AICTE – Training And Learning (ATAL) Academy

Sponsored Programme on

Block Chain

September 16-20, 2019

Organized by

Motilal Nehru National Institute of Technology Allahabad

Prayagraj – 211004, India

www.mnnit.ac.in

About AICTE's ATAL Programme

AICTE Training And Learning (ATAL) Programme is an initiative by AICTE which aims at empowering faculty to achieve goals of Higher Education such as access, equity and quality. This programme is designed to fulfil the need to train the young generation in skill sector and having faculty & technicians to be trained in their respective disciplines. It was felt that Training with latest tools and technologies is vital to keeping an institute competitive and more productive. Training is required for increasing the knowledge and skills of students to make them more employable to acquire global competencies. It also transforms them to harmonize with society and most importantly to make them a good citizen of the country.

Objective of ATAL Academy:

- To set up an Academy which will plan and help in imparting quality technical education in the country
- To support technical institutions in fostering research. innovation and entrepreneurship through training
- To stress upon empowering technical teachers & technicians using Information & Communication Technology
- To utilize SWAYAM platform and other resource for the delivery of trainings.
- To provide a variety of opportunities for training and exchange of experiences. Such as workshops, Orientations, learning communities, peer mentoring and other faculty development programmes.
- To support policy makers for incorporating training as per requirements

About Motilal Nehru National Institute of Technology Allahabad (MNNIT)

MNNIT is an Institute with total commitment to quality and excellence in academic pursuits. With over 45 years of experience and achievements, in the field of technical education, it has traversed a long way. With the enactment of National Institutes of Technology Act-2007, the Institute has been granted the status of Institution of National Importance. The Institute now offers nine B.Tech., nineteen M.Tech. Degree Programmes (including part-time), MCA, MBA, M.Sc. (Mathematics and Scientific Computing) and Master of Social work (M.S.W.) programmes and also registers candidates for the Ph.D. degree. The Institute has been recognized by the Government of India as one of the centers for the Quality Improvement Programme for M.Tech. and Ph.D. The Institute has been selected as a Lead Institution under World Bank funded Government of India Project on Technical Education Quality Improvement Programme (TEQIP) (2002-2007). Two state level institutions are networked with MNNIT under the project.

How to reach MNNIT Allahabad

Allahabad city is situated in the north part of India in the Oudh region of state of Uttar Pradesh. It is well connected with flights, rail and road transport to other parts of India. Daily trains, buses and flights are available from major cities in India. Allahabad domestic airport named Bamrauli airport, is 15 km away from the heart of the city and is connected to metros like Delhi, Kolkata and Lucknow. Very good road services are available in Allahabad. UPSRTC buses give service to most of the cities in Uttar Pradesh. From Allahabad bus services are available to Delhi (650 km) and Kolkata (800 km). Allahabad has a major

railway station in the heart of the city and is well connected to all the important cities in India.

Course Content
Overview of Block chain, Public Ledgers, Bitcoin, Smart Contracts, Block in a Block chain, Transactions, Distributed Consensus, Public vs Private Block chain, Understanding Crypto currency to Block chain, Permissioned Model of Block chain, Overview of Security aspects of Block chain. Basic Crypto Primitives: Cryptographic Hash Function, Properties of a hash function, Hash pointer and Merkle tree, Digital Signature, Public Key Cryptography, A basic cryptocurrency. Bitcoin and Block chain, Working with Consensus in Bitcoin**,** Permissioned model and use cases, Design issues for Permissioned block chains, Execute contracts, State machine replication, Overview of Consensus models for permissioned block chain-Distributed consensus in closed environment, Paxos, RAFT Consensus, Byzantine general problem, Byzantine fault tolerant system, Lamport-Shostak-Pease BFT Algorithm, BFT over Asynchronous systems. Hyperledger Fabric- Architecture, Identities and Policies, Membership and Access Control, Channels, Transaction Validation, Writing smart contract using Hyperledger Fabric, Writing smart contract using Ethereum, Overview of Ripple and Corda

Target Audience
Faculty Members, Research Scholars, Master Research Students and Industry Professionals

Venue
Centre of Education Technology, Executive Development Centre, MNNIT Allahabad

How to Register
No registration fee will be charged from the participants. Registration for the program will be on First Come First Serve basis. To register click on the following link or scan the QR code
https://docs.google.com/forms/d/e/1FAIpQLSfvK1udV_cybSa-GazSqIYuJyUojkR_mB4QvJcL5QGwyYD_fQ/viewform?vc=0&c=0&w=1

Accommodation
Accommodation to outstation participations will be provided in Institute Guest House on nominal charges (subject to availability) on prior request.

Patron
Prof. Rajeev Tripathi
Director
Motilal Nehru National Institute of Technology Allahabad, Prayagraj, India
Workshop Coordinator
Prof. G. P. Sahu
Professor, School of Management Studies
Motilal Nehru National Institute of Technology Allahabad, Prayagraj, India
Email: gsahu@mnnit.ac.in
Ph.: +91 532 2271555(O) +91 9305508002 (M)

Motilal Nehru National Institute of Technology Allahabad
AICTE Training And Learning (ATAL) Programme on
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September 16-20, 2019
Schedule

Dates	10:00 AM to 11:30 AM	11:30 AM to 12.00 PM	12.00 PM to 1.30 PM	1.30 PM to 2:30 PM	2:30 PM to 4.00 PM	4:15 PM to 4:45 PM
16/09/2019	Registration and Inauguration	High Tea	Session 1 Overview of Block Chain	Lunch	Session 2 Understanding Crypto currency to Block Chain	Tea
17/09/2019	Session 3 Basic Crypto Primitives	Tea	Session 4 Bitcoin and Block Chain	Lunch	Session 5 Working with Consensus in Bitcoin	Tea
18/09/2019	Session 6 Permissioned Block Chain	Tea	Session 7 Overview of Consensus models for permissioned Block Chain-	Lunch	Session 8 Hands-On Experience And Interactive Session	Tea
19/09/2019	Session 9 Enterprise application of Block Chain	Tea	Session 10 Know Your Customer (KYC)	Lunch	Session 11 Hands-On Experience And Interactive Session	Tea
20/09/2019	Session 12 Block Chain enabled Trade	Tea	Session 13 Block Chain application development	Lunch	Session 14 Hands-On Experience And Interactive Session	Valediction

Correspondence To:
Prof. G. P. Sahu
Workshop Coordinator and Professor, School of Management studies
Motilal Nehru National Institute of Technology Allahabad, Prayagraj, India
Email: gsahu@mnnit.ac.in
Ph.: +91 532 2271555(O) +91 9305508002 (M)

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REGISTRATION FORM

Faculty Member ☐   *Industry Professional* ☐

Research Scholar ☐   *Master Research Student* ☐

Name:……………………………………………………………………………

Designation…………………………………………………………………………

Organization………………………………………………………………………

Address for Communication

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Phone …………………(O)………………...(R) Mobile……………………………………..
Fax…………………………………… …………
E-mail :…………………………………………

Accommodation Assistance required: *Yes / No*

If yes, From…………………………………To………………………………………………

Date: *Signature*

(Signature of the Forwarding Authority)
(Photocopies of the Registration Form may be used)