



## MALLA REDDY ENGINEERING COLLEGE

(Autonomous)

Maisammaguda(H), Gundlapochampally Village, Medchal  
Mandal, Medchal-Malkajgiri District, Telangana State – 500100

### CIRCULAR

Date: 27/11/2019

All the 2<sup>nd</sup>/II Sem Year students are hereby informed that the Malla Reddy Engineering College (Autonomous) is planning to organize Value Added Courses like Industrial Robotics, Multimedia - 2D & 3D Basic Concepts, Green Matte Studio - Video Effects/Transitions, Different Technologies of Additive Manufacturing, Python with DJANGO, Foundations of Blockchain, Labview in Centre Of Excellence. In this regard Interested students are hereby directed to register for this Courses on or before 02/12/2019. For further details, please contact Centre of Excellence, MREC(A)

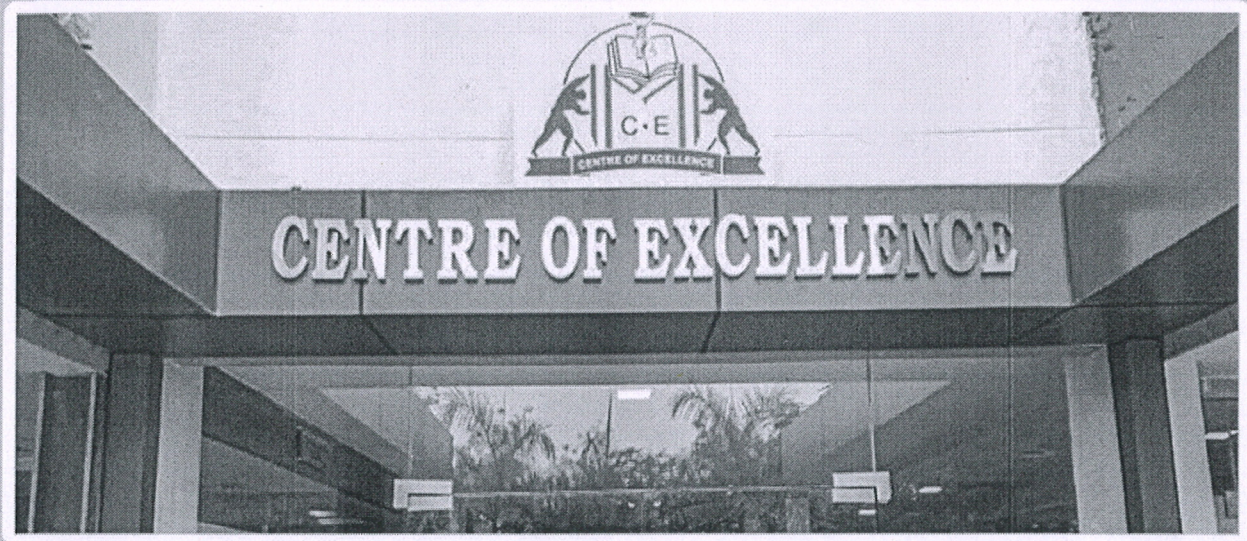
  
Principal  
Malla Reddy Engineering College  
Maisammaguda, Dhulapally,  
(Post Via Kompally), Sec'bad-500100

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9. Transport Manager-for necessary action
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11. Admin Office
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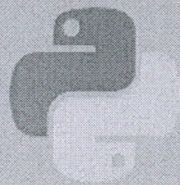
**MALLA REDDY ENGINEERING COLLEGE**  
**MAIN CAMPUS, AUTONOMOUS INSTITUTION**  
Maisammaguda, Dhulapally (Post) via Kompally,  
Secunderabad-500100 Medchal - Malkajgiri District Telangana, India



## **COMPUTER SOFTWARE**

**HTML ,PYTHON WITH DJANGO ,JAVA ,  
SCRATCH PROGRAMMING**

**LAB VIEW, FOUNDATION OF BLOCK CHAIN,  
MATLAB, BLOCK CHAIN REVOLUTION, MATLAB PRO,  
ADVANCE JAVA, ADVANCE PYTHON.**



python



Java

**Course Duration -: 4 Months**

**Before Software can be Reusable  
it First has to be Usable.**

*Raveesh*  
Principal  
Malla Reddy Engineering College  
Maisammaguda, Dhulapally,  
(Post Via Kompally), Sec'bad-500100



# **MALLA REDDY ENGINEERING COLLEGE**

(An UGC Autonomous Institution, Affiliated to JNTUH,  
Accredited 2nd time by NAAC with 'A' Grade & NBA)  
Maisammaguda (H), Medchal-Malkajgiri District,  
Telangana State – 500100

## **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

### **Course Name: Fundamentals of Blockchain Technology**

Introduction of Cryptography and Blockchain:

What is Blockchain, Blockchain Technology Mechanisms & Networks, Blockchain Origins, Objective of Blockchain, Blockchain Challenges, Transactions And Blocks, P2P Systems, Keys As Identity, Digital Signatures, Hashing, and public key cryptosystems, private vs. public Blockchain

BitCoin and Cryptocurrency:

What is Bitcoin, The Bitcoin Network, The Bitcoin Mining Process, Mining Developments, Bitcoin Wallets, Decentralization and Hard Forks, Ethereum Virtual Machine (EVM), Merkle Tree, Double-Spend Problem, Blockchain And Digital Currency, Transactional Blocks, Impact Of Blockchain Technology On Cryptocurrency.

Introduction to Ethereum:

What is Ethereum, Introduction to Ethereum, Consensus Mechanisms, How Smart Contracts Work, Metamask Setup, Ethereum Accounts, Receiving Ether's What's a Transaction?, Smart Contracts.

Introduction to Hyperledger:

What is Hyperledger? Distributed Ledger Technology & its Challenges, Hyperledger & Distributed Ledger Technology, Hyperledger Fabric, Hyperledger Composer

Solidity Programming:

Solidity - Language of Smart Contracts, Installing Solidity & Ethereum Wallet, Basics of Solidity, Layout of a Solidity Source File & Structure of Smart Contracts, General Value Types (Int, Real, String, Bytes, Arrays, Mapping, Enum, address

Blockchain Applications:

Internet of Things, Medical Record Management System, Domain Name Service and Future of Blockchain, Alt Coins



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Telangana State - 500100

Course:  
Foundations Of  
BOCKCHAIN  
&LABVIEW

Date:02/12/2019  
to 28/03/2020

Registered Students

SL.No	Roll No	NAME	BRANCH
1.	19J41A0106	ANUJ ROY	CE
2.	19J41A0107	ARE ABHINAV	CE
3.	19J41A0108	BAGANAGARI DHANUSH GOUD	CE
4.	19J41A1203	AILY NEERAJ	IT
5.	19J41A1204	ALIMI ADITYA	IT
6.	19J41A1205	ALLURI ROHITH REDDY	IT
7.	19J41A0207	B.VARSHA	EEE
8.	19J41A0209	B.SANDEEP	EEE
9.	19J41A0210	B.HARSHA VARDHAN	EEE
10.	19J41A0220	G.SAI KRISHNA	EEE
11.	19J41A0307	ARUN NAIK KATROTH	ME
12.	19J41A0309	BHUKYA MAHESH	ME
13.	19J41A0310	BHUKYA SIDDU	ME
14.	19J41A0311	BODA ANIL	ME
15.	19J41A0316	DONTHU SANJAY	ME
16.	19J41A0317	EDEM SHIVA SANTOSH PRASAD	ME
17.	19J41A0328	KELOTH PRAVEEN	ME
18.	19J41A0407	BANDI PRIYANKA	ECE
19.	19J41A0408	BANOTH CHAKRI	ECE
20.	19J41A0409	BHUKYA RAJENDER	ECE
21.	19J41A0410	BIJJA ABHINAV	ECE
22.	19J41A0411	BOINI SAI PRAKASH	ECE
23.	19J41A0413	BOYAPATI SREYA REDDY	ECE
24.	19J41A0427	GUDE NARENDER	ECE
25.	19J45A2502	BATHINI VIJAY KUMAR	MINING
26.	19J41A2512	CHILUMULA PRAVEEN	MINING
27.	19J41A0508	BANJA ASHITHA	CSE
28.	19J41A0512	BONASPURAM DIVESH REDDY	CSE
29.	19J41A0524	HITEESHA GELLANKI	CSE
30.	19J41A0530	KUTHATI HARIKA	CSE

*Ramesh*  
Principal  
Malla Reddy Engineering College  
Maisammaguda, Dhulapally,  
(Post Via Kompally), Sec'bad-500100

## SUMMARY

### FOUNDATIONS OF BLOCKCHAIN

Blockchain is a specific type of database. It differs from a typical database in the way it stores information; blockchains store data in blocks that are then chained together. As new data comes in it is entered into a fresh block

Although blockchain has a variety of definitions, a blockchain can best be described as a data structure of blocks that are chained together to form a collection of records, called a ledger, with cryptography being a key ingredient in the process. A blockchain doesn't have a storage mechanism; instead, it has a set of protocols that govern the way in which information is forged. So, a blockchain can be stored in flat files or in a database.

Blockchain technology gained popularity due to the fact that its integrity can't easily be compromised. A compromised blockchain can be recognized for what it is, and rejected quite easily by anyone in a network. This integrity is achieved by cryptography, which is what binds the blocks together; we'll study this idea of cryptography

Blockchain's promise of providing such robust integrity is what eventually paved the way for the idea of sharing chains of data in untrusted **peer-to-peer (P2P)** networks. Validation of the blocks in a blockchain is what makes sure that a blockchain has a valid global state that can be accepted by everyone. Due to a blockchain's ability to share information in an open P2P network without any central authority governing it, the technology can have many different applications; however, the technology could not simply just be deployed to these applications immediately without any troubleshooting. Although blockchain technology, from the beginning, had a huge role to play in the decentralization of applications, it still faced several challenges with regards to its application in trustless environments. One of the biggest challenges was keeping a blockchain consistent across all the participants of a P2P network. This was solved by creating a consensus algorithm, which agrees on how the blocks should be appended to grow the chain in a trustless environment.

The term blockchain actually entails a number of concepts, including P2P network management, consensus mechanism, and more, all contributing to the creation of a decentralized application.



# MALLA REDDY ENGINEERING COLLEGE

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## Certificate Of the Course Completion

*This is to Certify that*

**Karukla Uday Kiran**

*has Successfully Completed Foundation of Blockchain  
Course Offered by Centre of Excellence, MRECS(A) on 28/03/2020  
bearing with Roll No. 18J41A0228 and Branch EEE.*

Dr.N.Rishikanth  
COE Dean

Principal  
Malla Reddy Engineering College  
Maisamaguda, Dhulapally,  
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Dr.S.Sudhakar Reddy  
Conference Chair &Principal



# MALLA REDDY ENGINEERING COLLEGE

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## Certificate Of the Course Completion

*This is to Certify that*

**TRISHA VUDEPU**

*has Successfully Completed Foundation of Blockchain  
Course Offered by Centre of Excellence, MREC(A) on 28/03/2020  
bearing with Roll No. 18J41A0556 and Branch CSE.*

Dr.N.Rishikanth  
COE Dean

Principal  
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Post Via Kompally, Sec'bad-500100

Dr.S.Sudhakar Reddy  
Conference Chair &Principal



**MALLA REDDY ENGINEERING COLLEGE**  
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**Certificate**  
**Of the Course Completion**

*This is to Certify that*

**B.Chandu yadav**

*has Successfully Completed Foundation of Blockchain*  
*Course Offered by Centre of Excellence, MREC(A) on 28/03/2020*  
*bearing with Roll No. 18J41A0114 and Branch CSE.*

**Dr.N.Rishikanth**  
COE Dean

**Principal**  
**Malla Reddy Engineering College**  
**Malsammaquda, Dhulapally,**  
**(Post Via Kompally), Sec'bad-500100**

**Dr.S.Sudhakar Reddy**  
Conference Chair &Principal





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## Certificate Of the Course Completion

*This is to Certify that*

**DANAM SAISANATH**

*has Successfully Completed Foundation of Blockchain  
Course Offered by Centre of Excellence, MREC(A) on 28/03/2020  
bearing with Roll No. 18J41A0310 and Branch ME.*

Dr.N.Rishikanth  
COE Dean

Principal  
Malla Reddy Engineering College  
Maisamaguda, Dhulapally,  
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Dr.S.Sudhakar Reddy  
Conference Chair &Principal



# MALLA REDDY ENGINEERING COLLEGE

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## Certificate Of the Course Completion

*This is to Certify that*

**GURRALA SUCHARITHA**

*has Successfully Completed Foundation of Blockchain  
Course Offered by Centre of Excellence, MRECA(A) on 28/03/2020  
bearing with Roll No. 18J41A1222 and Branch IT.*

Dr.N.Rishikanth  
COE Dean

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Dr.S.Sudhakar Reddy  
Conference Chair & Principal