



SWARNANDHRA

COLLEGE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS)

Accredited by National Board of Accreditation, AICTE, New Delhi, Accredited by
NAAC with "A" Grade – 3.32 CGPA, Recognized under 2(f) & 12(B) of UGC Act 1956,
Approved by AICTE, New Delhi, Permanent Affiliation to JNTUK, Kakinada
Seetharampuram, W.G.DT., Narsapur-534280, (Andhra Pradesh)

DEPARTMENT OF INFORMATION TECHNOLOGY

TEACHING PLAN

Course Code	Course Title	Semester	Branch	Contact Periods /Week	Academic Year	Date of commencement of Semester
20AM7E01	BLOCK CHAIN TECHNOLOGIES	VII	CSE-DS	5	2025-26	09-06-2025
COURSE OUTCOMES						
1	Demonstrate the block chain basics, Crypto currency					
2	To compare and contrast the use of different private vs. public block chain and use cases					
3	Design an innovative Bit coin Block chain and scripts, Block chain Science on varies coins					
4	Classify Permission Block chain and use cases – Hyper ledger, Corda					
5	Make Use of Block-chain in E-Governance, Land Registration, Medical Information Systems and others					
UNIT	Out Comes / Bloom's Level	Topics No.	Topics/ Activity	Text Book/ Reference	Contact Hour	Delivery Method
I	CO – 1	1.1	Introduction, basic ideas behind block chain	T1,T2	1	Chalk & Board
		1.2	how it is changing the landscape of digitalization	T1,T2	1	
		1.3	introduction to cryptographic concepts required	T1,T2	1	
		1.4	Block chain or distributed trust	T1,T2	1	Power point presentation
		1.5	Currency, Cryptocurrency	T1,T2	1	
		1.6	Currency, Cryptocurrency	T1,T2	1	Assignment
		1.7	How a Cryptocurrency works	T1,T2	1	
		1.8	How a Cryptocurrency works	T1,T2	1	Test
		1.9	Financial services	T1,T2	1	
		1.10	Bitcoin prediction markets	T1,T2	1	
Total					10	
II	CO – 2	2.1	Hashing, public key cryptosystems,	T1,R1	1	Chalk & Board
		2.2	Hashing, public key cryptosystems	T1,R1	1	
		2.3	private vs public block chain and use cases,	T2,R2	1	
		2.4	Hash Puzzles	T2,R2	1	
		2.5	Hash Puzzles	T2,R2	1	



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		2.6	Extensibility of Block chain concepts,	T2,R2	1	Power point presentation
		2.7	Digital Identity verification,	T2,R2	1	
		2.8	Block chain Neutrality,	T1,T2	1	Assignment
		2.9	Block chain Neutrality,	T1,T2	1	
		2.10	Digital art	T1,T2	1	Test
		2.11	Block chain Environment	T1,T2	1	
		2.12	Block chain Environment	T1,T2	1	
Total					12	
III	CO – 3	3.1	Bitcoin Block chain and scripts	T1,T2	1	Chalk & Board
		3.2	Bitcoin Block chain and scripts	T1,T2	1	
		3.3	Use cases of Bitcoin Blockchain	T1,T2	1	
		3.4	scripting language in micropayment, escrow etc	T1,T2	1	Power point presentation
		3.5	scripting language in micropayment, escrow etc	T1,T2	1	
		3.6	Downside of Bit coin mining	T1,T2	1	Assignment
		3.7	Block chain Science: Grid coin,	T1,T2	1	
		3.8	Folding coin	T1,T2	1	Test
		3.9	Block chain Genomics	T1,T2	1	
		3.10	Bit coin MOOCs.	T1,T2	1	
Total					10	
IV	CO – 4	4.1	Ethereum continued, IOTA, The real need for mining, consensus, Byzantine Generals Problem, and Consensus as a distributed coordination problem, Coming to private or permissioned block chains, Introduction to Hyper ledger, Currency, Token, Campus coin, Coin drop as a strategy for Public adoption, Currency Multiplicity, Demurrage currency	T1,T2	1	Chalk & Board
		4.2	Ethereum continued	T1,T2	1	Power point presentation
		4.3	IOTA, The real need for mining	T1,T2	1	Assignment
		4.4	IOTA, The real need for mining	T1,T2	1	
		4.5	consensus	T1,T2	1	Test
		4.6	Byzantine Generals Problem, and Consensus as a distributed coordination problem	T1,T2	1	
		4.7	Coming to private or permissioned block chains	T1,T2	1	
		4.8	Introduction to Hyper ledger, Currency,	T1,T2	1	



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			Token, Campus coin			
		4.9	Coin drop as a strategy for Public adoption	T1,T2	1	
		4.10	Currency Multiplicity	T1,T2	1	
		4.11	Demurrage currency	T1,T2	1	
		4.12	Demurrage currency	T1,T2	1	
					Total	12
V	CO – 5	5.1	Technical challenges	T1,R1	1	Chalk & Board
		5.2	Technical challenges	T1,R1	1	
		5.3	Business model challenges	T1,R1	1	
		5.4	Business model challenges	T1,R1	1	
		5.5	Scandals and Public perception	T1,R1	1	Power point presentation
		5.6	Government Regulations	T1,R1	1	
		5.7	Uses of Block chain in E-Governance	T1,R1	1	
		5.8	Uses of Block chain in E-Governance	T1,R1	1	Assignment
		5.9	Land Registration	T1,R1	1	
		5.10	Medical Information Systems	T1,R1	1	Test
		5.11	Medical Information Systems	T1,R1	1	
					Total	11
CUMULATIVE PROPOSED PERIODS					55	
Text Books:						
S. No.	AUTHORS, BOOK TITLE, EDITION, PUBLISHER, YEAR OF PUBLICATION					
1	Blockchain Blue print for Economy by Melanie Swan					
2	Mastering Bitcoin: Unlocking Digital Cryptocurrencies, by Andreas M Antonopoulos 2018					
3	Henning Diedrich, Ethereum: Block chains, Digital Assets, Smart Contracts, Decentralized Autonomous Organizations-2016.					
Reference Books:						
S.No.	AUTHORS, BOOK TITLE, EDITION, PUBLISHER, YEAR OF PUBLICATION					
1	Blockchain Basics: A Non-Technical Introduction in 25 Steps 1st Edition, by Daniel Drescher					
2	Mastering Blockchain: Inner workings of blockchain, from cryptography and decentralized identities, to DeFi, NFTs and Web3, 4th Edition.					
Web Details:						
1	https://www.coursera.org/learn/ibm-blockchain-essentials-for-developers					
2	https://museblockchain.com/					
3	https://www.provenance.org/					



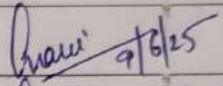
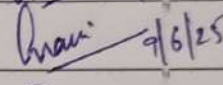
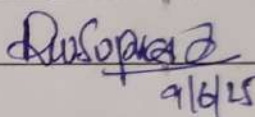
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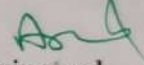
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4	https://www.coursera.org/learn/blockchain-basics
5	https://steemit.com/
6	https://101blockchains.com https://followmyvote.com/

	Name	Signature with Date
i. Faculty	Mrs.V. Sivani	 9/6/25
ii. Module Coordinator	Mrs.V. Sivani	 9/6/25
iii. Programme Coordinator	Dr. RVVSV Prasad	 9/6/25


Principal