



KAKATIYA INSTITUTE OF TECHNOLOGY AND SCIENCE,WARANGAL

MINOR DOMAIN: FOUNDATIONS OF COMPUTING IN ELECTRONICS & COMMUNICATION ENGINEERING (MDEC)

-MINOR DOMAIN: FOUNDATIONS OF COMPUTING CURRICULUM

S.No	Course Type	Course Code	Course Name (Nptel Course Id)	Course Duration (wks)	Credits
-	Core Courses	Core Courses (any 4 courses)			
1		U24MDEC1001A	Phase-Locked Loops	12 Weeks	8-12
		U24MDEC1001B	Fundamentals of Nano and Quantum Photonics	12 Weeks	
2		U24MDEC1002	VLSI Design Flow: RTL to GDS	12 Weeks	
3		U24MDEC1003	Sensor Technologies: Physics, Fabrication, and Circuits	12 Weeks	
4		U24MDEC1004	Real-Time Digital Signal Processing	12 Weeks	
5		U24MDEC1005	Principles and Techniques of Modern Radar Systems	12 Weeks	
6		U24MDEC1006	Design and Simulation of Power Conversion using Open Source Tools	12 Weeks	
7		U24MDEC1007	Enclosure Design of Electronics Equipment	12 Weeks	
8		U24MDEC1008	Machine Learning for Signal Processing	12 Weeks	
-	Elective Courses	Elective Courses (any 2 courses)			
9		U24MDEC1009	Machine Learning and Deep Learning - Fundamentals and Applications	12 Weeks	4-6
10		U24MDEC1010	RFIC Design	12 Weeks	
11		U24MDEC1011	Signal Processing Algorithms and Architectures	12 Weeks	
12		U24MDEC1012	Microsensors and Nanosensors	12 Weeks	
-	Laboratory Courses	Laboratory Courses (any 2 courses)			
13		U24MDEC1013	VLSI Design Laboratory		2
14		U24MDEC1014	Advanced Communication Laboratory		
15		U24MDEC1015	Signal Processing and Applications Laboratory		
16		U24MDEC1016	Antenna Design Laboratory		
17	Mini-project (optional)	U24MDEC1017	Mini-project (optional)		2
Total Credits				16+2	18