



Report on a One Week Faculty Development Program on “Blockchain Technology” (19th – 23rd May 2020)

Lakireddy Bali Reddy College of Engineering (A) has organized A One Week Online Faculty Development Programme on “Block Chain Technology” from 19th – 23rd May 2020. This training program was organized by Department of CSE and have received an overwhelming response with more than 500 registrations. Out of them, we have shortlisted only 230 participants. Faculty from various institutes approved by UGC/AICTE and research scholars admitted in various Universities across the PAN India were attended this Faculty Development Program.

Date: 19/05/2020

Inauguration:

FDP was inaugurated on 19/05/2020 by **Dr. D. Veeraiah**, Professor and HOD, CSE Department and Convener of FDP. **Dr. K. Appa Rao**, principal, L.B.R.C.E has explained the importance of Faculty Development Programs and given his best wishes. **Dr. M Srinivasa Rao**, Professor introduced the resource person **Mr. T. Ram Kumar**, Senior Lead software engineer, Innovation Labs, Hyderabad.

Mr T Ram Kumar is a Blockchain Developer and Trainer and played critical role in developing many DApps and POC's in public and private blockchain technologies. He has very good exposure in Hyperledger Fabric. He has 15 + years of IT and teaching experience, presently working as a Senior Lead Software Engineer (Blockchain Technology) at Innovation Labs, Hyderabad, and extremely passionate about Blockchain Technology and love training people. He conducted many workshops at various colleges in and around Hyderabad for which he got excellent feedback. He has done the following Professional Certification courses

- CCNA Certificate Holder
- Certified Ethereum Expert
- Certified Solidity Developer
- Certified Hyperledger Expert
- IBM Data Science Certified

Mr. L.V Krishna Rao, Coordinator, has welcomed all the delegates and participants to the FDP. In his speech, Mr. L.V Krishna Rao has highlighted the main objective and importance of this Faculty Development Programme.

In his Inaugural Speech, Dr. D. Veeraiah, HoD CSE Department gave his insights about the Block Chain Technology. In his speech he quoted that block chain became the future of the cyber security and Every Company is investing a lot to preserve their data and securing them from threats.

The following topics have been explained by the resource person Mr. T. Ram Kumar, Senior Lead software engineer, Innovation Labs, Hyderabad



Inauguration Speech by
Dr. K Appa Rao, Principal and Dr. D Veeraiah, HOD, Department of CSE

Day 1: 19/05/2020

Topic: Introduction to Blockchain

Key Vocabulary of Blockchain

Distinction between Database and Blockchain

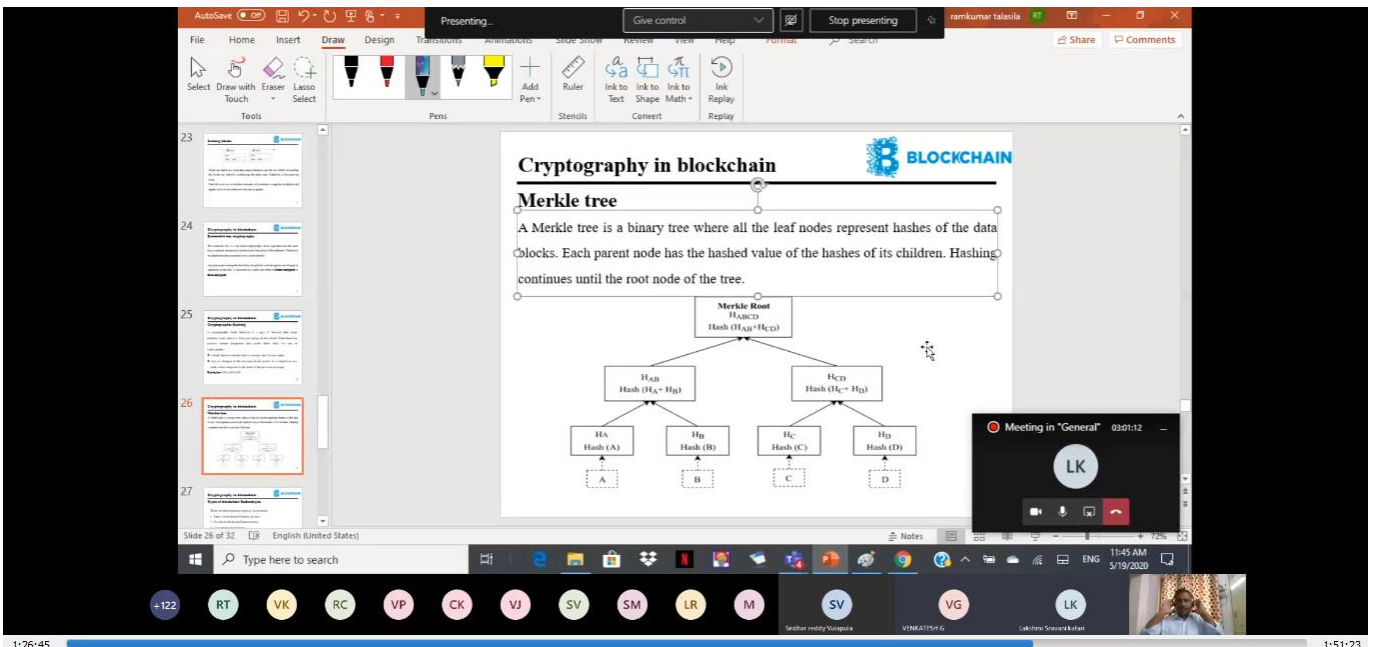
Distributed Ledger

Structure of a block, How Blockchain ecosystem works

Brief discussion on Digital signatures, Public Key Cryptography and Hash function

Advantages of Blockchain Technology

Hands on: Demonstrating hash function.



Day 1 Presentation by resource person Sri. T. Ram Kumar

Day 2: 20/05/2020

Topic: Block Chain types and applications

Types of Blockchain, Generations of Blockchain

Example Blockchain Applications

Blockchain Technology in scientific applications.

How to choose a Blockchain Technology for use case?

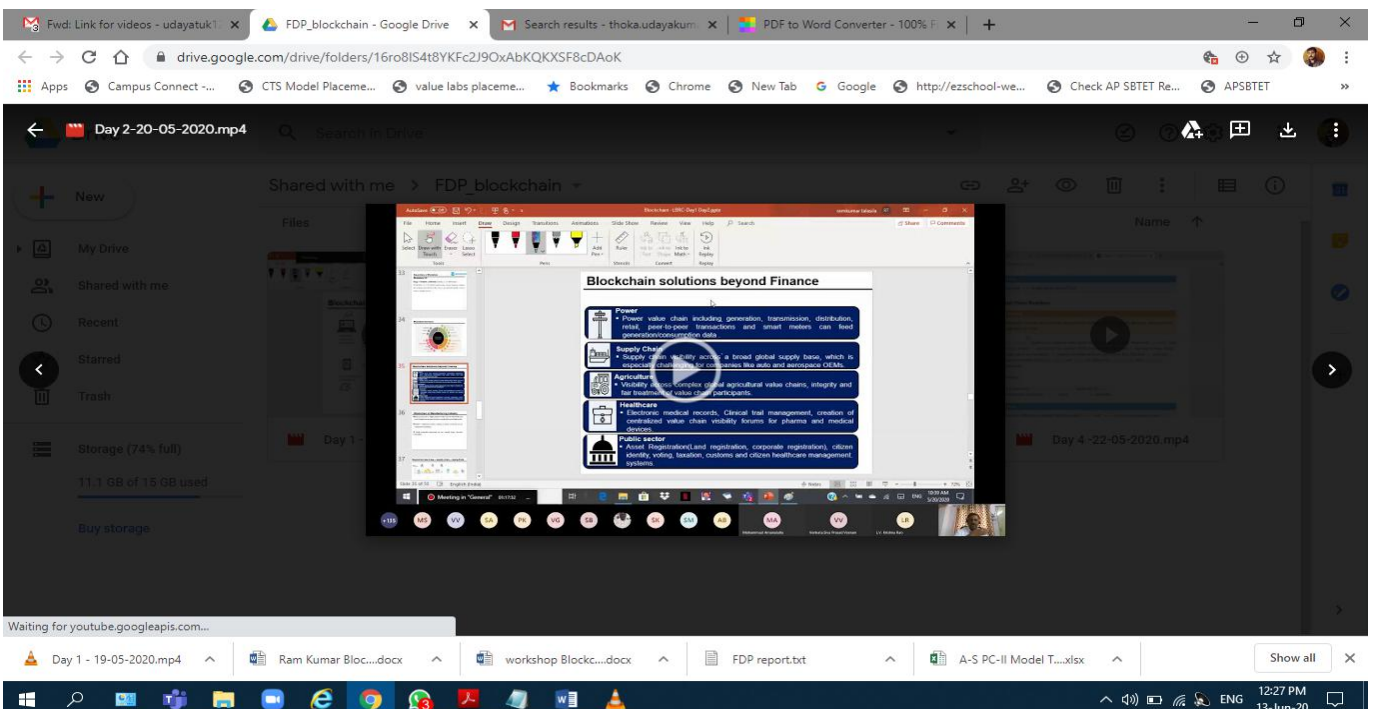
The role of Consensus algorithms

Different types of consensus algorithms

Wallets its Importance, types and familiar wallets.

Hands on:

Demonstration of Blockchain



Day 2 Presentation by resource person Sri. T. Ram Kumar

Day 3: 21/05/2020

Topic: Ethereum Architecture

How blockchain is implemented in Ethereum

Components of Ethereum

What is smart contract?

Solidity Contract Structure

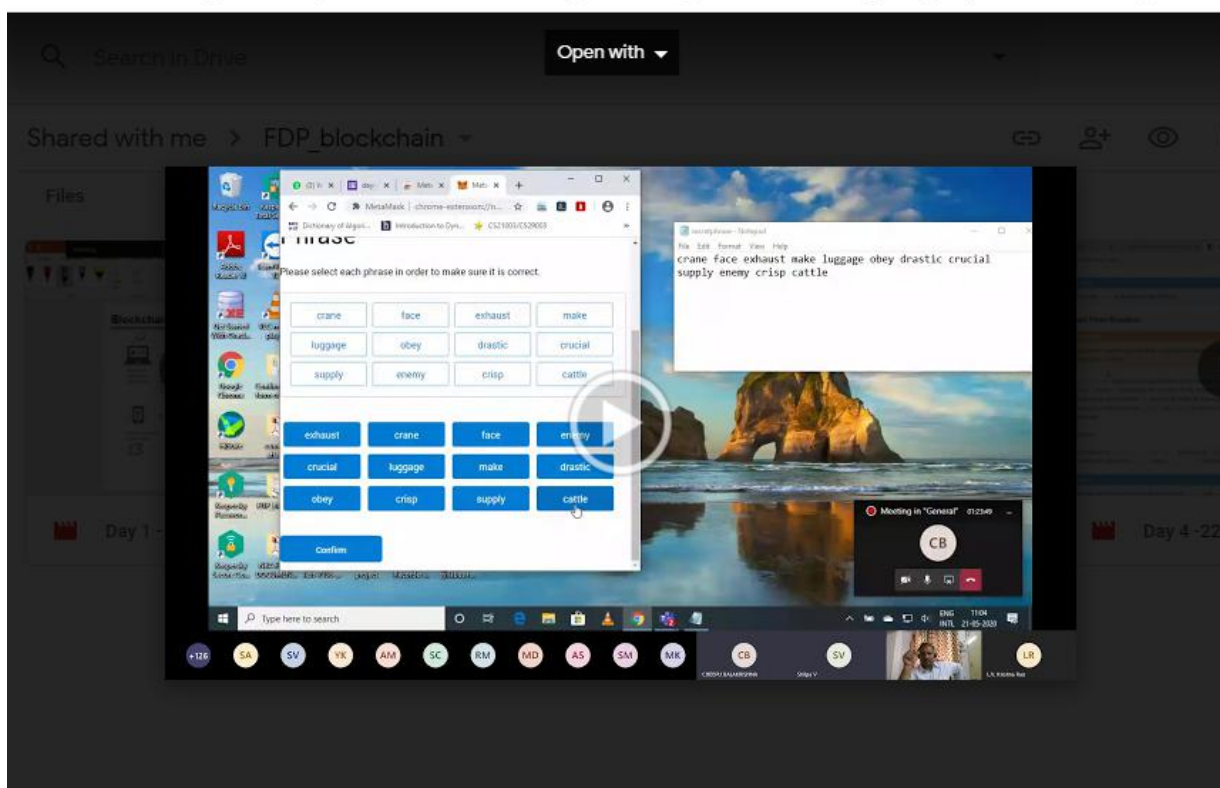
Solidity Basic Data Types

Functions and conditionals.

Hands on:

Demonstration of Remix (a web based IDE for solidity).

Creating a simple contract, compiling, deploying contract in test net and interacting with it.



Day 3 Presentation by resource person Sri. T. Ram Kumar

Day 4: 22/05/2020

Topic: Error handling

Arrays, Struts, Mappings and Enumerations

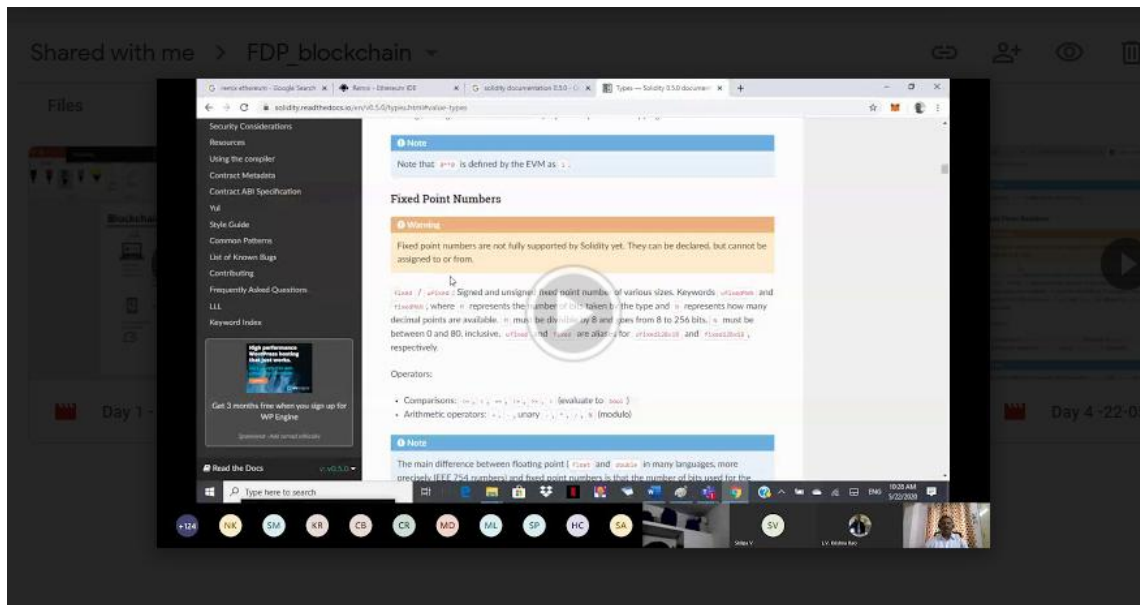
Function Modifiers

Error Handling in Contracts

Hands on:

Demonstration of Remix (a web based IDE for solidity).

Creating a simple contract, compiling, deploying contract in test net and interacting with it.



Day 4 Presentation by resource person Sri. T. Ram Kumar

Day 5: 23/05/2020

Topic: Block chain application deployment

Web3JS

End – to – End Application Development and Deployment.

Date: 23/05/2020 Valedictory Session:

On the Valedictory Session, our Principal, Dr. K. Appa Rao, joined the session as a Chief Guest along with Dr. D. Veeraiah, Professor and HOD, CSE Department and Convener of FDP, Mr. T. Ram Kumar, Senior Lead software engineer, Innovation Labs, Hyderabad and Mr. M. Srinivasa Rao, Professor, CSE Department and Coordinator of FDP.

Dr. K. Appa Rao, Principal, LBRCE (A), in his valedictory addressing, thanked every participant for spending their valuable time and attending 5 day FDP. Also congratulated the Program Convener Dr. D. Veeraiah and program coordinators Mr. M. Srinivasa Rao, Mr. L.V. Krishna Rao Mr. T. Udaya Kumar and Mr. V. Siva Krishna for organizing the FDP in a successful manner. Further, he appreciated all the Teaching and Non-Teaching Staff Members of CSE Department for promoting such kind of programme for the faculties who attended from all over India.


At the end of the valedictory session, vote of thanks was given by Mr. M. Srinivasa Rao, Coordinator of the FDP in which he has been paid his gratitude towards all the participants who has spared their valuable time for attending this FDP. He also expressed the gratitude to the Resource Person, Mr. T. Ram Kumar for giving his valuable time for our participants and sharing his knowledge to them. Nevertheless, he expressed his sincere thanks to Sri. G. Srinivasa Reddy, President, Dr. K. Appa Rao Principal and Dr. D. Veeraiah, HOD, CSE Department.

“We are highly thankful to the Management, Principal and Head of the Department for giving us an opportunity to organize this


FDP in our campus and hope we will find the support in future also for organizing such kind of activities.”

Feedback from the Participants:

The feedback of the participants was very positive and motivational for the organizers. The participants felt very happy for conducting the Hands-on FDP on Blockchain Technology. They have learned a lot on Blockchain Technology in both theoretical and practical manner. They said that, this program was very useful and helpful for them in their research work and guiding the projects to the students. All the participants appreciated the sessions by our Resource Person and the arrangements made by the organizers. They expressed their satisfaction about the quality of video and audio streaming in online.


Coordinator
(Dr. M. Srinivas Rao)


Convener
(Dr. D. Veeriah)


Principal
(Dr. K. Appa Rao)