

Mangalpally (Village), Ibrahimpatnam (Mandal), Ranga Reddy (District), Telangana-501510

RESULTS OF ATTAINMENTS: CO, PO/ PSO FOR THE ACADEMIC YEAR: 2021-2022

[illegible]

II B. Tech-I Semester																
Code	Subject	Program Outcomes (PO's)												Program Specific Outcomes (PSO's)		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
MA301BS	Mathematics-IV	1.6	1.2	0.4	0.4	0.4	0.2	-	-	-	-	-	-	1	0.4	1.4
CE305ES	Surveying	0.8	0.8	1.2	0.2	-	-	0.2	-	-	0.2	0.2	-	2.2	1.6	0.2
CE304ES	Building materials, construction and planning	2.4	2.6	0.2	0.2	0.2	-	-	-	-	-	-	0.2	2.6	1.2	-
CE303ES	Fluid mechanics-i	0.6	0.8	0.2	-	2.4	-	-	-	-	-	0.2	-	-	0.6	1.2
CS302ES	Strength of materials - i	2.8	2.8	2.2	-	0.2	-	0.2	-	-	0.4	0.2	-	3	3	1
II B. Tech-II Semester																
CE401ES	Strength of materials - ii	3	3	1	-	3	-	-	-	-	-	-	-	3	3	3
CE402ES	Fluid mechanics - ii	3	1	-	1	-	-	-	-	-	-	2.33	-	1.67	1.5	-
CE403ES	Structural analysis	1	3	1	1	-	1	-	-	-	-	1	-	3	3	3
CV404ES	Engineering geology	2	2	3	2	-	-	1	-	-	1	1	-	2.33	2	1
SM405ES	Business economics and financial analysis	2	2	3	2	-	-	1	-	-	1	1	-	2.33	2	1
III B. Tech-I Semester																
CE501PC	Concrete technology	2.2	1	1	1	-	-	-	-	-	1.8	-	-	2.25	2.2	1
CE502PC	Design of reinforced concrete structures	3	3	3	1	-	1	-	-	1	2	2	1	2	2	3
CE503PC	Water resources engineering	3	1	1.8	1.4	1	1.4	2.2	2.2	1.8	1.8	2.2	1	1.4	1.4	2.6
SM504MS	Fundamentals of management	1	1.57	1.67	1.83	1.83	1	1.33	1.88	1.88	2.25	2.17	1.83	1	1.83	-
ME514OE	Fundamentals of mechanical engineering	1.8	2	3	-	-	1.5	1.25	-	-	-	-	1	2	1	-
III B. Tech II Semester																
CE601PC	Design of steel structures	1	3	1	-	3	-	-	-	-	-	-	-	3	-	-
CE602PC	Environmental engineering	-	3	-	-	3	-	-	-	-	-	2	-	-	-	3
CE603PC	Soil mechanics	2.33	1	1.67	-	-	-	-	-	-	-	-	1	2	1	1

Code	Subject	Program Outcomes (PO's)												Program Specific Outcomes (PSO's)		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CE611PE	Air pollution and control	2	1.67	3	2	-	-	3	-	-	1	1	-	2.2	1.5	2
ME623OE	Fabrication processes	3	3	1	3	3	-	-	-	3	-	3	3	1	-	
IV B. Tech I Semester																
CE701PC	Transportation engineering	2	2	3	2	-	-	1	-	-	1	1	-	2.11	1.67	1
CE702PC	Estimating and costing	3	2.5	1.5	2	1	3	1	1	1	1	2	1	2.56	2	1
CE723PE	Advanced foundation engineering	2.67	2.5	1.83	2	1	3	1	1	1	1	1.5	1.89	1.5	1	-
CE731PE	RS and GIS	2	2	3	2	-	-	1	-	-	1	1	-	2.11	1.67	1
CE741PE	Water Resources Engineering-II	2	2	3	-	-	1	-	-	-	1	-	2.5	1.5	1	-
IV B. Tech II Semester																
CE801PC	Construction management	2.33	2	1	1	-	-	1	-	-	1	1	-	3	3	-
CE802PC	Prestressed concrete structures	3	2.33	1.67	2.33	1	-	-	-	-	-	-	1	3	1	1
CE523PE	Rehabilitation & retrofitting of structures	2	1.67	3	2	-	-	3	-	-	1	1	-	2.2	1.5	2
Average		57.53	56.44	47.33	30.37	21.03	13.1	18.18	6.08	9.68	18.45	25.8	15.42	55.96	42.07	30.4
Direct Attainment		2.24	2.1	2.05	1.74	1.98	1.61	1.48	1.52	1.61	1.28	1.58	1.52	2.14	1.76	1.77
In-Direct Attainment		2.91	2.9	2.84	2.97	2.93	2.76	2.84	2.86	2.86	2.8	2.85	2.76	2.76	2.9	2.97
PO Attainment Level		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12			
CO Attainment		51.98	50.99	42.79	27.53	19.13	11.99	16.57	5.67	8.9	16.79	23.42	14.07			
Direct Attainment		57.53	56.44	47.33	30.37	21.03	13.1	18.18	6.08	9.68	18.45	25.8	15.42			
Indirect Attainment		2	1.92	1.95	1.99	2	1.97	2.07	2	1.91	1.85	1.99	1.93			
PSO Attainment Level		PSO1	PSO2	PSO3												
CO Attainment		50.56	38.05	27.56												
Direct Attainment		55.96	42.07	30.4												
Indirect Attainment		1.91	1.91	1.97												

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B.Tech - Civil Engineering CO Attainment Levels 2021-2022

Code	Subject	CO Attainment
I B. Tech-I Semester		
EN104HS	Professional Communication in English	2.91
MA101BS	Mathematics-I	2.85
PH103BS	Engineering Physics-I	2.85
CH102BS	Engineering Chemistry	2.88
ME105ES	Engineering Mechanics	2.85
EE106ES	Basic Electrical and Electronics Engineering	2.85
EN107HS	English Language Communication Skills Lab	2.91
ME108ES	Engineering Workshop	2.91
I B. Tech II Semester		
MA202BS	Mathematics-II	2.12
MA203BS	Mathematics-III	2.84
PH201BS	Engineering Physics-II	2.84
CS204ES	Computer Programming in C	2.90
ME205ES	Engineering Graphics	2.90
CS208ES	Computer Programming in C Lab	2.90
PH207BS	Engineering Physics Lab	2.90
CH206BS	Engineering Chemistry Lab	2.90
II B. Tech-I Semester		
MA301BS	Mathematics-IV	1.12
CE305ES	Surveying	1.13
CE304ES	Building Materials, Construction And Planning	1.06
CE303ES	Fluid Mechanics-I	1.08
CS302ES	Strength Of Materials – I	1.07
II B. Tech II Semester		
CE401ES	Strength of materials – II	1.11
CE402ES	Fluid mechanics - II	1.13
CE403ES	Structural analysis	1.09

Code	Subject	CO Attainment
CV404ES	Engineering geology	1.33
SM405ES	Business economics and financial analysis	1.33
III B. Tech I Semester		
CE501PC	Concrete technology	1.11
CE502PC	Design of reinforced concrete structures	1.07
CE503PC	Water resources engineering	1.51
SM504MS	Fundamentals of management	1.31
ME514OE	Fundamentals of mechanical engineering	1.31
III B. Tech II Semester		
CE601PC	Design of steel structures	1.08
CE602PC	Environmental engineering	1.31
CE603PC	Soil mechanics	1.08
CE611PE	Air pollution and control	1.08
ME623OE	Fabrication processes	1.33
IV B. Tech I Semester		
CE701PC	Transportation engineering	1.33
CE702PC	Estimating and costing	1.24
CE723PE	Advanced foundation engineering	1.42
CE731PE	Rs and gis	1.33
CE741PE	Water resources engineering - II	1.33
IV B. Tech II Semester		
CE801PC	Construction management	1.51
CE802PC	Prestressed concrete structures	1.13
CE523PE	Rehabilitation & retrofitting of structures	1.40

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M.Tech - Structural Engineering PO/ PSO Attainment Levels 2021-2022

Code	Subject	Program Outcomes (PO's)					
		PO1	PO2	PO3	PO4	PO5	PO6
I M. Tech-I Semester							
PE-1	Advanced Concrete Technology	2.00	2.50	2.50	2.00	-	1.00
PE-2	Advanced R.C. Design	2.33	2.00	2.50	2.00	-	1.33
PC-3	Advanced Structural Analysis	2.33	1.00	2.33	2.00	2.00	1.00
PC-2	Structural Dynamics	2	1.5	2	1.5	2.5	1.5
PC-1	Theory of Elasticity	1	1	2	2.6667	-	1
I M. Tech-II Semester							
PE 4	EARTHQUAKE RESISTANT DESIGN OF BUILDINGS	2.33	1.50	1.33	1.50	2.67	1.00
PC-4	ADVANCED STEEL DESIGN	2.33	1.00	1.50	1.67	2.33	2.00
PE 3	BRIDGE ENGINEERING	2.33	2.00	1.67	1.00	2.00	-
PC-6	PRE-STRESSED CONCRETE	1.33	1.00	2.50	2.00	2.00	1.00
PC-5	THEORY OF PLATES	1.67	2.00	1.50	1.33	2.00	2.00
Average		19.67	15.50	19.83	17.67	15.50	11.83
Direct Attainment		0.83	0.65	0.84	0.75	0.57	0.42
In-Direct Attainment		2.91	2.90	2.84	2.97	2.93	2.76
PO Attainment Level		PO1	PO2	PO3	PO4	PO5	PO6
CO Attainment		17.9	14.14	18.04	15.98	14.15	10.84
Direct Attainment		19.67	15.5	19.83	17.67	15.5	11.83
Indirect Attainment		2.00	1.92	1.95	0.75	2.00	1.97

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M.Tech - Structural Engineering CO Attainment Levels 2021-2022

Code	Subject	CO Attainment
I M. Tech-I Semester		
PE-1	Advanced Concrete Technology	1.34
PE-2	Advanced R.C. Design	1.41
PC-3	Advanced Structural Analysis	1.47
PC-2	Structural Dynamics	1.43
PC-1	Theory of Elasticity	1.4
I M. Tech II Semester		
PE 4	Earthquake resistant design of buildings	1.42
PC-4	Advanced steel design	1.41
PE 3	Bridge engineering	1.35
PC-6	Pre-stressed concrete	1.39
PC-5	Theory of plates	1.31

B.Tech - Electrical and Electronics Engineering PO/ PSO Attainment Levels 2021-2022



BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY

Ibrahimpatnam - 501 510, Hyderabad.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACADEMIC YEAR 2021-2022

PO&PSO Attainment Levels

PO	Subject	Program Outcomes (PO's)												PSO ATTAINMENT	
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
MA101BS	Mathematics - I	2.14	1.43	1.43	-	-	1.43	-	-	-	-	-	-	2.14	1.43
CH202BS	Chemistry	2.86	1.91	1.91	-	-	1.91	-	-	-	-	-	-	2.86	1.91
EE203ES	Basic Electrical Engineering	1.91	1.91	1.91	2.86	-	-	-	0.97	-	-	-	-	1.91	1.91
ME205ES	Engineering Workshop	1.43	2.14	1.43	1.43	1.43	-	-	-	0.73	-	-	-	1.43	2.14
EN205HS	English	1.95	1.95	1.95	1.95	-	0.99	-	-	-	-	-	0.99	0.99	0.99
CH206BS	Engineering Chemistry Lab	1.95	1.95	2.92	1.95	1.95	-	-	-	1.95	-	-	1.95	1.95	2.92
EN207HS	English Language and Communication Skills Lab	1.95	1.95	1.95	1.95	1.95	-	-	-	-	-	-	-	1.95	-
EN207HS	Basic Electrical Engineering Lab	1.95	1.95	1.95	1.95	1.95	-	-	-	-	-	-	-	-	-
MA201BS	Mathematics-II	2.14	1.43	1.43	-	-	1.43	-	-	-	-	-	-	2.14	1.43
AP202BS	Applied Physics	2.86	1.91	1.91	-	-	1.91	-	-	-	-	-	-	2.86	1.91
CS203ES	Programming for Problem Solving	1.91	1.91	1.91	2.86	-	-	-	0.97	-	-	-	-	1.91	1.91
ME204ES	Engineering Graphics	1.43	2.14	1.43	1.43	1.43	-	-	-	0.73	-	-	-	1.43	2.14
AP205BS	Applied Physics Lab	1.95	1.95	1.95	1.95	-	-	-	-	-	-	-	1.95	-	-
CS206ES	Programming for Problem Solving Lab	1.95	1.95	1.95	1.95	-	-	-	-	-	-	-	-	-	-
EE301ES	Engineering Mechanics	2.36	2.73	2.73	2.27	2.73	-	-	-	1.82	1.82	1.82	1.82	2.00	2.00
EE302PC	Electrical Circuit Analysis	1.47	2.01	1.67	1.34	1.67	-	-	-	1.34	1.12	-	1.21	1.61	1.47
EE303PC	Analog Electronics	1.45	1.61	1.51	1.21	1.51	-	-	-	1.21	1.01	1.09	1.21	1.70	1.45
EE304PC	Electrical Machines - I	2.06	2.21	2.21	2.21	1.96	-	-	-	1.47	0.98	1.66	1.84	2.21	1.96
EE305PC	Electromagnetic Fields	1.95	2.25	1.87	1.50	1.50	-	-	-	1.50	1.25	1.20	1.35	1.65	1.80
EE306PC	Electrical Machines Lab - I	2.78	2.97	2.64	2.64	2.31	2.23	2.97	2.97	2.31	2.31	2.38	2.38	2.78	2.58
EE307PC	Analog Electronics Lab	2.78	2.97	2.64	2.64	2.31	2.23	2.97	2.97	2.31	2.31	2.38	2.38	2.78	2.58
EE308PC	Electrical Circuits Lab	2.78	2.97	2.64	2.64	2.31	2.23	2.97	2.97	2.31	2.31	2.38	2.38	2.78	2.58

MA401BS	Laplace Transforms, Numerical Methods & Complex variables	2.40	2.33	-	2.00	3.00	-	-	-	2.00	1.67	1.60	1.80	1.18	1.47
EE402PC	Electrical Machines – II	2.58	2.58	2.58	2.15	2.58	-	-	-	1.72	1.72	1.72	1.72	1.72	1.89
EE403PC	Digital Electronics	2.00	2.50	2.50	2.50	2.50	-	-	-	1.67	1.67	1.88	1.88	1.67	1.84
EE404PC	Control Systems	2.30	2.11	2.30	2.30	2.30	-	-	-	1.53	1.53	1.69	1.69	1.53	1.84
EE405PC	Power System - I	1.92	1.97	2.22	1.48	2.22	-	-	-	1.48	1.23	1.18	1.33	1.18	1.63
EE406PC	Digital Electronics Lab	2.78	2.97	2.64	2.64	2.31	2.23	2.97	2.97	2.31	2.31	2.38	2.38	2.78	2.58
EE407PC	Electrical Machines Lab - II	2.78	2.97	2.64	2.64	2.31	2.23	2.97	2.97	2.31	2.31	2.38	2.38	2.78	2.58
EE408PC	Control Systems Lab	2.78	2.97	2.64	2.64	2.31	2.23	2.97	2.97	2.31	2.31	2.38	2.38	2.78	2.58
EE501PE	Power Electronics	1.59	1.93	2.17	1.45	1.69	1.45	-	-	1.45	1.45	1.74	1.74	1.88	1.59
EE502PE	Power System-II	1.65	1.87	2.25	1.50	2.25	-	-	-	1.50	1.25	1.65	1.35	1.80	1.65
EE503PE	Measurements and Instrumentation	2.43	2.60	2.60	2.17	2.60	-	-	-	1.44	1.44	1.56	1.91	1.73	1.73
EE512PE	High Voltage Engineering (PE1)	1.62	2.03	2.03	1.35	2.03	2.03	-	-	1.35	1.35	1.35	1.22	1.49	1.35
SM504MS	Business Economics and Financial Analysis	1.94	2.64	2.64	1.76	-	-	-	-	-	1.47	1.41	1.59	1.41	1.59
EE505PC	Power System Simulation Lab	2.78	2.97	2.64	2.64	2.31	2.23	2.97	2.97	2.31	2.31	2.38	2.38	2.78	2.58
EE506PC	Power Electronics Lab	2.78	2.97	2.64	2.64	2.31	2.23	2.97	2.97	2.31	2.31	2.38	2.38	2.78	2.58
EE507PC	Measurements and Instrumentation Lab	2.78	2.97	2.64	2.64	2.31	2.23	2.97	2.97	2.31	2.31	2.38	2.38	2.78	2.58
EN508HS	Advanced Communication Skills Lab	2.78	2.97	2.64	2.64	2.31	2.23	2.97	2.97	2.31	2.31	2.38	2.38	2.78	2.58
ME800OE	Non-Conventional Energy Sources (OE1)	1.99	2.49	2.07	2.07	2.49	2.07	2.07	-	-	-	1.33	1.49	1.99	1.99
EE612PE	Power Semiconductor Drives (PE2)	1.70	1.74	2.06	1.80	2.32	2.32	-	-	1.55	1.29	1.24	1.39	1.86	1.70
EE601PC	Signals and Systems	1.73	2.35	2.35	1.57	2.35	-	-	-	1.57	1.31	1.26	1.41	1.26	1.57
EE602PC	Microprocessors & Microcontrollers	1.96	2.67	2.67	1.78	2.67	-	-	-	1.78	1.48	1.42	1.60	1.42	1.78

EE603PC	Power System Protection	2.40	2.76	2.76	2.30	2.76	-	-	-	2.30	2.30	2.58	2.40	2.76	2.58
EE604PC	Power System Operation and Control	2.07	2.82	2.82	1.88	2.82	-	-	-	1.88	1.57	1.50	1.69	1.50	1.88
EE605PC	Power System Lab	2.60	3.00	2.67	2.67	2.33	2.25	3.00	3.00	2.33	2.33	2.40	2.40	2.77	2.77
EE606PC	Microprocessors & Microcontrollers Lab	2.60	3.00	2.67	2.67	2.33	2.25	3.00	3.00	2.33	2.33	2.40	2.40	2.77	2.77
EE607PC	Signals and Systems Lab	2.60	3.00	2.67	2.67	2.33	2.25	3.00	3.00	2.33	2.33	2.40	2.40	2.77	2.77
EC700OE	Electronics Sensors (OE2)	2.04	2.79	2.79	1.86	2.79	-	-	-	1.86	1.55	-	1.67	1.49	1.86
EE713PE	Electrical and Hybrid Vehicles (PE3)	1.55	2.43	2.43	2.19	2.27	-	-	-	2.27	1.62	1.62	1.94	1.55	1.94
EE721PE	HVDC Transmission (PE4)	2.47	2.35	2.35	2.06	2.20	-	-	-	2.06	1.47	1.47	1.76	1.94	2.12
SM701MS	Fundamentals of Management for Engineers	1.95	1.80	2.18	1.95	2.25	-	1.80	1.80	1.80	2.31	2.31	1.67	1.93	2.06
EE701PC	Electrical & Electronics Design Lab	2.78	2.97	2.64	2.64	2.31	2.23	2.97	2.97	2.31	2.31	2.38	2.38	2.78	2.58
EE702PC	Industrial Oriented Mini Project/ Summer Internship	2.78	2.97	2.64	2.64	2.31	2.23	2.97	2.97	2.31	2.31	2.38	2.38	2.78	2.58
EE703PC	Seminar	2.78	2.97	2.64	2.64	2.31	2.23	2.97	2.97	2.31	2.31	2.38	2.38	2.78	2.58
EE704PC	Project Stage - I	2.78	2.97	2.64	2.64	2.31	2.23	2.97	2.97	2.31	2.31	2.38	2.38	2.78	2.58
MT831OE	Non-Conventional Sources of Energy (OE3)	2.29	2.64	2.20	2.06	2.20	-	-	-	2.06	2.06	2.11	1.94	2.40	2.20
EE811PE	Power Quality & FACTS (PE5)	1.05	0.84	0.75	0.67	-	-	-	-	-	0.60	0.45	-	1.80	1.80
EE862PE	Smart Grid Technologies (PE6)	2.14	1.72	1.43	1.19	1.43	0.71	1.07	0.71	0.71	0.71	-	1.07	1.72	1.43
EE801PC	Project Stage-II	2.18	2.45	2.18	1.84	2.18	1.36	1.23	1.64	1.64	1.84	2.04	1.77	2.29	2.45
AVERAGE		2.20	2.37	2.26	2.10	2.23	1.99	2.71	2.58	1.86	1.79	1.89	1.89	2.09	2.07



BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACADEMIC YEAR 2021-2022

COs ATTAINMENT LEVELS

Code	Subject	CO Attainment
I YEAR I SEMESTER (R18)		
MA101BS	Mathematics - I	2.80
CH202BS	Chemistry	2.30
EE203ES	Basic Electrical Engineering	2.51
ME205ES	Engineering Workshop	2.42
EN205HS	English	2.65
CH206BS	Engineering Chemistry Lab	2.71
EN207HS	English Language and Communication Skills Lab	2.34
EN207HS	Basic Electrical Engineering Lab	2.76
I YEAR II SEMESTER (R18)		
MA201BS	Mathematics-II	2.80
AP202BS	Applied Physics	2.30
CS203ES	Programming for Problem Solving	2.51
ME204ES	Engineering Graphics	2.42
AP205BS	Applied Physics Lab	2.65
CS206ES	Programming for Problem Solving Lab	2.76
II YEAR I SEMESTER (R18)		
EE301ES	Engineering Mechanics	2.73
EE302PC	Electrical Circuit Analysis	2.01
EE303PC	Analog Electronics	1.82
EE304PC	Electrical Machines - I	2.21
EE305PC	Electromagnetic Fields	2.25
EE306PC	Electrical Machines Lab - I	2.93
EE307PC	Analog Electronics Lab	2.93
EE308PC	Electrical Circuits Lab	2.93

II YEAR II SEMESTER (R18)		
MA401BS	Laplace Transforms, Numerical Methods & Complex variables	2.21
EE402PC	Electrical Machines – II	2.58
EE403PC	Digital Electronics	2.50
EE404PC	Control Systems	2.30
EE405PC	Power System - I	2.22
EE406PC	Digital Electronics Lab	2.93
EE407PC	Electrical Machines Lab - II	2.93
EE408PC	Control Systems Lab	2.93
III YEAR I SEMESTER (R18)		
EE501PE	Power Electronics	2.17
EE502PE	Power System-II	2.25
EE503PE	Measurements and Instrumentation	2.60
EE512PE	High Voltage Engineering (PE1)	2.03
SM504MS	Business Economics and Financial Analysis	2.64
EE505PC	Power System Simulation Lab	2.97
EE506PC	Power Electronics Lab	2.97
EE507PC	Measurements and Instrumentation Lab	2.97
EN508HS	Advanced Communication Skills Lab	2.97
III YEAR II SEMESTER (R18)		
ME800OE	Non-Conventional Energy Sources (OE1)	2.49
EE612PE	Power Semiconductor Drives (PE2)	2.32
EE601PC	Signals and Systems	2.35
EE602PC	Microprocessors & Microcontrollers	2.67
EE603PC	Power System Protection	2.76
EE604PC	Power System Operation and Control	2.82
EE605PC	Power System Lab	2.97
EE606PC	Microprocessors & Microcontrollers Lab	2.97
EE607PC	Signals and Systems Lab	2.97
IV YEAR I SEMESTER (R18)		
EC700OE	Electronics Sensors (OE2)	2.79
EE713PE	Electrical and Hybrid Vehicles (PE3)	2.91
EE721PE	HVDC Transmission (PE4)	2.64
SM701MS	Fundamentals of Management for Engineers	2.70
EE701PC	Electrical & Electronics Design Lab	2.72
EE702PC	Project Stage - I/ Summer Internship	2.95
EE703PC	Seminar	2.95
EE704PC	Project Stage - I	2.95
IV YEAR II SEMESTER (R18)		
MT831OE	Non-Conventional Sources of Energy (OE3)	2.64
EE811PE	Power Quality & FACTS (PE5)	2.9
EE862PE	Smart Grid Technologies (PE6)	2.9
EE801PC	Project Stage-II	2.94


B.Tech - Mechanical Engineering PO/ PSO Attainment Levels 2021-2022

Code	Subject	Program Outcomes (PO's)											
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
I B. Tech-I Semester													
CS103ES	Programming For Problem Solving	1.16	1.16	1.09	0.77	0.58	-	-	-	-	-	-	0.83
MA101BS	Mathematics-I	0.96	1.03	0.96	-	-	-	-	-	-	-	-	0.41
PH103BS	Engineering Physics-I	0.51	0.51	0.37	0.23	0.14	-	-	-	-	-	-	0.19
ME104ES	Engineering Graphics	1.37	1.20	0.69	1.37	-	-	-	-	-	-	-	-
PH107BS	EP LAB	1.97	1.48	1.48	-	-	-	-	-	0.99	0.99	-	-
CS106BS	PPS LAB	2.85	2.85	2.85	2.10	1.61	-	-	-		1.11	-	2.35
I B. Tech II Semester													
MA301BS	Mathematics-IV	2.49	1.40	1.71	1.40	1.40	-	1.40	-	1.40	0.93	1.40	1.87
EC304ES	Signals and Stochastic Process	1.89	1.78	1.78	1.78	1.78	1.30	1.07	-	1.07	1.07	1.78	0.71
EC305ES	Network Analysis	2.37	2.52	2.05	1.74	1.66	0.95	-	-	1.42	-	-	1.74
EC303ES	Electrical Technology	1.24	1.56	0.93	0.93	-	-	-	-	2.80	-	2.49	0.93
EC302ES	Analog Electronics	1.21	0.68	1.13	1.13	1.13	0.83	-	-	1.13	-	1.13	1.13
EC306ES	Electronic Devices and Circuits Lab	1.95	1.95	1.95	1.95	-	-	-	-	1.95	1.95	-	-
EC307ES	Basic Simulation Lab	2.92	2.92	2.92	2.92	2.92	-	-	-	1.95	1.95	-	0.97
EC308ES	Basic Electrical Engineering Lab	1.95	1.95	0.97	0.97	-	-	-	-	-	-	-	-
MC300ES	Environmental Science and Technology	2.83	2.83	2.83	-	-	-	2.83	-	-	-	-	-

Code	Subject	Program Outcomes (PO's)											
II B. Tech-I Semester		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
ME306ES	Fuels and lubricants lab	1.62	2.42	2.42	1.62	-	1.62	2.42	-	1.62	0.81	-	1.62
MA301BS	Mathematics - iv	0.87	0.69	0.54	-	-	-	-	-	-	-	-	-
ME302ES	Kinematics of machinery	1.63	1.63	1.90	1.63	-	0.81	-	-	-	0.81	-	1.63
ME305ES	Metallurgy and material science	2.62	0.87	-	-	-	2.62	2.62	-	1.75	1.75	-	2.62
ME308ES	Mms lab	2.43	1.21	-	-	0.81	2.43	2.43	-	1.62	1.62	-	2.43
ME307ES	Mos lab	2.42	1.61	1.94	0.81	-	1.61	1.61	-	2.26	2.42	-	2.42
ME303ES	Mechanics of solids	1.28	0.85	0.85	0.43	-	-	-	-	1.28	1.28	-	1.28
ME304ES	Thermodynamics	1.24	0.82	0.41	-	-	-	-	-	1.24	0.82	-	1.24
II B. Tech II Semester													
SM405MS	Business economics and financial analysis	-	-	-	-	-	-	2.06	2.06	2.06	2.06	2.06	2.06
ME403ES	Dynamics of machinery	1.65	1.18	1.41	1.88	-	1.88	1.88	1.41	1.88	1.41	-	1.41
ME401ES	Fluid mechanics and hydraulic machines	2.18	1.81	1.74	0.73	-	0.00	0.00	0.00	2.18	1.45	0.00	1.45
ME405ES	Manufacturing process	1.96	1.96	-	-	-	-	-	-	1.96	2.94	-	2.94
ME406ES	Kinematics and dynamics lab	0.75	2.42	1.81	-	-	-	-	-	2.42	1.81	-	2.42
ME407ES	Fluid mechanics and hydraulic machines lab	2.38	1.89	1.89	0.79	-	-	-	-	2.38	1.89	-	1.89
ME408ES	Manufacturing process lab	1.69	1.69	0.84	-	-	-	-	-	2.54	1.69	-	2.54
ME404ES	Machine drawing	1.84	-	-	-	-	2.59	-	-	2.59	2.59	-	2.59

Code	Subject	Program Outcomes (PO's)											
III B. Tech I Semester		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
ME501PC	Design of machine members-I	2.53	2.53	2.11	2.11	-	-	-	-	2.53	1.69	-	2.53
ME507PC	Engineering metrology lab	2.38	2.38	1.89	0.79	1.19	2.38	2.38	2.38	2.38	2.38	-	2.38
SM504MS	Fundamentals of management	0.72	1.15	1.15	1.26	1.44	0.72	0.87	1.32	1.32	1.68	1.80	0.90
ME504PC	Metrology & machine tools	2.78	2.55	2.78	-	-	1.62	-	-	2.09	2.09	-	2.09
CE511OE	Disaster management	1.68	1.98	-	-	-	2.52	2.52	2.10	2.52	1.68	1.89	2.53
ME506PC	Machine tools lab	2.38	2.38	1.89	0.79	1.19	2.38	2.38	2.38	2.38	2.38	-	2.38
ME502PC	Thermal engineering - i	2.77	2.31	1.85	0.92	-	-	-	-	2.77	1.85	-	2.77
ME505PC	Thermal engineering lab	2.40	2.24	1.92	2.08	-	-	-	-	2.40	2.40	-	2.40
III B. Tech II Semester													
ME601PC	Thermal engineering - ii	2.57	2.57	1.71	0.86	-	-	-	-	2.57	1.71	-	2.57
ME602PC	Design of machine members - ii	2.15	2.15	1.67	1.19	-	-	-	-	2.15	2.15	-	2.15
ME603PC	Heat transfer	2.90	2.90	1.93	0.97	-	-	-	-	2.90	2.90	-	2.90
NT603PC/ME611PE	Finite element methods	0.53	0.73	0.23	0.26	-	-	-	-	0.53	0.53	-	0.53
CE621OE	RS&GIS	2.87	2.37	1.91	0.96	-	-	-	-	2.87	2.87	-	2.87
EE622OE	ESS	2.81	2.34	1.87	0.94	-	-	-	-	2.81	2.81	-	2.81
ME604PC	Heat Transfer lab	2.88	2.88	1.62	1.09	-	-	-	-	-	-	-	2.88
ME605PC	CADD and MAT lab	2.42	2.42	1.05	-	-	-	-	-	1.05	1.05	-	2.42
EN606HS	Advanced English Communications Skills Lab	2.88	2.88	2.88	1.75	-	-	-	-	-	-	-	2.88
IV B. Tech I Semester													
A70390	Computer aided design & manufacturing lab	2.42	2.29	1.95	1.61	1.61	-	0.81	-	2.29	1.61	0.81	-


Code	Subject	Program Outcomes (PO's)											
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
A70343	Instrumentation and control system	1.81	1.81	1.36	-	-	1.81	2.72	-	-	-	1.81	1.81
A70332	Industrial management	1.63	1.63	1.50	0.68	0.82	-	-	-	0.95	1.36	0.54	0.95
A70352	Operations research	2.09	1.95	1.67	1.39	1.39	-	-	-	1.39	0.83	0.56	-
A70353	Power plant engineering	1.90	1.90	1.90	-	-	-	-	-	-	-	1.90	-
A70391	Production drawing practice & instrumentation lab	2.43	2.23	1.97	1.62	1.42	-	-	-	1.42	1.42	-	2.23
A70328	CAD/CAM	2.75	2.38	1.83	-	0.92	0.92	-	-	0.92	0.92	-	1.83
IV B. Tech II Semester													
A80366	Production Planning & Control	2.93	1.92	1.92	1.92	-	1.92	1.91	1.91	-	-	1.91	-
A80365	Plant Layout & Material Handling(Elective III)	2.93	3.35	0.95	1.89	0.97	0.00	0.00	0.00	1.91	1.91	0.00	1.91
A80324	Renewable Energy Sources (Elective IV)	2.87	2.80	1.86	1.86	1.86	0.93	0.93	0.93	2.80	0.93	-	2.80
A80087	Industry Oriented Mini Project	1.98	2.97	2.97	1.98	2.97	2.97	2.97	1.98	2.97	2.97	2.97	1.98
A80089	Seminar	-	1.97	2.96	2.96	2.96	1.97	2.96	1.97	2.96	2.96	2.96	2.96
A80088	Project Work	1.99	2.98	2.98	1.99	2.98	1.99	1.99	1.99	2.98	2.98	2.98	1.99
A80090	Comprehensive Viva	-	1.98	0.99	1.98	2.97	1.98	1.98	1.98	2.97	2.97	2.97	2.97
	Average	2.06	1.96	1.69	1.39	1.60	1.63	1.86	1.60	2.03	1.79	1.68	1.98
PO Attainment Level		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO Attainment		2.11	1.99	1.72	1.45	1.64	1.66	1.88	1.64	2.02	1.8	1.71	1.97
Direct Attainment		2.06	1.96	1.69	1.39	1.6	1.63	1.86	1.6	2.03	1.79	1.68	1.98
Indirect Attainment		2.55	2.22	1.95	1.99	2.00	1.97	2.07	2.00	1.91	1.85	1.99	1.93
PSO Attainment Level		PSO1	PSO2	PSO3									
CO Attainment		1.81	1.62	1.59									
Direct Attainment		1.79	1.55	1.53									
Indirect Attainment		2.00	2.21	2.12									


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Code	Subject	CO Attainment
I B. Tech I Semester		
CS103ES	Programming For Problem Solving	1.16
MA101BS	Mathematics-I	1.03
PH103BS	Engineering Physics-I	0.51
ME104ES	Engineering Graphics	1.37
PH107BS	EP Lab	1.97
CS106BS	PPS Lab	2.85
I B. Tech II Semester		
MA202BS	Mathematics-II	2.12
MA203BS	Mathematics-III	2.84
PH201BS	Engineering Physics-II	2.84
CS204ES	Computer Programming in C	2.90
ME205ES	Engineering Graphics	2.90
CS208ES	Computer Programming in C Lab	2.90
PH207BS	Engineering Physics Lab	2.90
CH206BS	Engineering Chemistry Lab	2.90
II B. Tech-I Semester		
ME306ES	Fuels and lubricants lab	2.42
MA301BS	Mathematics - iv	0.87
ME302ES	Kinematics of machinery	1.90
ME305ES	Metallurgy and material science	2.62
ME308ES	Mms lab	2.43
ME307ES	Mos lab	2.42
ME303ES	Mechanics of solids	1.28
ME304ES	Thermodynamics	1.24
II B. Tech II Semester		
SM405MS	Business economics and financial analysis	2.06
ME403ES	Dynamics of machinery	2.82

Code	Subject	CO Attainment
ME401ES	Fluid mechanics and hydraulic machines	2.18
ME405ES	Manufacturing process	2.94
ME406ES	Kinematics and dynamics lab	2.42
ME407ES	Fluid mechanics and hydraulic machines lab	2.38
ME408ES	Manufacturing process lab	2.54
ME404ES	Machine drawing	2.59
III B. Tech I Semester		
ME501PC	Design of machine members-I	2.53
ME507PC	Engineering metrology lab	2.38
SM504MS	Fundamentals of management	1.80
ME504PC	Metrology & machine tools	2.78
CE511OE	Disaster management	2.52
ME506PC	Machine tools lab	2.38
ME502PC	Thermal engineering -i	2.77
ME505PC	Thermal engineering lab	2.40
III B. Tech II Semester		
ME601PC	Thermal engineering - ii	2.57
ME602PC	Design of machine members - ii	2.15
ME603PC	Heat transfer	2.90
NT603PC/ME611PE	Finite element methods	1.94
CE621OE	RS & GIS	2.87
EE622OE	ESS	2.81
ME604PC	Heat transfer lab	2.88
ME605PC	CADD and MAT lab	2.42
EN606HS	Advanced English communications skills lab	2.88
IV B. Tech I Semester		
A70390	Computer aided design & manufacturing lab	2.42
A70343	Instrumentation and control system	2.72
A70332	Industrial management	1.63

Code	Subject	CO Attainment
A70352	Operations research	2.09
A70353	Power plant engineering	1.90
A70391	Production drawing practice & instrumentation lab	2.43
A70328	CAD/CAM	2.75
IV B. Tech II Semester		
A80366	Production Planning & Control	2.93
A80365	Plant Layout & Material Handling(Elective III)	2.93
A80324	Renewable Energy Sources (Elective IV)	2.87
A80087	Industry Oriented Mini Project	2.97
A80089	Seminar	2.96
A80088	Project Work	2.98
A80090	Comprehensive Viva	2.97


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M. Tech – CAD / CAM POs/PSOs Attainment

Code	Subject	Program Outcomes (PO's)												Program Specific Outcomes (PSO's)		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
I M. Tech-I Semester																
PC-1	Advanced CAD	2.38	1.32	0.75	-	1.32	2.38	-	2.38	2.38	2.38	-	2.38	1.32	0.75	2.38
PC-2	Computer Aided Manufacturing	-	2.45	0.84	-	2.45	2.45	-	2.45	2.45	2.45	-	2.45	0.84	-	2.45
PC-3	Advanced FEM	2.58	0.85	2.58	0.85	2.58	2.58	2.58	2.58	2.58	2.58	0.85	2.58	1.50	0.85	0.85
PE-1	Additive Manufacturing Technologies	2.38	1.32	0.75	-	1.32	2.38	-	2.38	2.38	2.38	-	2.38	1.32	0.75	2.38
PE-2	Automation in Manufacturing	1.31	1.31	1.31	-	-	2.42	2.42	2.42	2.42	2.42	-	2.42	1.31	1.31	1.31
Laboratory I	Advanced CAD/CAM Laboratory	-	2.62	0.90	-	2.62	2.62	-	2.62	2.62	2.62	-	2.62	0.90	-	2.62
I M. Tech II Semester																
PC-4	Design for Manufacturing and Assembly	2.31	0.75	2.31	-	-	2.31	2.31	2.31	2.31	2.31	-	2.31	1.15	1.15	-
PC-5	Flexible Manufacturing Systems	2.42	2.42	0.75	0.75	-	2.42	2.42	2.42	2.42	2.42	-	2.42	0.75	-	0.75
PC-6	Industrial Robotics	1.38	2.50	1.38	0.82	2.50	2.50	2.50	2.50	2.50	2.50	-	2.50	1.38	0.82	0.82
PE-3	Special Manufacturing Process	2.42	0.75	-	-	-	2.42	2.42	2.42	2.42	2.42	-	2.42	1.30	-	0.75
PE-4	Advanced Mechatronics	2.27	1.51	0.76	0.76	0.76	2.27	2.27	2.27	2.27	2.27	-	2.27	0.76	-	
Laboratory II	Manufacturing simulation & Precision Engineering lab	1.97	2.96	0.99	2.96		2.96	2.96	2.96	2.96	2.96	-	2.96	0.99	-	0.99
II M. Tech-I Semester																
	Comprehensive Viva - voice	2.42	2.42	2.42	1.75	-	-	-	-	1.75	1.75		2.42	2.54	-	1.79

Code	Subject	Program Outcomes (PO's)												Program Specific Outcomes (PSO's)		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
II M. Tech II Semester																
Project Evaluation (Viva-Voice)		2.98	2.98	2.98	1.95	1.95	-	-	-	1.95	1.95		2.98	2.98	2.98	2.98
Average		2.24	1.87	1.44	1.41	1.94	2.48	2.49	2.48	2.39	2.39	0.85	2.51	1.36	1.23	1.67
PO Attainment Level		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12			
CO Attainment		2.27	1.91	1.49	1.47	1.95	2.43	2.45	2.43	2.34	2.34	0.96	2.45			
Direct Attainment		2.24	1.87	1.44	1.41	1.94	2.48	2.49	2.48	2.39	2.39	0.85	2.51			
Indirect Attainment		2.55	2.22	1.95	1.99	2.00	1.97	2.07	2.00	1.91	1.85	1.99	1.93			
PSO Attainment Level		PSO1	PSO2	PSO3												
CO Attainment		1.42	1.33	1.72												
Direct Attainment		1.36	1.23	1.67												
Indirect Attainment		2.00	2.21	2.12												


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Code	Subject	CO Attainment
I M. Tech I Semester		
PC-1	Advanced CAD	2.38
PC-2	Computer Aided Manufacturing	2.45
PC-3	Advanced FEM	2.58
PE-1	Additive Manufacturing Technologies	2.38
PE-2	Automation in Manufacturing	2.42
Laboratory I	Advanced CAD/CAM Laboratory	2.62
I M. Tech II Semester		
PC-4	Design for Manufacturing and Assembly	2.31
PC-5	Flexible Manufacturing Systems	2.42
PC-6	Industrial Robotics	2.5
PE-3	Special Manufacturing Process	2.42
PE-4	Advanced Mechatronics	2.27
Laboratory II	Manufacturing simulation & Precision Engineering lab	2.96


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	II B. Tech-I Semester																
211	EC301PC	Electronic Devices and Circuits	1.87	1.06	1.29	1.06	1.06		1.06		1.06	0.71	1.06	1.41	1.87	1.06	0.71
212	EC302PC	Network Analysis and Transmission Lines	1.23	1.15	1.15	1.15	1.15				0.70	0.70	1.15	0.47	1.23	1.15	0.7
213	EC303PC	Digital System Design	2.36	1.58	2.36	1.43	2.36	2.36	2.36		2.05		2.36	1.11	1.58	2.36	2.36
214	EC304PC	Signals and Systems	1.88	1.76	1.76	1.76	1.07	1.07	1.76		1.76		1.07	1.76	1.76	1.07	1.07
215	EC305ES	Probability Theory and Stochastic Processes	2.38	1.44	2.38	2.38	2.38	1.44			2.38		2.38	2.38	1.44	2.38	2.38
216	EC306PC	Electronic Devices and Circuits Lab	2.96	2.96	2.96	2.96		2.96	2.96	2.96	2.96	2.00	2.96	2.96	2.96	2.96	2.96
217	EC307PC	Digital System Design Lab	2.96			2.96	2.96	2.96	2.96	2.96	2.96		2.96	2.96	2.96	1.98	2.96
218	EC308ES	Basic Simulation Lab	2.96	2.96	2.96	2.96	1.99	1.99	1.99		2.96		1.99	2.96	2.96	2.96	2.96
219	MC309	Constitution of India	2.46	2.46	2.46	2.46	1.49	2.46	2.46	2.46	2.46	2.46	2.46	2.46			2.46

	II B. Tech-II Semester																
221	MA401BS	Laplace Transforms, Numerical Methods & Complex Variables	2.92	2.92	2.92	2.92	2.92	1.95			2.92		2.92	2.92	1.95	2.92	2.92
222	EC402PC	Electromagnetic Fields and Waves	1.76	2.19	1.76	2.19	1.76	0.99				1.76		1.76	1.76	1.76	1.76
223	EC403PC	Analog and Digital Communications	2.44	2.44	2.44	2.44	2.44	2.12	2.44		1.80	2.44	2.44	2.44	2.44	2.44	2.44
224	EC404PC	Linear IC Applications	2.43	2.43	1.47	2.43	2.43	1.47	1.47		2.43		2.43	2.43	2.43	1.43	1.43
225	EC405PC	Electronic Circuit Analysis	2.44	2.44	2.44		2.44	2.44			2.44	2.44	1.47			0.99	
226	EC406PC	Analog and Digital Communications Lab	2.96	2.96	2.96	2.96		2.96	2.96	2.96	2.96	2.01	2.96	2.96	2.96	2.96	2.96
227	EC407PC	IC Applications Lab	2.96	2.96	2.96	2.96		2.96	2.96	2.96	2.96	2.01	2.96	2.96	2.96	2.96	2.96
228	EC408PC	Electronic Circuit Analysis Lab	2.95	2.95	2.95	2.95		2.95	2.95	2.95	2.95	1.97	2.95	2.95	2.95	2.95	2.95
229	MC409	Gender Sensitization Lab	2.95	2.95	2.95	2.95		2.95	2.95	2.95	2.95	1.97	2.95	2.95	2.95	2.95	2.95

III B. Tech I Semester																	
311	MC510	Intellectual Property Rights		2.45	2.45	2.45		2.45	2.45			2.45	2.45	1.48			0.99
312	MC511	Cyber Security	2.28	2.28	2.28	0.99	0.99	0.99	0.99					0.99	2.28	0.99	0.99
313	EC501PC	Microprocessors & Microcontrollers	1.47	1.47	1.47	1.96	1.47							0.99	1.96	1.96	1.47
314	EC502PC	Data Communications and Networks	2.44	2.44	2.44	2.44	2.44	2.12	2.44		1.80	2.44	2.44	2.44	2.44	2.44	2.44
315	EC503PC	Control Systems	2.36	2.36	2.36	2.36	2.36	1.58	1.58		2.36	1.58	2.36	2.36	1.58	1.89	1.89
316	SM504MS	Business Economics & Financial Analysis		1.14	1.14	1.14		1.88	1.88		1.88	1.88	1.88	1.88			0.76
317	EC511PE	Computer Organization & Operating Systems	2.28	2.28	2.28	0.99	0.99	0.99	0.99					0.99	2.28	0.99	0.99
318	EC505PC	Microprocessors & Microcontrollers Lab	2.98	2.98	2.98	2.98	2.98							2.98	2.98	2.98	2.98
319	EC506PC	Data Communications and Networks Lab	2.98	2.98	2.98	2.98		2.98	2.98	2.98	2.98	2.01	2.98	2.98	2.98	2.98	2.98
320	EN508HS	Advanced Communication Skills Lab	2.95	2.95	2.95	2.95		2.95	2.95	2.95	2.95	1.97	2.95	2.95	2.95	2.95	2.95
III B. Tech II Semester																	
321	EC601PC	Antennas and Propagation	2.43	2.43	2.43	2.43	2.43	1.47	2.43		1.47		2.43	2.43	2.43	1.47	1.47
322	EC602PC	Digital Signal Processing	1.79	2.43	2.43	1.47								1.47	2.43	1.47	1.47
323	EC603PC	VLSI Design	2.45	2.45	2.45	2.45	2.45	2.45			2.45	2.45	2.45	2.45	2.45	2.45	2.45
324	EC613PE	Embedded System Design	2.43	2.43	2.43	2.43	2.43							2.43	2.43	2.43	1.47
325	CS601OE	Fundamentals of Management for Engineers		1.14	1.14	1.14		1.88	1.88		1.88	1.88	1.88	1.88			0.76
326	EC604PC	Digital Signal Processing Lab	2.98	2.98	2.98	2.98								2.98	2.98	2.98	2.98
327	EC605PC	E-CAD Lab	2.98	2.98	2.98	2.98								2.98	2.98	2.98	2.98
328	EC606PC	Scripting Languages Lab	2.95	2.95	2.95	2.95					2.95	1.97	2.95	2.95	2.95	2.95	2.95

IV B. Tech I Semester																	
411	EC701PC	Microwave and Optical Communications	1.86	1.86	1.86	1.86	1.86	1.13	1.86		1.13	1.86	1.86	1.86	1.86	0.76	0.76
412	SM702MS	Professional Practice, Law & Ethics						2.96	2.96		1.98						
413	EC713PE	Digital Image Processing	2.45	2.45	2.45	2.45	2.45	2.45			2.45	2.45	2.45	2.45	2.45	2.45	2.45
414	EC722PE	Database Management Systems	2.46	2.46	2.46	2.46	2.46	2.14	2.46		1.49	1.49	2.46	2.46	2.46	2.46	1.49
415	CS702OE	Python Programming	2.45	2.45	2.45	2.45	2.45	2.45	2.45		2.29	2.29	2.29	2.29	2.29	2.29	2.29
416	EC703PC	Microwave and Optical Communications Lab	2.96			2.96	2.96	2.96	2.96	2.96	2.96	2.96		2.96	2.96	2.00	2.96
417	EC704PC	Industrial Oriented Mini Project/ Summer Internship	2.96	2.96	2.96	2.96		2.96	2.96	2.96	2.96	2.00	2.96	2.96	2.96	2.96	2.96
418	EC705PC	Seminar	2.95	2.95	2.95	2.95	2.95	2.95	2.95		2.95	2.95	2.95	2.95	2.95	2.95	2.95
419	EC706PC	Project Stage - I	2.95	2.95	2.95	2.95	2.95	2.95	2.95		2.95			2.95	1.99	1.00	2.95
IV B. Tech II Semester																	
421	EE833OE	Database Management Systems		1.14	1.14	1.14		1.88	1.88		1.88	1.88	1.88	1.88			0.76
422	EC812PE	Radar Systems	2.42	2.42	2.42	2.42	2.42	2.42	2.42			2.42	1.46	2.42	2.42	1.46	2.42
423	EC822PE	Test and Testability	2.52	2.52	2.52	2.52	2.52	2.52				2.52	2.52	2.52	2.52	2.52	1.69
424	EC801PC	Project Stage - II	2.93	2.93	2.93	2.93	2.93	2.93	2.93		2.93	2.93	2.93	2.93	2.93	2.93	2.93
		Average	2.44	2.29	2.31	2.31	2.16	2.16	2.38	2.75	2.30	2.12	2.36	2.27	2.34	2.15	2.08

PO Attainment Level	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO Attainment	2.38	2.25	2.27	2.28	2.15	2.14	2.35	2.68	2.26	2.1	2.33	2.24
Direct Attainment	2.44	2.29	2.31	2.31	2.16	2.16	2.38	2.75	2.3	2.12	2.36	2.27
Indirect Attainment	1.86	1.88	1.93	1.99	2.01	1.95	2.07	2.01	1.93	1.93	2.01	1.93

PSO Attainment Level	PSO1	PSO2	PSO3
CO Attainment	2.3	2.13	2.06
Direct Attainment	2.34	2.15	2.08
Indirect Attainment	1.94	1.94	1.88



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B.Tech (ECE) CO Attainment (Levels)

Academic Year: 2021-2022

Code	Subject	CO Attainment
I B. Tech-I Semester		
MA101BS	Mathematics-I	2.83
AP102BS	Applied Physics	2.83
CS103ES	Programming for Problem Solving	2.85
ME104ES	Engineering Graphics	1.96
AP105BS	Applied Physics Lab	1.96
CS106ES	Programming for Problem Solving Lab	1.96
MC109ES	Environmental Science	2.82
I B. Tech-II Semester		
MA201BS	Mathematics - II	2.22
CH202BS	Chemistry	2.86
EE203ES	Basic Electrical Engineering	2.86
ME205ES	Engineering Workshop	2.22
EN205HS	English	1.95
CH206BS	Engineering Chemistry Lab	2.92
EN207HS	English Language and Communication Skills Lab	1.95
EE208ES	Basic Electrical Engineering Lab	1.95

II B. Tech-I Semester		
EC301PC	Electronic Devices and Circuits	1.87
EC302PC	Network Analysis and Transmission Lines	1.23
EC303PC	Digital System Design	2.36
EC304PC	Signals and Systems	1.88
EC305ES	Probability Theory and Stochastic Processes	2.38
EC306PC	Electronic Devices and Circuits Lab	2.96
EC307PC	Digital System Design Lab	2.96
EC308ES	Basic Simulation Lab	2.96
MC309	Constitution of India	2.46
II B. Tech-II Semester		
MA401BS	Laplace Transforms, Numerical Methods & Complex Variables	2.92
EC402PC	Electromagnetic Fields and Waves	2.19
EC403PC	Analog and Digital Communications	2.44
EC404PC	Linear IC Applications	2.43
EC405PC	Electronic Circuit Analysis	2.44
EC406PC	Analog and Digital Communications Lab	2.96
EC407PC	IC Applications Lab	2.96
EC408PC	Electronic Circuit Analysis Lab	2.95

MC409	Gender Sensitization Lab	2.95
III B. Tech I Semester		
MC510	Intellectual Property Rights	2.45
MC511	Cyber Security	2.28
EC501PC	Microprocessors & Microcontrollers	1.96
EC502PC	Data Communications and Networks	2.44
EC503PC	Control Systems	2.36
SM504MS	Business Economics & Financial Analysis	1.88
EC511PE	Computer Organization & Operating Systems	2.28
EC505PC	Microprocessors & Microcontrollers Lab	2.98
EC506PC	Data Communications and Networks Lab	2.98
EN508HS	Advanced Communication Skills Lab	2.95
III B. Tech II Semester		
EC601PC	Antennas and Propagation	2.43
EC602PC	Digital Signal Processing	2.43
EC603PC	VLSI Design	2.45
EC613PE	Embedded System Design	2.43
CS601OE	Fundamentals of Management for Engineers	1.88
EC604PC	Digital Signal Processing Lab	2.98
EC605PC	E-CAD Lab	2.98
EC606PC	Scripting Languages Lab	2.95

IV B. Tech I Semester		
EC701PC	Microwave and Optical Communications	1.86
SM702MS	Professional Practice, Law & Ethics	2.96
EC713PE	Digital Image Processing	2.45
EC722PE	Database Management Systems	2.46
CS702OE	Python Programming	2.45
EC703PC	Microwave and Optical Communications Lab	2.96
EC704PC	Industrial Oriented Mini Project/ Summer Internship	2.95
EC705PC	Seminar	2.95
EC706PC	Project Stage - I	2.95
IV B. Tech II Semester		
EE833OE	Database Management Systems	1.88
EC812PE	Radar Systems	2.42
EC822PE	Test and Testability	2.52
EC801PC	Project Stage - II	2.93

M.Tech (VLSI) PO/ PSO Attainment Levels (2021-2022)



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M.Tech (VLSI) PO Attainment (Levels)

Academic Year: 2021-2022

Code	Subject	Program Outcomes (PO's)					
		PO1	PO2	PO3	PO4	PO5	PO6
I M. Tech-I Semester							
PC-I	Digital Design & Verification	1.53	1.57	1.39	1.11	1.11	1.74
PC-II	Microcontrollers & Programmable Digital Signal Processors	1.89	1.42	2.12	2.36	2.26	1.89
PE-I	Nanomaterials & Nanotechnology	2.08	1.11	1.85	2.08	1.11	1.85
PE-II	IOT and its Applications	2.12	1.06	0.99	1.98	1.06	0.99
	Research Methodology & IPR	2.12	2.12	2.12	1.98	2.12	2.12
Lab-I	Digital Design and Verification Lab	2.45	2.45	2.26	2.26	1.51	2.26
Lab-II	Microcontrollers & Programmable Digital Signal Processors Lab	2.93	2.93	2.93	2.93	2.93	2.93
Audit-I	English for Research Paper Writing	2.97	2.97	2.97	2.97	2.97	2.97
I M. Tech-II Semester							
PC-III	Analog and Digital CMOS VLSI Design	2.84	1.42	1.33	2.65	1.42	1.33
PC-IV	Low Power System Design	1.89	1.42	2.12	2.36	2.36	1.89
PE-III	SOC Design	2.78	1.48	2.47	2.78	1.48	2.47
PE-IV	Design for Testability	2.08	1.11	1.85	2.08	1.11	1.85
Lab-III	Analog and Digital CMOS Lab	2.46	2.46	2.46	2.26	1.51	2.26
Lab-IV	VLSI Design & Verification Lab	2.46	2.46	2.46	1.88	1.60	1.88
	Mini project with Seminar	2.92	2.92	2.92	2.92	2.92	2.92
Audit-II	Disaster Management	2.92	2.92	2.92	2.92	2.92	2.92
II M. Tech-I Semester							
PC-V	AI and Machine Learning	2.12	2.12	2.12	1.98	2.12	2.12
OE	Cost Management of Engineering Projects	2.45	2.45	2.26	2.26	1.51	2.26
Dissertation	Dissertation Work Review - II	2.92	2.92	2.92	2.92	2.92	2.92
II M. Tech-II Semester							
Dissertation	Dissertation Work Review - III	2.93	2.93	2.93	2.93	2.93	2.93
Dissertation	Dissertation Viva-Voce	2.93	2.93	2.93	2.93	2.93	2.93
	Average	2.47	2.15	2.30	2.41	2.04	2.26

PO Attainment Level

CO Attainment	2.45	2.12	2.28	2.39	2.02	2.25
Direct Attainment	2.47	2.15	2.3	2.41	2.04	2.26
Indirect Attainment	2.22	1.88	2.14	2.22	1.88	2.14

M.Tech (VLSI) CO Attainment Levels (2021-2022)



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M.Tech (VLSI) CO Attainment (Levels)

Academic Year: 2021-2022

Code	Subject	CO Attainment
I M. Tech-I Semester		
PC-I	Digital Design & Verification	1.74
PC-II	Microcontrollers & Programmable Digital Signal Processors	2.36
PE-I	Nanomaterials & Nanotechnology	2.08
PE-II	IOT and its Applications	2.12
	Research Methodology & IPR	2.12
Lab-I	Digital Design and Verification Lab	2.45
Lab-II	Microcontrollers & Programmable Digital Signal Processors Lab	2.93
Audit-I	English for Research Paper Writing	2.97
I M. Tech-II Semester		
PC-III	Analog and Digital CMOS VLSI Design	2.84
PC-IV	Low Power System Design	2.36
PE-III	SOC Design	2.78
PE-IV	Design for Testability	2.08
Lab-III	Analog and Digital CMOS Lab	2.46
Lab-IV	VLSI Design & Verification Lab	2.46
	Mini project with Seminar	2.92
Audit-II	Disaster Management	2.92

II M. Tech-I Semester		
PC-V	AI and Machine Learning	2.12
OE	Cost Management of Engineering Projects	2.45
Dissertation	Dissertation Work Review - II	2.92
II M. Tech-II Semester		
Dissertation	Dissertation Work Review - III	2.93
Dissertation	Dissertation Viva-Voce	2.93

Computer Science and Engineering

Academic Year: 2021-2023

Academic Year: 2021-2022

Subject Code	Subject	CO
II B. Tech-I Semester(R18)		
CS302PC	Data Structures	2.79
CS304PC	Computer Organization and Architecture	2.86
CS305PC	Object Oriented Programming using C++	2.72
CS306ES	Analog and Digital Electronics Lab	2.92
CS307PC	Data Structures Lab	2.92
CS308PC	IT Workshop Lab	2.91
II B. Tech-II Semester(R18)		
CS403PC	Operating Systems	2.81
CS404PC	Database Management Systems	2.81
CS405PC	Java Programming	2.91
CS406PC	Operating Systems Lab	2.92
CS407PC	Database Management Systems Lab	2.92

III B. Tech I Semester (R18)		
CS501PC	Formal Languages & Automata Theory	2.88
CS502PC	Software Engineering	2.92
CS503PC	Computer Networks	2.85
CS504PC	Web Technologies	1.4
CS505PC	Software Engineering Lab	2.92
CS506PC	Computer Networks & Web Technologies Lab	2.92
EN508HS	Advanced Communication Skills Lab	2.92
	Computer Graphics	2.8
	Principles of Programming Languages	2.1
III B. Tech II Semester (R18)		
CS601PC	Machine Learning	2.86
CS604PC	Machine Learning Lab	2.9
CS605PC	Compiler Design Lab	2.9
CS625PE	Software Testing Methodologies Lab	2.9
IV B. Tech I Semester (R18)		
CS714PE	Cloud Computing	2.85
CS725PE	Software Process and Project Management	2.90
EC700OE	Electronic Sensors	2.80

Attainments of Course Outcomes

Academic Year: 2021-2022

Subject Code	Subject	CO
II B. Tech-I Semester(R18)		
CS302PC	Data Structures	2.79
CS304PC	Computer Organization and Architecture	2.86
CS305PC	Object Oriented Programming using C++	2.72
CS306ES	Analog and Digital Electronics Lab	2.92
CS307PC	Data Structures Lab	2.92
CS308PC	IT Workshop Lab	2.91
II B. Tech-II Semester(R18)		
CS403PC	Operating Systems	2.81
CS404PC	Database Management Systems	2.81
CS405PC	Java Programming	2.91
CS406PC	Operating Systems Lab	2.92
CS407PC	Database Management Systems Lab	2.92
III B. Tech I Semester (R18)		
CS501PC	Formal Languages & Automata Theory	2.88
CS502PC	Software Engineering	2.92
CS503PC	Computer Networks	2.85
CS504PC	Web Technologies	1.4

CS505PC	Software Engineering Lab	2.92
CS506PC	Computer Networks & Web Technologies Lab	2.92
EN508HS	Advanced Communication Skills Lab	2.92
	Computer Graphics	2.8
	Principles of Programming Languages	2.1
III B. Tech II Semester (R18)		
CS601PC	Machine Learning	2.86
CS604PC	Machine Learning Lab	2.9
CS605PC	Compiler Design Lab	2.9
CS625PE	Software Testing Methodologies Lab	2.9
IV B. Tech I Semester (R18)		
CS714PE	Cloud Computing	2.85
CS725PE	Software Process and Project Management	2.90
EC700OE	Electronic Sensors	2.80