

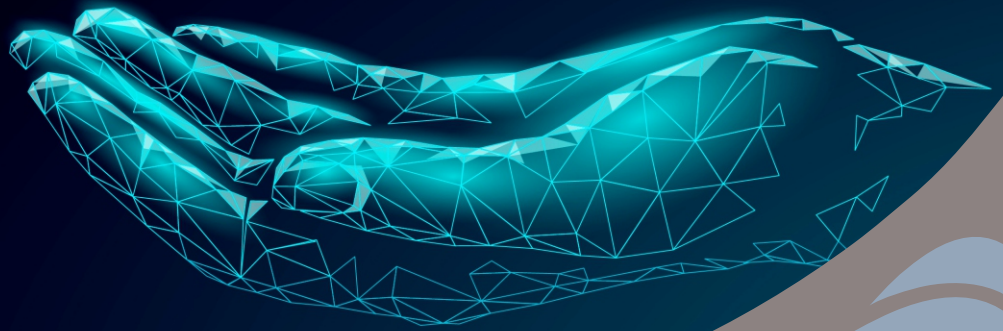
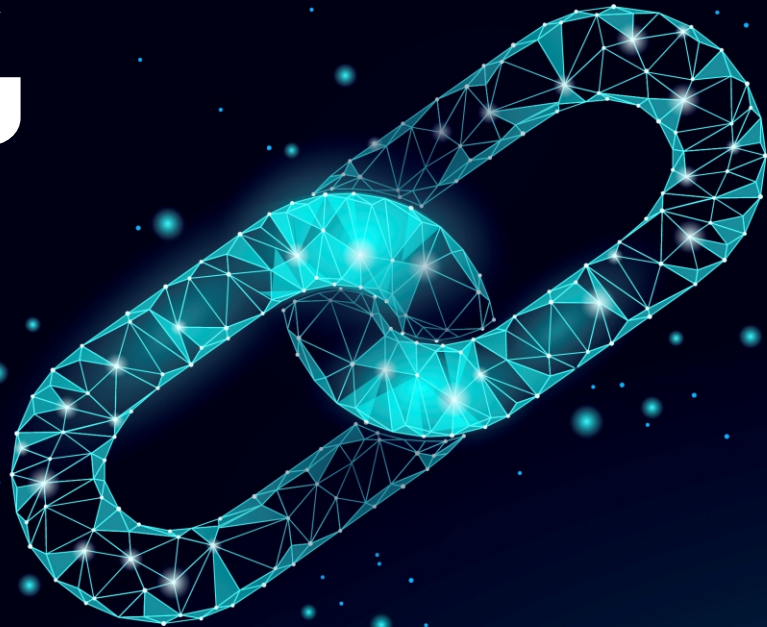


**KALINGA
UNIVERSITY**

RAIPURINDIA



Ranked in
Top 101-150
Universities



— INTERNSHIP PROGRAM IN —

BLOCKCHAIN TECHNOLOGY

Faculty of Information Technology and Department of Computer Science

Date: 23rd May to 6th July 2023

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Mission

Kalinga University aims to be an outstanding institution for Talent Development and Knowledge Creation for a vibrant and inclusive society.

Our University

Kalinga University, Raipur is a NAAC accredited University with Grade B+ and the Only Private University in Chhattisgarh ranked in Top 101-150 Universities in NIRF Ranking 2022 and has emerged as a centre of excellence of higher education in Central India. Strategically located in the Smart City of New Raipur, this University has started carving a niche for itself in the education domain and is rising as a shining star on the horizon of quality education.

Infrastructure – Kalinga offers World Class Infrastructure and student facilities with student centric approach. Highest attention is paid to hands on learning approach and students are encouraged to come up with innovative ideas for projects and practicals. The University has more than 90 laboratories and workshops, all well equipped with the latest, state of the art apparatus and tools. Special emphasis is given to the development of communication skills through the language lab. More than 1000 computers are available for the use of the students.



Establishment – Established in 2013, this University has been able to win the confidence of over 8000 students. Meritorious students from all over the country and various foreign countries like Afghanistan, Angola, Bangladesh, Cameroon, Gambia, Ivory Coast, Kenya, Lesotho, Liberia, Malawi, Namibia, Nepal, Nigeria, Papua New Guinea, South Sudan, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe, etc have chosen this University for their education and career.

Schools of Excellence – Currently the University is serving the student community through various UG and PG programs namely Engineering, Law, Pharmacy, Arts & Humanities, Science, Commerce & Management, Biotechnology, Information Technology, Library Science, Fashion Design & Interior Design.



About Internship Program

This Blockchain course is designed for professionals and recent graduates from a variety of industries with the following objectives:

- To provide a Blockchain environment which serves as the basis for immutable ledgers, or records of transactions that cannot be changed, removed, or destroyed.
- To systematically evaluate blockchain application development.
- To provide imparting knowledge of blockchain methods and be able to deliver the concepts in a systematic and straightforward manner.
- To familiarise oneself with upcoming currencies and to develop one's own crypto coin.
- With real-world blockchain applications in Fintech, Healthcare, Supply Chain Management, and other fields, this blockchain course offers a highly engaging learning environment.

Advantages

- The course will cover the skills such as Distributed Ledger Technology, Bitcoin, Hyper-Ledger, and Blockchain Consensus.
- By 2025, it is anticipated that the blockchain industry will be valued at USD 176 billion, and by 2022, it will be worth USD 11.7 billion globally, indicating a rising need for blockchain applications and increasing the opportunity in the IT industries as Blockchain Solutions Architect, Blockchain Architect, Blockchain Developer, Blockchain Business Analyst, and Blockchain Mining Engineer.
- The course provides the ability to be creative without worrying about the accuracy of the data to establish a secure architecture for autonomous collaboration.

Who Should Attend

Beneficial for - Students of UG/PG Programs & Research Scholars of Information Technology and Computer Science, etc.



Resource Persons



Mr. Omprakash Dewangan

HoD incharge,
Dept. of Computer Science &
Faculty of Information Technology

Ms. Divya Awasthi

Assistant Professor,
Dept. of Computer Science

Program Details

Duration : 45 Days

Date: 23rd May to 6th July 2023

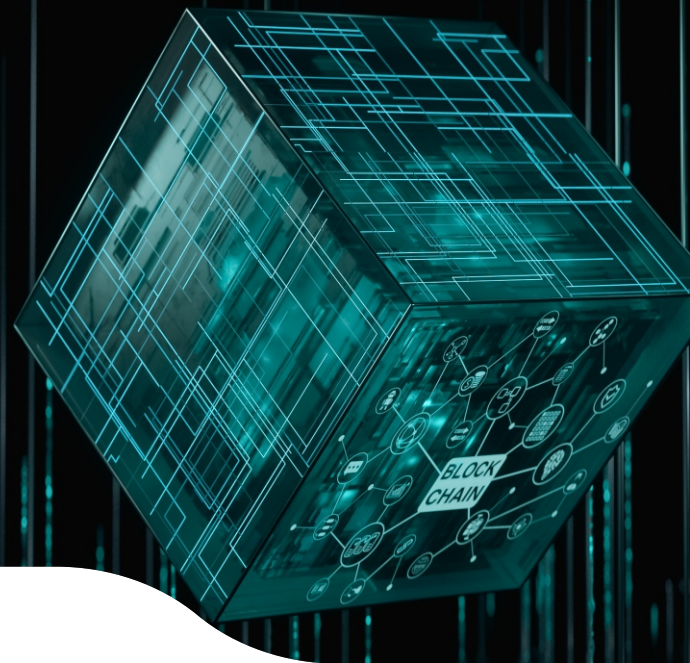
Monday to Saturday

Time: 10:00 am to 4:00 pm

VENUE: Kalinga University

PROGRAM FEE

RS 10,000/-



NOTE -

1. Accommodation facility is available on a chargeable basis: Rs 6,500/- for 45 days inclusive of Food (Air Cooled Room- 4 Students/Room, 3 Meals per day & other amenities).
2. Transport Facility available from common pickup point (Free).

Steps For Registration

STEP 1: Participants have to make payment on the given bank details

Account Name: Kalinga University

Bank Name: ICICI Bank

A/c No.: 390701000010

IFSC Code No.: ICIC0003907

SWIFT CODE: ICICINBBCTS

STEP 2: Take a screenshot of the payment & send it to

omprakash.dewangan@kalingauniversity.ac.in

STEP 3: Fill out the registration form with all the necessary information.

SCAN TO PAY



REGISTER HERE



CONTACT DETAILS

+91-7024133429 | omprakash.dewangan@kalingauniversity.ac.in



BLOCK CHAIN



Program Schedule

Module-I

Trust Protocol (Secured Transaction) and Blockchain Transaction

S.No.	Topics	Duration
1.	The Double-Spend Problem, Byzantine Generals' Computing Problems,	5 days
2.	Distributed Systems and Distributed Consensus	
3.	Public-Key Cryptography, Hashing	
4.	The Internet of Information and Trust protocol	
5.	Introduction to Blockchain and Crypto-Currency	



Module-II

Blockchain Ecosystem and its Principles

S.No.	Topics	Duration
1.	Steps of a Blockchain Transaction	5 days
2.	Blockchain Principles (Part I): Protocols, Networked Integrity, Privacy, Rights Preserved	
3.	Blockchain Principles (Part II): Digital Ledger, Value as Incentive, Security, Inclusion	
4.	Applications of Blockchain system	
5.	Centralized and Distributed Ledgers Public and Private Ledgers	

Module-III

Blockchain Design Principles

S.No.	Topics	Duration
1.	Introduction to Blockchain Design and Architecture	5 days
2.	Components of Blockchain Ecosystem	
3.	Basic Crypto currency primitive: Hash and Digital Signature	
4.	Transparency as a Strategic Risk and Assets	
5.	Blockchain 1.0, Blockchain 2.0, Blockchain 3.0	



Module-IV Consensus Protocols for Blockchain Design

S.No.	Topics	Duration
1.	Introduction to Consensus protocol	5 days
2.	Requirement for the consensus protocol	
3.	Type of Consensus Protocols	
4.	Consensus Protocol for different Cryptocurrencies	
5.	Scalability aspects of Blockchain Consensus Protocol	

Module-V Types of Blockchain

S.No.	Topics	Duration
1.	Type of Blockchain system: Public (Permission-less), Private(Permissioned) and Hybrid	5 days
2.	Components of Permissioned Blockchain	
3.	Consensus protocols for Permissioned Blockchain	
4.	Implementation of Public Blockchain Design system	
5.	Implementation of Private Blockchain Design system	



Module-VI Bitcoin Blockchain System

S.No.	Topics	Duration
1.	Components(Smart Contracts), Structure and Operations	5 days
2.	Consensus Model for Bitcoin Blockchain System	
3.	Incentive Model for Bitcoin Blockchain System	
4.	Features of Bitcoin Blockchain System	
5.	Challenges of Bitcoin Blockchain System	

Module-VII Ethereum Blockchain System

S.No.	Topics	Duration
1.	Components(Smart Contracts), Structure and Operations	5 days
2.	Consensus Model for Ethereum Blockchain System	
3.	Incentive Model for Ethereum Blockchain System	
4.	Advantages of Ethereum over Bitcoin	
5.	Challenges of Ethereum Blockchain System	

Module-VIII Practical Implementation

S.No.	Topics	Duration
1.	Introduction to Hyperledger Fabric Network and its Functionalities	10 days
2.	Components of Hyperledger Fabric Network	
3.	Hyperledger Fabric Model (Design and Architecture)	
4.	Implementation of Hyperledger Fabric Network	
5.	Hyperledger Composer Tools	
6.	Chaincode and Fabric SDK	
7.	Chaincode for operators and Developers	
8.	Decentralized App Creation: Smart Contract Creation, Front-End Creation	
9.	Connecting Smart Contract with Front-End Application	
10.	Deploying Dapp, Validation, And Testing of Dapp	



Kotni, Near Mantralaya, Naya Raipur,
Chhattisgarh - 492101, India



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