



KAKATIYA INSTITUTE OF TECHNOLOGY & 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		U24MDCI1001	Semiconductor Devices	8-12	8-12
2		U24MDCI1002	Analog Circuits	8-12	
3		U24MDCI1003	Network Analysis	8-12	
4		U24MDCI1004	Digital Electronic Circuits	8-12	
5		U24MDCI1005	Microprocessors and Microcontrollers	8-12	
6		U24MDCI1006	VLSI Technology	8-12	
7		U24MDCI1007	Hardware Modeling using Verilog	8-12	
8		U24MDCI1008	VLSI Physical Design	8-12	
-	Elective Courses	Elective Courses (any 2 courses)			
9		U24MDCI1009	CMOS VLSI Design	8-12	4-6
10		U24MDCI1010	Analog VLSI Design	8-12	
11		U24MDCI1011	Digital IC Design	8-12	
12		U24MDCI1012	System Design Through Verilog	8-12	
-	Laboratory Courses	Laboratory Courses (any 2 courses)			
16		U24MDCI1013	Digital Design Laboratory	2	2
17		U24MDCI1014	Analog Circuits Laboratory	2	
18		U24MDCI1015	Microprocessors and Microcontrollers Laboratory	2	
19		U24MDCI1016	VLSI Design Laboratory	2	
20	Mini-project (Optional)	U24MDCI1017	Mini-project (Optional)		2
Total Credits					18



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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		U24MDCI2001	Signals and Systems	8-12	8-12
2		U24MDCI2002	Electrical Measurement and Electronic Instruments	8-12	
3		U24MDCI2003	Analog Circuits	8-12	
4		U24MDCI2004	Control Systems	8-12	
5		U24MDCI2005	Transducers for Instrumentation	8-12	
6		U24MDCI2006	Digital Electronics	8-12	
7		U24MDCI2007	Microprocessors and Microcontrollers	8-12	
8		U24MDCI2008	Process Control	8-12	
-	Elective Courses	Elective Courses (any 2 courses)			
9		U24MDCI2009	Industrial Instrumentation	8-12	4-6
10		U24MDCI2010	IOT and Applications	8-12	
11		U24MDCI2011	Biomedical Signal Processing	8-12	
12		U24MDCI2012	Intelligent Control of Robotic Systems	8-12	
-	Laboratory Courses	Laboratory Courses (any 2 courses)			
16		U24MDCI2013	Measurements and Instrumentation Laboratory	2	2
17		U24MDCI2014	Analog Electronics Laboratory	2	
18		U24MDCI2015	Signal Processing Laboratory	2	
19		U24MDCI2016	Process Control Laboratory	2	
20	Mini-project (Optional)	U24MDCI2017	Mini-project (Optional)		2
Total Credits					18