart healthcare, wearable robotics, artificial intelligence, biomedical signal processing and human-robot interaction.

The workshop aims to promote interdisciplinary research, knowledge sharing and collaborative innovation for developing intelligent, assistive and human-centered healthcare technologies.



## Course Objectives

- Introduce the fundamentals of smart healthcare and robotics, with emphasis on wearable robotics, assistive systems, and human-robot interaction for healthcare and rehabilitation applications.
- Provide knowledge of computer vision and AI-based methods in healthcare, including their use in rehabilitation monitoring, patient assessment, activity recognition, and intelligent decision-support systems.
- Develop an understanding of smart rehabilitation and telehealth technologies, focusing on edge-AI, embedded systems, and real-time deployment of medical and assistive applications.
- Familiarize participants with healthcare data analytics techniques, including data acquisition, preprocessing, interpretation, and AI-driven analysis for smart healthcare systems.
- Create awareness of privacy, security, and ethical issues in wearable and AI-driven healthcare systems, with focus on responsible data handling, secure system design, and trustworthy AI deployment.



## Course Content

- Wearable Robotics and Assistive Systems
- Computer Vision in Healthcare and Rehabilitation
- Smart Rehabilitation and Telehealth Technologies
- Edge AI and Embedded Systems
- Healthcare Data Analytics
- Biomedical Signal Processing
- Intelligent Healthcare Systems



## Target Participants

- UG Students
- PG Students
- Research Scholars
- Faculty Members
- Industry Professionals
- Data Science Researchers
- Biomechanics Researchers



## Important Dates

Registration Starts	01 Jul 2026
Registration Ends	31 Jul 2026
Registration Confirmation	05 Aug 2026
Course Schedule	02-04 Sept 2026
Maximum Offline Participants (First Come First Serve Basis)	60



## Keynote Speakers



Foreign PI  
**Dr. Mukul Mukherjee**  
Associate Professor, Dept.  
of Biomechanics, University  
of Nebraska at Omaha



Foreign Co-PI  
**Dr. Philippe Malcolm**  
Associate Professor, Dept.  
of Biomechanics, University  
of Nebraska at Omaha



## ABOUT NIT ROURKELA

National Institute of Technology (NIT) Rourkela is an institution of national importance funded by the Ministry of Education.

NIT Rourkela was established as Regional Engineering College (REC) on August 15, 1961.

In India, it was ranked 13th among engineering colleges by the National Institutional Ranking Framework (NIRF) in 2025.

Website: <https://www.nitrkl.ac.in>



## About Department of Computer Science & Engineering

Department of Computer Science & Engineering, NIT Rourkela, was established in 1982. Since its inception, the Department has been under dynamic progress and has been able to develop a reputation for imparting quality education both in undergraduate and graduate programs. The department also offers Ph.D. for regular and sponsored candidates.

Website: <https://www.nitrkl.ac.in/CS>

The department has well-equipped modern laboratories such as:

- Software Engineering
- Distributed Object Systems
- Information Security & Data Communication
- Image Processing & Cluster Computing
- Advanced Database Engineering



## TOURIST PLACES NEARBY



Khandadhar



Mandira Dam



Vedyas Temple



Pitamahal Dam



## Registration Fee

Students	Rs.590
Faculty from Academic Institutions	Rs.1180
Employees from Industry and R&D Organizations	Rs.2360

**i** Registration fees include Registration Kit, Refreshment, Tea and Snacks and **18% GST**.



## Accommodation Charges

Guest house (South / North block)	As Per Institute Norms
Hostel (for students)	As Per Institute Norms

**i** Loading and boarding facility can be availed on separate payment basis and based on availability.



## Bank Details

Account Name	CONTINUING EDUCATION NIT ROURKELA
Account No	10138951784
Bank Name	State Bank of India (002109)
Branch	NIT Rourkela Campus
IFSC	SBIN0002109



## Contact Details

**Dr. Anup Nandy**  
Associate Professor  
Department of CSE  
NIT Rourkela  
Email: [contact.shro2026@gmail.com](mailto:contact.shro2026@gmail.com)

### Student Coordinators

Mainak Ghosh                      Phone: 6291011757  
Aditya Mandal                      Phone: 8972832118



## Registration Form

To complete the online registration, the participants need to fill the following google form:

google form: <https://forms.gle/boZj9RqL2YiJb3DN7>

