

#### Anil Neerukonda Institute of Technology & Sciences (Autonomous)

(Permanent Affiliation by Andhra University & Approved by AICTE Accredited by NBA (ECE, EEE, CSE, IT, Mech. Civil & Chemical) & NAAC) Sangivalasa-531 162, Bheemunipatnam Mandal, Visakhapatnam District Phone: 08933-225083/84/87 Fax: 226395

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#### **Department of Electronics and Communication Engineering**

#### Academic Year: 2022-23

Regulation	Semester	Subject	Subject Opted
R20	5th	Open ELECTIVES: 1.Python Programming Professional Elective: "Electronic Measurements and Instrumentation"	Open ELECTIVES: 1.Python Programming Professional Elective: 2. Electronic Measurements and Instrumentation
R20	6th	Open ELECTIVES: 1.Java Programming 2.Database management system (DBMS) Professional Electives: 1. DIGITAL IC DESIGN USING HDL 2. INFORMATION THEORY & CODING	Open ELECTIVES: 1.Java Programming 2.Database management system (DBMS) Professional Electives: 1. DIGITAL IC DESIGN USING HDL 2. INFORMATION THEORY & CODING
R19	7th	<ul> <li>Professional Elective 4</li> <li>1. Cellular and Mobile Communications</li> <li>2. Real time operating systems (RTOS)</li> <li>3. Speech Processing</li> <li>Professional Elective 5</li> <li>1. Digital Image Processing</li> <li>2. Satellite communications &amp; GPS</li> <li>3. Low power VLSI</li> </ul>	<ul> <li>Professional Elective 4</li> <li>1. Cellular and Mobile Communications</li> <li>Professional Elective 5</li> <li>1. Digital Image Processing</li> <li>Open Elective</li> <li>1. Machine Learning</li> </ul>

		Open Elective 1.Machine Learning	
R19	8th	<ul> <li>Professional Elective 6</li> <li>1. VLSI Signal processing</li> <li>2. Data Communications</li> <li>3. Phased Array systems</li> <li>Open Elective-4</li> <li>1. Introduction to Neural Network &amp; Deep Learning</li> <li>2. Sensors and Actuators</li> </ul>	<ul> <li>Professional Elective 6</li> <li>2. Data Communications</li> <li>Open Elective-4</li> <li>1. Introduction to Neural Network &amp; Deep Learning</li> <li>2. Sensors and Actuaters</li> </ul>

# Academic Year: 2021-22

Regulation	Semester	Subject	Subject Opted
		Open ELECTIVES:	Open ELECTIVES:
		1. Python Programming	1. Python Programming
R19	5th	Professional ELECTIVES:	<b>Professional ELECTIVES:</b>
		1. Electronic Measurements and Instrumentation	2. Electronic Measurements and
			Instrumentation
			<b>Open ELECTIVES:</b>
		Open ELECTIVES:	1.Database management
		1.Java Programming	system (DBMS)
R19	6th	2.Database management system (DBMS)	<b>Professional Electives:</b>
		Professional Electives:	1. DIGITAL IC DESIGN USING HDL
		1. DIGITAL IC DESIGN USING HDL	2. INFORMATION THEORY &
		2. INFORMATION THEORY & CODING	CODING
		Professional Elective-II	
		1. Advanced Digital Signal Processing	
		2. Radar Signal Processing	
		3. Digital IC design using HDL	
		4. Digital Image Processing	
	7th	<b>Open Elective-II:</b> (for ECE, offered other departments)	1. Digital IC design using HDL
R15		1. Project management	2. Digital Image Processing
		2. Industrial Safety and Hazards Management	2. Digital image i locessing
		3. IT infrastructure and management	
		4. Multimedia concepts	
		5.E-Governance	
		6. Robotics	
		7.Power Electronics	
		Professional Elective-III	
	8th	1. Phased array systems	1. Optical communications
R15		2. Bio-medical Instrumentation	2. Satellite Communications & GPS
		3. Optical communications	
		4. Embedded and Real Time Systems	

Professional Elective-IV	
1. Satellite Communications & GPS	
2. VLSI Signal processing	
3. Wireless sensor networks	
4. Cognitive Radio Networks	

# Academic Year: 2020-21

Regulation	Semester	Subject	Subject Opted
R15	5th	OPEN ELECTIVES:Computer Operating Systems_CSE311BAdvanced Numerical Techniques_MAT311ANano Technology and Engineering Applications_PHY311Advanced Numerical Techniques_MAT311AIndustrial Safety and Hazards Management_CHE311ABuilding Planning and Construction_CIV311BRenewableEnergyTechnologies_EEE311File Systems And Databases_CSE311ABasic Civil Engineering_CIV311APrinciples and Applications of NDTmethods_PHY312Robotics_MEC311AEnvironmental Sciences_CHY311APython Programming	ELECTIVES: Python Programming
R15	6th	<ul> <li>Professional Elective-I</li> <li>1. Analog IC Design</li> <li>2. EMI / EMC</li> <li>3. Electronic Measurements and Instrumentation</li> <li>4. Telecommunications and switching Networks</li> </ul>	1. Electronic Measurements and Instrumentation
R15	7th	<ul> <li>Professional Elective-II</li> <li>1. Advanced Digital Signal Processing</li> <li>2. Radar Signal Processing</li> <li>3. Digital IC design using HDL</li> <li>4. Digital Image Processing</li> <li>Open Elective-II: (for ECE, offered other departments)</li> <li>1. Project management</li> <li>2. Industrial Safety and Hazards Management</li> <li>3. IT infrastructure and management</li> <li>4. Multimedia concepts</li> <li>5.E-Governance</li> </ul>	<ol> <li>Digital IC design using HDL</li> <li>Digital Image Processing</li> </ol>

		6. Robotics 7.Power Electronics	
R15	8th	<ul> <li>Professional Elective-III Professional Elective-IV</li> <li>1. Phased array systems</li> <li>2. Bio-medical Instrumentation</li> <li>3. Optical communications</li> <li>4. Embedded and Real Time Systems</li> <li>Professional Elective-IV</li> <li>1. Satellite Communications &amp; GPS</li> <li>2. VLSI Signal processing</li> <li>3. Wireless sensor networks</li> <li>4. Cognitive Radio Networks</li> </ul>	1. Optical communications 2. Satellite Communications & GPS

# Academic Year: 2019-20

Regulation	Semester	Subject	Subject Opted
		OPEN ELECTIVES:	ELECTIVES:
		Computer Operating Systems_CSE311B	RenewableEnergyTechnolog
		Advanced Numerical Techniques_MAT311A	ies_EEE311
		Nano Technology and Engineering Applications_PHY311	File Systems And
		Advanced Numerical Techniques_MAT311A	Databases_CSE311A
		Industrial Safety and Hazards Management_CHE311A	Computer Operating
R15	5th	Building Planning and Construction_CIV311B	Systems_CSE311B
K15	501	RenewableEnergyTechnologies_EEE311	Robotics_MEC311A
		File Systems And Databases_CSE311A	Basic Civil
		Basic Civil Engineering_CIV311A	Engineering_CIV311A
		Principles and Applications of NDTmethods_PHY312	Industrial Safety and
		Robotics_MEC311A	Hazards
		Environmental Sciences_CHY311A	Management_CHE311A
		Python Programming	SEC
		Professional Elective-I	
		1. Analog IC Design	1. Electronic Measurements
R15	6th	2. EMI / EMC	and Instrumentation
		3. Electronic Measurements and Instrumentation	
		4. Telecommunications and switching Networks	
		Professional Elective-II	
		1. Advanced Digital Signal Processing	
		2. Radar Signal Processing	
		3. Digital IC design using HDL	
D15	7.1	4. Digital Image Processing	1. Digital IC design using
R15	7th	<b>Open Elective-II:</b> (for ECE, offered other departments)	HDL
		1. Project management	2. Digital Image Processing
		2. Industrial Safety and Hazards Management	
		3. IT infrastructure and management	
		4. Multimedia concepts	
		5.E-Governance	

		6. Robotics	
		7.Power Electronics	
		Professional Elective-III Professional Elective-IV	
		1. Phased array systems	
		2. Bio-medical Instrumentation	
		3. Optical communications	1. Optical communications
R15	8th	4. Embedded and Real Time Systems	2. Satellite Communications
KI3		Professional Elective-IV	& GPS
		1. Satellite Communications & GPS	3. VLSI Signal processing
		2. VLSI Signal processing	
		3. Wireless sensor networks	
		4. Cognitive Radio Networks	

# Academic Year: 2018-19

Regulation	Semester	Subject	Subject Opted
R15	5th	OPEN ELECTIVES: Computer Operating Systems_CSE311B Advanced Numerical Techniques_MAT311A Nano Technology and Engineering Applications_PHY311 Advanced Numerical Techniques_MAT311A Industrial Safety and Hazards Management_CHE311A Building Planning and Construction_CIV311B RenewableEnergyTechnologies_EEE311 File Systems And Databases_CSE311A Basic Civil Engineering_CIV311A Principles and Applications of NDTmethods_PHY312 Robotics_MEC311A Environmental Sciences_CHY311A Python Programming	ELECTIVES:Computer OperatingSystems_CSE311BAdvanced NumericalTechniques_MAT311ANano Technology and EngineeringApplications_PHY311Advanced NumericalTechniques_MAT311AIndustrial Safety and HazardsManagement_CHE311ABuilding Planning andConstruction_CIV311BRenewableEnergyTechnologies_EEE311File Systems AndDatabases_CSE311ABasic Civil Engineering_CIV311APrinciples and Applications ofNDTmethods_PHY312Robotics_MEC311AEnvironmental Sciences_CHY311A
R15	6th	<ul> <li>Professional Elective-I</li> <li>1. Analog IC Design</li> <li>2. EMI / EMC</li> <li>3. Electronic Measurements and Instrumentation</li> <li>4. Telecommunications and switching Networks</li> </ul>	1. Electronic Measurements and Instrumentation
R15	7th	Professional Elective-II1. Advanced Digital Signal Processing2. Radar Signal Processing	<ol> <li>Digital IC design using HDL</li> <li>Digital Image Processing</li> </ol>

		<ul> <li>3. Digital IC design using HDL</li> <li>4. Digital Image Processing</li> <li>Open Elective-II: (for ECE, offered other departments)</li> <li>1. Project management</li> <li>2. Industrial Safety and Hazards Management</li> <li>3. IT infrastructure and management</li> <li>4. Multimedia concepts</li> <li>5.E-Governance</li> <li>6. Robotics</li> <li>7.Power Electronics</li> </ul>	
R15	8th	<ul> <li>Professional Elective-III Professional Elective-IV</li> <li>1. Phased array systems</li> <li>2. Bio-medical Instrumentation</li> <li>3. Optical communications</li> <li>4. Embedded and Real Time Systems</li> <li>Professional Elective-IV</li> <li>1. Satellite Communications &amp; GPS</li> <li>2. VLSI Signal processing</li> <li>3. Wireless sensor networks</li> <li>4. Cognitive Radio Networks</li> </ul>	<ol> <li>Optical communications</li> <li>Satellite Communications &amp; GPS</li> <li>VLSI Signal processing</li> </ol>

# Academic Year: 2017-18

Regulation	Semester	Subject	Subject Opted
R15	5th	Advanced Numerical Techniques_MAT311A Environmental Sciences_CHY311A Nano Technology and Engineering Applications_PHY311 RenewableEnergyTechnologies_EEE311 Computer Network CSE Computer Operating Systems_CSE311B File Systems And Databases_CSE311A Robotics_MEC311A Computer-aided design MECH Basic Civil Engineering_CIV311A Building Planning and Construction_CIV311B Industrial Safety and Hazards Management_CHE311A	Advanced Numerical Techniques_MAT311A Environmental Sciences_CHY311A Nano Technology and Engineering Applications_PHY311 RenewableEnergyTechnologies_EEE311 Computer Network CSE Computer Operating Systems_CSE311B File Systems And Databases_CSE311A Robotics_MEC311A Computer-aided design MECH
R15	6th	<ul> <li>Professional Elective-I</li> <li>1. Analog IC Design</li> <li>2. EMI / EMC</li> <li>3. Electronic Measurements and Instrumentation</li> <li>4. Telecommunications and switching Networks</li> </ul>	1. Electronic Measurements and Instrumentation
R15	7th	Professional Elective-II 1. Advanced Digital Signal Processing 2. Radar Signal Processing 3. Digital IC design using HDL 4. Digital Image Processing	VLSI Design and Embedded Systems (CE)
R15	8th	Core Elective – II1. Data Communications2. Bio-Medical Signal Processing3. Microwave NetworksFreeElective – II1. Fundamentals of Mobile Communications2. Basics of GPS	1. Data Communications