



POORNIMA

COLLEGE OF ENGINEERING

Promoted by Shanti Education Society, Affiliated to Rajasthan Technical University & Approved by AICTE

A Report

On

5-day Faculty Development Program on

“Blockchain and its Applications”

Organized by

Rajasthan Technical University, Kota and

Department of Information Technology,

Poornima College of Engineering

(14th – 18th September, 2020)

Under TEQIP-III Program

Venue: Online Mode



SESSION 2020-21

**DEPARTMENT OF INFORMATION TECHNOLOGY
POORNIMA COLLEGE OF ENGINEERING, JAIPUR**


Dr. Mahesh Bundele
B.E., M.E., Ph.D.
Director
Poornima College of Engineering
ISI-6, FIICO Institutional Area
Sitapura, JAIPUR

1. WORKSHOP BROCHURE



PCE ORGANIZING COMMITTEE

Dr. Pankaj Dandia	Vice-Principal, PCE
Dr. Nehika Nair	Dean, Year, PCE
Mr. Anil Saxena	Assistant Professor & HoD
Dr. Pushpendra Sisodia	Associate Professor
Ms. Shazia Haque	Assistant Professor
Mr. Sandeep Bhargava	Assistant Professor
Mr. Saurabh Anand	Assistant Professor & Dy. HoD
Mr. Anil Kumar Jha	Assistant Professor
Mr. Dinesh C. Gupta	Assistant Professor
Ms. Sita Gupta	Assistant Professor

RESOURCE PERSONS

The resource persons for the FDP will be eminent professors and experts in the area of Blockchain and Cryptocurrency from esteemed Institutions and corporate firms.

ELIGIBILITY

This course is open to all the Faculty Members of AICTE Approved Institutions, Research Scholars, and Persons working in R&D organizations or Industry. Number of participants for FDP is limited. All these sessions will be conducted online only.

IMPORTANT DATES

Last date of receipt of application	September 10, 2020
Intimation of selection by mail	September 11, 2020
FDP duration	September 14-18, 2020

REGISTRATION AND FEE PARTICULARS

- There is no registration fee for faculty from AICTE approved Institutions, Participants from Industry, and Research Scholars.
- Registration for the program may be done by filling the Registration Form online, Reg. Link: <https://forms.gle/1m1k1d1p>



CORRESPONDENCE

MR. VIKAS K. JAIN
Event Coordinator, RTU
E: +91-9981100650
W: vkjain.npti.co@rtu.ac.in

MR. SHIRISH NAGAR
Event Coordinator, PCE
E: +91-8003514249
W: shirishnagar@poornima.org

Venue
Department of Information Technology
Poornima College of Engineering
ISI-6, RICO Institutional Area, Stapura, Jaipur, Rajasthan 302022
www.pce.poornima.org



TEQIP-III SPONSORED

Faculty Development Program on Blockchain and its Applications

September 14-18, 2020



Organized by

Rajasthan Technical University, Kota & Department of Information Technology

POORNIMA COLLEGE OF ENGINEERING

Affiliated to RTU, Kota • Approved by AICTE & UGC under 2013 • Accredited by NBA

ABOUT TEQIP-III

The Project, third phase of Technical Education Quality Improvement Programme (referred to as TEQIP-III) is fully integrated with the Twelfth Five-year Plan objectives for Technical Education as a key component for improving the quality of Engineering Education in existing institutions with a special consideration for Low Income States and Special Category States and support to strengthen few affiliated technical universities to improve their policy, academic and management practices.

RAJASTHAN TECHNICAL UNIVERSITY

Rajasthan Technical University (RTU) is located in Kota in the state of Rajasthan. It was established in 2006 by the Government of Rajasthan. The University currently affiliates about 129 Engineering Colleges, 4 BArch, 41 MCA Colleges, 95 MBA Colleges, 44 M.Tech. Colleges and 3 Hotel Management and Catering Institutes. The University aims to provide quality technical education which may help Rajasthan in its technical development and will boost technical environment in the country.

POORNIMA COLLEGE OF ENGINEERING

Poornima College of Engineering (PCE), established as a brand of technical education in the year 2000, has its own glorious legacy of leading the young engineers to the mammoth sky of success. Its accomplishments forecast its journey through the hardships and its triumph over them one after another. PCE left no stone unturned since its establishment in turning the glorious vision into unbelievable reality providing the platform for knowledge and research and their practical implementations in different engineering professional prospects. Glorious glimpses of PCE:

- Highly recognized and renowned affiliated technical institutional all over Rajasthan with built-up area more than 3.5 lac square feet
- Affiliated to RTU, Kota & approved by AICTE, New Delhi
- The most preferred NBA Accredited Engineering College with running of six specializations of Engineering at UG Level (CSE, ECE, EE, ME, IT, CIV) and two at PG level (CS&VLSI)
- The only institution permitted by RTU to admit PN/PIQ/Gulf students & designated as centre of excellence by IIM

DEPARTMENT OF INFORMATION TECHNOLOGY

The Department of Information Technology of PCE was established in 2001. The department is considered one of the vibrant departments of the college as far as results and placements are concerned. At present, the department has the intake of 60 students providing all the amenities of infrastructure related to knowledge, research, experiments and training. The department aims to provide both theoretical as well as practical know-how to its students and make them employable and ready for industry intake. The department has produced excellent IT engineers who are serving in different reputed organizations and pursuing higher studies at Institutes of excellence. The department has very close interaction with local and national industries and their inputs are taken into consideration to give value additions to our seminars, projects, various workshops and training programs.

ABOUT FACULTY DEVELOPMENT PROGRAM

A five day Faculty Development Programme shall be organized for faculty members from different Engineering colleges across India from 14th - 18th September, 2020. Experts across the country shall deliver the lectures on approaches to design a scalable, robust, and secure Blockchain, thereby validating how vulnerable are current designs and the ways in which they can be mitigated. The experts will elaborate on various concepts of Cryptography, different cryptographic issues, Distributed System, Cryptocurrency, Blockchain Mining, Advances in Blockchain and its Applications, Blockchain Software and their uses, accompanied with practical demonstration on Ethereum™, Solidity™ and so on.

COURSE MODULES

- Basics of Cryptography and Blockchain Technology
- Design and Application of Blockchain and Cryptocurrencies
- Consensus protocols, and Infrastructure
- Identity Management for Decentralized Applications
- Peer to Peer Communication
- Threats, Attacks and Security to Blockchain
- Solidity and Smart Contracts
- Hands-on Session over Blockchain Tools



OBJECTIVES OF THE FDP

- The Faculty Development Program aims at bringing together the blockchain technologists, enthusiasts, and faculty to discuss the algorithms, applications and issues concerned with the technology, through not only theory but hands-on sessions.
- Program aims at identifying industry challenges sensitive about latest trends and technologies in area of Blockchain and Cryptocurrency.
- The course is designed for theory, use-case demonstrations, and research oriented discussion, which shall be helpful in understanding of the process and along with practical implementation in area of Blockchain and Cryptocurrency.

FDP COMMITTEE

CHIEF PATRON
Prof. (Dr.) R. A. Gupta
Hon'ble Vice-Chancellor, RTU Kota

PATRON
Dr. Mahesh M. Bundeale
Principal & Director Poornima College of Engineering

RTU (ATU) TEQIP-III COORDINATOR
Prof. (Dr.) Dharendra Mathur

RTU EVENT COORDINATOR
Mr. Vikas K. Jain (RTU, Kota)

RTU (ATU) TEQIP-III COMMITTEE

Dr. Harish Sharma	Nodal officer
Prof. D. K. Sambariya	Nodal Officer (Procurement)
Dr. S. D. Purohit	Nodal Officer (Finance)
Dr. Irum Alvi	Conference
Mr. Santosh Sharma	Expert Lecture
Mr. Anshul Bansal	GATE & Induction
Mr. Dinesh Kumar	Workshop

HOST INSTITUTE COORDINATOR
Mr. Shirish Nagar
Assistant Professor

2. WORKSHOP FLYER/POSTER

RTU (ATU) TEQIP-III sponsored
Online Faculty Development Programme
on
“Blockchain and its Applications”
September 14-18, 2020

Rajasthan Technical University, Kota &
Department of Information Technology, Poornima College of Engineering
Cordially invite you to Inaugural Session

Resource Persons

Prof. R. A. Gupta
Chief Guest
Hon'ble Vice Chancellor, RTU Kota

Prof. Dharendra Mathur
Guest of Honour
TEQIP Coordinator, RTU Kota

Dr. Mahesh M. Bunde
Director & Principal
PCE, Jaipur

Dr. Meenakshi Tripathi
Associate Professor
Department of CSE, MNIT, Jaipur

Mr. Anuj Garg
Blockchain Leader and Evangelist
IBM Ltd.

Mr. Martin Parmar
Assistant Professor, CSE
CHARUSAT University, Gujarat

Mr. Pranay Singh Chouhan
Founder - SKVS
Foundation

Day Date : **Monday, September 14, 2020** , • Time: **9.30 am to 10.00 am**

Kindly grace the occasion with your presence

To join the Inaugural Session on
 Google Meet
<https://meet.google.com/uni-heri-uoc>

RSVP
Mr. Vikas K. Jain
(RTU, Event Coordinator)
Mr. Shirish Nagar
(Host Institute Coordinator)

3. WORKSHOP OBJECTIVES

The objectives of the faculty development program are:

1. Bringing together the BlockChain technologists, enthusiasts, and faculty to discuss the Latest algorithms, applications and issues in area of Cryptocurrency.
2. Identifying Industry challenges and sensitize about latest trends and technologies in area of BlockChain and Cryptocurrency..
3. To provide use–case demonstrations, and research oriented discussion along with theoretical concepts, which shall facilitate the understanding of process through practical implementation in area of BlockChain and Cryptocurrency.

4. BRIEF ABSTRACT OF FDP

A 5-day Faculty Development Program on “Blockchain and its Applications” organized by Rajasthan Technical University Kota and Department of Information Technology in online mode under TEQIP-III from 14th – 18th September, 2020.

The Faculty Development Program was attended by 43 participants from 20 different organizations and institutions from India and Nepal.

The Inaugural Ceremony of the Faculty Development Program was held on Monday 14th September 2020. The Chief Guest of the inaugural ceremony was Prof. R. A. Gupta, Hon’ble Vice Chancellor, RTU Kota and the Guest of Honor was Prof. Dhirendra Mathur, TEQIP-III Coordinator, RTU Kota. The Inaugural ceremony of the FDP was graced with the esteemed presence of Ar. Rahul Singhi, Director, Poornima Foundation. The inaugural ceremony also witnessed the presence of Dr. Mahesh M. Bundeale, Principal & Director PCE, Mr. Amol Saxena HoD-IT, PCE, Mr. Vikas K. Jain, RTU Event Coordinator and Mr. Shirish Nagar, Event Coordinator, PCE.

The resource persons of the workshop were as follows:

1. **Dr. Meenakshi Tripathi**, Associate Professor, Department of CSE, MNIT, Jaipur
2. **Mr. Pranay Singh Chouhan**, Founder - SKVS Foundation
3. **Mr. Martin Parmar**, Assistant Professor, Dept. of CSE, CHARUSAT, Gujarat
4. **Mr. Anuj Garg**, Blockchain Leader and evangelist, IBM Ltd.

Mr. Shirish Nagar – FDP Coordinator, PCE on behalf of Dept. of Information Technology, Poornima College of Engineering, welcomed the chief guest, Guest of Honor, Dignitaries, Workshop trainers, and distinguished participants in his opening welcome address.

Mr. Vikas K. Jain – FDP Coordinator, RTU gave the briefing of the 5-day Faculty Development Program. He urged the participants to be regular and dedicated to harness the maximum outcome of this workshop as per vision of the Rajasthan Technical University and PCE Management.

Ar. Rahul Singhi, Director, Poornima Foundation mentioned that high enthusiasm is the key to learn new technologies in the changing academic scenario. **Ar. Singhi** stated that it is extremely vital for the faculty members to attend such Faculty development Programs for bridging the gap between academia and corporate requirements. He congratulated the organizers of FDP for hosting such a program on the topic of **Blockchain and its Applications** which is a latest technological development in the field of **Cryptography**.

Prof. Dharendra Mathur, TEQIP-III Coordinator, RTU as **Guest of Honor**, welcomed the initiative taken up by the Poornima College of Engineering to uplift the technical understanding of faculty participants in the area of **Cryptocurrency** and **Blockchain through TEQIP-III scheme**. **Prof. Mathur** highlighted that third phase of Technical Education Quality Improvement Programme (referred to as TEQIP-III) is fully integrated with the Twelfth Five-year Plan objectives for Technical Education as a key component for improving the quality of Engineering Education in existing institutions with a special consideration for Low Income States and Special Category States and support to strengthen few affiliated technical universities.

Dr. Mahesh M. Bundeale, Principal and Director, PCE emphasized on the need of learning new technologies and tools for consistent professional growth of research scholars and faculty members. **Dr. Bundeale** mentioned that faculty members should take part in such FDPs round the year sincerely as these programs would also enable them to guide student engineering projects. **Dr. Bundeale** announced that many such FDPs under different focus areas of Departments of IT and CE will be organized to fine-tune the skill-set of faculty members.

Mr. Amol Saxena, HoD, Department of Information Technology, PCE proposed Vote of Thanks to the Rajasthan Technical University, Kota, chief guest, guest of honor, management of Poornima Group, college authorities, organizing committee, trainers and the participants.

5. GLIMPSE OF INAUGURAL CEREMONY



6. INAUGURAL CEREMONY SCHEDULE



TEQIP-3
Technical Education Quality Improvement Programme

RAJASTHAN TECHNICAL UNIVERSITY, KOTA

Poornima College of Engineering
TEQIP-III RTU (ATU) SPONSORED
“Blockchain and its Applications”
5 Day Faculty Development Program
(September 14-18, 2020)



Date: September 14, 2020

Time: 9:30-10:05 AM

Google Meet link: <https://meet.google.com/uni-heri-uoc>

Venue: Online

Inaugural Session Schedule

S. No	Activity	Duration	Time
1.	Welcome of Dignitaries and Introduction of FDP by Mr. Shirish Nagar , Event Coordinator, PCE <ul style="list-style-type: none"> • Prof. R.A. Gupta, Hon'ble Vice Chancellor, RTU Kota (Chief Guest) • Prof. Dharendra Mathur, RTU (ATU) TEQIP-III Coordinator (Guest of Honour) • Ar. Rahul Singhi, Director, Poornima Group • Dr. Mahesh Bunde, Director & Principal, Poornima College of Engineering, Jaipur • Mr. Vikas K. Jain, Assistant Professor, RTU Event Coordinator • Mr. Amol Saxena, HOD,IT, PCE 	05 Min	9:30 -9:35AM
2.	Welcome Address by Dr. Mahesh Bunde , Director & Principal, Poornima College of Engineering, Jaipur	05 Min	9:35 -9:40AM
3.	Address by Ar. Rahul Singhi , Director, Poornima Group	05 Min	9:40 -9:45AM
4.	Introduction of Guest of Honour & Address by Guest of Honour Prof. Dharendra Mathur , RTU (ATU) TEQIP-III Coordinator	05 Min	9:45 -9:50AM
5.	Introduction of Chief Guest & Inaugural Address by the Chief Guest Prof. R.A. Gupta , Hon'ble Vice Chancellor, RTU Kota	10 Min	9:50 -10:00AM
6.	Vote of Thanks by Mr. Amol Saxena , HOD,IT, PCE	05 Min	10:00 -10:05AM

7. FDP DETAILED PROGRAM SCHEDULE



TEQIP-3
Technical Education Quality Improvement Programme

TEQIP-III SPONSORED
5-Day Faculty Development Program
On
“Blockchain and its Applications”
September 14 -18, 2020
Organized by:
Rajasthan Technical University, Kota
&
Department of Information Technology,
Poornima College of Engineering, Jaipur



Program Schedule

Google Meet link: <https://meet.google.com/uni-heri-uoc>

Monday - Day 1 – 14th September, 2020	
Program Outline	
9.30 AM – 10.00 AM	<u>Inaugural Ceremony</u> Prof. (Dr.) R. A. Gupta, Hon'ble Vice Chancellor, RTU Kota (Chief Guest) Prof. (Dr.) Dharendra Mathur, TEQIP-III Coordinator, (Guest of Honour) Dr. Mahesh M. Bundele, Director-Principal, Poornima College of Engineering Mr. Vikas K. Jain, Event Coordinator – RTU, Kota Mr. Amol Saxena, HOD, IT-PCE Mr. Shirish Nagar, Event Coordinator – Host Institute
10.00 AM -11.30 AM	Session-I Topic: Introduction to Blockchain Resource Person: Dr. Meenakshi Tripathi, Associate Professor, Department of Computer Science and Engineering, MNIT, Jaipur
LUNCH BREAK	
1.00 PM - 2.30 PM	Session-II Topic: Design and Application of BlockChain and Cryptocurrencies Resource Person: Mr. Pranay Singh Chouhan, Founder - SKVS Foundation
2.30 PM – 2.45 PM	Discussion
Tuesday - Day 2 – 15th September, 2020	
Program Outline	
10.00 AM -11.30 AM	Session-III Topic: Consensus protocols, Infrastructure & Identity Management for Decentralized Applications Resource Person: Mr. Pranay Singh Chouhan, Founder - SKVS Foundation
LUNCH BREAK	
1.00 PM - 2.30 PM	Session-IV Topic: Blockchain Tools – I (Ethereum, CORDA, IOTA) and Peer to Peer Communication Resource Person: Mr. Martin Parmar, Assistant Professor, Dept. of Computer Engineering, CHARUSAT University, Gujarat
2.30 PM – 2.45 PM	Discussion

Wednesday - Day 3 – 16th September, 2020	
Program Outline	
10.00 AM -11.30 AM	Session-V Topic: Hands on Session on Ethereum and other Blockchain Tools Resource Person: Mr. Martin Parmar, Assistant Professor, Dept. of Computer Engineering, CHARUSAT University, Gujarat
LUNCH BREAK	
1.00 PM - 2.30 PM	Session-VI Topic: Threats ,Attacks and Security to Blockchain Resource Person: Mr. Pranay Singh Chouhan, Founder - SKVS Foundation
2.30 PM – 2.45 PM	Discussion
Thursday - Day 4 – 17th September, 2020	
Program Outline	
10.00 AM -11.30 AM	Session-VII Topic: Solidity and Smart Contracts Resource Person: Mr. Anuj Garg, Blockchain Leader and evangelist, IBM Ltd.
LUNCH BREAK	
1.00 PM - 2.30 PM	Session-VIII Topic: Hands on Session on Solidity and Remix Resource Person: Mr. Anuj Garg, Blockchain Leader and evangelist, IBM Ltd.
2.30 PM – 2.45 PM	Discussion
Friday - Day 5 – 18th September, 2020	
Program Outline	
10.00 AM -11.30 AM	Session-IX Topic: Blockchain Tools – II, Hyperledger and Dapp Resource Person: Mr. Martin Parmar, Assistant Professor, Dept. of Computer Engineering, CHARUSAT University, Gujarat
LUNCH BREAK	
1.00 PM - 2.30 PM	Session-X Topic: Hands on Session on Hyperledger Resource Person: Mr. Martin Parmar, Assistant Professor, Dept. of Computer Engineering, CHARUSAT University, Gujarat
2.30 PM – 3.00 PM	Discussion, Valedictory Ceremony and Feedback

8. LIST OF PARTICIPANTS

S.No.	Name	Organization
1	Mr. Satpal Singh	Manipal University Jaipur
2	Mr. Amit Kumar Jha	Poornima College Of Engineering, Jaipur
3	Mrs. Deepika Sharma	Manipal University Jaipur
4	Mr. Amit Kumar Jain	Poornima College Of Engineering, Jaipur
5	Mr. Manish Dubey	Poornima College Of Engineering, Jaipur
6	Ms. Bhawana Sharma	Manipal University Jaipur
7	Mr. Kalpit Jain	Poornima College Of Engineering, Jaipur
8	Mr Manoj R	Manipal University Jaipur
9	Mr. Satpal Singh Kushwaha	Manipal University Jaipur
10	Mr.Devender Kumar Dhaked	Rajasthan College Of Engineering For Women
11	Ms. Seeta Gupta	Poornima College Of Engineering, Jaipur
12	Mr. Prashant Hemrajani	Manipal University Jaipur
13	Mr. Anil Kumar	BSNL Jaipur
14	Ms. Reena Sharma	Poornima College Of Engineering, Jaipur
15	Ms. Richa Singh	Pranveer Singh Institute Of Technology, Kanpur
16	Mr. Amit Kumar Bairwa	Manipal University Jaipur
17	Mr. Ankit Saxena	Invertis University
18	Mr. Uttam Sharma	BSNL Jaipur
19	Mr. Ashok Kumar Kumawat	Manipal University Jaipur
20	Vineeta Soni	Manipal University Jaipur
21	Dr. Lokesh Sharma	Manipal University Jaipur
22	Mr. Prem Kumar Bhaskar	Lord Buddha Education Foundation, Kathmandu, Nepal
23	Mr. Shamneesh Sharma	Poornima University, Jaipur, Rajasthan, India
24	Er. Dharmveer Yadav	Zone Tech The Institute Of Engineers
25	Ms. Khushi Yadav	Shivam ITI Pvt. Ltd.
26	Er. Sandeep Kumar Bothra	S. S. Jain Subodh P. G. (Autonomous) College, Jaipur
27	Ms. Neha Sharma	Poornima University
28	Mr. Suyog Pandurang Mahajan	Maharashtra Institute Of Technology, Aurangabad
29	Dr. Sunita Gupta	SKIT, Jaipur
30	Mr. Honey Gocher	Amity University Rajasthan
31	Ms. Agrawal Anu	Lords University, Alwar
32	Dr. Praveen Gupta	Poornima College Of Engineering, Jaipur
33	Mr Mukesh Kumar Lohar	GITS, Udaipur
34	Dr. Sandeep Joshi	Manipal University Jaipur
35	Mr. Chandan Singh	Lal Bahadur Shastri Pg College Jaipur
36	Mr. Ayush Goyal	Poornima Institute Of Engineering And Technology, Jaipur

37	Mr. Rakesh Ranjan	Shankara Institute Of Technology, Kukas, Jaipur
38	Mr. Rajesh Kanwadia	Shankara Institute Of Technology, Kukas, Jaipur
39	Ms. Shweta Agrawal	Shankara Institute Of Technology, Kukas, Jaipur
40	Mr. Sandeep Bhargava	Poornima College Of Engineering, Jaipur
41	Mrs. Meenakshi Tiwari	St. Wilfreds Institute Of Engineering & Technology Ajmer
42	Mr. Jaya Krishna R	Manipal University Jaipur
43	Dr. Vijay Kumar Sharma	Manipal University Jaipur

8 FEEDBACK:

Opinion / Parameter	Effective use of Time	Effectiveness of Theoretical Session	Course Content Planning and Organization	Effectiveness of Hands on Sessions
Strongly Agree	28	25	31	24
Agree	11	11	8	12
Neutral	0	6	0	3
Disagree	0	0	0	0
Strongly Disagree	4	1	4	4