



University of
Nebraska at
Omaha



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)



2nd–4th 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	20 Aug 2026
Registration Confirmation	25 Aug 2026
Course Schedule	02-04 Sept 2026
Maximum Offline Participants (First Come First Serve Basis)	60



CHIEF GUEST



Dr. Anita Aggarwal

Scientist- "F" & Head,
Science for Equity, Empowerment
and Development (SEED)
Medical Devices and Technology Cell
Department of Science & Technology,
Ministry of Science and Technology,
Govt. of India



Guest of Honor



Prof. Rabibrata Mukherjee
NATIONAL COORDINATOR, SPARC
Professor
Dept. of Chemical Engineering
Indian Institute of Technology,
Kharagpur

OTHER DISTINGUISHED GUESTS

KEYNOTE SPEAKER (FOREIGN)



Foreign PI (SPARC Project)
Dr. Mukul Mukherjee
Associate Professor, Dept.
of Biomechanics, University
of Nebraska at Omaha



Foreign Co-PI (SPARC Project)
Dr. Philippe Malcolm
Associate Professor, Dept. of
Biomechanics, University of
Nebraska at Omaha

KEYNOTE SPEAKER (NATIONAL)



Dr. Soumen Sen
Human Centred Robotics
and Cybernetics Group,
CSIR-CMERI, Durgapur



Prof. Sridharan Devarajan
Associate Professor
Centre for Neuroscience and
Computer Science,
Indian Institute of Science,
Bangalore



Prof. Shivashankar B. Nair
Professor, Dept. of Computer
Science & Engineering,
Indian Institute of Technology
Guwahati



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



Vedyyas Temple



Pitamahal Dam



Registration Fee

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



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



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

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>

