About the Workshop

This workshop will focus on several key themes and topics to provide a comprehensive and insightful exploration of artificial intelligence (AI) and robotics. The purpose of this workshop is to disseminate knowledge and information about the latest developments, research findings, and innovations in the fields of artificial intelligence and robotics. Participants, including researchers, experts, and enthusiasts, can share their insights and discoveries for collaborative knowledge expansion. The scientists, engineers, and researchers who are working in this area will benefit from practical skills and hands-on experience in working with AI and robotics technologies. The workshop explores real-world applications of AI and robotics in various industries, including healthcare, manufacturing, agriculture, and transportation. The scope of the workshop is listed below:

- Exploration of the latest advancements in AI and robotics research.
- In-depth discussions on autonomous robots, human-robot interaction, and robotics applications.
- Understanding the dynamics of collaboration between humans and AI systems.
- Opportunities for participants to engage in collaborative projects and knowledge sharing.

Target Participants

Students (UG/ PG), research scholars/professionals, staff/ faculty members, and industry professionals from different disciplines such as computer science, Electronics and Communication Engineering, and Electrical Engineering backgrounds will be benefitted with this workshop.

Keynote Speakers

Eminent Professors from IITs, NITs, IIEST-Shibpur, Jadavpur University, and IIIT Allahabad.



Course Contents

This workshop is intended to cover the following topics:

- Introduction to machine learning and deep learning algorithms.
- Robotics and Autonomous Systems.
- Application of artificial intelligence in Human-Robot Interaction.
- Different challenges and opportunities for robotics application through artificial intelligence.
- Social robotics and emotional intelligence in robots.
- Exploration of emerging technologies and trends in the AI and robotics landscape.
- Practical sessions on programming AI and robotics systems.



Department of Computer Science and Engineering,

National Institute of Technology Rourkela

Organizing

Three Days Workshop (Hybrid Mode)

On

Artificial Intelligence in Robotics Applications



June 21 to 23, 2024







About National Institute of Technology Rourkela

National Institute of Technology (NIT) Rourkela is Institution of national importance funded by the Government of India. NIT Rourkela was established in 1961 as the Regional Engineering College (REC) Rourkela and was later upgraded to the status of an NIT in 2002. The campus covers an area of 262 hectares and provides a serene and conducive environment for academic pursuits. QS World University Ranking 2024 placed NIT Rourkela in the rank band of 291-300 within Asia University. In India, it was ranked 16 among engineering colleges by Institution Ranking the National Framework (NIRF) in 2023. For details about the Institute, please visit the website at: www.nitrkl.ac.in.



About Computer Science and Engineering

Computer Science and Engineering (CSE) at NIT Rourkela is one of the most popular courses offered by the Institute. The Department has a strong faculty team with extensive academic and research experience from premier Institutes. The department offers undergraduate, postgraduate, and doctoral programs in computer science and engineering.

Important Dates:

Registration starts	April 01, 2024
Registration ends	June 18, 2024
Workshop dates	June 21-23, 2024

Registration Form:

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

https://forms.gle/uSsFrYijTReTi9Fh9

E-certificates will be provided to the registered participants upon successfully completing the workshop.

Registration Details:

The students/faculty members of NIT Rourkela are exempted from the payment of registration fee.

Registration Details (Fees Non-Refundable)	
Registration Type	Fees
Students (UG/PG)	INR 500
Faculty Members	INR 1000
Scientists from R &D Organization/Industry Persons	INR 2000

Payment Details:

Account Name	Continuing Education, NIT Rourkela
Account No.	10138951784
Bank	State Bank of India
Branch	NIT Campus Rourkela
IFS Code	SBIN0002109

Workshop Coordinator:

Dr. Anup Nandy (Convener) & Dr. Asim Kumar Naskar (Convener)

Email: nandya@nitrkl.ac.in/ naskara@nitrkl.ac.in

Contact and Queries: Please send your queries directly to the student coordinator, Mr. Sougatamoy Biswas, email: <u>biswas1681@gmail.com</u> 8910478343 (M)