

**DEPARTMENT OF INSTRUMENTATION & ELECTRONICS ENGINEERING****CURRICULUM OF 2ND TO 4TH YEAR OF THE****UNDERGRADUATE ENGINEERING DEGREE PROGRAMME****SECOND YEAR, SECOND SEMESTER**

<b>Subject Code</b>	<b>Subject Name</b>	<b>Category</b>	<b>Type</b>	<b>Contact L-T-P</b>	<b>Credit</b>	<b>Marks</b>
FET/BS/B/Math/T/211	Mathematics III	BS	B	2-1-0	3	100
IEE/PC/B/T/212	Circuit Theory	PC	B	3-1-0	4	100
IEE/PC/B/T/213	Fundamentals of Instrumentation	PC	B	3-0-0	3	100
IEE/PC/B/T/214	Electronic Circuits	PC	B	3-1-0	4	100
IEE/PC/B/T/215	Digital Electronics	PC	B	3-1-0	4	100
IEE/ES/B/T/216	Applied Fluid Mechanics	ES	B	3-0-0	3	100
IEE/PC/B/S/211	Digital Circuits Lab	PC	B	0-0-3	1.5	100
IEE/PC/B/S/212	Electronic & Instrument Workshop	PC	B	0-0-3	1.5	100
IEE/PS/B/S/213	Seminar	PS	B	0-0-3	1.5	100
<b>TOTAL:</b>				<b>18-3-9</b>	<b>25.5</b>	<b>900</b>

**SECOND YEAR, SECOND SEMESTER**

<b>Subject Code</b>	<b>Subject Name</b>	<b>Category</b>	<b>Type</b>	<b>Contact L-T-P</b>	<b>Credit</b>	<b>Marks</b>
IEE/PC/B/IT/T/221	Data Structure, Algorithms & OOPs	PC	B	3-0-0	3	100
IEE/PC/B/T/222	Analog Integrated Circuit	PC	B	3-1-0	4	100
IEE/PC/B/T/223	Industrial Instrumentation	PC	B	3-1-0	4	100
IEE/PC/B/T/224	Linear Control Systems	PC	B	3-1-0	4	100
IEE/PC/B/T/225	Digital Signal Processing	PC	B	3-0-0	3	100
IEE/PC/B/T/226	Measurements & Electronic Instrumentation	PC	B	3-0-0	3	100
IEE/PC/B/S/221	Analog Electronics Laboratory	PC	B	0-0-3	1.5	100
IEE/PC/B/S/222	Computing Software Laboratory	PC	B	0-0-3	1.5	100
<b>TOTAL:</b>				<b>18-3-6</b>	<b>24</b>	<b>800</b>

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**CURRICULUM OF 2ND TO 4TH YEAR OF THE**

**UNDERGRADUATE ENGINEERING DEGREE PROGRAMME**

**THIRD YEAR, FIRST SEMESTER**

<b>Subject Code</b>	<b>Subject Name</b>	<b>Category</b>	<b>Type</b>	<b>Contact L-T-P</b>	<b>Credit</b>	<b>Marks</b>
IEE/PC/B/ T/311	Analytical Instrumentation	PC	B	3-0-0	3	100
IEE/PC/B/IT/T/312	Comp Organization, Architecture & Networking	PC	B	3-0-0	3	100
IEE/PC/H/T/313	Process Instrumentation	PC	H	3-1-0	4	100
IEE/PC/H/T/314	Microcontrollers	PC	H	3-1-0	4	100
IEE/PC/H/T/315	Process Dynamics and Control	PC	H	3-1-0	4	100
IEE/PC/B/T/316	Signal Transmission & Communication Systems	PC	B	3-0-0	3	100
IEE/PC/B/S/311	Control Systems Laboratory	PC	B	0-0-3	1.5	100
IEE/PC/B/S/312	Sensor & Signal Conditioning Laboratory	PC	B	0-0-3	1.5	100
IEE/PS/B/S/313	Mini Project (Electronic Design Laboratory)	PS	B	0-0-3	1.5	100
<b>TOTAL:</b>				18-3-9	25.5	900

**THIRD YEAR, SECOND SEMESTER**

<b>Subject Code</b>	<b>Subject Name</b>	<b>Category</b>	<b>Type</b>	<b>Contact L-T-P</b>	<b>Credit</b>	<b>Marks</b>
IEE/PC/H/T/321	Advanced Process Control	PC	H	3-1-0	4	100
IEE/PC/H/T/322	Power Electronics	PC	H	3-1-0	4	100
	Program Elective Course 1 and 2 Any two of the courses listed below					
IEE/PE/B/T/32A	Power Plant Instrumentation	PE	B	3-0-0	3	100
IEE/PE/B/T/32B	Bio Medical Instrumentation	PE	B	3-0-0	3	100
IEE/PE/B/T/32C	Electromagnetic Theory	PE	B	3-0-0	3	100
IEE/PE/B/T/32D	VLSI Design	PE	B	3-0-0	3	100
IEE/PE/B/T/32E	MEMS Microsensors	PE	B	3-0-0	3	100
IEE/PE/B/T/32F	Electronic Olfaction & Taste Sensing	PE	B	3-0-0	3	100
IEE/PC/B/S/321	Digital Signal Processing Laboratory	PC	B	0-0-3	1.5	100
IEE/PC/B/S/322	Process Control Laboratory	PC	B	0-0-3	1.5	100
IEE/PS/B/S/323	Mini Project (Microcontroller & FPGA Lab)	PS	B	0-0-6	3	200
IEE/PS/B/S/324	Mini Project (Automation Laboratory)	PS	B	0-0-6	3	200
<b>TOTAL:</b>				12-2-18	23	1000

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**FOURTH YEAR, FIRST SEMESTER**

Subject Code	Subject Name	Category	Type	Contact L-T-P	Credit	Marks
IEE/PC/B/ T/411	Telemetry and Remote Control	PC	B	3-0-0	3	100
IEE/HS/B/Eco/T/412	Economics	HS	B	3-0-0	3	100
	Program Elective Course 3 and 4 Any two of the courses listed below					
IEE/PE/B/T/41A	Intelligent Control Systems	PE	B	3-0-0	3	100
IEE/PE/B/T/41B	Artificial Intelligence & Machine Learning	PE	B	3-0-0	3	100
IEE/PE/B/T/41C	Electric Drives	PE	B	3-0-0	3	100
IEE/PE/B/T/41D	Embedded Systems	PE	B	3-0-0	3	100
IEE/PE/B/T/41E	Functional Safety & Safety Instrumented Systems	PE	B	3-0-0	3	100
	Open Elective Course 1	OE	B	3-0-0	3	100
IEE/PC/B/S/411	Power Electronics Laboratory	PC	B	0-0-3	1.5	100
IEE/PC/B/S/412	Telemetry & Remote Control Laboratory	PC	B	0-0-3	1.5	100
IEE/PS/B/S/413	Project	PS	B	0-0-6	3	200
<b>TOTAL:</b>				15-0-12	21	900

**FOURTH YEAR, SECOND SEMESTER**

Subject Code	Subject Name	Category	Type	Contact L-T-P	Credit	Marks
	Program Elective Course 5 and 6 Any two of the courses listed below					
IEE/PE/B/T/42A	Microelectronics	PE	B	3-0-0	3	100
IEE/PE/B/T/42B	IIOT	PE	B	3-0-0	3	100
IEE/PE/B/T/42C	Digital Image Processing	PE	B	3-0-0	3	100
IEE/PE/B/T/42D	Industrial Networking	PE	B	3-0-0	3	100
IEE/PE/B/T/42E	Data Analysis for Instrumentation System	PE	B	3-0-0	3	100
	Open Elective Course 2	OE	B	3-0-0	3	100
	Open Elective Course 3	OE	B	3-0-0	3	100
IEE/HS/B/Prod/T/425	Industrial Management	HS	B	3-0-0	3	100
IEE/PC/B/S/421	Project	PS	B	0-0-9	4.5	300
<b>TOTAL:</b>				15-0-9	19.5	800