



KAKATIYA INSTITUTE OF TECHNOLOGY AND SCIENCE, WARANGAL
DEPARTMENT OF ELECTRONICS COMMUNICATION AND
INSTRUMENTATION ENGINEERING

MINOR DOMAIN: VLSI DESIGN IN ELECTRONICS COMMUNICATION
AND INSTRUMENTATION ENGINEERING

- MINOR DOMAIN: VLSI DESIGN CURRICULUM
(Through NPTEL Domain certification)

S.No	Course Type	Course Code	Course Name (NPTEL Course Id)	Course Duration (weeks)	Credits
-	Core Courses	Core Courses (any 4 courses)			
1		U18MD CI 1001	Semiconductor Devices	8-12	8-12
2		U18MD CI 1002	Analog Circuits	8-12	
3		U18MD CI 1003	Network Analysis	8-12	
4		U18MD CI 1004	Digital Electronic Circuits	8-12	
5		U18MD CI 1005	Microprocessors and Microcontrollers	8-12	
6		U18MD CI 1006	VLSI Technology	8-12	
7		U18MD CI 1007	Hardware Modeling using Verilog	8-12	
8		U18MD CI 1008	VLSI Physical Design	8-12	
-	Elective Courses	Elective Courses (any 2 courses)			
9		U18MD CI 1009	CMOS VLSI Design	8-12	4-6
10		U18MD CI 1010	Analog VLSI Design	8-12	
11		U18MD CI 1011	Digital IC Design	8-12	
12		U18MD CI 1012	System Design Through Verilog	8-12	
-	Laboratory Courses	Laboratory Courses (any 2 courses)			
16		U18MD CI 1013	Digital Design Laboratory	2	2
17		U18MD CI 1014	Analog Circuits Laboratory	2	
18		U18MD CI 1015	Microprocessors and Microcontrollers Laboratory	2	
19		U18MD CI 1016	VLSI Design Laboratory	2	
20	Mini-project (Optional)	U18MD CI 1017	Mini-project (Optional)		2
Total Credits					18



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DEPARTMENT OF ELECTRONICS COMMUNICATION AND INSTRUMENTATION
ENGINEERING

MINOR DOMAIN: CONTROL AND INSTRUMENTATION IN ELECTRONICS
COMMUNICATION AND INSTRUMENTATION ENGINEERING

- MINOR DOMAIN: CONTROL AND INSTRUMENTATION CURRICULUM
 (Through NPTEL Domain certification)

S.No	Course Type	Course Code	Course Name (NPTEL Course Id)	Course Duration (weeks)	Credits
-	Core Courses	Core Courses (any 4 courses)			
1		U18MDCI2001	Signals and Systems	8-12	8-12
2		U18MDCI2002	Electrical Measurement and Electronic Instruments	8-12	
3		U18MDCI2003	Analog Circuits	8-12	
4		U18MDCI2004	Control Systems	8-12	
5		U18MDCI2005	Transducers for Instrumentation	8-12	
6		U18MDCI2006	Digital Electronics	8-12	
7		U18MDCI2007	Microprocessors and Microcontrollers	8-12	
8		U18MDCI2008	Process Control	8-12	
-	Elective Courses	Elective Courses (any 2 courses)			
9		U18MDCI2009	Industrial Instrumentation	8-12	4-6
10		U18MDCI2010	IOT and Applications	8-12	
11		U18MDCI2011	Biomedical Signal Processing	8-12	
12		U18MDCI2012	Intelligent Control of Robotic Systems	8-12	
-	Laboratory Courses	Laboratory Courses (any 2 courses)			
16		U18MDCI2013	Measurements and Instrumentation Laboratory	2	2
17		U18MDCI2014	Analog Electronics Laboratory	2	
18		U18MDCI2015	Signal Processing Laboratory	2	
19		U18MDCI2016	Process Control Laboratory	2	
20	Mini-project (Optional)	U18MDCI2017	Mini-project (Optional)		2
Total Credits					18