

Course Relevance

Artificial Intelligence has the ability to revolutionise numerous areas like healthcare, banking, education, and more. Its significance has grown in the modern world. In numerous industries, the use of AI has already boosted accuracy, decreased prices, and improved efficiency.

Blockchain is a technique for storing data that makes it difficult or impossible for the system to be altered, hacked, or otherwise abused. A distributed ledger known as a blockchain copy disperses transactions among the network of computers involved in the blockchain.

Combining blockchain technology with artificial intelligence (AI) can result in clever automated decision-making systems that deliver extremely trustworthy outputs that cause particular real-world consequences based on immutable, tamper-proof data.

Bringing AI into Blockchain brings in numerous opportunities across the industries. This course aims in giving an insight of how AI algorithms can be used along with blockchain technology to address the challenges in various use cases like healthcare, supply chain, financial services, life sciences, etc.

Course Objectives

- To familiarize students, researchers, and faculty members on blockchain technology and its potential applications.
- To acquaint the participants how AI techniques can be applied in blockchain technology .
- To update participants about recent advancements and future research in AI and blockchain technology.

Topics to be covered

- Introduction to Blockchain
- Applications of Blockchain
- Demystifying Blockchain
- Components of blockchain
- Challenges in the use of blockchain technology
- Distributed Consensus: Nakamoto consensus, Proof of Work, Proof of Stake, Proof of Burn, Difficulty Level, Sybil Attack, Energy utilization and alternate
- Blockchain as a Path to Artificial Intelligence
- Data collection, cleaning, and processing in AI modelling
- Smart Contract Advocates on Behalf of Digital Intelligence, Hyperledger
- Direct Acyclic Graph, Play with Go-ethereum, Smart Contract Construction
- Toy application development using Blockchain, Mining puzzles

Keynote Speakers

- The course will be offered by faculty members of NIT, Rourkela and experts from Industry and Academics.

Important Dates

Registration Starts	1 st December 2023
Registration ends	15 th December 2023
Course Starts on	18 th December 2023



Five-Day Workshop

on
Artificial Intelligence
for
Blockchain

Hybrid Mode
(Online and Offline)
18th – 22nd December 2023

Coordinators

Dr. Durga Prasad Mohapatra
Dr. S. Asha

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING,
NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA
ROURKELA – 769008, ODISHA

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. NIT Rourkela was ranked 601-800 in the world by the Times Higher Education World University Rankings of 2018 and 126th in Asia. In India, it was ranked 16 among engineering colleges by the National Institutional Ranking Framework (NIRF) in 2023. For details about the institute please visit us at www.nitrkl.ac.in.

Tourist Places Nearby



Khandadhar Waterfall



Pitamahal Dam



Vedvyas Temple



Mandira Dam



Hanuman Vatika

About Department of Compute Science and Engineering

The department was established with the vision to prepare its students for professional employment and graduate education through study and implementation of the fundamental principles of theory, abstraction, and software design, while at the same time presenting the ethical and social issues associated with computer science.

The department offers various UG and PG programmes with the mission to provide high-quality education that prepares the graduates for success in their professional practice and advanced studies. The department also offers M. Tech in Computer Science, Information Security, and Software Engineering; and Ph. D. for regular as well as sponsored candidates. Please visit <https://website.nitrkl.ac.in/CS/> to know more about the Department of CSE.

Target Participants

The short-term course is of immense interest for UG/ PG students, research scholars/professionals, staff/ faculty members and industry professionals working in the area of AI and Blockchain technologies. The participants having Computer Science and Engineering, Electronics and Communication Engineering, and Electrical Engineering background will be benefitted with this workshop.

Patron

Prof. K. Umamaheswar Rao
Director
NIT Rourkela

Chairperson

Prof. Bibhudatta Sahoo
HoD (CS)
NIT Rourkela

Coordinators

Prof. Durga Prasad Mohapatra
Prof. S. Asha
CS Department
NIT Rourkela

Registration Details

- The registration fee for various participants for attending the short-term course is given below:

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

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

Bank Account Details for Registration

Account Name	CONTINUING EDUCATION NIT ROURKELA
Account No.	10138951784
Bank Name	State Bank of India (02109)
Branch	NIT Campus Rourkela
IFSC Code	SBIN0002109

Registration Form

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

<https://forms.gle/7NP31Cb43ozu4pKy6>

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

Contact and Queries: Please send your queries directly to the co-coordinator, email: ashas@nitrkl.ac.in