

1.	Title of the course	Introduction to Blockchain Technology
2.	Course number	CS530L
3.	Structure of credits	1-0-0-1
4.	Offered to	PG
5.	New course/modification to	Modification To CS5028/16
6.	To be offered by	Department of Computer Science and Engineering
7.	To take effect from	January 2022
8.	Prerequisite	CoT
9.	Course Objective(s): To provide an overview of basic concepts, functionality and practical applications in a blockchain system. To provide hands-on experience through simple proof of concept applications.	
10.	Course Content: Introduction: definition, consensus, immutability, finality, provenance, ledger models, double spending; Hyperledger fabric: architecture, network setup; Smart contracts: development, analysis, testing; Blockchain applications across diverse domains; Advanced blockchain concepts: privacy, confidentiality, security; Study of popular ecosystem blockchains: Bitcoin, Ethereum, Quorum, Corda.	
11.	Textbook(s): 1. Nitin G, Anthony O, Petr N, Luc D, Venkatraman R and Salman A B, <i>Blockchain with Hyperledger Fabric: Building decentralized applications using Hyperledger Fabric</i> , 2nd Edition, Packt Publishing (2020).	
12.	Reference(s): 1. Arvind N, Joseph B, Edward F, Andrew M and Steven G, <i>Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction</i> , 1st Edition, Princeton University Press (2016).	