



## MALLA REDDY ENGINEERING COLLEGE

(Autonomous)

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

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### CIRCULAR

Date: 12/12/2017

All the 2<sup>nd</sup>/II Year/Sem students are hereby informed that the Malla Reddy Engineering College (Autonomous) is planning to organize Value Added Courses like Autonomous Robotics -II, Multimedia - 2D Basic Concepts, Green Matte Studio - Audio Editing, 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 18/12/2017. For further details, please contact Centre of Excellence, MREC(A)

  
Principal

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

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11. Admin Office
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13. Placement Cell
14. PA to Principal for Filling





**MALLA REDDY ENGINEERING COLLEGE**

**MAIN CAMPUS, AUTONOMOUS INSTITUTION**

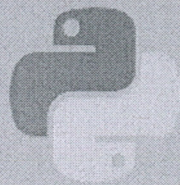
Maisammaguda, Dhulapally (Post) via Kompally,  
Secunderabad-500100 Medchal - Malkajgiri District Telangana, India



## **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

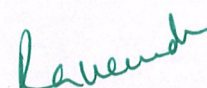
Blockchain Applications:

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

	<p style="text-align: center;"><b>MALLA REDDY ENGINEERING COLLEGE (Autonomous)</b> Maisammaguda(H), Gundlapochampally Village, Medchal Mandal, Medchal-Malkajgiri District, Telangana State - 500100</p>	<p>Course: FOUNDATIONS OF BOCKCHAIN Date: 18/12/2017 to 19/04/2018</p>
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Registered Students

SL.No	Roll No	NAME	BRANCH
1.	16J41A01C1	ADHIKAM SAI NAVARAG GOUD	CE
2.	16J41A01C6	BEGARI MANIDEEP	CE
3.	16J41A01D1	CHITHALURI ANIL	CE
4.	16J41A01E0	GSL BHARADWAJ	CE
5.	16J41A01E6	KUPPIREDDY SUPRITHA REDDY	CE
6.	16J41A01F1	MD. UMAR FAROOQ	CE
7.	16J41A0214	CHINTHAKUNTA PAVAN KUMAR REDDY	EEE
8.	16J41A0219	G SANJANA	EEE
9.	16J41A0225	K.BHAGYA LAKSHMI	EEE
10.	16J41A0232	KOTTAKONDA SAIRAM	EEE
11.	16J41A0239	MATETI JAHAVALI	EEE
12.	16J41A0240	MD ATIQ	EEE
13.	16J41A03C4	B.HARI SAI NATH REDDY	ME
14.	16J41A03D0	CHANDURI RISHITH	ME
15.	16J41A03D5	DEGALA VIJAY KUMAR	ME
16.	16J41A03E4	GURRAM VAMSHIKRISHNA	ME
17.	16J41A03F3	KOCHERLA SNEHITH RAJ	ME
18.	16J41A03F6	MOHAMMAD SALMAN AFRIDI	ME
19.	16J41A04C4	BANOTH VIHAR	ECE
20.	16J41A04C8	BODLA MANORITHA	ECE
21.	16J41A04D9	GOURARAM SHRAVAN KUMAR	ECE
22.	16J41A04E6	KOPPULA MAHESWARA REDDY	ECE
23.	16J41A04F4	MUDDANGULA MAHENDAR	ECE
24.	16J41A04C1	ANCHURI VYSHALI	ECE
25.	16J41A05C4	AKUDHUTA SRIJA	CSE
26.	16J41A05E6	GUGULOTH SAI KIRAN	CSE
27.	16J41A05E7	GUNDALA BHARATH REDDY	CSE
28.	16J41A05E8	INDUKURI TEJA SHANMUK PRASAD RAJU	CSE
29.	16J41A05E9	JAKKU SACHIN	CSE
30.	16J41A05F2	KONDUBHATLA SAI ANUHYA	CsE

  
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**Malla Reddy Engineering College**  
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## 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*

GURRAM VAMSHIKRISHNA

*has Successfully Completed Foundation Of Block Chain  
Offered by Centre of Excellence, MREC(A) on 19/04/2018 bearing  
with Roll No. 16J41A03E4 and Branch ME.*

*Dr. Yogesh Madaria*

Dr. Yogesh Madaria  
CONVENOR

*Raveend*

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

*Dr. S. Sudhakara Reddy*

Dr. S. Sudhakara Reddy  
Conference Chair & Principal





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## Certificate Of the Course Completion

*This is to Certify that*

**JAKKU SACHIN**

*has Successfully Completed Foundation Of Block Chain  
Offered by Centre of Excellence, MREC(A) on 19/04/2018 bearing  
with Roll No. 16J41A05E9 and Branch CSE.*

Dr. Yogesh Madaria  
CONVENOR

Principal  
Malla Reddy Engineering College  
Maisammaguda, Dhulapally,  
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Dr. S. Sudhakara Reddy  
Conference Chair & Principal





# MALLA REDDY ENGINEERING COLLEGE

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## Certificate Of the Course Completion

*This is to Certify that*

**BEGARI MANIDEEP**

*has Successfully Completed Foundation Of Bock Chain  
Offered by Centre of Excellence, MREC(A) on 19/04/2018 bearing  
with Roll No. 16J41A01C6 and Branch CE.*

*Yogesh*

Dr. Yogesh Madaria  
CONVENOR

*Ravendra*

*for*

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

Dr. S. Sudhakara Reddy  
Conference Chair & Principal