

# **ACADEMIC REGULATIONS & COURSE STRUCTURE**

**For**

**VLSI&ES, ES&VLSI, VLSID&ES**

*(Applicable for batches admitted from 2016-2017)*



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA**  
**KAKINADA - 533 003, Andhra Pradesh, India**

## I Semester

S. No.	Name of the Subject	L	P	C
1	Digital System Design	4	-	3
2	VLSI Technology and Design	4	-	3
3	CMOS Analog IC Design	4	-	3
4	Hardware Software Co-Design	4	-	3
5	<b>Elective I</b> 1. Embedded - C 2. CMOS Digital IC Design 3. Soft Computing Techniques 4. Cyber Security	4	-	3
6	<b>Elective II</b> 1. Advanced Operating Systems 2. System on Chip Design 3. Network Security and Cryptography	4	-	3
7	VLSI Laboratory	-	3	2
<b>Total Credits</b>				<b>20</b>

## II Semester

S. No.	Name of the Subject	L	P	C
1	Embedded System Design	4	-	3
2	CMOS Mixed Signal Circuit Design	4	-	3
3	Embedded Real Time Operating Systems	4	-	3
4	Design For Testability	4	-	3
5	<b>Elective III</b> 1. DSP Processors & Architectures 2. Low Power VLSI Design 3. VLSI Signal Processing	4	-	3
6	<b>Elective IV</b> 1. Micro Electro Mechanical Systems (MEMS) Design 2. CPLD and FPGA Architectures and Applications. 3. Semiconductor Memory Design and Testing.	4	-	3
7	Embedded System Design Laboratory	-	3	2
<b>Total Credits</b>				<b>20</b>

### III Semester

<b>S. No.</b>	<b>Subject</b>	<b>L</b>	<b>P</b>	<b>Credits</b>
1	Comprehensive Viva-Voce	--	--	2
2	Seminar – I	--	--	2
3	Project Work Part – I	--	--	16
<b>Total Credits</b>				<b>20</b>

### IV Semester

<b>S. No.</b>	<b>Subject</b>	<b>L</b>	<b>P</b>	<b>Credits</b>
1	Seminar – II	--	--	2
2	Project Work Part - II	--	--	18
<b>Total Credits</b>				<b>20</b>