Elective Course 7: Block chain Technology for Business

Course Type:	PS: Program Specialisation	Course Credits:	2
Course Code:	S3SE515	Course Duration:	30 Hours

Course Objective:

- To familiarize students with foundational concepts, architectures, and applications of blockchain technology.
- To equip students with skills to implement blockchain solutions in business contexts.
- To develop analytical capabilities to evaluate blockchain's impact on transparency, security, and efficiency.
- To foster understanding of regulatory, ethical, and practical challenges associated with blockchain adoption.
- To cultivate strategic insights into leveraging blockchain technology for innovation and competitive advantage.

Course Outcomes:

- CO1: To understand the fundamental principles, architecture, and working of block chain technology.
- CO2: To analyse the role of block chain in transforming business operations across industries.
- CO3: To explore various block chain platforms, smart contracts, and their applications in business.
- CO4: To assess security, legal, regulatory, and ethical considerations in block chain adoption.
- CO5: To evaluate emerging trends and future opportunities in block chain technology for business innovation.

Unit/ Module	Content	CO Mapping	Hours Assigned
1	Introduction to Block chain Technology – Basics, architecture, types, and case studies.	CO1, CO2	5

2	Block chain Applications in Business – Supply chain, finance, identity management, tokenization.	CO2, CO3	5
3	Block chain Platforms and Smart Contracts – Ethereum, Hyperledger, smart contract development, DApps.	CO3, CO4	6
4	Security, Governance, and Compliance in Block chain – Security threats, legal aspects, and governance models.	CO4	4
5	Emerging Trends and Future of Block chain – AI, IoT integration, sustainability, Web3, and Metaverse.	CO5	4
6	Block chain Strategy and Implementation in Business – Business strategy, implementation challenges, evaluation.Emerging Trends with case studies	CO2, CO3, CO4, CO5	6

Textbooks:

1. Sustainable Digital Transformation: Trends, Business Models, and Best Practices | Stefan Henningsson, Magnus Mähring | Springer India
2. Digital Transformation: Survive and Thrive in an Era of Mass Extinction | Thomas M. Siebel | RosettaBooks
3. Digital Transformation: A Model to Master Digital Disruption | Jo Caudron, Dado Van Peteghem | Lannoo Publishers
4. Managing Digital Transformation | Peter Weill, Stephanie L. Woerner | MIT Press (available via Amazon India and other academic platforms)

Reference Books:

1. Green IT: Technologies and Applications | Jyrki Tulokas | Springer India
2. Sustainable Digital Innovation and Transformation | Stefan Gold, Nils Urbach, Maximilian Röglinger | Routledge India

3. Digital Sustainability: Why Digital Transformation is the Key to Sustainable Business Models | Markus Linder | Palgrave Macmillan
4. Ethics of Digital Innovation: AI, Data Privacy, and Responsible Tech | Luciano Floridi | Oxford University Press
5. Innovating with Impact: How Sustainability Drives Digital Transformation | Nikki Greenberg | Wiley India