Event Report

on

GUJCOST Sponsored Six Days Faculty Development Progrmme on

"Blockchain and its Applications"

14th – 19th December, 2020

REGISTRATION DETAILS

There is **No registration fees** for participants and the event will be organized through **online mode**. **E-certificates** will be provided to the participants.

IMPORTANT DATES

Last Date for Registration:
10th December, 2020
Intimation through the E-mail:
12th December, 2020

WHO SHOULD ATTEND?

The target participants for this FDP will be Faculties from academic institutions, Industry Professionals, Research Scholars and PG/UG Students.

Register Now

https://bit.ly/2I7fOAL

[SCAN ME]

IMPORTANT NOTE

Assessment test (Quiz) will be conducted based on the content covered in the session. Participants should score at least 40% in quiz. Participants will have to attend 80% session for E-certificate.

ORGANIZING COMMITTEE

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Er. Bhikhubhai B. Patel
(Hon. Chairman, CVM)

PATRON
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(Hon. Vice President, CVM)

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(Hon. Secretary, CVM)

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Shri R. C. Talati   Shri V. H. Patel
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PRESIDENT & CONVENER
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(Principal, MBIT)

COORDINATOR
Prof. Nirav Raja
(Head, CE Department)

Prof. Pooja Bhatt
(Asst. Prof. CE Department)

Prof. Sunit Parmar
(Asst. Prof. CE Department)

ORGANIZING TEAM

Prof. Shital Gondaliya   Prof. Ashwini Jha
Prof. Keyur Prajapati   Prof. Ankita Chauhan
Prof. Chetan Chudasama   Prof. Nirali Pandya
Prof. Jayna Donga   Prof. Tushar Shah
Prof. Dipti Mathpal   Prof. Atmiya Patel
Prof. Akash Dave   Prof. Shyam Viththalani
Prof. Shraddha Korvadiya

GUJCOST Sponsored Six Days Faculty Development Programme on "Blockchain and its Applications"

14th - 19th December, 2020

Organized By
Department of Computer Engineering
Madhuben & Bhanubhai Patel Institute of Technology
(A Constituent College of CVM University)

Beyond Vithal Udhyog Nagar,
New Vallabh Vidyanagar, 388 121.
Gujarat, India.
Tel: +91-2692-230823
Website: www.mbit.edu.in

Organized By:-

Department of Computer Engineering

Madhuben&Bhanubhai Patel Institute of Technology

(A Constituent College of CVM University), New VallabhVidyanagar

PROGRAMME SCHEDULE

DAY – 1 (14th December,2020)	
TIME	**SESSION**
10:00 AM - 10:30 AM	**Inauguration**
10:30 AM - 12:00 PM	**Session – 1** **Topic:** Block chain Introduction
12:00 PM - 01:00 PM	**Lunch Break**
01:00 PM - 02:30 PM	**Session – 2** **Topic:** Overview of Block chain Implementation

DAY – 2 (15th December,2020)	
TIME	**SESSION**
10:30 AM - 12:00 PM	**Session – 1** **Topic:** Architecture and types of Block chain Technology
12:00 PM - 01:00 PM	**Lunch Break**
01:00 PM - 02:30 PM	**Session – 2** **Topic:** Block chain Platforms : Ethereum, Hyper ledger, IOTA, EOS, Multichain Big chain, CORDA, Open chain, SOLIDITY

PROGRAMME SCHEDULE

DAY – 3(16th December,2020)	
TIME	**SESSION**
10:30 AM - 12:00 PM	**Session – 1** **Topics: Currency, Digital-Currency, Crypto-Currency and Road Ahead**
12:00 PM - 01:00 PM	**Lunch Break**
01:00 PM - 02:30 PM	**Session – 2** **Topics: Hands-on Session on the creation of the smart contract, smart Contract with front end application with truffle.**

DAY – 4(17th December,2020)	
TIME	**SESSION**
10:30 AM - 12:00 PM	**Session – 1** **Topic: Security & Privacy Concern in Blockchain**
12:00 PM - 01:00 PM	**Lunch Break**
01:00 PM - 02:30 PM	**Session – 2** **Topic: Hyperledger Fabric**

DAY – 5(18th December,2020)

TIME	SESSION
10:30 AM - 12:00 PM	**Session – 1** **Topic: Blockchain Meets Bigdata**
12:00 PM - 01:00 PM	**Lunch Break**
01:00 PM - 02:30 PM	**Session – 2** **Topic: Ethereum Network**

DAY – 6(19th December,2020)

TIME	SESSION
10:30 AM - 12:00 PM	**Session – 1** **Topics: Application & Key Challenges in Blockchain**
12:00 PM - 01:00 PM	Lunch Break
03:00 PM - 03:30 PM	**Quiz**
04:00 PM - 04:15 PM	**Feedback and Valedictory Session**

EXPERTS of FDP

Sr No.	Expert Details
1	**Dr. Hiren B. Patel** Principal, VidushSomany Institute of Technology and Research, Kadi
2	**Mr. Nikhil Shah** Director, Cilans Systems & Advisor, Vnurture Technologies
3	**Dr. BelaShrimali** Assistant Professor, LDRP-ITR, Gandhinagar
4	**Dr. Padmaja Joshi** Senior Director, CDAC, Mumbai
5	**Mr. Raj Prajapati** Developer, AKcesspvt Ltd, Vadodara
6	**Dr. Avinash Sharma** Professor & Former Principal, Maharishi Markandeshwar Engineering College, MullanaAmbala, (Haryana)
7	**Prof. Martin Parmar** Assistant Professor, CSPIT, U& PU. Patel Department of Computer Engineering, Charotar University of Science and Technology (CHARUSAT)
8	**Dr. MukeshMohania** Dean, Innovation Research and Development Professor, CSE department, Indraprastha Institute of Technology - Delhi

The aim of this FDP is to explain the use of Block chian technology andmaking attendees aware about development of various applications using it.The FDP was conducted through Google meet&You tube Live streaming as an online platform. Asthese topics are the demand for today's industry and society, there is a need toexplore the research opportunities in the field of automation. This FDP willprovide a unique platform for enhancing the knowledge of the faculty members andstudents who are doing research or planning to do research in the mentioned area.

DAY – 1: (14thDecember,2020)

Inaugural Ceremony was on 14th December, 2020 at 10:00AM.

Inauguration commenced with Welcome Note by **Prof. DiptiMathpal**. She warmly welcomed the dignitaries and participants. Then blessings of God were taken by playing Saraswati vandana by **Prof. NiraliPandya**.

Prof. SunitParmar gave brief introduction about the Faculty Development Programme.

Prof. Dr. ArchanaNanoty,congratulated computer department for conduction of this FDP as well as shared the importance of block chain in this digital era and also congratulated entire organizing team of FDP.

The FDP was inaugurated by august presence of eminent speakers and guests**Dr. C. S. Verma**(Regional officer and Assistant Director, CRO, Bhopal),Hon'ble Chairman CVM and President CVM University-**Er. Shri.Bhikhubhai Patel** and **Prof. (Dr.) ArchanaNanoty** (Principal, MBIT).

Dr. C. S. Verma (Regional officer and Assistant Director, CRO, Bhopal) gave brief information about block chain technology and also enlightened everyone regarding current technologies useful for overall development of students, faculties and nation.

The Honorable Chairman of CVM and Chief Patron of this FDP, **Er. ShriBhikhubhai Patel** sir motivated participants with his blessings and encouraging words as a presidential remark.

At the end of the session, **Prof. Pooja Bhatt** had proposed vote of thanks towards sponsoring body, CVM University, Chief Patron, President and Head of the computer Department for their eminent support and guidance. She also thanked all the participants of FDP and committee members of FDP.
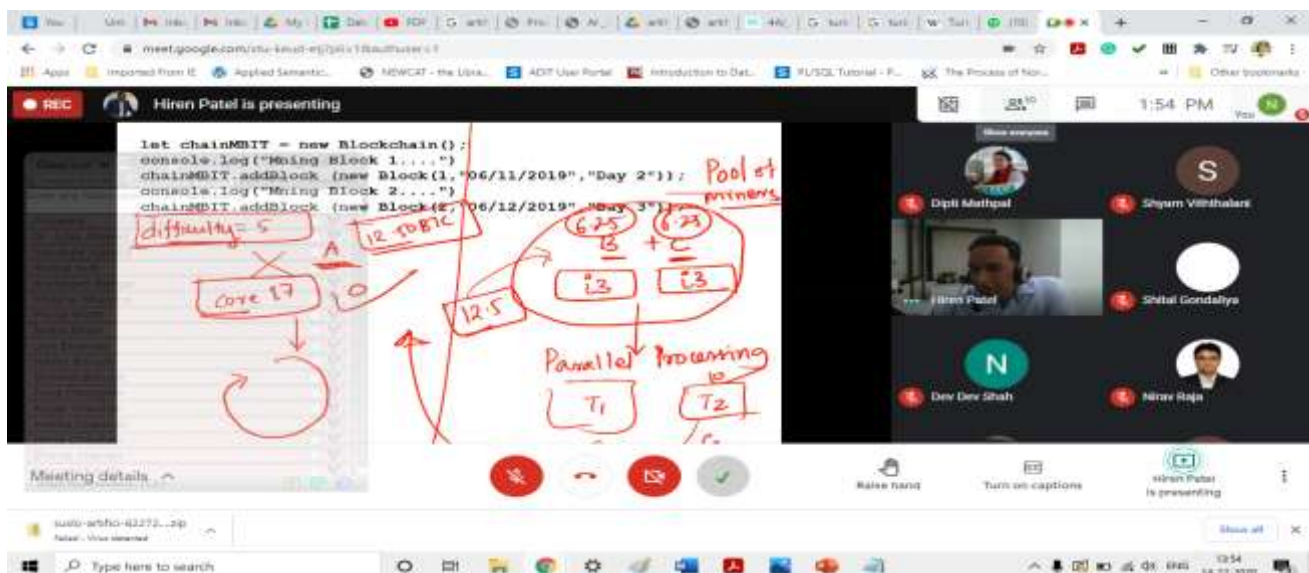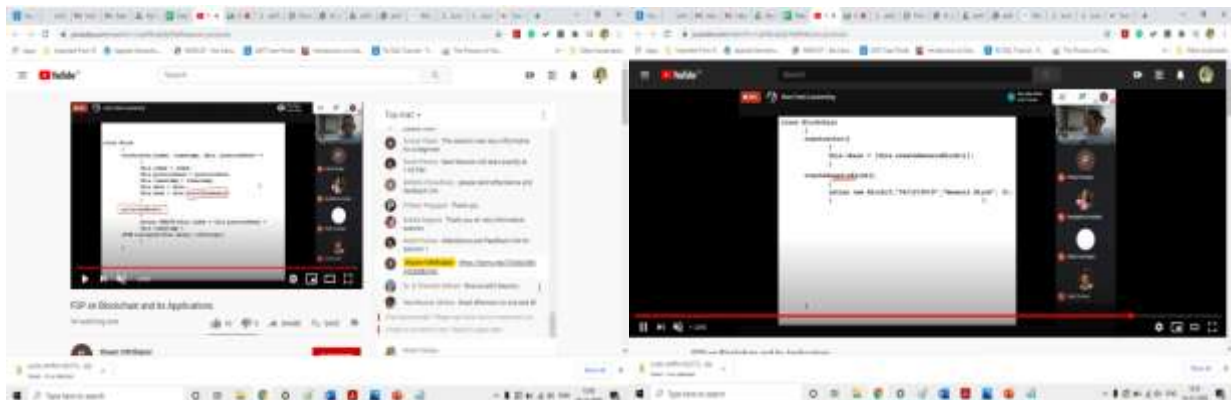
DAY – 1: Session – 1 (14th December, 2020)

Dr. Hiren B. Patel(Principal,VidushSomany Institute of Technology and Research, Kadiconducted session on 14th December, 2020 during 10:30 AM to 12:00 PM. He delivered a talk on **Introduction of Block chain.**

He nicely explained introduction of block chain as distributed software network that functions both as a digital ledger and a mechanism enabling the secure transfer of assets without an intermediary. He also focused on the internet is a technology that facilitates the digital flow of information; block chain is a technology that facilitates the digital exchange of units of value. Anything from currencies to land titles to votes can be tokenized, stored, and exchanged on a block chain network.

He had included the first manifestation of block chain technology emerged in 2009 with the Bit coin block chain, a secure, censorship-resistant, peer to peer electronic cash system. Because Bit coin is accessible to anyone, it is an example of an open, or permission less block chain.
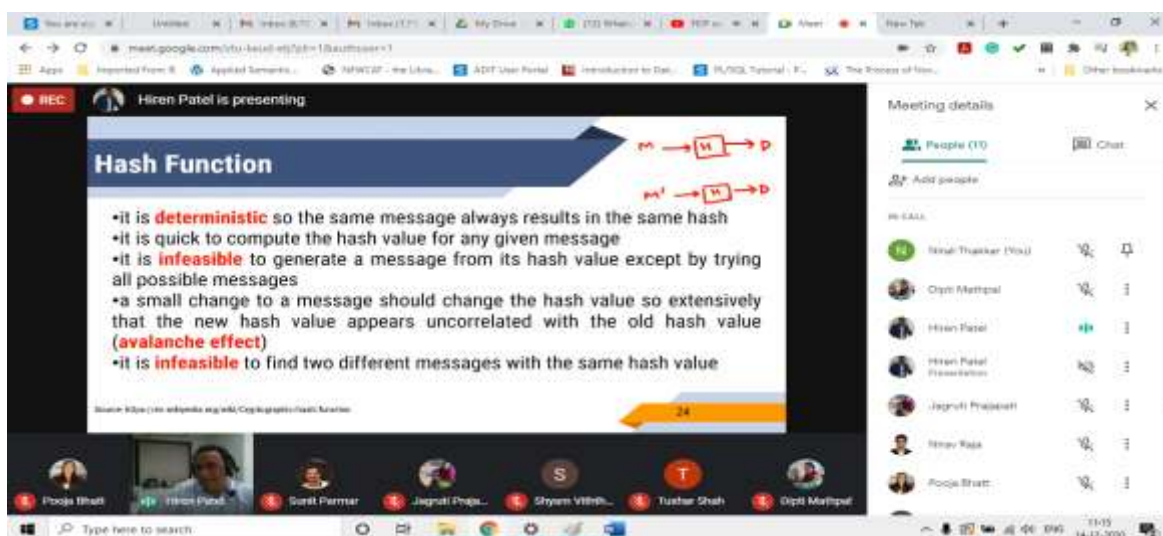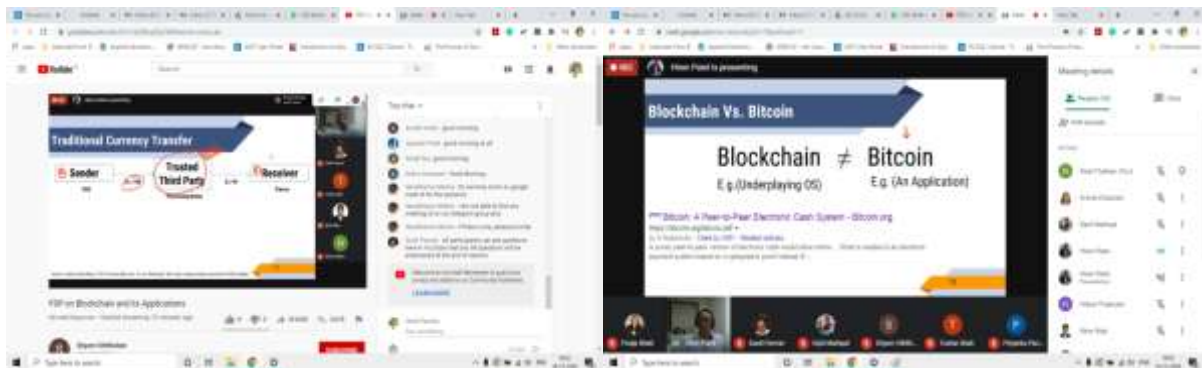
DAY – 1: Session – 2 (14th December, 2020)

Dr. Hiren B. Patel, Principal,VidushSomany Institute of Technology and Research, Kadiconducted session on 14th December 2020 during 1:00 PM to 02:30 PM. He delivered a talk on **Overview of Block chain Implementation.**

Block chains are proposed for many application domains apart from financial transactions. While there are generic block chains that can be molded for specific use cases, they often lack a lightweight and easy-to-customize implementation. In this talked expert introduced the core concepts of block chain technology and investigate a real-world use case from the energy domain, where customers trade portions of their photovoltaic power plant via a block chain. This does not only involve block chain technology, but also requires user interaction.

Expert contined in the second session with Ethereum, Hyperledger, IOTA, EOS, Multichain, Bigchain, CORDA, Openchain, SOLIDITY. He has convey very good knowledge with all above fundamentals including Bit coin.
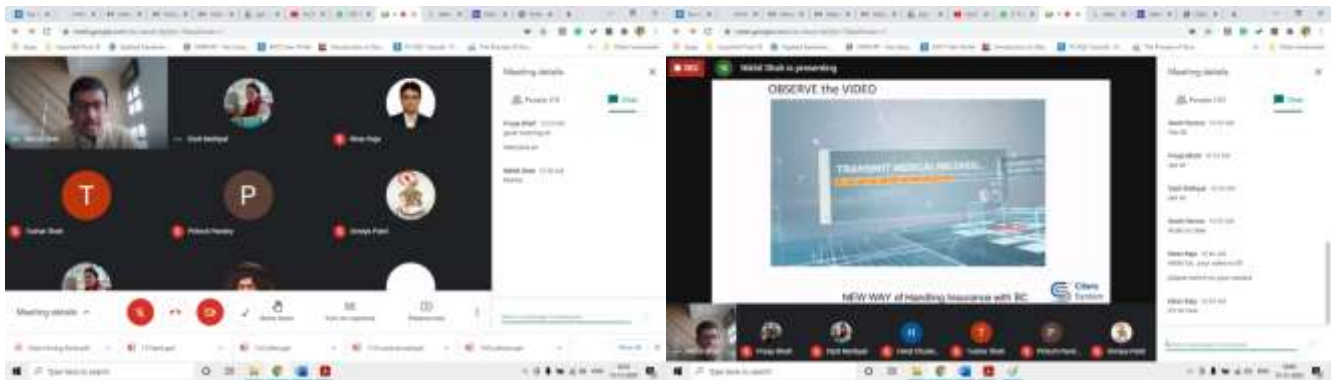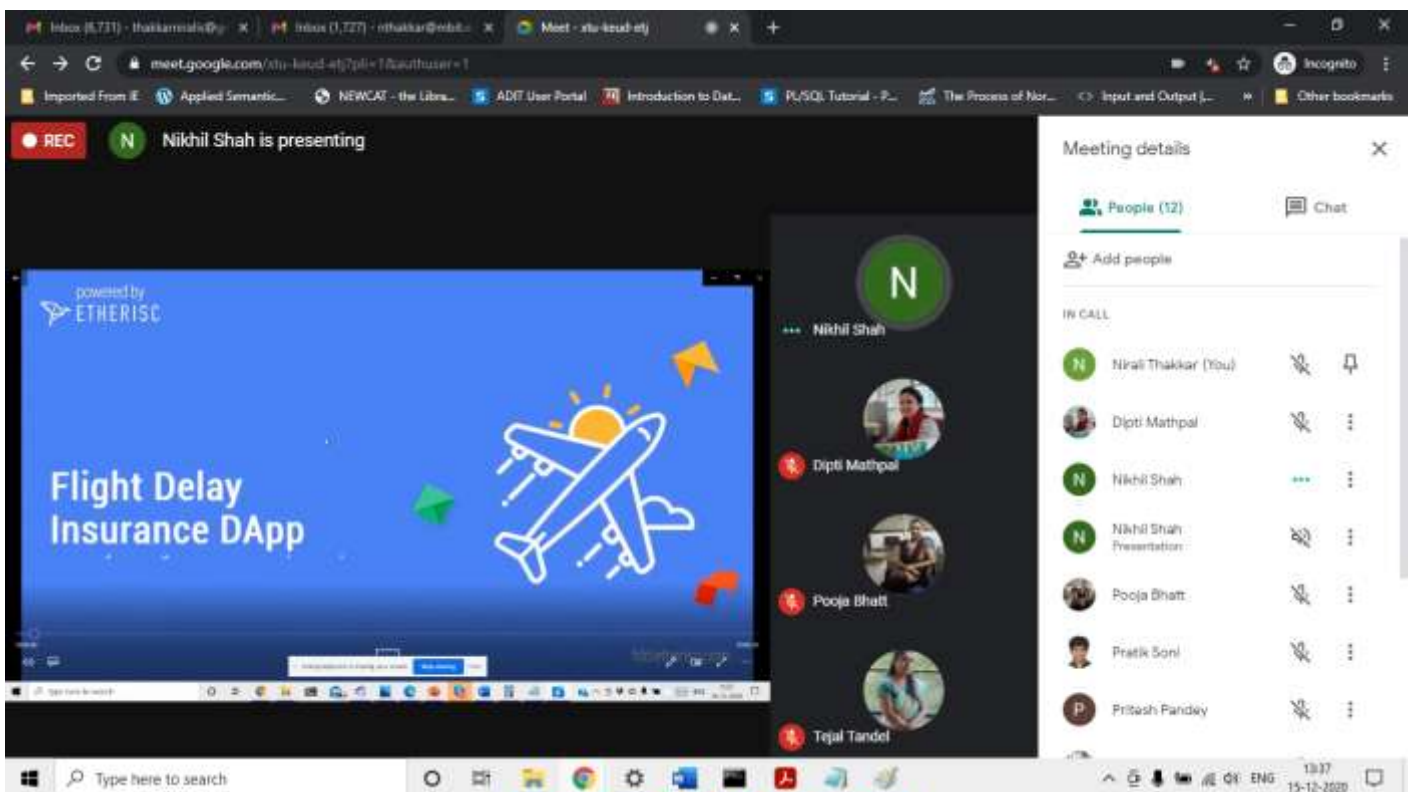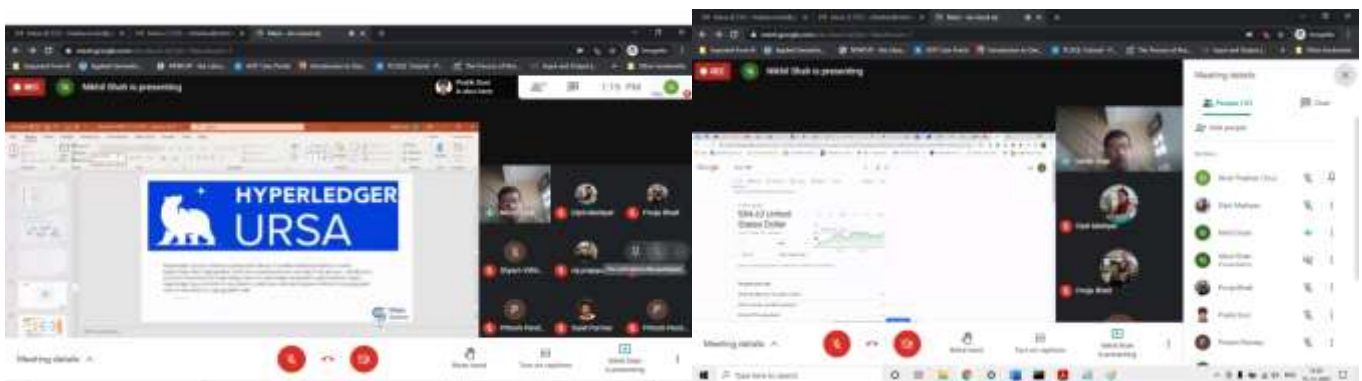
DAY – 2: Session – 1 (15th December, 2020)

Mr.Nikhil Shah (Director, Cilans Systems & Advisor, Vnurture Techno., Ahmedabad) conducted session on 15th December, 2020 during 10:30 AM to 12:00 PM.
He delivered a talk on **Architecture and types of block chain technology.**

On day 2,in the first session Mr. Nikhil Shah provided knowledge of different architectural styles of block chain like Transaction, Block, P2P Network and consensus. He has delivered a depth for all the architectural style.
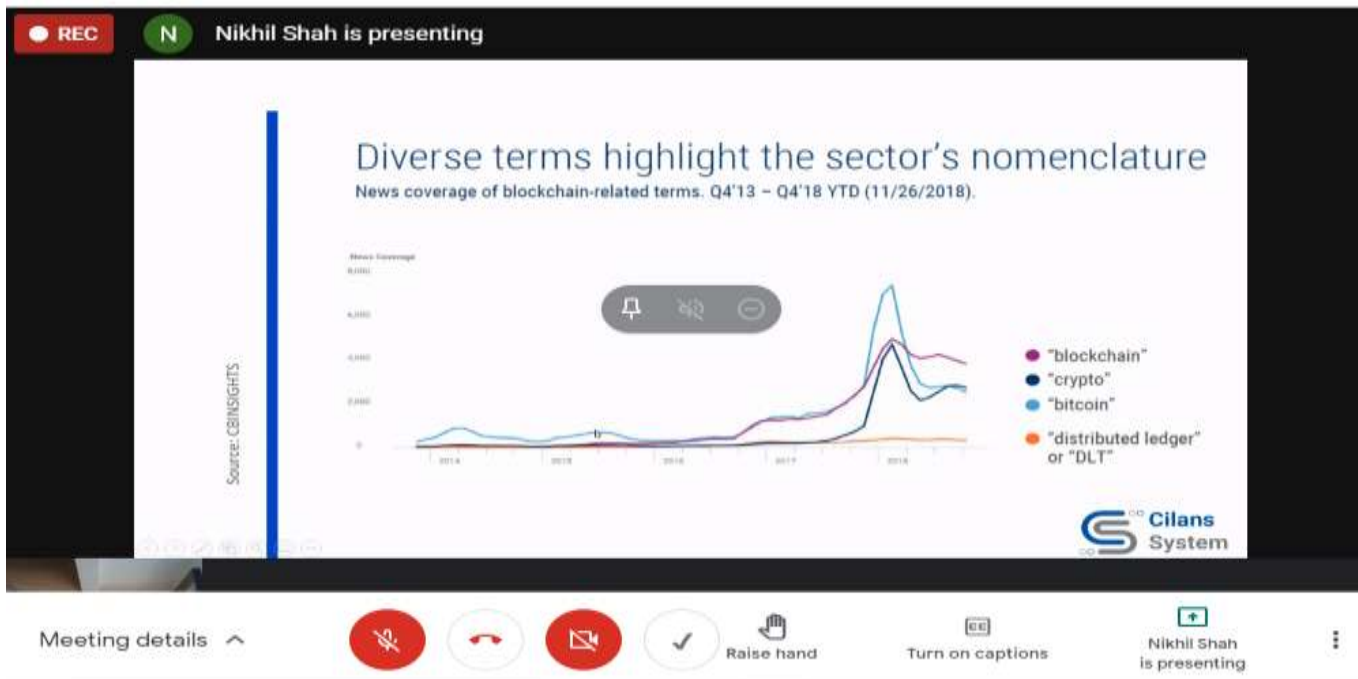
DAY – 2: Session – 2 (15th December, 2020)

Mr.Nikhil Shah (Director, Cilans Systems & Advisor, Vnurture Techno., Ahmedabad) conducted session on 15th December, 2020 during 01:00 AM to 2:30 PM.

He delivered a talk on **Blockchain Platforms:Ethereum, Hyperledger, IOTA, EOS, Multichain, Bigchain, CORDA, Openchain, SOLIDITY**

He had also covered Proof-of-Work(POW),Proof of Stake(POS)and Simplified Byzantine Fault Tolerance(SBFT)in the second the session on the same day. Expert continued with Ethereum, Hyperledger, IOTA, EOS, Multichain, Bigchain, CORDA, Openchain, SOLIDITY as Blockchain platforms.

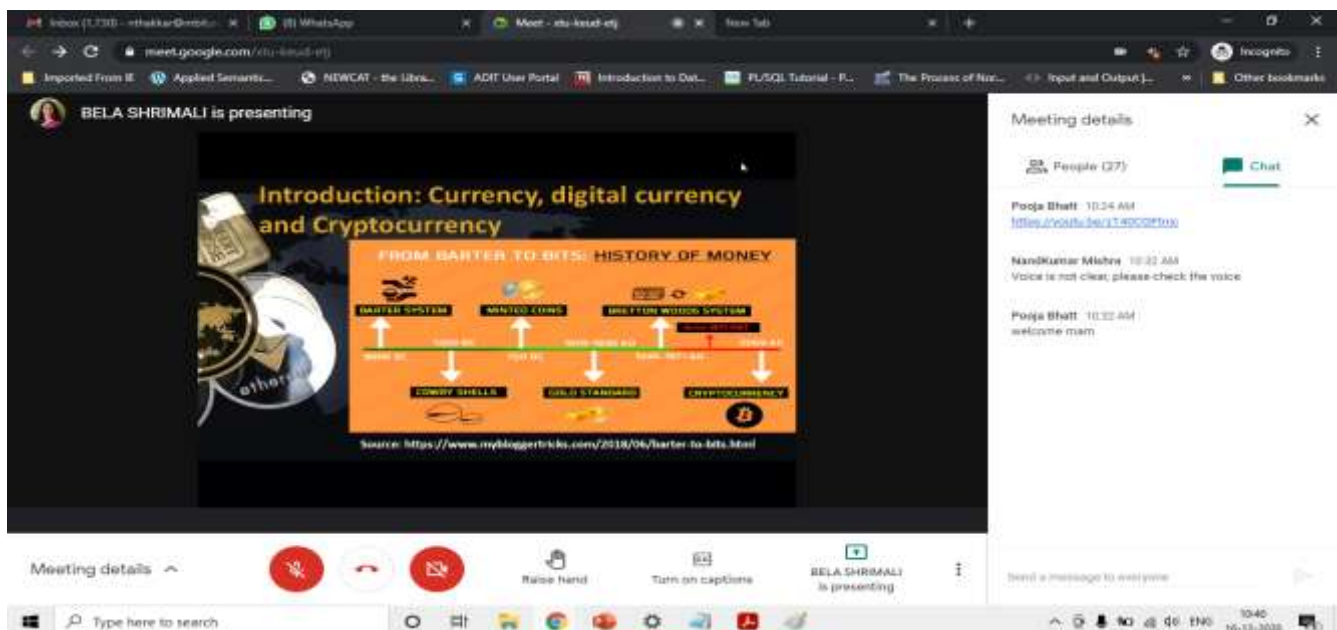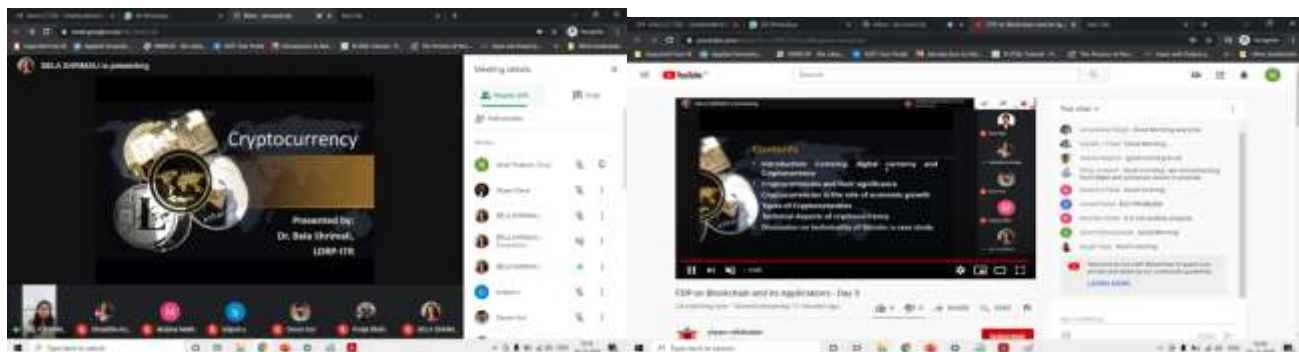Finally he has also satisfied all the participants with their questionaries.

DAY – 3: Session – 1 (16th December, 2020)

Dr. BelaShrimali (Assistant Professor, LDRP-ITR, Gandhiagar) conducted session on 16th December, 2020 during 10:30 AM to 12:00 PM.He delivered a talk on: **Currency, Digital-currency, Crypto-Currency and Road Ahead**

On day 3 in firt session, Dr. BelaShrimalidelived her knowledge with High-tech enables payment evolution and global competition. The ambiguities surrounding of the digital currency still leave enough space for the analysis of its unreserved acceptance, trust and anticipation, which are the main driver for the spread of the network. Banks should carefully consider the technology underlying these cryptocurrencies as a potential generic new way of transferring ownership of the value over the long term.

Expert has transformed her knowledge on cyptocurrencies in the application of block chain nicely.

DAY – 3: Session – 2 (16th December, 2020)

Dr. BelaShrimali (Assistant Professor, LDRP-ITR, Gandhiagar) conducted session on 16th December, 2020 during 01:00 AM to 2:30 PM.He delivered a talk on: **Hands-on session on the creation of the smart contract, smart contract with front end application with truffle**

She also explained Smart contracts is a term used to describe computer code that automatically executes all or parts of an agreement and is stored on a blockchain-based platform.The code can either be the sole manifestation of the agreement between the parties or might complement a traditional text-based contract and execute certain provisions, such as transferring funds from Party A to Party B.

She has put her tremendous effort via hands on session to create smart contract with truffle to all participants in the second session on day 3
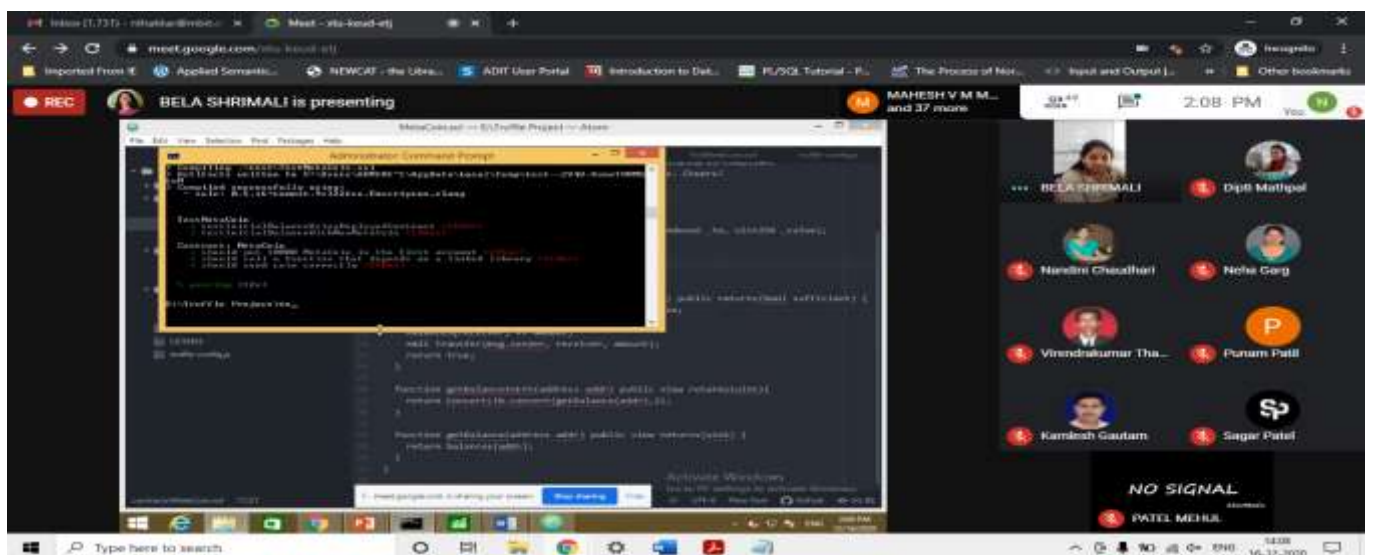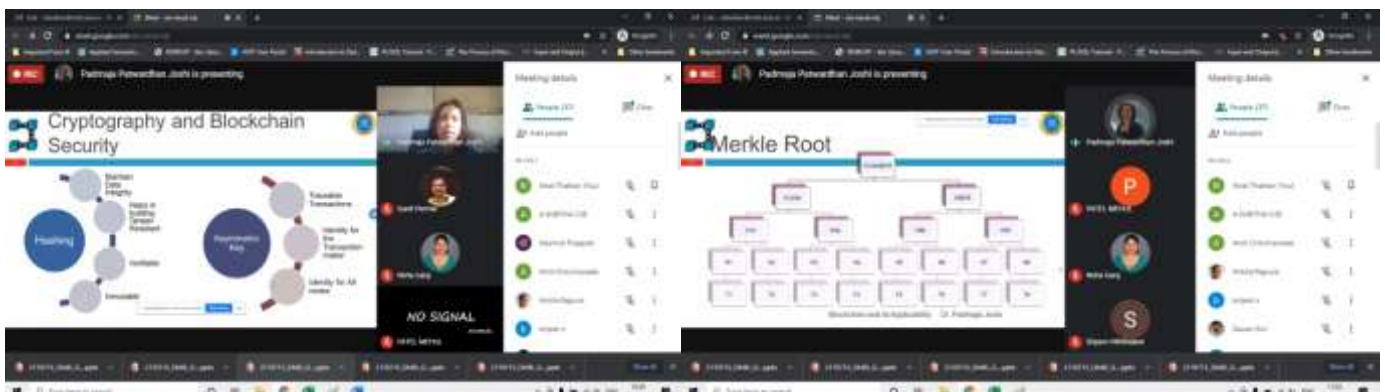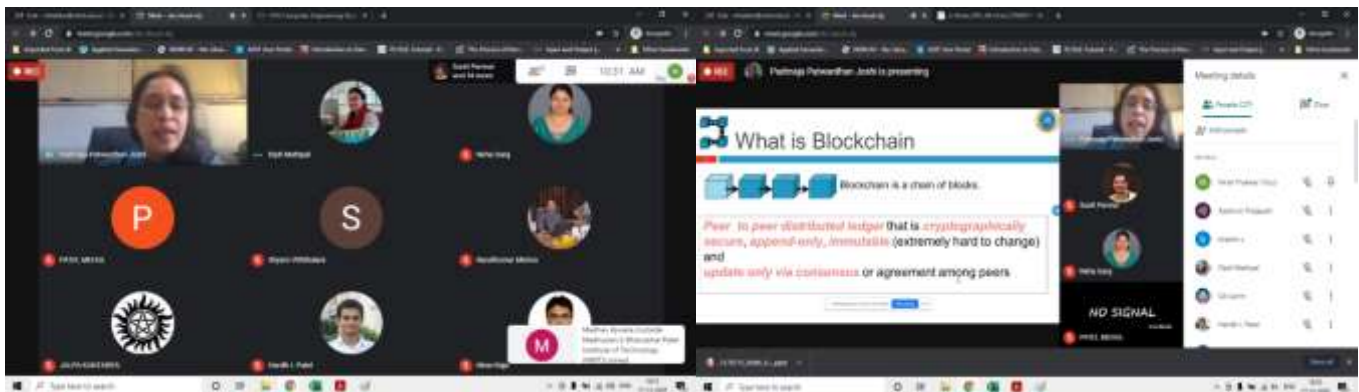
DAY – 4: Session – 1 (17th December, 2020)

Dr. Padmaja Joshi (Senior Director, C-DAC, Mumbai) conducted session on 17th December, 2020 during 10:30 AM to 12:00 PM.He delivered a talk on**: Security & Privacy concern in Block chain**

On day 4, in first session Dr. Padmaja Joshi explore Blockchain is a technology that is developed using a combination of various techniques such as mathematics, algorithms, cryptography and economic models. Blockchain is a public ledger of all crypto currency transactions that are digitized and decentralized. She also covered transactions of cryptocurrencies are stored in chronological order to help users in tracking the transactions without maintaining any central record of the transactions.

She also put her knowledge on systematic illustration on the security threats to blockchain and survey the corresponding real attacks by examining popular blockchain systems. She discussed the security and the privacy of blockchain along with their impact with regards to different trends and applications.
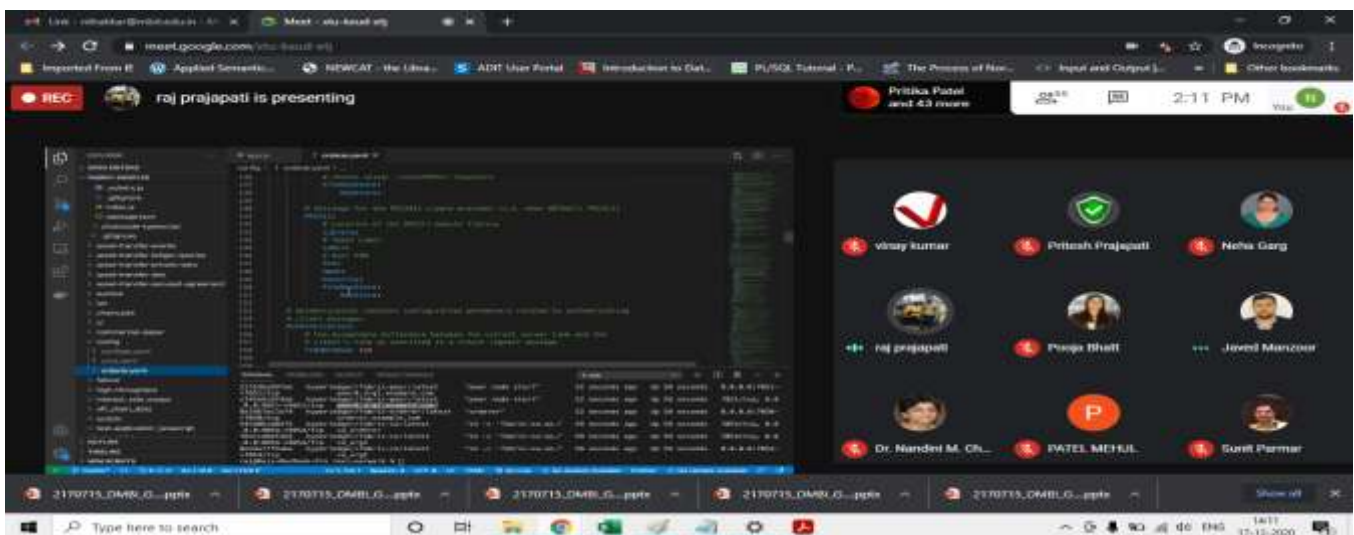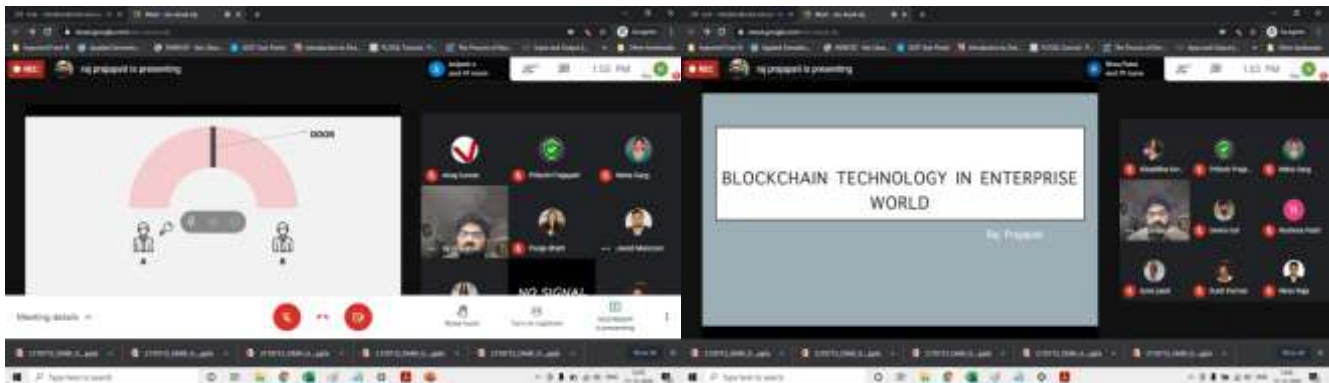
DAY – 4: Session – 2 (17th December, 2020)

Mr. Raj Prajapati (Blockchain Developer, AKcessPvt Ltd, Vadodara) conducted session on 17th December, 2020 during 01:00 AM to 2:30 PM.He delivered a talk on: **Hyperledger Fabric**

In the second session of the same day Mr. Raj Prajapati covered Hyperledger Fabric. And he has informed it is intended as a foundation for developing applications or solutions with a modular architecture. Hyperledger Fabric allows components, such as consensus and membership services, to be plug-and-play. Its modular and versatile design satisfies a broad range of industry use cases. It offers a unique approach to consensus that enables performance at scale while preserving privacy.
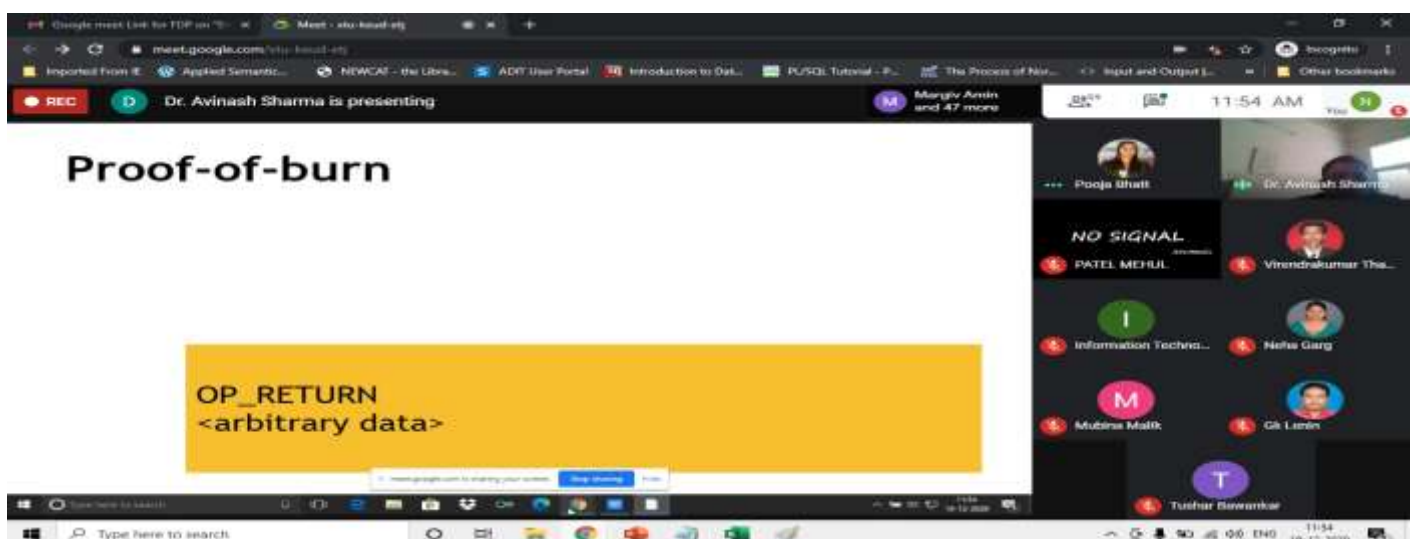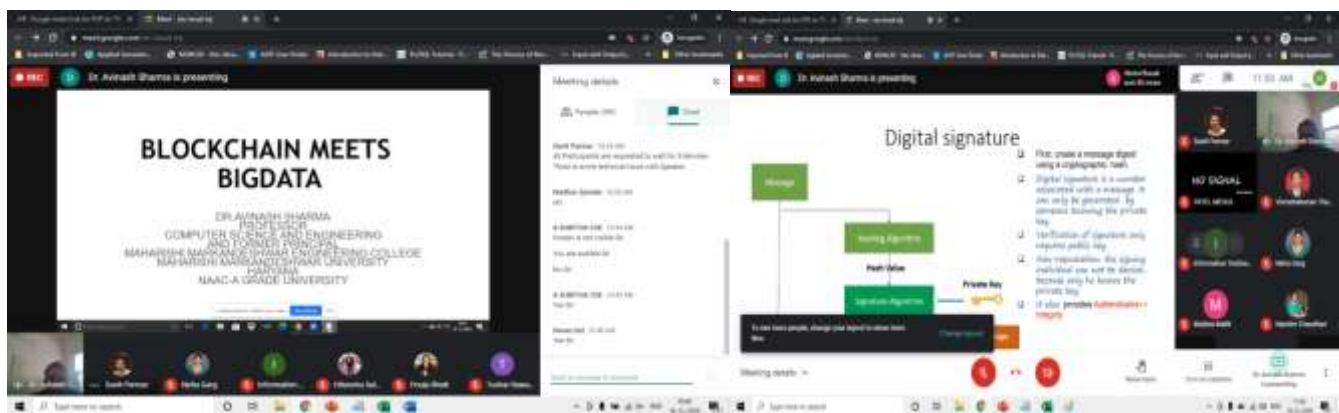
DAY – 5: Session – 1 (18th December, 2020)

Dr. Avinash Sharma (Professor & Former Principal, Maharishi Markandeshwar Engineering College, Mullana, Ambala (Haryana) conducted session on 18th December, 2020 during 10:30 AM to 12:00 PM. He delivered a talk on: **Blockchain meets Big Data**

On day 5, in first session Dr. Avinash Sharma delivered that Blockchain is a peer-to-peer distributed storage that stores chronological series of transactions in a tamper-resistant manner. Blockchain became popular in various industries due to its decentralized trust ecosystem. When integrating blockchain with big data, one encounters many challenges. Current public blockchain does not support high transaction throughput; it does not scale in terms of big data storage and management; it does not provide keyword-based search and retrieval. He concluded as a result, it is hard to incorporate existing blockchain systems for big data applications.

On the same day in session 2 Prof. Martin Parmar talked about Ethereum Network. He expressed Ethereum is a decentralized, open source, and distributed computing platform that enables the creation of smart contracts and decentralized applications, also known as dapps.
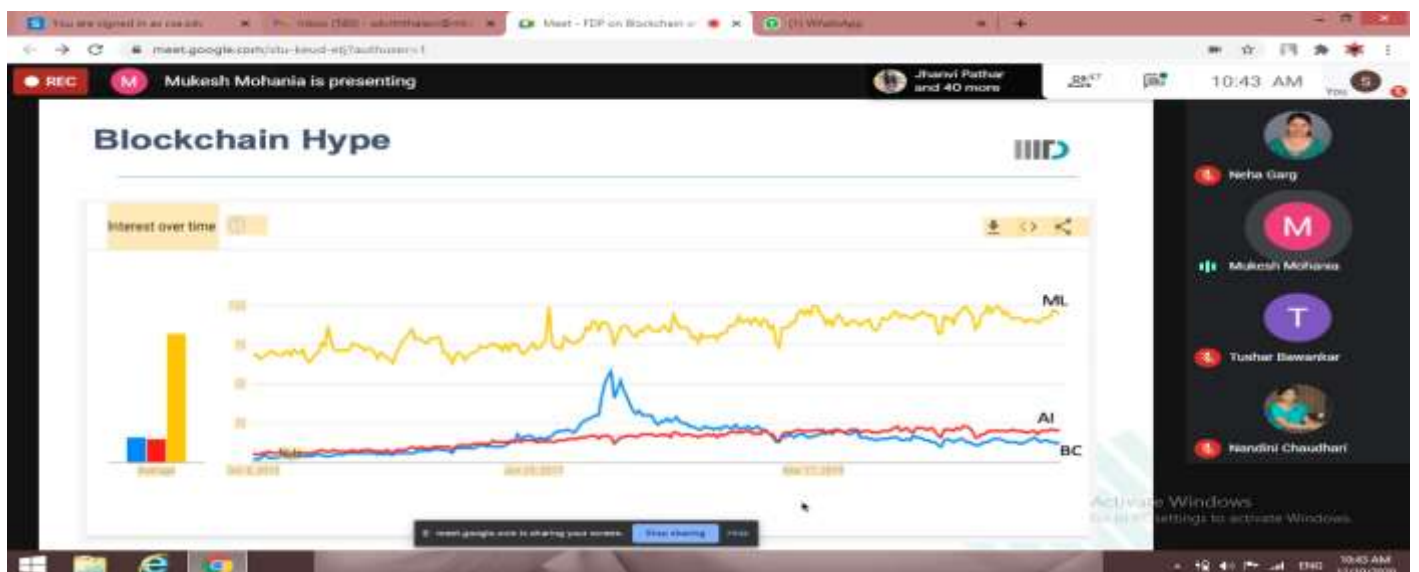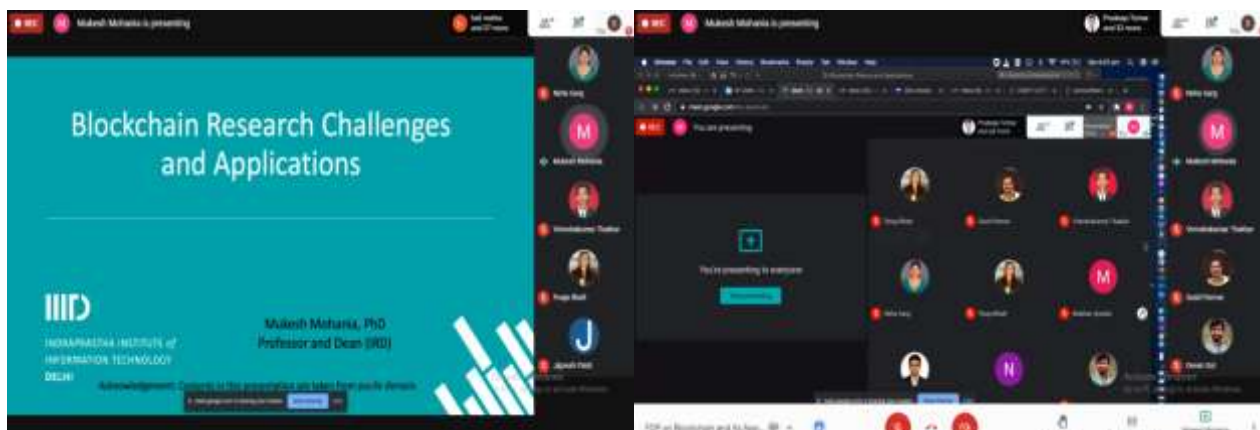
DAY – 5: Session – 2 (18th December, 2020)

Prof. Martin Parmar CSPIT, U& PU Patel Department of Computer Engineering, Charotar University of Science and Technology (CHARUSAT), Changa conducted session on 18th December, 2020 during 01:00 AM to 2:30 PM.He delivered a talk on: **Ethereum Network**

He also included the concepts of Smart contracts, which are computer protocols that facilitate, verify, or enforce the negotiation and performance of some sort of agreement. Later on he talked about a smart contract could be used to represent a legal contract emulating the logic of contractual clauses or a financial contract specifying responsibilities of the counterparts and automated flows of value.

Dr. MukeshMohania (Dean, Innovation Research and Development& Professor, CSE Dept., Indraprastha Institute of Information Technology, Delhi) conducted session on 19th December, 2020 during 10:30 AM to 12:00 PM.He delivered a talk on**Applications and Key challenges in Block chain.**

On day 6, in first session Dr. Mukesh Mohania expresses his talked with Blockchain technology has the potential to make transactions more secure and transparent and stakeholders more accountable. There are, however, a slew of challenges that need to be addressed before large-scale adoption of Blockchain is possible. He focused security issued in the development of blockchain and how to overcome from it.

He covered Scalability, Energy consumption, Lack of standardization, Association with Cybercrime, Privacy and Regulatory oversight as major security factors. He ended his session with Blockchain has been considered as the technology of the future.

Total No of Participants: 156

Quiz: The Quiz was taken of 20 marks during 3:00 PM to 3:30 PM based on topics delivered during the all sessions of the FDP.

DAY – 6: Valedictory Function &Feedback (19th December,2020 4:00pm to 4:15pm)

Valedictory Function Organized on 19th December 2020 at 4.00pm. Function was commenced by **Prof. Ashwini Jha**. Vote of thank was proposed by Head of the Computer Department **Prof. Nirav Raja**. Best Three Performers based on quiz and active involvement of participantion during entire FDP were announced during valedictory function. The name of performers' are **Dr. Rajeev Pandey** UIT-RGPV Bhopal (M.P), **Prof. Madhav M. Ajwalia** IT, CSPIT, CHARUSAT, **Prof. Deven Gol**, GCET.
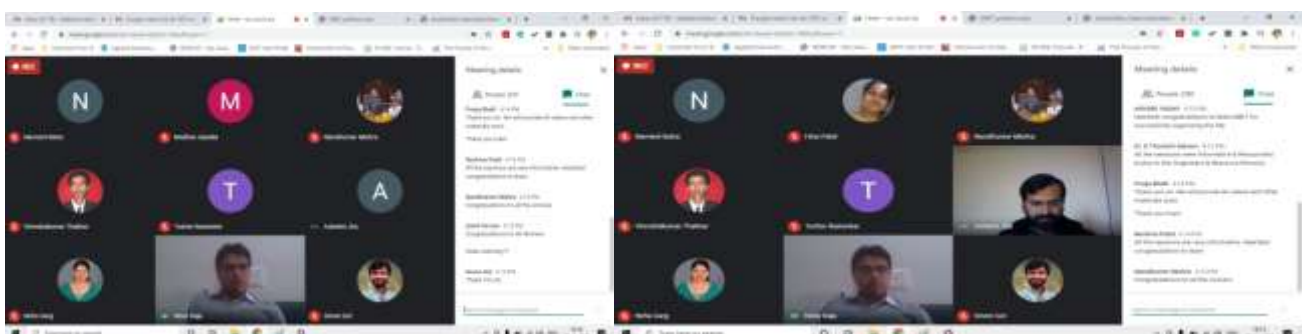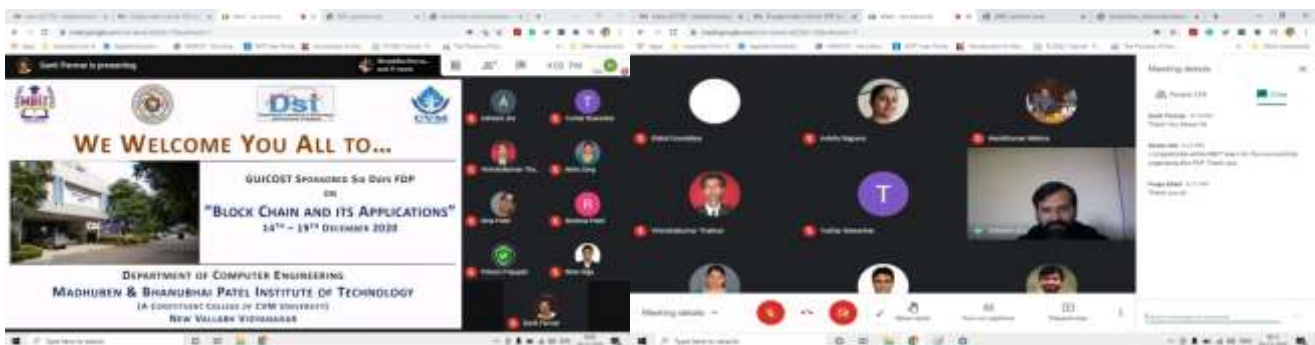
Feedback

- Keep doing such type of excellent events. Waiting for an announcement of next event.
- **Ankita Soni**

- All the sessions are so useful and wonderful. All the topics were explained so well. All the experts are very knowledgeable. Especially thanks to the management team of this FDP, again thanks to MBIT. Thank you.
- **Hardik I. Patel**

- All sessions are knowledgeable. All sessions are related to the topic and covered major area of block chain. Thankyou.
- **Kamlesh Gautam**

- Thank you MBIT whole team for conducting such a knowledge gathering FDP.
- **Krishna Patel**

- It's very nicely coordinated FDP. Instructions are clear and precise and coming right on time. No interruption at all even though it was organized on online platform.
- **Nand Kumar Mishra**

Organizing Team : We are thankful our principal and CVM for providing such opportunity to provide us a platform to conduct such FDP for the students & Faculties and gain knowledge in such a pandemic situation. We are also grateful to GUJCOST for providing financial support for this FDP.