



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
Kakinada-533003, Andhra Pradesh (India)

Program wise Curriculum Analysis of (R19)

Program Code	Program Name	No of Courses having focus on			Total Courses	Percentage
		Employability	Entrepreneurship	Skill development		
1A	B.Tech – Electronics & Communication Engineering	20	14	23	70	82%
1D	M.Tech – Computers & Communications Engineering	06	05	07	20	90%
1D / 1A	M.Tech – Instrumentation & Control Engineering	03	08	07	20	90%

NM
Coordinator

NM
HOD

15/11/2022


REGISTRAR
J.N.T. University Kakinada
Kakinada-533003



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Kakinada-533003, Andhra Pradesh (India)

Course wise Curriculum Analysis (R19)

Program Code: 1D

Program Name: M.Tech – Instrumentation & Control Engineering

Year: 1

Semester: 1

Course code.	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
PC	Transducers and Sensors			
PC	Digital Control Systems		yes	
PE	1. Adaptive Control Systems 2. Soft computing Techniques 3. Fuzzy Based Control Systems 4. Artificial intelligence	yes		
PE	1. Fiber optic sensors and devices 2. VLSI Technology and design 3. Advanced digital signal processing 4. Digital system design		yes	
MC	Research methodology and IPR		yes	
LC	Transducers & Instrumentation Lab			yes
LC	Digital control system simulation Lab			yes
MC	Audit course-1		yes	



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Course wise Curriculum Analysis (R19)

Program Code: 1D

Program Name: M.Tech – Instrumentation & Control Engineering

Year: 1

Semester: 2

Course code.	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
PC	Bio-Medical Engineering		yes	
PC	Process Control Instrumentation			
PE	1.Non Linear and Optimal Control Systems 2. Control and guidance systems 3. Data Acquisition systems 4. Machine learning	yes		
PE	1. DSP Processors & Architecture 2. Analytical Instrumentation 3. Robotics 4. EMI / EMC	yes		
LC	Bio-Medical Engineering Lab			yes
LC	Process Control Instrumentation Lab			yes
PR	Mini Project with Seminar			yes
MC	Audit Course – 2		yes	



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Program Code: 1D

Program Name: M.Tech – Instrumentation & Control Engineering

Year: 2

Semester: 1

Course code.	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
PE	1. MEMS & Nano Technology 2. Internet of Things 3. Embedded System Design 4. Intelligent and Smart Instrumentation 5. MOOCs-1 (NPTEL/SWAYAM)		yes	
OE	1. Business Analytics 2. Industrial Safety 3. Operations Research 4. Cost Management of Engineering Projects 5. Composite Materials 6. Waste to Energy 7. MOOCs-2 (NPTEL/SWAYAM)- Any 12 Week Course on Engineering/ Management/ Mathematics offered by other than parent department		yes	
PR	Dissertation Phase -I /Industrial Project (to be continued and evaluated next semester)			yes



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Program Code: 1D

Program Name: M.Tech – Instrumentation & Control Engineering

Year: 2

Semester: 2

Course code.	Course name	Employability (Yes/No)	Entrepreneurship (Yes/No)	Skill development (Yes/No)
PR	Project/ Dissertation Phase-II (continued from III semester)			yes

Coordinator

Chairman, Board of Studies