



GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Engineering Syllabus

Subject Code : 3174203

Subject Name : AI in HealthCare & Fintech

WEF Academic Year : 2020-21
Semester : 7
Category of the Course : Professional Elective-IV
Course Name & Code : AI in HealthCare & Fintech

Course Scheme :

Teaching Scheme			Total Credits	Assessment Pattern and Marks				Total Marks
L	T	PR		C	Theory		Practical	
			ESE (E)		PA(M)	ESE (V)	PA (I)	

Course Content :

Sr. No.	Course Content	No. of Hours	% of Weightage
1	Overview of Current Artificial Intelligence and Healthcare Historical Perspective, AI in Non-Health Care Industries, AI by Individual Functions, Key Stakeholders, AI Solutions for Patients and Families, AI Solutions for the Clinician Care Team, AI Solutions for Population/Public Health Program Management, AI Solutions for Health Care Business Administrators	06	
2	Unintended Consequences of Artificial Intelligence Hype Versus Hope, How Could Improper AI Hurt Patients and the Health System?, How Could AI Reshape Medicine and Health in Unintended Ways?, How Will AI Transform Patient, Provider, and Computer Interactions?, What Will Happen to Acceptance, Trust, and Liability in a Human and Machine AI Future?, How Will Health Care Provider Roles Be Conceptualized?, Why Should This Time Be Any Different?	07	
3	AI Model Development, Validation and Deploying in Clinical Settings Introduction, Model Development, Learning a Model, Data Quality, Education, Settings for Application of AI in Health Care, Applications of AI in Clinical Care Delivery, Framework and Criteria for AI Selection and Implementation in Clinical Care, AI and Interpretability	07	
4	AI in Deposits and Lending AI in Lending, Financial Technology, The Future of Deposits and Lending, Applications of AI in Deposits and Lending, Showcase and Customer Service: Leveraging Chatbots in the Banking Industry, The Power of AI to Transform the Global SME Credit Landscape, Using AI for Credit	06	



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	Assessment in Underserved Segments, Why Video Games Might Help You Buy Your First House, AI Opportunities in the African Financial Sector: Use Cases		
5	AI in Investment, Wealth Management and Capital Markets The True Value of AI to Transform Push/Pull Wealth Management Offers, Machine Learning in Digital Wealth Management, The Impact of AI on Environmental, Social and Governance (ESG) Investing: Implications for the Investment Value Chain, AI in Indian Investment and Asset Management: Global Perspective, Finding Order in the Chaos: Investment Selection Using AI, Dispelling the Illusion, ETF 2.0: Mega Block Chains with AI, Fear and Greed, Introduction on AI Approaches in Capital Markets, AI, Machine Learning and the Financial Service Industry: A Primer, Compliance as an Outcome, Alternative Data and Meta Quants: Making the Most of Artificial Intelligence for Visionaries in Capital Markets, AI and Capital Markets: Where to Now?	10	
6	The Future of AI in Healthcare and Finance	04	

Reference Book :

1. Artificial Intelligence in Healthcare
Edited by Michael Matheny, Sonoo Thadaney Israni, Mahnoor Ahmed and Danielle Whicher
National Academy of Sciences
2. The AI Book: The Artificial Intelligence Handbook for Investors, Entrepreneurs and FinTech Visionaries
Susanne Chishti (Editor-in-Chief), Ivana Bartoletti (Editor), Anne Leslie (Editor), Shân M. Millie (Editor), ISBN: 978-1-119-55190-4, Wiley

Course Outcome :

After Completion of the Course, Student will able to :

No	Course Outcomes	RBT Level*
1	To understand the concepts and applications areas of Artificial Intelligence.	UN
2	To apply the AI solutions for the stakeholders of healthcare system.	AP
3	To apply the AI solutions for the stakeholders of finance sector.	AP



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4	To analyze the AI based solutions for healthcare and finance sector.	AN
5	To analyze the impact of AI in providing quality services in healthcare and finance sector.	AN

*RM: Remember, UN: Understand, AP: Apply, AN: Analyze, EL: Evaluate, CR: Create



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Suggested Course Practical List :

List of Laboratory/Learning Resources Required :

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