COURSE TITLE	**DIGITAL AND TECHNOLOGICAL SOLUTIONS**
COURSE CODE	**05FN0207**
COURSE CREDITS	**2**

Objective:

1 To understand about core concepts of Project Management
2 To impart a thorough understanding of Advanced Concepts and FinTech Application.
3 To impart a thorough understanding in modern financial contexts and understand their practical implementations.
4 To impart a thorough understanding of machine learning algorithms for credit scoring and risk assessment, which are crucial for modern financial analysis.
5 To learn about RegTech solutions for compliance automation and the strategies to manage regulatory requirements efficiently.

Course Outcomes: After completion of this course, student will be able to:

1 Students can learn about the transformative impact of digitalization on financial services, including the evolution of banking services towards online platforms and mobile applications.
2 Students can leverage data analytics for informed financial decision making through effective visualization techniques and analytical tools.
3 Students can learn about the application of Artificial Intelligence (AI) in finance, including robo-advisors and fraud detection.
4 Students can explore cybersecurity in FinTech, understanding the importance of protecting digital finance from threats and vulnerabilities.
5 Students can investigate emerging technologies such as the Internet of Things (IoT) and Augmented Reality (AR) in financial applications.

Pre-requisite of course:NA

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
2	0	0	50	30	20	0	0

DR. SUNIL LALCHAND BAJEJA
Digitally signed by (Name of HOD)

DR. R SRIDARAN
Digitally signed by (Name of Dean/ Principal)

Contents : Unit	Topics	Contact Hours
1	**Fundamentals of Digital Solutions** Introduction to Digital Solutions, Overview of digital solutions in the FinTech industry - Importance of digitalization in financial services, Digital Banking, Evolution of banking services in the digital era, Online banking platforms and mobile banking applications, Payment Solutions, Overview of digital payment systems (e.g., mobile wallets, payment gateways)., Cryptocurrency and blockchain-based payment solutions, Data Analytics in FinTech, Role of data analytics in financial decision-making, Data visualization techniques and tools for financial analysis	15
2	**Advanced Concepts and FinTech Application** Artificial Intelligence (AI) in Finance, Applications of AI in financial services (e.g., robo-advisors, fraud detection), Machine learning algorithms for credit scoring and risk assessment - Cybersecurity in FinTech, Importance of cybersecurity in digital finance, Threats and vulnerabilities in FinTech and strategies for protection, RegTech and Compliance Solutions, Overview of regulatory technology (RegTech) in the financial sector, Compliance automation tools for regulatory reporting and risk management, Emerging Technologies in FinTech - Introduction to emerging technologies such as Internet of Things (IoT) and Augmented Reality (AR) in FinTech applications, Case studies of innovative technological solutions transforming the financial industry	15
Total Hours		**30**

Textbook :

1 FinTech: The Technology Driving Disruption in the Financial Services Industry, Parag Y. Arjunwadkar, , Apress, 2018

References:

1 Machine Learning for Financial Engineering, Machine Learning for Financial Engineering, László Györfi, György Ottucsák, and Harro Walk, Imperial College Press, 2012

2 Cybersecurity for Financial Services: Understanding the Risks and Managing the Threats, Cybersecurity for Financial Services: Understanding the Risks and Managing the Threats, Jennifer Bayuk, Dan Blum, and Fred Cohen, Wiley, 2012

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery

DR. SUNIL LALCHAND BAJEJA
Digitally signed by (Name of HOD)

DR. R SRIDARAN
Digitally signed by (Name of Dean/ Principal)

Remember / Knowledge	Understand	Apply	Analyze	Evaluate	Higher order Thinking / Creative
20.00	30.00	25.00	15.00	10.00	0.00

Instructional Method:

1 Board Work

2 PPT

Supplementary Resources:

1 https://www.forbes.com/digital-transformation/

2 https://hbr.org/topic/subject/digital-transformation

DR. SUNIL LALCHAND BAJEJA

Digitally signed by (Name of HOD)

DR. R SRIDARAN

Digitally signed by (Name of Dean/ Principal)