

# SESHADRI RAO GUDLAVALLERU ENGINEERING COLLEGE

(An Autonomous Institute with Permanent Affiliation to JNTUK, Kakinada)

Seshadri Rao Knowledge Village, GUDLAVALLERU-521 356, Krishna District, A.P., India

(Approved by AICTE, New Delhi and Permitted by A.P. State Government)

Accredited by NAAC

Phone Nos. 08674-273737, 273888, Mobile: +91 9848779121 Fax No. 08674-273957

e-mail: principal@gecgudlavalleru.ac.in, office@gecgudlavalleru.ac.in, Web: www.gecgudlavalleru.ac.in



**Dr. G. V. S. N. R. V. PRASAD**

M.S., M.Tech., Ph.D.,

MISTE, MIETE, MIE, MCSI, MISRS, MIAPR, MCRSI

**Principal**

1.2.1: *List of new courses introduced of the total number of courses across all programs offered during the academic year 2020 - 2021.*

S. No	Name of the Course	Course Code	Programme Name
1.	Applied Mechanics	CE3501	B. Tech-CE
2.	Linear Algebra and Calculus	MA3501	B. Tech-CE
3.	Integral Transforms and Vector Calculus	MA3505	B. Tech-CE
4.	Engineering Chemistry	CH3501	B. Tech-CE
5.	Engineering Chemistry Lab	CH3502	B. Tech-CE
6.	Universal Human Values 2:Understanding Harmony	UH3501	B. Tech-CE
7.	Circuit Theory - I	EE3504	B. Tech-EEE
8.	Linear Algebra and Calculus	MA3501	B. Tech-EEE
9.	Integral Transforms and Vector Calculus	MA3505	B. Tech-EEE
10.	Solid State Physics	PH3504	B. Tech-EEE
11.	Solid State Physics Lab	PH3505	B. Tech-EEE
12.	Universal Human Values 2:Understanding Harmony	UH3501	B. Tech-EEE
13.	Applied Chemistry	CH3503	B. Tech-ME
14.	Linear Algebra and Calculus	MA3501	B. Tech-ME
15.	Integral Transforms and Vector Calculus	MA3505	B. Tech-ME
16.	Physics for Engineers	PH3502	B. Tech-ME
17.	Chemistry for Engineers	CH3504	B. Tech-ME
18.	Engineering Mechanics Lab and Fuel & Lubricants Lab	ME3506	B. Tech-ME
19.	Universal Human Values 2:Understanding Harmony	UH3501	B. Tech-ME
20.	Problem Solving Using C	CT3501	B. Tech-ECE
21.	Electronic Workshop	EC3503	B. Tech-ECE
22.	Linear Algebra and Calculus	MA3501	B. Tech-ECE
23.	Integral Transforms and Vector Calculus	MA3505	B. Tech-ECE
24.	Solid State Physics	PH3504	B. Tech-ECE

S. No	Name of the Course	Course Code	Programme Name
25.	Solid State Physics Lab	PH3506	B. Tech-ECE
26.	Applied Chemistry	CH3503	B. Tech-ECE
27.	Universal Human Values 2:Understanding Harmony	UH3501	B. Tech-ECE
28.	Programming for Problem Solving	CT3502	B. Tech-CSE
29.	C Programming Lab	CT3503	B. Tech-CSE
30.	Python Programming	CT3504	B. Tech-CSE
31.	Data Structures	CT3505	B. Tech-CSE
32.	Python Programming Lab	CT3506	B. Tech-CSE
33.	Data Structures Lab	CT3507	B. Tech-CSE
34.	Linear Algebra and Calculus	MA3501	B. Tech-CSE
35.	Integral Transforms and Vector Calculus	MA3505	B. Tech-CSE
36.	Applied Physics	PH3509	B. Tech-CSE
37.	Applied Physics Lab	PH3510	B. Tech-CSE
38.	Universal Human Values 2:Understanding Harmony	UH3501	B. Tech-CSE
39.	Applied Chemistry	CH3506	B. Tech-IT
40.	Programming for Problem Solving	CT3502	B. Tech-IT
41.	Applied Chemistry Lab	CH3507	B. Tech-IT
42.	C Programming Lab	CT3503	B. Tech-IT
43.	Applied Physics	PH3509	B. Tech-IT
44.	Applied Physics Lab	PH3510	B. Tech-IT
45.	Data Structures Lab	CT3507	B. Tech-IT
46.	Mechanics of Solids	CE2504	B. Tech-CE
47.	Mechanics of Fluids	CE2505	B. Tech-CE
48.	Mechanics of Solids Lab	CE2509	B. Tech-CE
49.	Structural Analysis	CE2511	B. Tech-CE
50.	Engineering Geology and Geomatics	CE2514	B. Tech-CE
51.	Interior Design	CE2519	B. Tech-CE
52.	Building Bye Laws and Scientific Planning	CE2520	B. Tech-CE
53.	Data Structures	CT2505	B. Tech-CE
54.	Theory of Structures	CE2522	B. Tech-CE
55.	Geotechnical Engineering	CE2523	B. Tech-CE
56.	Hydrology and Water Resources Engineering	CE2524	B. Tech-CE
57.	Water and Waste Water Engineering	CE2525	B. Tech-CE
58.	Water and Waste Water Engineering Lab	CE2533	B. Tech-CE
59.	Infrastructure Development	CE2534	B. Tech-CE

S. No	Name of the Course	Course Code	Programme Name
60.	Foundation Engineering	CE2536	B. Tech-CE
61.	Highway Engineering	CE2537	B. Tech-CE
62.	Highway Engineering Lab	CE2546	B. Tech-CE
63.	Smart Buildings and Automation	CE2548	B. Tech-CE
64.	Building Information Modelling	CE2549	B. Tech-CE
65.	Project Management and Finance	CE2551	B. Tech-CE
66.	Project Scheduling and Contracts	CE2566	B. Tech-CE
67.	Geoinformatics	CE2530	B. Tech-CE
68.	Environmental Sanitation	CE2531	B. Tech-CE
69.	Power Systems Engineering	EE2524	B. Tech-CE
70.	Elements of Mechanical Transmission	ME2532	B. Tech-CE
71.	Material Handling Equipment	ME2533	B. Tech-CE
72.	Introduction to MEMS	EC2544	B. Tech-CE
73.	Data Science	CS2508	B. Tech-CE
74.	Virtual and Augmented Reality	CT2524	B. Tech-CE
75.	Quality, Reliability and Operations Research	MA2517	B. Tech-CE
76.	Hydrology	CE2543	B. Tech-CE
77.	Planning for Sustainable Development	CE2544	B. Tech-CE
78.	Electrical and Hybrid Vehicles	EE2531	B. Tech-CE
79.	Material Science	ME2541	B. Tech-CE
80.	Bio-Medical Engineering	EC2507	B. Tech-CE
81.	Node and Angular JS	CS2512	B. Tech-CE
82.	Cyber Security	CS2513	B. Tech-CE
83.	Software Project Management	CT2531	B. Tech-CE
84.	Elements of Stochastic Processes	MA2518	B. Tech-CE
85.	Academic Communication	EG2505	B. Tech-CE
86.	Repair and Retrofitting Techniques	CE2563	B. Tech-CE
87.	Non Destructive Evaluation	ME2554	B. Tech-CE
88.	Cyber Physical Systems	EC2563	B. Tech-CE
89.	Digital Forensics	CS2521	B. Tech-CE
90.	Business Intelligence & Decision Support Systems	CS2522	B. Tech-CE
91.	Adhoc and Sensor Networks	IT2521	B. Tech-CE
92.	Information Retrieval Systems	CT2537	B. Tech-CE
93.	Fuzzy Logic	MA2514	B. Tech-CE
94.	Advanced Strength of Materials	CE2526	B. Tech-CE

S. No	Name of the Course	Course Code	Programme Name
95.	GIS and GPS	CE2527	B. Tech-CE
96.	Green Buildings	CE2528	B. Tech-CE
97.	Construction Management	CE2529	B. Tech-CE
98.	Ground Improvement Techniques	CE2542	B. Tech-CE
99.	Advanced Foundation Engineering	CE2555	B. Tech-CE
100.	Traffic Engineering	CE2556	B. Tech-CE
101.	Advanced Design of RC Structures	CE2558	B. Tech-CE
102.	Hydraulic Structures	CE2559	B. Tech-CE
103.	Geosynthetics	CE2560	B. Tech-CE
104.	Disaster Preparedness and Planning	CE2561	B. Tech-CE
105.	Logistics Infrastructure Engineering	CE2569	B. Tech-CE
106.	Pre-Engineered Buildings	CE2572	B. Tech-CE
107.	Urban Transportation Planning	CE2573	B. Tech-CE
108.	Soil Dynamics and Machine Foundations	CE2574	B. Tech-CE
109.	Numerical Methods with Computer Applications	MA2507	B. Tech-EEE
110.	Probability and Fuzzy Mathematics	MA2511	B. Tech-EEE
111.	Engineering Optimization	MA2512	B. Tech-EEE
112.	DC Machines and Transformers	EE2508	B. Tech-EEE
113.	Electric Circuit Analysis	EE2509	B. Tech-EEE
114.	Analog Electronics	EC2503	B. Tech-EEE
115.	Mechanical Engineering Lab	ME2504	B. Tech-EEE
116.	Electric Circuits Lab	EE2511	B. Tech-EEE
117.	Analog Electronics Lab	EC2504	B. Tech-EEE
118.	NSS/Fine Arts/Yoga/Self Defence	NS2501	B. Tech-EEE
119.	Digital Circuit Design	EC2505	B. Tech-EEE
120.	Engineering Economics and Project Management	BA2501	B. Tech-EEE
121.	Induction and Synchronous Machines	EE2513	B. Tech-EEE
122.	Digital Circuit Design Lab	EC2506	B. Tech-EEE
123.	Biomedical Engineering	EC2507	B. Tech-EEE
124.	Computer Organisation and Architecture	CT2512	B. Tech-EEE
125.	Introduction to Quantum Mechanics for Engineers	EE2518	B. Tech-EEE
126.	Optional Elective-II MOOCS	EE2519	B. Tech-EEE
127.	Control System Design	EE2528	B. Tech-EEE
128.	Probability and Fuzzy Mathematics	MA2511	B. Tech-EEE

S. No	Name of the Course	Course Code	Programme Name
129.	Microprocessors, Microcontrollers and Its Applications	EC2510	B. Tech-EEE
130.	Microprocessors, Microcontrollers and Its Applications Lab	EC2515	B. Tech-EEE
131.	Data Base Management Systems	CT2513	B. Tech-EEE
132.	Nano Electronics	EC2516	B. Tech-EEE
133.	Solar and Wind Energy Systems	EE2535	B. Tech-EEE
134.	Optional Elective- IV MOOCS	EE2529	B. Tech-EEE
135.	Optional Elective- VI MOOCS	EE2536	B. Tech-EEE
136.	Engineering Optimization	MA2512	B. Tech-EEE
137.	Internship/Industrial Training/Practical Training	EE2546	B. Tech-EEE
138.	Analog and Digital Communication	EC2519	B. Tech-EEE
139.	Introduction to Python Programming	CS2502	B. Tech-EEE
140.	Integration of Renewable Energy Sources	Ee2547	B. Tech-EEE
141.	Optional Elective-VIII MOOCS	EE2548	B. Tech-EEE
142.	Elements of civil engineering	CE2515	B. Tech-EEE
143.	Building Services	CE2516	B. Tech-EEE
144.	Electrical Materials	EE2515	B. Tech-EEE
145.	Control Systems Engineering	EE2516	B. Tech-EEE
146.	Elements of Manufacturing Processes	ME2520	B. Tech-EEE
147.	Automotive Engineering	ME2521	B. Tech-EEE
148.	Fundamentals of Communications	EC2532	B. Tech-EEE
149.	Computer Graphics	CT2514	B. Tech-EEE
150.	Systems Software	CT2515	B. Tech-EEE
151.	Web Programming	IT2502	B. Tech-EEE
152.	Mathematical Cryptography	MA2516	B. Tech-EEE
153.	Semiconductor Physics	PH2508	B. Tech-EEE
154.	Mechatronics	ME2549	B. Tech-EEE
155.	Geoinformatics	CE2503	B. Tech-EEE
156.	Environmental Sanitation	CE2531	B. Tech-EEE
157.	Power Systems Engineering	EE2524	B. Tech-EEE
158.	Elements of Mechanical Transmission	ME2532	B. Tech-EEE
159.	Material Handling Equipment	ME2533	B. Tech-EEE
160.	Introduction to MEMS	EC2544	B. Tech-EEE
161.	Data Science	CS2508	B. Tech-EEE
162.	Virtual and Augmented Reality	CT2524	B. Tech-EEE

S. No	Name of the Course	Course Code	Programme Name
163.	Quality, Reliability and Operations Research	MA2517	B. Tech-EEE
164.	Hydrology	CE2543	B. Tech-EEE
165.	Planning for Sustainable Development	CE2544	B. Tech-EEE
166.	Electrical and Hybrid Vehicles	EE2531	B. Tech-EEE
167.	Material Science	ME2541	B. Tech-EEE
168.	Bio-Medical Engineering	EC2507	B. Tech-EEE
169.	Node and Angular JS	CS2512	B. Tech-EEE
170.	Cyber Security	CS2513	B. Tech-EEE
171.	Software Project Management	CT2531	B. Tech-EEE
172.	Elements of Stochastic Processes	MA2518	B. Tech-EEE
173.	Academic Communication	EG2505	B. Tech-EEE
174.	Big Data Analytics	CT2534	B. Tech-EEE
175.	CMOS Digital IC Design	EC2517	B. Tech-EEE
176.	Power Semiconductor Drives	EE2538	B. Tech-EEE
177.	Flexible AC Transmission Systems	EE2539	B. Tech-EEE
178.	Cyber Security	CS2513	B. Tech-EEE
179.	Digital Image Processing	EC2518	B. Tech-EEE
180.	Advanced Control Systems	EE2551	B. Tech-EEE
181.	Digital Control Systems	EE2554	B. Tech-EEE
182.	Disaster Management	CE2562	B. Tech-EEE
183.	Repair and Retrofitting Techniques	CE2563	B. Tech-EEE
184.	Non Destructive Evaluation	ME2554	B. Tech-EEE
185.	Cyber Physical Systems	EC2563	B. Tech-EEE
186.	Digital Forensics	CS2521	B. Tech-EEE
187.	Business Intelligence & Decision Support Systems	CS2522	B. Tech-EEE
188.	Adhoc and Sensor Networks	IT2521	B. Tech-EEE
189.	Information Retrieval Systems	CT2537	B. Tech-EEE
190.	Fuzzy Logic	MA2514	B. Tech-EEE
191.	Switch Gear and Protection	EE2522	B. Tech-EEE
192.	Computer Networks	CT2519	B. Tech-EEE
193.	Pulse and Integrated Circuits	EC2509	B. Tech-EEE
194.	Data Structures	CT2505	B. Tech-EEE
195.	Digital Signal Processing	EC2511	B. Tech-EEE
196.	Embedded System Design	EC2512	B. Tech-EEE
197.	Principles of VLSI Design	EC2513	B. Tech-EEE

S. No	Name of the Course	Course Code	Programme Name
198.	DSP Processors and Architecture	EC2514	B. Tech-EEE
199.	Elements of Electrical and Electronics Engineering	EE2501	B. Tech-ME
200.	Solid Mechanics	ME2512	B. Tech-ME
201.	Engineering Metallurgy	ME2513	B. Tech-ME
202.	Electrical and Electronics Engineering Lab	EE2502	B. Tech-ME
203.	Solid Mechanics and Metallurgy Lab	ME2514	B. Tech-ME
204.	Computer Aided Modelling Lab	ME2515	B. Tech-ME
205.	Applied Thermodynamics	ME2517	B. Tech-ME
206.	Fuzzy Logic Systems	EE2503	B. Tech-ME
207.	Thermal Engineering Lab	ME2522	B. Tech-ME
208.	Machine Dynamics Lab	ME2524	B. Tech-ME
209.	Control Systems	EE2512	B. Tech-ME
210.	Nano Technology	ME2525	B. Tech-ME
211.	Digital Logic Design	CT2506	B. Tech-ME
212.	Metal Cutting and Machine Tools	ME2527	B. Tech-ME
213.	Turbo Machinery	ME2528	B. Tech-ME
214.	Numerical and Statistical Methods	MA2509	B. Tech-ME
215.	Computer Aided Engineering Analysis Lab	ME2548	B. Tech-ME
216.	Computer Aided Machine Drawing Lab	ME2536	B. Tech-ME
217.	Computer Graphics	CT2514	B. Tech-ME
218.	Design of Machine Members	ME2539	B. Tech-ME
219.	Embedded System Design	EC2512	B. Tech-ME
220.	Engineering Economics and Accountancy	BA2503	B. Tech-ME
221.	Fluid Mechanics and Turbo Machinery Lab	ME2534	B. Tech-ME
222.	Heat Transfer	ME2540	B. Tech-ME
223.	Heat Transfer Lab	ME2546	B. Tech-ME
224.	Mechatronics	ME2549	B. Tech-ME
225.	Micro Processors and Interfacing	EC2520	B. Tech-ME
226.	Turbo Machinery	ME2528	B. Tech-ME
227.	Industrial Engineering and Management	ME2551	B. Tech-ME
228.	Big Data Analytics	CT2534	B. Tech-ME
229.	Computer Organization and Architecture	CT2512	B. Tech-ME
230.	Cryogenics	ME2565	B. Tech-ME
231.	Simulation Lab	ME2562	B. Tech-ME
232.	Elements of Civil Engineering	CE2515	B. Tech-ME

S. No	Name of the Course	Course Code	Programme Name
233.	Building Services	CE2516	B. Tech-ME
234.	Electrical Materials	EE2515	B. Tech-ME
235.	Control Systems Engineering	EE2516	B. Tech-ME
236.	Elements of Manufacturing Processes	ME2520	B. Tech-ME
237.	Automotive Engineering	ME2521	B. Tech-ME
238.	Introduction to Microprocessors and Microcontrollers	EC2531	B. Tech-ME
239.	Fundamentals of Communications	EC2532	B. Tech-ME
240.	Computer Graphics	CT2514	B. Tech-ME
241.	Object Oriented Programming through JAVA	CT2507	B. Tech-ME
242.	Systems Software	CT2515	B. Tech-ME
243.	Web Programming	IT2502	B. Tech-ME
244.	Mathematical Cryptography	MA2516	B. Tech-ME
245.	Semiconductor Physics	PH2508	B. Tech-ME
246.	Academic Communication	EG2505	B. Tech-ME
247.	Assistive Technologies	EC2523	B. Tech-ME
248.	Bio-Medical Engineering	EC2507	B. Tech-ME
249.	Cyber Security	CS2513	B. Tech-ME
250.	Data Science	CS2508	B. Tech-ME
251.	Electrical and Hybrid Vehicles	EE2531	B. Tech-ME
252.	Elements of Mechanical Transmission	ME2532	B. Tech-ME
253.	Elements of Stochastic Processes	MA2518	B. Tech-ME
254.	Environmental Sanitation	CE2531	B. Tech-ME
255.	Hydrology	CE2543	B. Tech-ME
256.	Introduction to MEMS	EC2544	B. Tech-ME
257.	Material Handling Equipment	ME2533	B. Tech-ME
258.	Node and Angular JS	CS2512	B. Tech-ME
259.	Object Oriented Programming Through JAVA	CT2507	B. Tech-ME
260.	Planning for Sustainable Development	CE2544	B. Tech-ME
261.	Power Plant Instrumentation	EE2532	B. Tech-ME
262.	Power Systems Engineering	EE2524	B. Tech-ME
263.	Quality, Reliability and Operations Research	MA2517	B. Tech-ME
264.	Software Project Management	CT2531	B. Tech-ME
265.	Virtual and Augmented Reality	CT2524	B. Tech-ME
266.	Disaster Management	CE2562	B. Tech-ME
267.	Repair and Retrofitting Techniques	CE2563	B. Tech-ME



S. No	Name of the Course	Course Code	Programme Name
268.	Non Destructive Evaluation	ME2554	B. Tech-ME
269.	Cyber Physical Systems	EC2563	B. Tech-ME
270.	Signals and Systems	EC2508	B. Tech-ME
271.	Digital Forensics	CS2521	B. Tech-ME
272.	Business Intelligence and Decision Support Systems	CS2522	B. Tech-ME
273.	Adhoc and Sensor Networks	IT2521	B. Tech-ME
274.	Information Retrieval Systems	CT2537	B. Tech-ME
275.	Fuzzy Logic	MA2514	B. Tech-ME
276.	Data Structures	CT2505	B. Tech-ME
277.	Database Management Systems	CT2513	B. Tech-ME
278.	Mechanical Vibrations	ME2530	B. Tech-ME
279.	Mechanics of Composite Materials	ME2531	B. Tech-ME
280.	Non-Conventional Sources of Energy	ME2529	B. Tech-ME
281.	Principles of Finite Element Method	ME2543	B. Tech-ME
282.	Robotics	ME2544	B. Tech-ME
283.	Optimization Techniques	MA2515	B. Tech-ME
284.	Refrigeration and Air Conditioning	ME2555	B. Tech-ME
285.	Unconventional Machining Processes	ME2556	B. Tech-ME
286.	Total Quality Management	ME2558	B. Tech-ME
287.	Design of Transmission Elements	ME2561	B. Tech-ME
288.	Design for Manufacturing and Assembly	ME2567	B. Tech-ME
289.	Theory of Elasticity	ME2570	B. Tech-ME
290.	Gas Dynamics and Jet Propulsion	ME2572	B. Tech-ME
291.	Non Destructive Techniques	ME2574	B. Tech-ME
292.	Probability Theory and Stochastic Process	EC2524	B. Tech-ME
293.	Electronic Devices	EC2525	B. Tech-ECE
294.	Engineering Economics And Project Management	BA2501	B. Tech-ECE
295.	Elements of Electrical Engineering	EE2505	B. Tech-ECE
296.	Electronic Devices Lab	EC2527	B. Tech-ECE
297.	Analog Circuits	EC2529	B. Tech-ECE
298.	Analog Communications	EC2530	B. Tech-ECE
299.	Digital Circuit Design	EC2505	B. Tech-ECE
300.	Fundamentals of Data Structures	CS2501	B. Tech-ECE
301.	Analog Circuits Lab	EC2533	B. Tech-ECE
302.	Digital Circuit Design Lab	EC2506	B. Tech-ECE

S. No	Name of the Course	Course Code	Programme Name
303.	Electronic Switching Systems	EC2534	B. Tech-ECE
304.	Introduction to Python Programming	CS2502	B. Tech-ECE
305.	Database Management Systems	CT2513	B. Tech-ECE
306.	Linear Integrated Circuits Applications	EC2536	B. Tech-ECE
307.	Digital Communications	EC2537	B. Tech-ECE
308.	Antennas and Wave Propagation	EC2538	B. Tech-ECE
309.	Principles of VLSI Design	EC2539	B. Tech-ECE
310.	Introduction To MEMS	EC2544	B. Tech-ECE
311.	Linear Integrated Circuits Applications Lab	EC2545	B. Tech-ECE
312.	Analog and Digital Communications Lab	EC2546	B. Tech-ECE
313.	Microprocessors, Microcontrollers and Applications	EC2510	B. Tech-ECE
314.	Microprocessor and Microcontroller Interfacing Lab	EC2515	B. Tech-ECE
315.	VLSI Lab	EC2553	B. Tech-ECE
316.	Data Warehousing and Data Mining	CT2528	B. Tech-ECE
317.	Mechatronics	ME2549	B. Tech-ECE
318.	CMOS Digital IC Design	EC2517	B. Tech-ECE
319.	Embedded System Design	EC2512	B. Tech-ECE
320.	Digital Control Systems	EE2554	B. Tech-ECE
321.	Artificial Intelligence	CT2521	B. Tech-ECE
322.	Transform Techniques	EC2567	B. Tech-ECE
323.	Elements of Civil Engineering	CE2515	B. Tech-ECE
324.	Building Services	CE2516	B. Tech-ECE
325.	Electrical Materials	EE2515	B. Tech-ECE
326.	Control Systems Engineering	EE2516	B. Tech-ECE
327.	Elements of Manufacturing Processes	ME2520	B. Tech-ECE
328.	Automotive Engineering	ME2521	B. Tech-ECE
329.	Fundamentals of Communications	EC2532	B. Tech-ECE
330.	Computer Graphics	CT2514	B. Tech-ECE
331.	Object Oriented Programming through JAVA	CT2507	B. Tech-ECE
332.	Systems Software	CT2515	B. Tech-ECE
333.	Web Programming	IT2502	B. Tech-ECE
334.	Mathematical Cryptography	MA2516	B. Tech-ECE
335.	Academic Communication	EG2505	B. Tech-ECE
336.	Cyber Security	CS2513	B. Tech-ECE
337.	Data Science	CS2508	B. Tech-ECE

S. No	Name of the Course	Course Code	Programme Name
338.	Electrical and Hybrid Vehicles	EE2531	B. Tech-ECE
339.	Elements of Mechanical Transmission	ME2532	B. Tech-ECE
340.	Elements of Stochastic Processes	MA2518	B. Tech-ECE
341.	Environmental Sanitation	CE2531	B. Tech-ECE
342.	Hydrology	CE2543	B. Tech-ECE
343.	Material Handling Equipment	ME2533	B. Tech-ECE
344.	Node and Angular JS	CS2512	B. Tech-ECE
345.	Object Oriented Programming Through JAVA	CT2507	B. Tech-ECE
346.	Planning for Sustainable Development	CE2544	B. Tech-ECE
347.	Power Plant Instrumentation	EE2532	B. Tech-ECE
348.	Power Systems Engineering	EE2524	B. Tech-ECE
349.	Quality, Reliability and Operations Research	MA2517	B. Tech-ECE
350.	Software Project Management	CT2531	B. Tech-ECE
351.	Virtual and Augmented Reality	CT2524	B. Tech-ECE
352.	Disaster Management	CE2562	B. Tech-ECE
353.	Repair and Retrofitting Techniques	CE2563	B. Tech-ECE
354.	Non Destructive Evaluation	ME2554	B. Tech-ECE
355.	Cyber Physical Systems	EC2563	B. Tech-ECE
356.	Digital Forensics	CS2521	B. Tech-ECE
357.	Business Intelligence and Decision Support Systems	CS2522	B. Tech-ECE
358.	Adhoc and Sensor Networks	IT2521	B. Tech-ECE
359.	Information Retrieval Systems	CT2537	B. Tech-ECE
360.	Fuzzy Logic	MA2514	B. Tech-ECE
361.	CAD for VLSI	EC2540	B. Tech-ECE
362.	Computer Organization	EC2541	B. Tech-ECE
363.	Computer And Communication Networks	EC2542	B. Tech-ECE
364.	Biomedical Engineering	EC2507	B. Tech-ECE
365.	Analog IC Design	EC2549	B. Tech-ECE
366.	Nano Electronics	EC2516	B. Tech-ECE
367.	Smart Antennas	EC2550	B. Tech-ECE
368.	Coding Theory	EC2551	B. Tech-ECE
369.	Mixed Signal IC Design	EC2557	B. Tech-ECE
370.	System on Chip Design	EC2560	B. Tech-ECE
371.	Low Power VLSI Circuits	EC2569	B. Tech-ECE
372.	Real Time Operating Systems	EC2570	B. Tech-ECE

S. No	Name of the Course	Course Code	Programme Name
373.	Adaptive Signal Processing	EC2572	B. Tech-ECE
374.	ASIC Design	EC2573	B. Tech-ECE
375.	Embedded C	EC2574	B. Tech-ECE
376.	Multi Rate Signal Processing	EC2576	B. Tech-ECE
377.	Object Oriented Programming through Java	CT2507	B. Tech-CSE
378.	Data Structures	CT2505	B. Tech-CSE
379.	Object Oriented Programming Lab	CT2509	B. Tech-CSE
380.	UNIX Programming Lab	CS2503	B. Tech-CSE
381.	Data Structures Lab	CT2508	B. Tech-CSE
382.	Database Management Systems	CT2513	B. Tech-CSE
383.	Operating Systems Lab	CS2504	B. Tech-CSE
384.	Computer Networks	CT2519	B. Tech-CSE
385.	Web Technologies	CT2520	B. Tech-CSE
386.	Computer Networks and Compiler Design Lab	CS2509	B. Tech-CSE
387.	Web Technologies Lab	CT2525	B. Tech-CSE
388.	Digital Signal Processing	EC2511	B. Tech-CSE
389.	Control Systems	EE2512	B. Tech-CSE
390.	UML and Design Patterns	CS2511	B. Tech-CSE
391.	Node and Angular JS	CS2512	B. Tech-CSE
392.	Data Mining Lab	CS2514	B. Tech-CSE
393.	Graph Theory	CS2516	B. Tech-CSE
394.	Embedded systems Design	EC2512	B. Tech-CSE
395.	Digital Control Systems	EE2554	B. Tech-CSE
396.	Cryptography and Network Security	CT2533	B. Tech-CSE
397.	Big Data Analytics	CT2534	B. Tech-CSE
398.	Big Data Analytics Lab	CT2538	B. Tech-CSE
399.	Cryptography and Network Security Lab	CS2523	B. Tech-CSE
400.	Network Programming	CS2525	B. Tech-CSE
401.	Systems Software	CT2515	B. Tech-CSE
402.	Elements of Civil Engineering	CE2515	B. Tech-CSE
403.	Building Services	CE2516	B. Tech-CSE
404.	Electrical Materials	EE2515	B. Tech-CSE
405.	Control Systems Engineering	EE2516	B. Tech-CSE
406.	Elements of Manufacturing Processes	ME2520	B. Tech-CSE
407.	Automotive Engineering	ME2521	B. Tech-CSE

S. No	Name of the Course	Course Code	Programme Name
408.	Fundamentals of Communications	EC2532	B. Tech-CSE
409.	Computer Graphics	CT2514	B. Tech-CSE
410.	Systems Software	CT2515	B. Tech-CSE
411.	Semiconductor Physics	PH2508	B. Tech-CSE
412.	Academic Communication	EG2505	B. Tech-CSE
413.	Assistive Technologies	EC2523	B. Tech-CSE
414.	Bio-Medical Engineering	EC2507	B. Tech-CSE
415.	Cyber Security	CS2513	B. Tech-CSE
416.	Data Science	CS2508	B. Tech-CSE
417.	Electrical and Hybrid Vehicles	EE2531	B. Tech-CSE
418.	Elements of Mechanical Transmission	ME2532	B. Tech-CSE
419.	Elements of Stochastic Processes	MA2518	B. Tech-CSE
420.	Environmental Sanitation	CE2531	B. Tech-CSE
421.	Hydrology	CE2543	B. Tech-CSE
422.	Introduction to MEMS	EC2544	B. Tech-CSE
423.	Material Handling Equipment	ME2533	B. Tech-CSE
424.	Node and Angular JS	CS2512	B. Tech-CSE
425.	Planning for Sustainable Development	CE2544	B. Tech-CSE
426.	Power Plant Instrumentation	EE2532	B. Tech-CSE
427.	Power Systems Engineering	EE2524	B. Tech-CSE
428.	Quality, Reliability and Operations Research	MA2517	B. Tech-CSE
429.	Software Project Management	CT2531	B. Tech-CSE
430.	Virtual and Augmented Reality	CT2524	B. Tech-CSE
431.	Disaster Management	CE2562	B. Tech-CSE
432.	Repair and Retrofitting Techniques	CE2563	B. Tech-CSE
433.	Non Destructive Evaluation	ME2554	B. Tech-CSE
434.	Cyber Physical Systems	EC2563	B. Tech-CSE
435.	Signals and Systems	EC2508	B. Tech-CSE
436.	Digital Forensics	CS2521	B. Tech-CSE
437.	Business Intelligence and Decision Support Systems	CS2522	B. Tech-CSE
438.	Adhoc and Sensor Networks	IT2521	B. Tech-CSE
439.	Information Retrieval Systems	CT2537	B. Tech-CSE
440.	Fuzzy Logic	MA2514	B. Tech-CSE
441.	C#.NET	CS2506	B. Tech-CSE
442.	Advanced Data Structures	CT2522	B. Tech-CSE

S. No	Name of the Course	Course Code	Programme Name
443.	Software Testing Methodologies	CT2523	B. Tech-CSE
444.	Principles of Programming Languages	CS2507	B. Tech-CSE
445.	Artificial Intelligence	CT2521	B. Tech-CSE
446.	Scripting Languages	CT2529	B. Tech-CSE
447.	microprocessors and Interfacing	EC2520	B. Tech-CSE
448.	Machine Learning	CS2518	B. Tech-CSE
449.	Internet of Things	CT2535	B. Tech-CSE
450.	NoSQL Databases	CS2519	B. Tech-CSE
451.	Software Requirements Engineering and Estimation	CS2520	B. Tech-CSE
452.	Mobile Computing	CT2536	B. Tech-CSE
453.	Image processing	CT2530	B. Tech-CSE
454.	Information Retrieval System	CT2537	B. Tech-CSE
455.	Optimization techniques	MA2515	B. Tech-CSE
456.	Web Mining	CS2527	B. Tech-CSE
457.	Cloud Computing	CT2540	B. Tech-CSE
458.	Agile Software Development Process	CT2532	B. Tech-CSE
459.	Block chain Technologies	CT2541	B. Tech-CSE
460.	Distributed Systems	CS2528	B. Tech-CSE
461.	Social Networks	CT2539	B. Tech-CSE
462.	Deep Learning	CS2530	B. Tech-CSE
463.	Data Structures	CT2505	B. Tech-IT
464.	UNIX and Shell Programming	IT2501	B. Tech-IT
465.	Object Oriented Programming Lab	CT2509	B. Tech-IT
466.	Computer Organization and Architecture	CT2512	B. Tech-IT
467.	Database Management Systems Lab	CT2516	B. Tech-IT
468.	Information and Communication Technology	IT2503	B. Tech-IT
469.	Web Technologies	CT2520	B. Tech-IT
470.	Web Technologies Lab	CT2525	B. Tech-IT
471.	Computer Networks and Data Mining Lab	IT2513	B. Tech-IT
472.	Big Data Analytics	CT2534	B. Tech-IT
473.	Big Data Analytics Lab	CT2538	B. Tech-IT
474.	Social Networks	CT2539	B. Tech-IT
475.	Elements of Civil Engineering	CE2515	B. Tech-IT
476.	Building Services	CE2516	B. Tech-IT
477.	Electrical Materials	EE2515	B. Tech-IT

S. No	Name of the Course	Course Code	Programme Name
478.	Control Systems Engineering	EE2516	B. Tech-IT
479.	Elements of Manufacturing Processes	ME2520	B. Tech-IT
480.	Automotive Engineering	ME2521	B. Tech-IT
481.	Fundamentals of Communications	EC2532	B. Tech-IT
482.	Systems Software	CT2515	B. Tech-IT
483.	Semiconductor Physics	PH2508	B. Tech-IT
484.	Mathematical Cryptography	MA2516	B. Tech-IT
485.	Academic Communication	EG2505	B. Tech-IT
486.	Assistive Technologies	EC2523	B. Tech-IT
487.	Bio-Medical Engineering	EC2507	B. Tech-IT
488.	Cyber Security	CS2513	B. Tech-IT
489.	Data Science	CS2508	B. Tech-IT
490.	Electrical and Hybrid Vehicles	EE2531	B. Tech-IT
491.	Elements of Mechanical Transmission	ME2532	B. Tech-IT
492.	Elements of Stochastic Processes	MA2518	B. Tech-IT
493.	Environmental Sanitation	CE2531	B. Tech-IT
494.	Hydrology	CE2543	B. Tech-IT
495.	Introduction to MEMS	EC2544	B. Tech-IT
496.	Material Handling Equipment	ME2533	B. Tech-IT
497.	Node and Angular JS	CS2512	B. Tech-IT
498.	Planning for Sustainable Development	CE2544	B. Tech-IT
499.	Power Plant Instrumentation	EE2532	B. Tech-IT
500.	Power Systems Engineering	EE2524	B. Tech-IT
501.	Quality, Reliability and Operations Research	MA2517	B. Tech-IT
502.	Software Project Management	CT2531	B. Tech-IT
503.	Virtual and Augmented Reality	CT2524	B. Tech-IT
504.	Disaster Management	CE2562	B. Tech-IT
505.	Repair and Retrofitting Techniques	CE2563	B. Tech-IT
506.	Non Destructive Evaluation	ME2554	B. Tech-IT
507.	Cyber Physical Systems	EC2563	B. Tech-IT
508.	Signals and Systems	EC2508	B. Tech-IT
509.	Digital Forensics	CS2521	B. Tech-IT
510.	Business Intelligence and Decision Support Systems	CS2522	B. Tech-IT
511.	Adhoc and Sensor Networks	IT2521	B. Tech-IT
512.	Information Retrieval Systems	CT2537	B. Tech-IT
513.	Fuzzy Logic	MA2514	B. Tech-IT

S. No	Name of the Course	Course Code	Programme Name
514.	Cyber Laws	IT2506	B. Tech-IT
515.	Systems Software	CT2515	B. Tech-IT
516.	Web Programming	IT2502	B. Tech-IT
517.	Scripting Languages	CT2529	B. Tech-IT
518.	Open Source Software	IT2505	B. Tech-IT
519.	Software Project Management	CT2531	B. Tech-IT
520.	Embedded System Design	EC2512	B. Tech-IT
521.	Advanced Data Structures	CT2522	B. Tech-IT
522.	Soft Computing Techniques	IT2511	B. Tech-IT
523.	Real Time Systems	T2512	B. Tech-IT
524.	Agile Software Development Process	CT2532	B. Tech-IT
525.	Machine Learning and Pattern Recognition	IT2517	B. Tech-IT
526.	Distributed Operating Systems	IT2518	B. Tech-IT
527.	Software Testing Methodologies	CT2523	B. Tech-IT
528.	Stenography and Biometrics	IT2525	B. Tech-IT
529.	Parallel Computing	T2526	B. Tech-IT
530.	Virtual and Augmented Reality	CT2524	B. Tech-IT
531.	Internet of Things	CT2535	B. Tech-IT
532.	Cloud Computing	CT2540	B. Tech-IT
533.	Block chain Technologies	CT2541	B. Tech-IT
534.	Design Patterns	IT2528	B. Tech-IT
535.	Advanced Structural Analysis	CE3901	M. Tech-SE
536.	Advanced R.C Design	CE3903	M. Tech-SE
537.	Experimental Stress Analysis	CE3904	M. Tech-SE
538.	Repairs and Retrofitting of Structures	CE3916	M. Tech-SE
539.	Research Methodology and IPR	BA3901	M. Tech-SE
540.	English for Research Paper Writing	EG3901	M. Tech-SE
541.	Sustainable Development	CE3924	M. Tech-SE
542.	Analysis of Power Electronic Converters	EE3902	M. Tech-PEED
543.	Power Electronics Simulation Laboratory	EE3909	M. Tech-PEED
544.	Power Converters Laboratory	EE3910	M. Tech-PEED
545.	Research Methodology and IPR	BA3901	M. Tech-PEED
546.	Switched Mode Power Conversion	EE3911	M. Tech-PEED
547.	Power Electronic Control of Electrical Drives	EE3912	M. Tech-PEED
548.	Electric Drives Simulation Laboratory	EE3919	M. Tech-PEED
549.	Electric Drives Laboratory	EE3920	M. Tech-PEED



S. No	Name of the Course	Course Code	Programme Name
550.	Mini Project with Seminar	EE3921	M. Tech-PEED
551.	English for Research Paper Writing (Audit Course)	EG3901	M. Tech-PEED
552.	Modern Control Theory	EE3903	M. Tech-PEED
553.	Power Quality and custom power devices	EE3904	M. Tech-PEED
554.	Programmable Logic Controllers and Applications	EE3905	M. Tech-PEED
555.	Artificial Intelligence Techniques	EE3906	M. Tech-PEED
556.	Renewable Energy Technologies	EE3907	M. Tech-PEED
557.	Flexible AC Transmission Systems	EE3908	M. Tech-PEED
558.	Control & Integration of Renewable Energy Systems	EE3913	M. Tech-PEED
559.	Hybrid Electric Vehicles	EE3914	M. Tech-PEED
560.	Advanced Digital Control Systems	EE3915	M. Tech-PEED
561.	Advanced Digital Signal Processing	EE3916	M. Tech-PEED
562.	Application of Power Converters	EE3917	M. Tech-PEED
563.	Microcontrollers	EE3918	M. Tech-PEED
564.	Digital Signal Processing Controlled Drives	EE3922	M. Tech-PEED
565.	Smart Grid Technologies	EE3923	M. Tech-PEED
566.	MOOCs-I	EE3924	M. Tech-PEED
567.	Energy audit conservation and management	EE3925	M. Tech-PEED
568.	Mechanical Vibrations and Acoustics**	ME3901	M. Tech-MD
569.	Advanced Mechanics of Solids	ME3902	M. Tech-MD
570.	Machine Dynamics Lab	ME3909	M. Tech-MD
571.	Advanced Material Testing Lab	ME3910	M. Tech-MD
572.	Research Methodology and IPR	BA3901	M. Tech-MD
573.	Computational Methods in Engineering	MA3902	M. Tech-MD
574.	Advanced Finite Element Methods **	ME3911	
575.	Modelling and Simulation Lab	ME3918	M. Tech-MD
576.	Computational Methods Lab	ME3919	M. Tech-MD
577.	Mini Project with Seminar	ME3920	M. Tech-MD
578.	English for Research Paper Writing (Audit Course)	EG3901	M. Tech-MD
579.	Tribology	ME3921	M. Tech-MD
580.	Composite Materials	ME3922	M. Tech-MD
581.	Analysis and Synthesis of Mechanisms	ME3903	M. Tech-MD
582.	Advanced materials	ME3904	M. Tech-MD
583.	Industrial Robotics	ME3905	M. Tech-MD
584.	Gear Engineering	ME3906	M. Tech-MD

S. No	Name of the Course	Course Code	Programme Name
585.	Advanced Optimization Techniques	ME3907	M. Tech-MD
586.	Rotor Dynamics	ME3908	M. Tech-MD
587.	Design for Manufacturing and Assembly	ME3912	M. Tech-MD
588.	Mechatronics	ME3913	M. Tech-MD
589.	Vehicle Dynamics	ME3914	M. Tech-MD
590.	Signal Analysis and Condition Monitoring	ME3915	M. Tech-MD
591.	Fracture Mechanics	ME3916	M. Tech-MD
592.	Experimental Stress Analysis	ME3917	M. Tech-MD
593.	Sustainable Development	CE3923	M. Tech-MD
594.	Energy Audit, Conservation & Management	EE3924	M. Tech-MD
595.	Rapid Prototyping	ME3924	M. Tech-VLSI&ES
596.	Automotive Electronics	EC4924	M. Tech-VLSI&ES
597.	Soft Computing Techniques	CS3924	M. Tech-VLSI&ES
598.	CMOS VLSI Design	EC4901	M. Tech-VLSI&ES
599.	Advanced Microcontrollers	EC4902	M. Tech-VLSI&ES
600.	CMOS VLSI Design Lab	EC4909	M. Tech-VLSI&ES
601.	Advanced Microcontrollers Lab	EC4910	M. Tech-VLSI&ES
602.	Research Methodology and IPR	BA3901	M. Tech-VLSI&ES
603.	Embedded Systems based IoT	EC4912	M. Tech-VLSI&ES
604.	VLSI System Design Lab	EC4919	M. Tech-VLSI&ES
605.	Embedded Systems and IoT Lab	EC4920	M. Tech-VLSI&ES
606.	Mini Project with Seminar	EC4921	M. Tech-VLSI&ES
607.	Communication Buses and Interfaces	EC4917	M. Tech-VLSI&ES
608.	Digital Signal and Image Processing	EC4905	M. Tech-VLSI&ES
609.	VLSI Signal Processing	EC4906	M. Tech-VLSI&ES
610.	System Design with Embedded Linux	EC4907	M. Tech-VLSI&ES
611.	Parallel Processing	EC4908	M. Tech-VLSI&ES
612.	Advances in VLSI Design	EC4913	M. Tech-VLSI&ES
613.	Low power VLSI Design	EC4922	M. Tech-VLSI&ES
614.	Network Security and Cryptography	EC4923	M. Tech-VLSI&ES
615.	MOOCs	EC4924	M. Tech-VLSI&ES
616.	Sustainable Development	CE3924	M. Tech-VLSI&ES
617.	Energy Audit, Conservation & Management	EE3924	M. Tech-VLSI&ES
618.	Rapid Prototyping	ME4924	M. Tech-VLSI&ES
619.	Automotive Electronics	EC4925	M. Tech-VLSI&ES
620.	Soft Computing Techniques	CS4924	M. Tech-VLSI&ES

S. No	Name of the Course	Course Code	Programme Name
621.	MOOCs	EC4926	M. Tech-VLSI&ES
622.	Constitution of India	BA4902	M. Tech-VLSI&ES
623.	English for Research Paper Writing	EG5901	M. Tech-VLSI&ES
624.	Data Science	CS3902	M. Tech-AI&ML
625.	Digital Image Processing	CS3903	M. Tech-AI&ML
626.	Ad hoc and Sensor Networks	CS3904	M. Tech-AI&ML
627.	Intelligent Systems	CS3905	M. Tech-AI&ML
628.	Principles of Computer Security	CS3907	M. Tech-AI&ML
629.	Distributed Systems	CS3908	M. Tech-AI&ML
630.	Data Science Lab	CS3910	M. Tech-AI&ML
631.	Constitution of India	BA3902	M. Tech-AI&ML
632.	MEAN Stack Technologies	CS3911	M. Tech-AI&ML
633.	Block chain Technology	CS3913	M. Tech-AI&ML
634.	Data Preparation and Analysis	CS3914	M. Tech-AI&ML
635.	Natural Language Processing	CS3915	M. Tech-AI&ML
636.	Quantum Computing	CS3917	M. Tech-AI&ML
637.	Cloud Computing	CS3916	M. Tech-AI&ML
638.	Research Methodology and IPR	BA3901	M. Tech-AI&ML
639.	Digital Forensics	CS3918	M. Tech-AI&ML
640.	MEAN Stack Technologies Lab	CS3919	M. Tech-AI&ML
641.	Machine Learning using Python Lab	CS3920	M. Tech-AI&ML
642.	Mini Project with Seminar	CS3921	M. Tech-AI&ML
643.	English for Research Paper Writing	EG3901	M. Tech-AI&ML
644.	Mini Project with Seminar	CS3921	M. Tech-AI&ML
645.	English for Research Paper Writing	EG3901	M. Tech-AI&ML
646.	Deep Learning	CS3922	M. Tech-AI&ML
647.	Recommender Systems	CS3923	MBA
648.	Soft Computing Techniques	CS3924	MBA
649.	Retail Management	BA3919	MBA
650.	Human Resources Analytics	BA3925	MBA
651.	Business communication and skill development	BA3905	MBA
652.	Management of Retail Operations	BA3928	MBA

  
 IQAC Convener  


  
 Principal  
**PRINCIPAL**  
**Seshadri Rao**  
 Gudlavalleru Engineering College  
 Seshadri Rao Knowledge Village  
 Gudlavalleru - 521 356, Krishna Distt. A.P.

## COURSE STRUCTURE

### I Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3501	Functional English	3	-	-	3
2	MA3501	Linear Algebra and Calculus	3	1	-	4
3	PH3501	Engineering Physics	3	-	-	3
4	CT3501	Problem Solving Using C *	3	-	2	4
5	ME3503	Engineering Graphics *	2	-	4	4
6	EG3502	Functional English Lab	-	-	2	1
7	PH3503	Engineering Physics Lab	-	-	2	1
<b>Total</b>			<b>14</b>	<b>1</b>	<b>10</b>	<b>20</b>
8	EN3501	Environmental Studies (Mandatory Non-Credit Course)	2	-	-	-

\* Integrated Course with Theory and Laboratory

### I Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3503	Professional Communication	2	-	-	2
2	MA3505	Integral Transforms and Vector Calculus	3	1	-	4
3	CH3501	Engineering Chemistry	3	-	-	3
4	CE3501	Applied Mechanics	3	1	-	4
5	UH3501	Universal Human Values 2; Understanding Harmony	2	1	-	3
6	EG3504	Professional Communication Lab	-	-	4	2
7	CH3502	Engineering Chemistry Lab	-	-	2	1
8	CE3502	Applied Mechanics Lab & Building Trade Practice	-	-	2	1
<b>Total</b>			<b>13</b>	<b>3</b>	<b>8</b>	<b>20</b>
9	BA3501	Constitution of India (Mandatory Non-Credit Course)	2	-	-	-

L : Lecture

T : Tutorial

P : Practical

### I Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3501	Functional English	3	-	-	3
2	MA3501	Linear Algebra and Calculus	3	1	-	4
3	CH3503	Applied Chemistry	3	-	-	3
4	CT3501	Problem Solving Using C *	3	-	2	4
5	UH3501	Universal Human Values 2: Understanding Harmony	2	1	-	3
6	CH3504	Applied Chemistry Lab	-	-	2	1
7	EG3502	Functional English Lab	-	-	2	1
<b>Total</b>			<b>14</b>	<b>2</b>	<b>6</b>	<b>19</b>
8	BA3501	Constitution of India (Mandatory Non-Credit Course)	2	-	-	-

\* Integrated Course with Theory and Laboratory

### I Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3503	Professional Communication	2	-	-	2
2	MA3505	Integral Transforms and Vector Calculus	3	1	-	4
3	PH3504	Solid State Physics	3	-	-	3
4	EE3504	Circuit Theory - I	2	1	-	3
5	MA3506	Discrete Mathematics	2	1	-	3
6	ME3501	Engineering Drawing	1	-	4	3
7	EG3504	Professional Communication Lab	-	-	4	2
8	PH3505	Solid State Physics Lab	-	-	2	1
<b>Total</b>			<b>13</b>	<b>3</b>	<b>10</b>	<b>21</b>
9	EN3501	Environmental Studies (Mandatory Non-Credit Course)	2	-	-	-

L : Lecture      T : Tutorial      P : Practical

**I Year - I Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3501	Functional English	3	-	-	3
2	MA3501	Linear Algebra and Calculus	3	1	-	4
3	PH3502	Physics for Engineers	3	-	-	3
4	CT3501	Problem Solving Using C *	3	-	2	4
5	ME3503	Engineering Graphics *	2	-	4	4
6	EG3502	Functional English Lab	-	-	2	1
7	PH3503	Engineering Physics Lab	-	-	2	1
<b>Total</b>			<b>14</b>	<b>1</b>	<b>10</b>	<b>20</b>
8	EN3501	Environmental Studies (Mandatory Non-Credit Course)	2	-	-	-

\* Integrated Course with Theory and Laboratory

**I Year - II Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3503	Professional Communication	2	-	-	2
2	MA3505	Integral Transforms and Vector Calculus	3	1	-	4
3	CH3504	Chemistry for Engineers	3	-	-	3
4	ME3504	Engineering Mechanics	3	1	-	4
5	UH3501	Universal Human Values 2: Understanding Harmony	2	1	-	3
6	EG3504	Professional Communication Lab	-	-	4	2
7	ME3505	Engineering Workshop	-	-	2	1
8	ME3506	Engineering Mechanics Lab and Fuel & Lubricants Lab	-	-	2	1
<b>Total</b>			<b>13</b>	<b>3</b>	<b>8</b>	<b>20</b>
9	BA3501	Constitution of India (Mandatory Non-Credit Course)	2	-	-	-

L : Lecture      T : Tutorial      P : Practical

**I Year - I Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3501	Functional English	3	-	-	3
2	MA3501	Linear Algebra and Calculus	3	1	-	4
3	CH3503	Applied Chemistry	3	-	-	3
4	CT3501	Problem Solving Using C *	3	-	2	4
5	UH3501	Universal Human Values 2: Understanding Harmony	2	1	-	3
6	EC3503	Electronic Workshop	-	-	4	2
7	EG3502	Functional English Lab	-	-	2	1
8	CH3504	Applied Chemistry Lab	-	-	2	1
<b>Total</b>			<b>14</b>	<b>2</b>	<b>10</b>	<b>21</b>
9	BA3501	Constitution of India (Mandatory Non-Credit Course)	2	-	-	-

\* Integrated Course with Theory and Laboratory

**I Year - II Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3503	Professional Communication	2	-	-	2
2	MA3505	Integral Transforms and Vector Calculus	3	1	-	4
3	EE3502	Linear Electrical Networks	3	-	-	3
4	PH3504	Solid State Physics	3	-	-	3
5	ME3501	Engineering Drawing	1	-	4	3
6	EG3504	Professional Communication Lab	-	-	4	2
7	PH3506	Solid State Physics Lab	-	-	4	2
<b>Total</b>			<b>12</b>	<b>1</b>	<b>12</b>	<b>19</b>
8	EN3501	Environmental Studies (Mandatory Non-Credit Course)	2	-	-	-

L : Lecture      T : Tutorial      P : Practical

**I Year - I Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3501	Functional English	3	-	-	3
2	MA3501	Linear Algebra and Calculus	3	1	-	4
3	PH3509	Applied Physics	3	-	-	3
4	CT3502	Programming for Problem Solving	3	-	-	3
5	UH3501	Universal Human Values 2: Understanding Harmony	2	1	-	3
6	EG3502	Functional English Lab	-	-	2	1
7	PH3510	Applied Physics Lab	-	-	2	1
8	CT3503	C Programming Lab	-	-	4	2
<b>Total</b>			<b>14</b>	<b>2</b>	<b>8</b>	<b>20</b>
9	BA3501	Constitution of India (Mandatory Non-Credit Course)	2	-	-	-

**I Year - II Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3503	Professional Communication	2	-	-	2
2	MA3505	Integral Transforms and Vector Calculus	3	1	-	4
3	EC3502	Basic Electronic Devices	2	-	-	2
4	CT3504	Python Programming	3	-	-	3
5	CT3505	Data Structures	3	-	-	3
6	EG3504	Professional Communication Lab	-	-	4	2
7	CT3506	Python Programming Lab	-	-	4	2
8	CT3507	Data Structures Lab	-	-	4	2
<b>Total</b>			<b>13</b>	<b>1</b>	<b>12</b>	<b>20</b>
9	EN3501	Environmental Studies (Mandatory Non-Credit Course)	2	-	-	-

L : Lecture      T : Tutorial      P : Practical



**I Year - I Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3501	Functional English	3	-	-	3
2	MA3501	Linear Algebra and Calculus	3	1	-	4
3	CH3506	Applied Chemistry	3	-	-	3
4	EC3501	Elements of Electronics Engineering	3	-	-	3
5	CT3502	Programming for Problem Solving	3	-	-	3
6	EG3502	Functional English Lab	-	-	2	1
7	CH3507	Applied Chemistry Lab	-	-	2	1
8	CT3503	C Programming Lab	-	-	4	2
<b>Total</b>			<b>15</b>	<b>1</b>	<b>8</b>	<b>20</b>
9	EN3501	Environmental Studies (Mandatory Non-Credit Course)	2	-	-	-

**I Year - II Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3503	Professional Communication	2	-	-	2
2	MA3505	Integral Transforms and Vector Calculus	3	1	-	4
3	PH3509	Applied Physics	3	-	-	3
4	CT3505	Data Structures	3	-	-	3
5	UH3501	Universal Human Values 2: Understanding Harmony	2	1	-	3
6	EG3504	Professional Communication Lab	-	-	4	2
7	PH3510	Applied Physics Lab	-	-	2	1
8	CT3507	Data Structures Lab	-	-	4	2
<b>Total</b>			<b>13</b>	<b>2</b>	<b>10</b>	<b>20</b>
9	BA3501	Constitution of India (Mandatory Non-Credit Course)	2	-	-	-

L : Lecture      T : Tutorial      P : Practical

II Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2504	Mechanics of Solids	3	1	-	3
2	CE2505	Mechanics of Fluids	3	1	-	3
3	CE2506	Building Materials and Construction	2	1	-	2
4	CE2507	Surveying	3	1	-	3
5	ME2502	Elements of Mechanical and Electrical Engineering	4	-	-	3
6	CE2508	Building Planning and Drawing	2	-	3	3
7	CE2509	Mechanics of Solids Lab	-	-	4	2
8	CE2510	Survey Field Work	-	-	4	2
<b>Total</b>			<b>17</b>	<b>4</b>	<b>11</b>	<b>21</b>
9	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-

II Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	MA2509	Numerical and Statistical Methods	3	1	-	3
2	CE2511	Structural Analysis	2	1	-	2
3	CE2512	Hydraulics and Hydraulic Machines	2	1	-	2
4	CE2513	Concrete Technology	4	-	-	3
5	CE2514	Engineering Geology and Geomatics *	3	-	2	3
6		Open Elective-I (see list of Open Electives)	4	-	-	3
7	CE2517	Fluid Mechanics and Hydraulic Machines Lab	-	-	4	2
8	CE2518	Concrete Technology Lab	-	-	4	2
<b>Total</b>			<b>18</b>	<b>3</b>	<b>10</b>	<b>20</b>
9	NS2501	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-
10		Optional Elective - I	-	-	-	3
	CE2519	i) Interior Design				
	CE2520	ii) Building Bye Laws and Scientific Planning				
	CT2505	iii) Data Structures				
11	CE2521	Optional Elective - II (MOOCs) Student shall opt from the list of MOOCs given by the Department)	-	-	-	2

\* Integrated Course with Theory and Laboratory

III Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2522	Theory of Structures	3	1	-	3
2	CE2523	Geotechnical Engineering	2	1	-	2
3	CE2524	Hydrology and Water Resources Engineering	4	-	-	3
4	CE2525	Water and Waste Water Engineering	3	1	-	3
5		Professional Elective - I	4	-	-	3
6		Open Elective-II (see list of Open Electives)	4	-	-	3
7	CE2532	Geotechnical Engineering Lab	-	-	4	2
8	CE2533	Water and Waste Water Engineering Lab	-	-	4	2
<b>Total</b>			<b>20</b>	<b>3</b>	<b>8</b>	<b>21</b>
9		<b>Optional Elective - III</b>	-	-	-	3
	CE2534	i) Infrastructure Development				
	ME2509	ii) Basics of Power Plant Engineering				
	CT2507	iii) Object Oriented Programming through JAVA				
10	CE2535	<b>Optional Elective - IV (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

III Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2536	Foundation Engineering	3	-	-	2
2	CE2537	Highway Engineering	4	-	-	3
3	CE2538	Design of RC Structures	3	1	-	3
4		Professional Elective - II	4	-	-	3
5		Open Elective-III (see list of Open Electives)	4	-	-	3
6	CE2545	Structural Engineering Lab	-	-	4	2
7	CE2546	Highway Engineering Lab	-	-	4	2
8	CE2547	Mini Project / Survey Camp	-	-	4	2
<b>Total</b>			<b>18</b>	<b>1</b>	<b>12</b>	<b>20</b>
9		<b>Optional Elective - V</b>	-	-	-	3
	CE2548	i) Smart Buildings and Automation				
	CE2549	ii) Building Information Modeling				
	CT2513	iii) Database Management Systems				
10	CE2550	<b>Optional Elective - VI (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

\*Integrated Course with Theory and Laboratory

L : Lecture      T : Tutorial      P : Practical

#### IV Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2551	Project Management and Finance	4	-	-	3
2	CE2552	Estimation, Costing and Valuation	3	1	-	3
3	CE2553	Design of Steel Structures	3	1	-	3
4		Professional Elective - III	4	-	-	3
5		Professional Elective - IV	4	-	-	3
6		Open Elective-IV(see list of Open Electives)	4	-	-	3
7	CE2564	Computer Applications in Civil Engineering Lab	-	-	4	2
8	CE2565	Internship / Industrial Training / Practical Training	-	-	-	2
<b>Total</b>			<b>22</b>	<b>2</b>	<b>4</b>	<b>22</b>
9		<b>Optional Elective - VII</b>	-	-	-	3
	CE2566	i) Project Scheduling and Contracts				
	MA2515	ii) Optimization Techniques				
	BA2504	iii) Entrepreneurship				
10	CE2567	<b>Optional Elective - VIII (MOOCs)</b>	-	-	-	2
Students shall opt from the list of MOOCs given by the Department)						

#### IV Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	4	-	-	3
2		Professional Elective - VI	4	-	-	3
3	CE2576	Project	-	-	20	10
<b>Total</b>			<b>8</b>	<b>-</b>	<b>20</b>	<b>16</b>

L : Lecture      T : Tutorial      P : Practical

 IQAC

  
**PRINCIPAL**  
 Seshadri Rao  
 Gudlavalleru Engineering College  
 Seshadri Rao Knowledge Village  
 Gudlavalleru - 521 356, Krishna District. A.P.

### Open Elective - I

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2515 Elements of Civil Engineering (Other than CE)	CE	4	-	-	3
2	CE2516 Building Services	CE	4	-	-	3
3	EE2515 Electrical Materials	EEE	4	-	-	3
4	EE2516 Control Systems Engineering (Other than EEE & ECE)	EEE	4	-	-	3
5	ME2520 Elements of Manufacturing Processes (Other than ME)	ME	4	-	-	3
6	ME2521 Automotive Engineering (Other than ME)	ME	4	-	-	3
7	EC2531 Introduction to MPMC (Other than ECE/EEE/CSE/IT)	ECE	4	-	-	3
8	EC2532 Fundamentals of Communications (Other than ECE)	ECE	4	-	-	3
9	CT2514 Computer Graphics (Other than IT)	CSE	4	-	-	3
10	CT2507 Object Oriented Programming through Java (other than CSE & IT)	CSE	4	-	-	3
11	CT2515 Systems Software	IT	4	-	-	3
12	IT2502 Web Programming (Other than CSE & IT)	IT	4	-	-	3
13	MA2516 Mathematical Cryptography (Other than CSE)	BS&H	4	-	-	3
14	PH2508 Semiconductor Physics (Other than ECE)	BS&H	4	-	-	3

### Open Elective - II

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2530 Geoinformatics (other than CE)	CE	4	-	-	3
2	CE2531 Environmental Sanitation	CE	4	-	-	3
3	EE2523 Modeling & Simulation of Engineering Systems	EEE	4	-	-	3
4	EE2524 Power Systems Engineering (Other than EEE)	EEE	4	-	-	3
5	ME2532 Elements of Mechanical Transmission (Other than ME)	ME	4	-	-	3
6	ME2533 Material Handling Equipment	ME	4	-	-	3
7	EC2543 Automotive Electronics	ECE	4	-	-	3
8	EC2544 Introduction to MEMS (other than ECE)	ECE	4	-	-	3
9	CS2508 Data Science	CSE	4	-	-	3
10	CT2524 Virtual and Augmented Reality (other than IT)	CSE	4	-	-	3
11	IT2505 Open Source Software	IT	4	-	-	3
12	IT2506 Cyber Laws	IT	4	-	-	3
13	MA2517 Quality, Reliability and Operations Research	BS&H	4	-	-	3

L : Lecture

T : Tutorial

P : Practical

### Open Elective - III

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2543 Hydrology (Other than CE)	CE	4	-	-	3
2	CE2544 Planning for Sustainable Development	CE	4	-	-	3
3	EE2531 Electrical and Hybrid Vehicles	EEE	4	-	-	3
4	EE2532 Power Plant Instrumentation	EEE	4	-	-	3
5	ME2541 Material Science (Other than ME)	ME	4	-	-	3
6	ME2542 Renewable Energy Sources (Other than ME)	ME	4	-	-	3
7	EC2523 Assistive Technologies (Other than ECE)	ECE	4	-	-	3
8	EC2507 Bio-Medical Engineering (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2512 Node and Angular JS	CSE	4	-	-	3
10	CS2513 Cyber Security	CSE	4	-	-	3
11	CT2529 Scripting Languages (Other than CSE)	IT	4	-	-	3
12	CT2531 Software Project Management (Other than CSE)	IT	4	-	-	3
13	MA2518 Elements of Stochastic Processes	BS&H	4	-	-	3
14	EG2505 Academic Communication	ENGLISH	4	-	-	3

### Open Elective - IV

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2562 Disaster Management (Other than CE)	CE	4	-	-	3
2	CE2563 Repair and Retrofitting Techniques	CE	4	-	-	3
3	EE2542 Modern Optimization Techniques	EEE	4	-	-	3
4	EE2543 Electrical Power Utilization (Other than EEE)	EEE	4	-	-	3
5	ME2553 Green Engineering	ME	4	-	-	3
6	ME2554 Non Destructive Evaluation (Other than ME)	ME	4	-	-	3
7	EC2563 Cyber Physical Systems	ECE	4	-	-	3
8	EC2508 Signals and Systems (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2521 Digital Forensics	CSE	4	-	-	3
10	CS2522 Business Intelligence & Decision Support Systems	CSE	4	-	-	3
11	IT2521 Adhoc and Sensor Networks	IT	4	-	-	3
12	CT2537 Information Retrieval Systems (Other than CSE)	IT	4	-	-	3
13	MA2514 Fuzzy Logic (Other than EEE, ME & CSE)	BS&H	4	-	-	3

L : Lecture      T : Tutorial      P : Practical



  
**PRINCIPAL**  
 Seshadri Rao  
 Gudlavalluru Engineering College  
 Seshadri Rao Knowledge Village  
 Gudlavalluru - 521 356, Eluru District. A.P.

### Professional Electives

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods			No. of Credits
			per week			
			L	T	P	
		<b>Professional Elective - I</b>	4	-	-	3
	CE2526	i) Advanced Strength of Materials				
	CE2527	ii) GIS and GPS				
	CE2528	iii) Green Buildings				
	CE2529	iv) Construction Management				
		<b>Professional Elective - II</b>	4	-	-	3
	CE2539	i) Advanced Structural Analysis				
	CE2540	ii) Environmental Pollution and Its Control				
	CE2541	iii) Ground Water Development and Management				
	CE2542	iv) Ground Improvement Techniques				
		<b>Professional Elective - III</b>	4	-	-	3
	CE2554	i) Pre-stressed Concrete				
	CE2555	ii) Advanced Foundation Engineering				
	CE2556	iii) Traffic Engineering				
	CE2557	iv) Industrial Wastewater Management				
		<b>Professional Elective - IV</b>	4	-	-	3
	CE2558	i) Advanced Design of RC Structures				
	CE2559	ii) Hydraulic Structures				
	CE2560	iii) Geosynthetics				
	CE2561	iv) Disaster Preparedness and Planning				
		<b>Professional Elective - V</b>	4	-	-	3
	CE2568	i) Earthquake Resistant Design of Structures				
	CE2569	ii) Logistics Infrastructure Engineering				
	CE2570	iii) Finite Element Methods				
	CE2571	iv) Design and Drawing of Irrigation Structures				
		<b>Professional Elective - VI</b>	4	-	-	3
	CE2572	i) Pre-Engineered Buildings				
	CE2573	ii) Urban Transportation Planning				
	CE2574	iii) Soil Dynamics and Machine Foundations				
	CE2575	iv) Environmental Impact Assessment				

L : Lecture

T : Tutorial

P : Practical

II Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EE2508	DC Machines and Transformers	3	1	-	3
2	EE2509	Electric Circuit Analysis	3	1	-	3
3	EC2503	Analog Electronics	3	1	-	3
4	EE2510	Power Systems - I	3	1	-	3
5	MA2507	Numerical Methods with Computer Applications *	3	-	2	3
6	ME2504	Mechanical Engineering Lab	-	-	4	2
7	EE2511	Electric Circuits Lab	-	-	4	2
8	EC2504	Analog Electronics Lab	-	-	4	2
<b>Total</b>			<b>15</b>	<b>4</b>	<b>14</b>	<b>21</b>
9	NS2501	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-

\* Integrated Course with Theory and Laboratory

II Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC2505	Digital Circuit Design	3	1	-	3
2	EE2512	Control Systems	3	1	-	3
3	BA2501	Engineering Economics and Project Management	3	-	-	2
4	EE2513	Induction and Synchronous Machines	3	1	-	3
5	EE2514	Electromagnetic Fields	3	1	-	3
6		Open Elective-I (see list of Open Electives)	4	-	-	3
7	EC2506	Digital Circuit Design Lab	-	-	4	2
8	EE2517	Electrical Machines - I Lab	-	-	4	2
<b>Total</b>			<b>19</b>	<b>4</b>	<b>8</b>	<b>21</b>
9	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-
10		<b>Optional Elective - I</b>	-	-	-	3
	EC2507	i) Biomedical Engineering				
	CT2512	ii) Computer Organisation and Architecture				
	EE2518	iii) Introduction to Quantum Mechanics for Engineers				
11	EE2519	<b>Optional Elective - II (MOOCs)</b> Student shall opt from the list of MOOCs given by the Department)	-	-	-	2

L : Lecture      T : Tutorial      P : Practical



III Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EE2520	Electrical Measurements & Instrumentation	4	-	-	3
2	EC2508	Signals and Systems	3	1	-	3
3	EE2521	Power Systems - II	3	1	-	3
4		<b>Professional Elective - I</b>	4	-	-	3
5		<b>Open Elective-II</b> (see list of Open Electives)	4	-	-	3
6	EE2525	Control Systems Lab	-	-	4	2
7	EE2526	Electrical Machines- II Lab	-	-	4	2
8	EE2527	Mini Project	-	-	4	2
<b>Total</b>			<b>18</b>	<b>2</b>	<b>12</b>	<b>21</b>
9		<b>Optional Elective - III</b>	-	-	-	3
	ME2549	i) Mechatronics				
	CT2507	ii) Object Oriented Programming Through Java				
	EE2528	iii) Control System Design				
10	EE2529	<b>Optional Elective - IV (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

III Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EE2530	Power Electronics	3	1	-	3
2	MA251	Probability and Fuzzy Mathematics	3	1	-	3
3	EC2510	Microprocessors, Microcontrollers and Its Applications **	3	1	-	3
4		<b>Professional Elective - II</b>	4	-	-	3
5		<b>Open Elective-III</b> (see list of Open Electives)	4	-	-	3
6	EE2533	Electrical Systems Simulation Lab	-	-	4	2
7	EE2534	Electrical Measurements & Instrumentation Lab	-	-	4	2
8	EC2515	Microprocessors, Microcontrollers and Its Applications Lab	-	-	4	2
<b>Total</b>			<b>17</b>	<b>3</b>	<b>12</b>	<b>21</b>
9		<b>Optional Elective - V</b>	-	-	-	3
	CT2513	i) Data Base Management Systems				
	EC2516	ii) Nano Electronics				
	EE2535	iii) Solar and Wind Energy Systems				
10	EE2536	<b>Optional Elective - VI (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

\* Project Based Theory Course

L : Lecture

T : Tutorial

P : Practical

#### IV Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EE2537	Power System Analysis	3	1	-	3
2		Professional Elective - III	3	1	-	3
3		Professional Elective - IV	3	1	-	3
4		Open Elective-IV(see list of Open Electives)	4	-	-	3
5	MA2512	Engineering Optimization	2	1	-	2
6	EE2544	Power Electronics Lab	-	-	4	2
7	EE2545	Power Systems Lab	-	-	4	2
8	EE2546	Internship / Industrial Training / Practical Training	-	-	4	2
<b>Total</b>			<b>15</b>	<b>4</b>	<b>12</b>	<b>20</b>
9		Optional Elective - VII	-	-	-	3
	EC2519	i) Analog and Digital Communication				
	CS2502	ii) Introduction to Python Programming				
	EE2547	iii) Integration of Renewable Energy Sources				
10	EE2548	Optional Elective - VIII (MOOCs)	-	-	-	2
			Students shall opt from the list of MOOCs given by the Department)			

#### IV Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	3	1	-	3
2		Professional Elective - VI	3	1	-	3
3	EE2557	Project	-	-	20	10
<b>Total</b>			<b>6</b>	<b>2</b>	<b>20</b>	<b>16</b>

L : Lecture

T : Tutorial

P : Practical

### Open Elective - I

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2515 Elements of Civil Engineering (Other than CE)	CE	4	-	-	3
2	CE2516 Building Services	CE	4	-	-	3
3	EE2515 Electrical Materials	EEE	4	-	-	3
4	EE2516 Control Systems Engineering (Other than EEE & ECE)	EEE	4	-	-	3
5	ME2520 Elements of Manufacturing Processes (Other than ME)	ME	4	-	-	3
6	ME2521 Automotive Engineering (Other than ME)	ME	4	-	-	3
7	EC2531 Introduction to MPMC (Other than ECE/EEE/CSE/IT)	ECE	4	-	-	3
8	EC2532 Fundamentals of Communications (Other than ECE)	ECE	4	-	-	3
9	CT2514 Computer Graphics (Other than IT)	CSE	4	-	-	3
10	CT2507 Object Oriented Programming through Java (other than CSE & IT)	CSE	4	-	-	3
11	CT2515 Systems Software	IT	4	-	-	3
12	IT2502 Web Programming (Other than CSE & IT)	IT	4	-	-	3
13	MA2516 Mathematical Cryptography (Other than CSE)	BS&H	4	-	-	3
14	PH2508 Semiconductor Physics (Other than ECE)	BS&H	4	-	-	3

### Open Elective - II

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2530 Geoinformatics (other than CE)	CE	4	-	-	3
2	CE2531 Environmental Sanitation	CE	4	-	-	3
3	EE2523 Modeling & Simulation of Engineering Systems	EEE	4	-	-	3
4	EE2524 Power Systems Engineering (Other than EEE)	EEE	4	-	-	3
5	ME2532 Elements of Mechanical Transmission (Other than ME)	ME	4	-	-	3
6	ME2533 Material Handling Equipment	ME	4	-	-	3
7	EC2543 Automotive Electronics	ECE	4	-	-	3
8	EC2544 Introduction to MEMS (other than ECE)	ECE	4	-	-	3
9	CS2508 Data Science	CSE	4	-	-	3
10	CT2524 Virtual and Augmented Reality (other than IT)	CSE	4	-	-	3
11	IT2505 Open Source Software	IT	4	-	-	3
12	IT2506 Cyber Laws	IT	4	-	-	3
13	MA2517 Quality, Reliability and Operations Research	BS&H	4	-	-	3

L : Lecture      T : Tutorial      P : Practical

### Open Elective - III

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2543 Hydrology (Other than CE)	CE	4	-	-	3
2	CE2544 Planning for Sustainable Development	CE	4	-	-	3
3	EE2531 Electrical and Hybrid Vehicles	EEE	4	-	-	3
4	EE2532 Power Plant Instrumentation	EEE	4	-	-	3
5	ME2541 Material Science (Other than ME)	ME	4	-	-	3
6	ME2542 Renewable Energy Sources (Other than ME)	ME	4	-	-	3
7	EC2523 Assistive Technologies (Other than ECE)	ECE	4	-	-	3
8	EC2507 Bio-Medical Engineering (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2512 Node and Angular JS	CSE	4	-	-	3
10	CS2513 Cyber Security	CSE	4	-	-	3
11	CT2529 Scripting Languages (Other than CSE)	IT	4	-	-	3
12	CT2531 Software Project Management (Other than CSE)	IT	4	-	-	3
13	MA2518 Elements of Stochastic Processes	BS&H	4	-	-	3
14	EG2505 Academic Communication	ENGLISH	4	-	-	3

### Open Elective - IV

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2562 Disaster Management (Other than CE)	CE	4	-	-	3
2	CE2563 Repair and Retrofitting Techniques	CE	4	-	-	3
3	EE2542 Modern Optimization Techniques	EEE	4	-	-	3
4	EE2543 Electrical Power Utilization (Other than EEE)	EEE	4	-	-	3
5	ME2553 Green Engineering	ME	4	-	-	3
6	ME2554 Non Destructive Evaluation (Other than ME)	ME	4	-	-	3
7	EC2563 Cyber Physical Systems	ECE	4	-	-	3
8	EC2508 Signals and Systems (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2521 Digital Forensics	CSE	4	-	-	3
10	CS2522 Business Intelligence & Decision Support Systems	CSE	4	-	-	3
11	IT2521 Adhoc and Sensor Networks	IT	4	-	-	3
12	CT2537 Information Retrieval Systems (Other than CSE)	IT	4	-	-	3
13	MA2514 Fuzzy Logic (Other than EEE, ME & CSE)	BS&H	4	-	-	3

L : Lecture      T : Tutorial      P : Practical

### Professional Electives

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods			No. of Credits
			per week			
			L	T	P	
		<b>Professional Elective - I</b>	4	-	-	3
	EE2522	i) Switch Gear and Protection				
	CT2519	ii) Computer Networks				
	EC2509	iii) Pulse and Integrated Circuits				
	CT2505	iv) Data Structures				
		<b>Professional Elective - II</b>	4	-	-	3
	EC2511	i) Digital Signal Processing				
	EC2512	ii) Embedded System Design				
	EC2513	iii) Principles of VLSI Design				
	EC2514	iv) DSP Processors and Architecture				
		<b>Professional Elective - III</b>	3	1	-	3
	CT2534	i) Big Data Analytics				
	EC2517	ii) CMOS Digital IC Design				
	EE2538	iii) Power Semiconductor Drives				
	EE2539	iv) Flexible AC Transmission Systems				
		<b>Professional Elective - IV</b>	3	1	-	3
	CS2513	i) Cyber Security				
	EC2518	ii) Digital Image Processing				
	EE2540	iii) Power System Operation & Control				
	EE2541	iv) High Voltage Engineering				
		<b>Professional Elective - V</b>	-	-	-	3
	EE2549	i) Electrical Distribution System	3	1	-	
	EE2550	ii) Artificial Intelligence Techniques	4	-	-	
	EE2551	iii) Advanced Control Systems	3	1	-	
	EE2552	iv) Energy Audit, Conservation and Management	3	1	--	
		<b>Professional Elective - VI</b>	3	1	-	3
	EE2553	i) Special Electrical Machines				
	EE2554	ii) Digital Control Systems				
	EE2555	iii) Utilization of Electrical Energy				
	EE2556	iv) HVDC Transmission Systems				

L : Lecture                      T : Tutorial                      P : Practical

II Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods			No. of Credits
			per week			
			L	T	P	
1	EE2501	Elements of Electrical and Electronics Engineering	3	1	-	3
2	ME2510	Engineering Thermodynamics	3	1	-	3
3	ME2511	Kinematics of Machines	3	1	-	3
4	ME2512	Solid Mechanics	3	1	-	3
5	ME2513	Engineering Metallurgy	4	-	-	3
6	EE2502	Electrical and Electronics Engineering Lab	-	-	2	1
7	ME2514	Solid Mechanics and Metallurgy Lab	-	-	4	2
8	ME2515	Computer Aided Modeling Lab	-	-	2	1
<b>Total</b>			<b>16</b>	<b>4</b>	<b>8</b>	<b>19</b>
9	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-

II Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods			No. of Credits
			per week			
			L	T	P	
1	ME2516	Manufacturing Processes	4	-	-	3
2	ME2517	Applied Thermodynamics	3	1	-	3
3	ME2518	Dynamics of Machines	3	1	-	3
4	ME2519	Fluid Mechanics	3	1	-	3
5		<b>Open Elective-I</b> (see list of Open Electives)	4	-	-	3
6	ME2522	Thermal Engineering Lab	-	-	4	2
7	ME2523	Manufacturing Processes Lab	-	-	4	2
8	ME2524	Machine Dynamics Lab	-	-	2	1
<b>Total</b>			<b>17</b>	<b>3</b>	<b>10</b>	<b>20</b>
9	NS2501	NSS /Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-
10		<b>Optional Elective - I</b>	-	-	-	3
	EE2512	i) Control Systems				
	ME2525	ii) Nano Technology				
	CT2506	iii) Digital Logic Design				
11	ME2526	<b>Optional Elective - II (MOOCs)</b> Student shall opt from teh list of MOOCs given by the	-	-	-	2
			Department)			

III Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	MA2509	Numerical and Statistical Methods	3	1	-	3
2	ME2527	Metal Cutting and Machine Tools	4	-	-	3
3	ME2528	Turbo Machinery	3	1	-	3
4		<b>Professional Elective - I</b>	4	-	-	3
5		<b>Open Elective-II</b> (see list of Open Electives)	4	-	-	3
6	ME2534	Fluid Mechanics and Turbo Machinery Lab	-	-	4	2
7	ME2535	Machine Tools Lab	-	-	4	2
8	ME2536	Computer Aided Machine Drawing Lab	-	-	4	2
<b>Total</b>			<b>18</b>	<b>2</b>	<b>12</b>	<b>21</b>
9		<b>Optional Elective - III</b>	-	-	-	3
	CT2514	i) Computer Graphics				
	EE2503	ii) Fuzzy Logic Systems				
	EC2520	iii) Micro Processors and Interfacing				
10	ME2537	<b>Optional Elective - IV (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

III Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	BA2503	Engineering Economics and Accountancy	4	-	-	3
2	ME2538	Metrology and Instrumentation	3	1	-	3
3	ME2539	Design of Machine Members	3	1	-	3
4	ME2540	Heat Transfer	3	1	-	3
5		<b>Professional Elective - II</b>	4	-	-	3
6		<b>Open Elective-III</b> (see list of Open Electives)	4	-	-	3
7	ME2546	Heat Transfer Lab	-	-	4	2
8	ME2547	Metrology and Instrumentation Lab	-	-	4	2
9	ME2548	Computer Aided Engineering Analysis Lab	-	-	2	1
<b>Total</b>			<b>21</b>	<b>3</b>	<b>10</b>	<b>23</b>
10		<b>Optional Elective - V</b>	-	-	-	3
	CT2507	i) Object Oriented Programming through Java				
	ME2549	ii) Mechatronics				
	EC2512iii)	Embedded System Design				
11	ME2550	<b>Optional Elective - VI (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

L : Lecture

T : Tutorial

P : Practical

#### IV Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	ME2551	Industrial Engineering and Management	3	1	-	3
2	ME2552	CAD / CAM	3	1	-	3
3		Professional Elective - III	4	-	-	3
4		Professional Elective - IV	4	-	-	3
5		Open Elective-IV(see list of Open Electives)	4	-	-	3
6	ME2562	Simulation Lab	-	-	4	2
7	ME2563	Mini Project	-	-	4	2
8	ME2564	Internship / Industrial Training / Practical Training	-	-	-	2
<b>Total</b>			<b>18</b>	<b>2</b>	<b>8</b>	<b>21</b>
9		<b>Optional Elective - VII</b>	-	-	-	3
	CT2534	i) Big Data Analytics				
	CT2512	ii) Computer Organization and Architecture				
	ME2565	iii) Cryogenics				
10	ME2566	<b>Optional Elective - VIII (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

#### IV Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	4	-	-	3
2		Professional Elective - VI	4	-	-	3
3	ME2575	Project	-	-	20	10
<b>Total</b>			<b>8</b>	<b>-</b>	<b>20</b>	<b>16</b>

L : Lecture      T : Tutorial      P : Practical




**PRINCIPAL**  
Seshadri Rao  
Gudlalleru Engineering College  
Seshadri Rao Knowledge Village  
Gudlalleru - 521 358, Krishna District. A.P.



### Open Elective - I

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2515 Elements of Civil Engineering (Other than CE)	CE	4	-	-	3
2	CE2516 Building Services	CE	4	-	-	3
3	EE2515 Electrical Materials	EEE	4	-	-	3
4	EE2516 Control Systems Engineering (Other than EEE & ECE)	EEE	4	-	-	3
5	ME2520 Elements of Manufacturing Processes (Other than ME)	ME	4	-	-	3
6	ME2521 Automotive Engineering (Other than ME)	ME	4	-	-	3
7	EC2531 Introduction to MPMC (Other than ECE/EEE/CSE/IT)	ECE	4	-	-	3
8	EC2532 Fundamentals of Communications (Other than ECE)	ECE	4	-	-	3
9	CT2514 Computer Graphics (Other than IT)	CSE	4	-	-	3
10	CT2507 Object Oriented Programming through Java (other than CSE & IT)	CSE	4	-	-	3
11	CT2515 Systems Software	IT	4	-	-	3
12	IT2502 Web Programming (Other than CSE & IT)	IT	4	-	-	3
13	MA2516 Mathematical Cryptography (Other than CSE)	BS&H	4	-	-	3
14	PH2508 Semiconductor Physics (Other than ECE)	BS&H	4	-	-	3

### Open Elective - II

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2530 Geoinformatics (other than CE)	CE	4	-	-	3
2	CE2531 Environmental Sanitation	CE	4	-	-	3
3	EE2523 Modeling & Simulation of Engineering Systems	EEE	4	-	-	3
4	EE2524 Power Systems Engineering (Other than EEE)	EEE	4	-	-	3
5	ME2532 Elements of Mechanical Transmission (Other than ME)	ME	4	-	-	3
6	ME2533 Material Handling Equipment	ME	4	-	-	3
7	EC2543 Automotive Electronics	ECE	4	-	-	3
8	EC2544 Introduction to MEMS (other than ECE)	ECE	4	-	-	3
9	CS2508 Data Science	CSE	4	-	-	3
10	CT2524 Virtual and Augmented Reality (other than IT)	CSE	4	-	-	3
11	IT2505 Open Source Software	IT	4	-	-	3
12	IT2506 Cyber Laws	IT	4	-	-	3
13	MA2517 Quality, Reliability and Operations Research	BS&H	4	-	-	3

L : Lecture      T : Tutorial      P : Practical



  
**PRINCIPAL**  
 Seshadri Rao  
 Gudlavalleru Engineering College  
 Seshadri Rao Knowledge Village  
 Gudlavalleru - 521 356, Krishna District. A.P.

### Open Elective - III

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2543 Hydrology (Other than CE)	CE	4	-	-	3
2	CE2544 Planning for Sustainable Development	CE	4	-	-	3
3	EE2531 Electrical and Hybrid Vehicles	EEE	4	-	-	3
4	EE2532 Power Plant Instrumentation	EEE	4	-	-	3
5	ME2541 Material Science (Other than ME)	ME	4	-	-	3
6	ME2542 Renewable Energy Sources (Other than ME)	ME	4	-	-	3
7	EC2523 Assistive Technologies (Other than ECE)	ECE	4	-	-	3
8	EC2507 Bio-Medical Engineering (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2512 Node and Angular JS	CSE	4	-	-	3
10	CS2513 Cyber Security	CSE	4	-	-	3
11	CT2529 Scripting Languages (Other than CSE)	IT	4	-	-	3
12	CT2531 Software Project Management (Other than CSE)	IT	4	-	-	3
13	MA2518 Elements of Stochastic Processes	BS&H	4	-	-	3
14	EG2505 Academic Communication	ENGLISH	4	-	-	3

### Open Elective - IV

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2562 Disaster Management (Other than CE)	CE	4	-	-	3
2	CE2563 Repair and Retrofitting Techniques	CE	4	-	-	3
3	EE2542 Modern Optimization Techniques	EEE	4	-	-	3
4	EE2543 Electrical Power Utilization (Other than EEE)	EEE	4	-	-	3
5	ME2553 Green Engineering	ME	4	-	-	3
6	ME2554 Non Destructive Evaluation (Other than ME)	ME	4	-	-	3
7	EC2563 Cyber Physical Systems	ECE	4	-	-	3
8	EC2508 Signals and Systems (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2521 Digital Forensics	CSE	4	-	-	3
10	CS2522 Business Intelligence & Decision Support Systems	CSE	4	-	-	3
11	IT2521 Adhoc and Sensor Networks	IT	4	-	-	3
12	CT2537 Information Retrieval Systems (Other than CSE)	IT	4	-	-	3
13	MA2514 Fuzzy Logic (Other than EEE, ME & CSE)	BS&H	4	-	-	3

L : Lecture      T : Tutorial      P : Practical

### Professional Electives

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
		<b>Professional Elective - I</b>	4	-	-	3
	ME2529	i) Non Conventional Sources of Energy				
	ME2530	ii) Mechancial Vibrations				
	ME2531	iii) Mechancis of Composite Materials				
	CT2505	iv) Data Structures				
		<b>Professional Elective - II</b>	4	-	-	3
	ME2543	i) Principles of Finite Element Method				
	ME2544	ii) Robotics				
	ME2545	iii) Automobile Engineering				
	CT2513	iv) Database Management Systems				
		<b>Professional Elective - III</b>	4	-	-	3
	MA2515	i) Optimization Techniques				
	ME2555	ii) Refrigeration and Air Conditioning				
	ME2556	iii) Unconventional Machining Process				
	ME2557	iv) Tribology				
		<b>Professional Elective - IV</b>	4	-	-	3
	ME2558	i) Total Quality Management				
	ME2559	ii) Computational Fluid Dynamics				
	ME2560	iii) Condition Monitoring				
	ME2561	iv) Design of Transmission Elements				
		<b>Professional Elective - V</b>	4	-	-	3
	ME2567	i) Design for Manufacturing and Assembly				
	ME2568	ii) Production Planning and Control				
	ME2569	iii) Power Plant Engineering				
	ME2570	iv) Theory of Elasticity				
		<b>Professional Elective - VI</b>	4	-	-	3
	ME2571	i) Rapid Prototyping				
	ME2572	ii) Gas Dynamics and Jet Propulsion				
	ME2573	iii) Automation in Manufacturing				
	ME2574	iv) Non Destructive Techniques				

L : Lecture      T : Tutorial      P : Practical



  
**PRINCIPAL**  
 Seshadri Rao  
 Gudlavalleru Engineering College  
 Seshadri Rao Knowledge Village  
 Gudlavalleru - 521 056, Krishna District. A.P.

II Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC2524	Probability Theory and Stochastic Process	3	1	-	3
2	EC2525	Electronic Devices	4	-	-	3
3	EC2508	Signals and Systems	3	1	-	3
4	BA2501	Engineering Economics and Project Management	3	-	-	2
5	EC2526	Electromagnetic Field Theory	4	-	-	3
6	EE2505	Elements of Electrical Engineering	3	-	-	2
7	EC2527	Electronic Devices Lab	-	-	4	2
8	EE2507	Networks and Electrical Technology Lab	-	-	2	1
<b>Total</b>			<b>20</b>	<b>2</b>	<b>6</b>	<b>19</b>
9	NS2501	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-

II Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC2528	Transmission Lines and Waveguides	4	-	-	3
2	EC2529	Analog Circuits	4	-	-	3
3	EC2530	Analog Communications	3	-	-	2
4	EC2505	Digital Circuit Design	3	1	-	3
5	CS2501	Fundamentals of Data Structures	3	-	-	2
6		Open Elective-I (see list of Open Electives)	4	-	-	3
7	EC2533	Analog Circuits Lab	-	-	4	2
8	EC2506	Digital Circuit Design Lab	-	-	4	2
<b>Total</b>			<b>21</b>	<b>1</b>	<b>8</b>	<b>20</b>
9	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-
10		<b>Optional Elective - I</b>	-	-	-	3
	CS2502	i) Introduction to Python Programming				
	CT2513	ii) Database Management Systems				
	EC2534	iii) Electronic Switching Systems				
11	EC2535	<b>Optional Elective - II (MOOCs)</b> Student shall opt from teh list of MOOCs given by the Department)	-	-	-	2

L : Lecture                      T : Tutorial                      P : Practical

III Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC2536	Linear Integrated Circuits Applications	3	1	-	3
2	EC2537	Digital Communications	3	-	-	2
3	EC2538	Antennas and Wave Propagation	4	-	-	3
4	EC2539	Principles of VLSI Design	3	-	-	2
5		Professional Elective - I	4	-	-	3
6		Open Elective-II (see list of Open Electives)	4	-	-	3
7	EC2545	Linear Integrated Circuits Applications Lab	-	-	4	2
8	EC2546	Analog and Digital Communications Lab	-	-	4	2
<b>Total</b>			<b>21</b>	<b>1</b>	<b>8</b>	<b>20</b>
9		<b>Optional Elective - III</b>	-	-	-	3
	CT2528	i) Data Warehousing and Data Mining				
	ME2549	ii) Mechatronics				
	EC2544	iii) Introduction to MEMS				
10	EC2547	<b>Optional Elective - IV (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

III Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC2511	Digital Signal Processing	4	-	-	3
2	EE2512	Control Systems	3	1	-	3
3	EC2510	Microprocessors, Microcontrollers and Applications**	3	-	1	3
4	EC2548	Microwave and Optical Communications	3	-	-	2
5		Professional Elective - II	4	-	-	3
6		Open Elective-III (see list of Open Electives)	4	-	-	3
7	EC2515	Microprocessor and Microcontroller Interfacing Lab	-	-	4	2
8	EC2552	Digital Signal Processing Lab	-	-	4	2
9	EC2553	VLSI Lab	-	-	4	2
<b>Total</b>			<b>21</b>	<b>1</b>	<b>13</b>	<b>23</b>
10		<b>Optional Elective - V</b>	-	-	-	3
	CT2534	i) Big Data Analytics				
	EC2554	ii) Cognitive Radio Networks				
	CT2533	iii) Cryptography and Network Security				
10	EC2555	<b>Optional Elective - VI (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

\* Project Based Theory Course

L : Lecture

T : Tutorial

P : Practical

#### IV Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC2517	CMOS Digital IC Design	4	-	-	3
2	EC2512	Embedded System Design	3	-	-	2
3	EC2556	Electronic Measurements and Instrumentation	3	-	-	2
4		Professional Elective - III	4	-	-	3
5		Professional Elective - IV	4	-	-	3
6		Open Elective-IV(see list of Open Electives)	4	-	-	3
7	EC2564	Microwave and Optical Communications Lab	-	-	4	2
8	EC2565	Mini Project on Smart Applications	-	-	4	2
9	EC2566	Internship / Industrial Training / Practical Training	-	-	-	2
<b>Total</b>			<b>22</b>	<b>-</b>	<b>8</b>	<b>22</b>
9		<b>Optional Elective - VII</b>	-	-	-	3
	EE2554	i) Digital Control Systems				
	CT2521	ii) Artificial Intelligence				
	EC2567	iii) Transform Techniques				
10	EC2568	<b>Optional Elective - VIII (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

#### IV Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	4	-	-	3
2		Professional Elective - VI	4	-	-	3
3	EC2577	Project	-	-	20	10
<b>Total</b>			<b>8</b>	<b>-</b>	<b>20</b>	<b>16</b>

L : Lecture      T : Tutorial      P : Practical

**IQAC**

**PRINCIPAL**  
Seshadri Rao  
Gudlalleru Engineering College  
Seshadri Rao Knowledge Village  
Gudlalleru - 521 356, Krishna District. A.P.

### Open Elective - I

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2515 Elements of Civil Engineering (Other than CE)	CE	4	-	-	3
2	CE2516 Building Services	CE	4	-	-	3
3	EE2515 Electrical Materials	EEE	4	-	-	3
4	EE2516 Control Systems Engineering (Other than EEE & ECE)	EEE	4	-	-	3
5	ME2520 Elements of Manufacturing Processes (Other than ME)	ME	4	-	-	3
6	ME2521 Automotive Engineering (Other than ME)	ME	4	-	-	3
7	EC2531 Introduction to MPMC (Other than ECE/EEE/CSE/IT)	ECE	4	-	-	3
8	EC2532 Fundamentals of Communications (Other than ECE)	ECE	4	-	-	3
9	CT2514 Computer Graphics (Other than IT)	CSE	4	-	-	3
10	CT2507 Object Oriented Programming through Java (other than CSE & IT)	CSE	4	-	-	3
11	CT2515 Systems Software	IT	4	-	-	3
12	IT2502 Web Programming (Other than CSE & IT)	IT	4	-	-	3
13	MA2516 Mathematical Cryptography (Other than CSE)	BS&H	4	-	-	3
14	PH2508 Semiconductor Physics (Other than ECE)	BS&H	4	-	-	3

### Open Elective - II

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2530 Geoinformatics (other than CE)	CE	4	-	-	3
2	CE2531 Environmental Sanitation	CE	4	-	-	3
3	EE2523 Modeling & Simulation of Engineering Systems	EEE	4	-	-	3
4	EE2524 Power Systems Engineering (Other than EEE)	EEE	4	-	-	3
5	ME2532 Elements of Mechanical Transmission (Other than ME)	ME	4	-	-	3
6	ME2533 Material Handling Equipment	ME	4	-	-	3
7	EC2543 Automotive Electronics	ECE	4	-	-	3
8	EC2544 Introduction to MEMS (other than ECE)	ECE	4	-	-	3
9	CS2508 Data Science	CSE	4	-	-	3
10	CT2524 Virtual and Augmented Reality (other than IT)	CSE	4	-	-	3
11	IT2505 Open Source Software	IT	4	-	-	3
12	IT2506 Cyber Laws	IT	4	-	-	3
13	MA2517 Quality, Reliability and Operations Research	BS&H	4	-	-	3

L : Lecture      T : Tutorial      P : Practical

### Open Elective - III

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2543 Hydrology (Other than CE)	CE	4	-	-	3
2	CE2544 Planning for Sustainable Development	CE	4	-	-	3
3	EE2531 Electrical and Hybrid Vehicles	EEE	4	-	-	3
4	EE2532 Power Plant Instrumentation	EEE	4	-	-	3
5	ME2541 Material Science (Other than ME)	ME	4	-	-	3
6	ME2542 Renewable Energy Sources (Other than ME)	ME	4	-	-	3
7	EC2523 Assistive Technologies (Other than ECE)	ECE	4	-	-	3
8	EC2507 Bio-Medical Engineering (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2512 Node and Angular JS	CSE	4	-	-	3
10	CS2513 Cyber Security	CSE	4	-	-	3
11	CT2529 Scripting Languages (Other than CSE)	IT	4	-	-	3
12	CT2531 Software Project Management (Other than CSE)	IT	4	-	-	3
13	MA2518 Elements of Stochastic Processes	BS&H	4	-	-	3
14	EG2505 Academic Communication	ENGLISH	4	-	-	3

### Open Elective - IV

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2562 Disaster Management (Other than CE)	CE	4	-	-	3
2	CE2563 Repair and Retrofitting Techniques	CE	4	-	-	3
3	EE2542 Modern Optimization Techniques	EEE	4	-	-	3
4	EE2543 Electrical Power Utilization (Other than EEE)	EEE	4	-	-	3
5	ME2553 Green Engineering	ME	4	-	-	3
6	ME2554 Non Destructive Evaluation (Other than ME)	ME	4	-	-	3
7	EC2563 Cyber Physical Systems	ECE	4	-	-	3
8	EC2508 Signals and Systems (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2521 Digital Forensics	CSE	4	-	-	3
10	CS2522 Business Intelligence & Decision Support Systems	CSE	4	-	-	3
11	IT2521 Adhoc and Sensor Networks	IT	4	-	-	3
12	CT2537 Information Retrieval Systems (Other than CSE)	IT	4	-	-	3
13	MA2514 Fuzzy Logic (Other than EEE, ME & CSE)	BS&H	4	-	-	3

L : Lecture      T : Tutorial      P : Practical



  
**PRINCIPAL**  
 Seshadri Rao  
 Gudlavalleru Engineering College  
 Seshadri Rao Knowledge Village  
 Gudlavalleru - 521 356, Krishna District. A.P.



### Professional Electives

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods			No. of Credits
			per week			
			L	T	P	
		<b>Professional Elective - I</b>	4	-	-	3
	EC2540	i) CAD for VLSI				
	EC2541	ii) Computer Organization				
	EC2542	iii) Computer and Communication Networks				
	EC2507	iv) Biomedical Engineering				
		<b>Professional Elective - II</b>	4	-	-	3
	EC2549	i) Analog IC Design				
	EC2516	ii) Nano Electronics				
	EC2550	iii) Smart Antennas				
	EC2551	iv) Coding Theory				
		<b>Professional Elective - III</b>	4	-	-	3
	EC2557	i) Mixed Signal IC Design				
	EC2558	ii) Cellular and Mobile Communications				
	EC2559	iii) Digital TV Engineering				
	EC2514	iv) DSP Processors and Architectures				
		<b>Professional Elective - IV</b>	4	-	-	3
	EC2560	i) System on Chip Design				
	EC2561	ii) Wireless Sensor Networks				
	EC2562	iii) Satellite Communication				
	EC2518	iv) Digital Image Processing				
		<b>Professional Elective - V</b>	4	-	-	3
	EC2569	i) Low Power VLSI Circuits				
	EC2570	ii) Real Time Operating Systems				
	EC2571	iii) Speech Processing				
	EC2572	iv) Adaptive Signal Processing				
		<b>Professional Elective - VI</b>	4	-	-	3
	EC2573	i) ASIC Design				
	EC2574	ii) Embedded C				
	EC2575	iii) RADAR Engineering				
	EC2576	iv) Multi Rate Signal Processing				

L : Lecture      T : Tutorial      P : Practical

II Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	BA2502	Managerial Economics and Financial Analysis	3	-	-	2
2	MA2508	Discrete Mathematical Structures	3	1	-	3
3	CT2505	Data Structures	3	1	-	3
4	CT2506	Digital Logic Design	3	1	-	3
5	CT2507	Object Oriented Programming through Java	4	-	-	3
6	CT2508	Data Structures Lab	-	-	4	2
7	CT2509	Object Oriented Programming Lab	-	-	4	2
8	CS2503	UNIX Programming Lab	-	-	4	2
<b>Total</b>			<b>16</b>	<b>3</b>	<b>12</b>	<b>20</b>
9	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-

II Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	MA2510	Probability and Statistics	3	1	-	3
2	CT2510	Operating Systems	3	1	-	3
3	CT2511	Formal Languages and Automata Theory	3	1	-	3
4	CT2512	Computer Organization and Architecture	3	1	-	3
5	CT2513	Database Management Systems	3	1	-	3
6		Open Elective-I (see list of Open Electives)	4	-	-	3
7	CS2504	Operating Systems Lab	-	-	4	2
8	CT2516	Database Management Systems Lab	-	-	4	2
<b>Total</b>			<b>19</b>	<b>5</b>	<b>8</b>	<b>22</b>
9	NS2501	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-
10		<b>Optional Elective - I</b>	-	-	-	3
	CE2575	i) Environmental Impact Assessment				
	EC2508	ii) Signals and Systems				
	MA2514	iii) Fuzzy Logic				
11	CS2505	<b>Optional Elective - II (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

L : Lecture      T : Tutorial      P : Practical

III Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CT2517	Software Engineering	3	1	-	3
2	CT2518	Compiler Design	3	1	-	3
3	CT2519	Computer Networks	3	1	-	3
4	CT2520	Web Technologies	4	-	-	3
5		Professional Elective - I	4	-	-	3
6		Open Elective-II (see list of Open Electives)	4	-	-	3
7	CS2509	Computer Networks and Compiler Design Lab	-	-	4	2
8	CT2525	Web Technologies Lab	-	-	4	2
<b>Total</b>			<b>21</b>	<b>3</b>	<b>8</b>	<b>22</b>
9		<b>Optional Elective - III</b>	-	-	-	3
	CT2526	i) Human Computer Interaction				
	EC2511	ii) Digital Signal Processing				
	EE2512	iii) Control Systems				
10	CS2510	<b>Optional Elective - IV (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

III Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CT2527	Design and Analysis of Algorithms	3	1	-	3
2	CT2528	Data Warehousing and Data Maining	4	-	-	3
3	CS2511	UML and Design Patterns *	3	-	2	3
5		Professional Elective - II (OR) Any other Elective Depending on Industry Needs	4	-	-	3
6		Open Elective-III(see list of Open Electives)	4	-	-	3
7	CS2514	Data Mining Lab	-	-	4	2
8	CS2515	Mini Project	-	-	4	2
<b>Total</b>			<b>18</b>	<b>1</b>	<b>10</b>	<b>19</b>
9		<b>Optional Elective - V</b>	-	-	-	3
	CS2516	i) Graph Theory				
	EC2512	ii) Embedded System Design				
	EE2554	iii) Digital Control Systems				
10	CS2517	<b>Optional Elective - VI (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

\* Integrated Course with Theory and Laboratory

L : Lecture      T : Tutorial      P : Practical

#### IV Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CT2533	Cyptography and Network Securiry	4	-	-	3
2	CT2534	Big Data Analytics	4	-	-	3
3		Professional Elective - III	4	-	-	3
4		Professional Elective - IV	4	-	-	3
5		Open Elective-IV(see list of Open Electives)	4	-	-	3
6	CT2538	Big Data Analytics Lab	-	-	4	2
7	CS2523	Cryptography and Network Security Lab	-	-	4	2
8	CS2524	Internship / Industrial Training / Practical Training	-	-	-	2
<b>Total</b>			<b>20</b>	<b>-</b>	<b>8</b>	<b>21</b>
9		<b>Optional Elective - VII</b>	-	-	-	3
	CS2525	i) Network Programming				
	CT2515	i) Systems Software				
	ME2544	iii) Robotics				
10	CS2526	<b>Optional Elective - VIII (MOOCs)</b>	-	-	-	2
Students shall opt from the list of MOOCs given by the Department)						

#### IV Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	4	-	-	3
2		Professional Elective - VI	4	-	-	3
3	CS2531	Project	-	-	20	10
<b>Total</b>			<b>8</b>	<b>-</b>	<b>20</b>	<b>16</b>

L : Lecture

T : Tutorial

P : Practical



  
**PRINCIPAL**  
 Seshadri Rao  
 Gudlavalleru Engineering College  
 Seshadri Rao Knowledge Village  
 Gudlavalleru - 521 356, Krishna District. A.P.

### Open Elective - I

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2515 Elements of Civil Engineering (Other than CE)	CE	4	-	-	3
2	CE2516 Building Services	CE	4	-	-	3
3	EE2515 Electrical Materials	EEE	4	-	-	3
4	EE2516 Control Systems Engineering (Other than EEE & ECE)	EEE	4	-	-	3
5	ME2520 Elements of Manufacturing Processes (Other than ME)	ME	4	-	-	3
6	ME2521 Automotive Engineering (Other than ME)	ME	4	-	-	3
7	EC2531 Introduction to MPMC (Other than ECE/EEE/CSE/IT)	ECE	4	-	-	3
8	EC2532 Fundamentals of Communications (Other than ECE)	ECE	4	-	-	3
9	CT2514 Computer Graphics (Other than IT)	CSE	4	-	-	3
10	CT2507 Object Oriented Programming through Java (other than CSE & IT)	CSE	4	-	-	3
11	CT2515 Systems Software	IT	4	-	-	3
12	IT2502 Web Programming (Other than CSE & IT)	IT	4	-	-	3
13	MA2516 Mathematical Cryptography (Other than CSE)	BS&H	4	-	-	3
14	PH2508 Semiconductor Physics (Other than ECE)	BS&H	4	-	-	3

### Open Elective - II

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2530 Geoinformatics (other than CE)	CE	4	-	-	3
2	CE2531 Environmental Sanitation	CE	4	-	-	3
3	EE2523 Modeling & Simulation of Engineering Systems	EEE	4	-	-	3
4	EE2524 Power Systems Engineering (Other than EEE)	EEE	4	-	-	3
5	ME2532 Elements of Mechanical Transmission (Other than ME)	ME	4	-	-	3
6	ME2533 Material Handling Equipment	ME	4	-	-	3
7	EC2543 Automotive Electronics	ECE	4	-	-	3
8	EC2544 Introduction to MEMS (other than ECE)	ECE	4	-	-	3
9	CS2508 Data Science	CSE	4	-	-	3
10	CT2524 Virtual and Augmented Reality (other than IT)	CSE	4	-	-	3
11	IT2505 Open Source Software	IT	4	-	-	3
12	IT2506 Cyber Laws	IT	4	-	-	3
13	MA2517 Quality, Reliability and Operations Research	BS&H	4	-	-	3

L : Lecture      T : Tutorial      P : Practical

### Open Elective - III

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2543 Hydrology (Other than CE)	CE	4	-	-	3
2	CE2544 Planning for Sustainable Development	CE	4	-	-	3
3	EE2531 Electrical and Hybrid Vehicles	EEE	4	-	-	3
4	EE2532 Power Plant Instrumentation	EEE	4	-	-	3
5	ME2541 Material Science (Other than ME)	ME	4	-	-	3
6	ME2542 Renewable Energy Sources (Other than ME)	ME	4	-	-	3
7	EC2523 Assistive Technologies (Other than ECE)	ECE	4	-	-	3
8	EC2507 Bio-Medical Engineering (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2512 Node and Angular JS	CSE	4	-	-	3
10	CS2513 Cyber Security	CSE	4	-	-	3
11	CT2529 Scripting Languages (Other than CSE)	IT	4	-	-	3
12	CT2531 Software Project Management (Other than CSE)	IT	4	-	-	3
13	MA2518 Elements of Stochastic Processes	BS&H	4	-	-	3
14	EG2505 Academic Communication	ENGLISH	4	-	-	3

### Open Elective - IV

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2562 Disaster Management (Other than CE)	CE	4	-	-	3
2	CE2563 Repair and Retrofitting Techniques	CE	4	-	-	3
3	EE2542 Modern Optimization Techniques	EEE	4	-	-	3
4	EE2543 Electrical Power Utilization (Other than EEE)	EEE	4	-	-	3
5	ME2553 Green Engineering	ME	4	-	-	3
6	ME2554 Non Destructive Evaluation (Other than ME)	ME	4	-	-	3
7	EC2563 Cyber Physical Systems	ECE	4	-	-	3
8	EC2508 Signals and Systems (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2521 Digital Forensics	CSE	4	-	-	3
10	CS2522 Business Intelligence & Decision Support Systems	CSE	4	-	-	3
11	IT2521 Adhoc and Sensor Networks	IT	4	-	-	3
12	CT2537 Information Retrieval Systems (Other than CSE)	IT	4	-	-	3
13	MA2514 Fuzzy Logic (Other than EEE, ME & CSE)	BS&H	4	-	-	3

L : Lecture      T : Tutorial      P : Practical

### Professional Electives

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods			No. of Credits
			per week			
			L	T	P	
		<b>Professional Elective - I</b>	4	-	-	3
	CS2506	i) C#.NET				
	CT2522	ii) Advanced Data Structures				
	CT2523	iii) Software Testing Methodologies				
	CS2507	iv) Principles of Programming Languages				
		<b>Professional Elective - II</b>	4	-	-	3
	CT2521	i) Artificial Intelligence				
	CT2529	ii) Scripting Languages				
	EC2520	iii) Microprocessors and Interfacing				
	CT2531	iv) Software Project Management				
		<b>Professional Elective - III</b>	4	-	-	3
	CS2518	i) Machine Learning				
	CT2535	ii) Internet of Things				
	CS2519	iii) NoSQL Databases				
	CS2520	iv) Software Requirements Engineering and Estimation				
		<b>Professional Elective - IV</b>	4	-	-	3
	CT2536	i) Mobile Computing				
	CT2530	ii) Image Processing				
	CT2537	iii) Information Retrieval Systems				
	MA2515	iv) Optimization Techniques				
		<b>Professional Elective - V</b>	4	-	-	3
	CS2527	i) Web Mining				
	CT2540	ii) Cloud Computing				
	CT2532	iii) Agile Software Development Process				
	CT2541	iv) Blockchain Technologies				
		<b>Professional Elective - VI</b>	4	-	-	3
	CS2528	i) Distributed Systems				
	CT2539	ii) Social Networks				
	CS2529	iii) Web Services				
	CS2530	iv) Deep Learning				

L : Lecture      T : Tutorial      P : Practical

II Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	MA2508	Discrete Mathematical Structures	3	1	-	3
2	CT2505	Data Structures	3	1	-	3
3	CT2506	Digital Logic Design	3	1	-	3
4	CT2507	Object Oriented Programming through Java	4	-	-	3
5	IT2501	UNIX and Shell Programming *	4	-	2	4
6	CT2508	Data Structures Lab	-	-	4	2
7	CT2509	Object Oriented Programming Lab	-	-	4	2
<b>Total</b>			<b>17</b>	<b>3</b>	<b>10</b>	<b>20</b>
8	NS2501	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-

II Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	MA2510	Probability and Statistics	3	1	-	3
2	EC2521	Microprocessors and Microcontrollers *	4	-	2	4
3	CT2511	Formal Languages and Automata Theory	3	1	-	3
4	CT2512	Computer Organization and Architecture	3	1	-	3
5	CT2513	Database Management Systems	3	1	-	3
6		Open Elective-I (see list of Open Electives)	4	-	-	3
7	CT2516	Database Management Systems Lab	-	-	4	2
<b>Total</b>			<b>20</b>	<b>4</b>	<b>6</b>	<b>21</b>
8	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-
9		<b>Optional Elective - I</b>	-	-	-	3
	IT2503	i) Information and Communication Technology				
	EC2508	ii) Signals and Systems				
	EE2506	iii) Basic Electrical Engineering				
10	IT2504	<b>Optional Elective - II (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

\* Integrated Course with Theory and Laboratory

L : Lecture      T : Tutorial      P : Practical



III Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CT2517	Software Engineering	3	1	-	3
2	CT2518	Compiler Design	3	1	-	3
3	CT2510	Operating Systems	3	1	-	3
4	CT2520	Web Technologies	4	-	-	3
5		Professional Elective - I	4	-	-	3
6		Open Elective-II (see list of Open Electives)	4	-	-	3
7	IT2507	Operating Systems and Compiler Design Lab	-	-	4	2
8	CT2525	Web Technologies Lab	-	-	4	2
<b>Total</b>			<b>21</b>	<b>3</b>	<b>8</b>	<b>22</b>
9		<b>Optional Elective - III</b>	-	-	-	3
	IT2508	i) Object Oriented Programming through C++				
	EC2522	ii) Data Communication				
	CE2549	iii) Building Information Modelling				
10	IT2509	<b>Optional Elective - IV (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

III Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CT2527	Design and Analysis of Algorithms	3	1	-	3
2	CT2528	Data Warehousing and Data Maining	4	-	-	3
3	IT2510	Object Oriented Analysis and Design *	4	-	2	4
4	CT2519	Computer Networks	3	1	-	3
5		Professional Elective - II	4	-	-	3
6		Open Elective-III(see list of Open Electives)	4	-	-	3
7	IT2513	Computer Networks and Data Mining Lab	-	-	4	2
<b>Total</b>			<b>22</b>	<b>2</b>	<b>6</b>	<b>21</b>
8		<b>Optional Elective - V</b>	-	-	-	3
	IT2514	i) Secure Web Technologies				
	IT2515	ii) Management Information Systems				
	ME2544	iii) Robotics				
9	IT2516	<b>Optional Elective - VI (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

\* Integrated Course with Theory and Laboratory

L : Lecture      T : Tutorial      P : Practical

#### IV Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	BA2502	Managerial Economics and Financial Analysis	3	-	-	2
2	CT2534	Big Data Analytics	4	-	-	3
3		Professional Elective - III	4	-	-	3
4		Professional Elective - IV	4	-	-	3
5		Open Elective-IV(see list of Open Electives)	4	-	-	3
6	CT2538	Big Data Analytics Lab	-	-	4	2
7	IT2522	Mini Project	-	-	4	2
8	IT2523	Internship / Industrial Training / Practical Training	-	-	-	2
<b>Total</b>			<b>19</b>	<b>-</b>	<b>8</b>	<b>20</b>
9		<b>Optional Elective - VII</b>	-	-	-	3
	CT2539	i) Social Networks				
	EC2523	ii) Assistive Technologies				
	ME2542	iii) Renewable Energy Sources				
10	IT2524	<b>Optional Elective - VIII (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

#### IV Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	4	-	-	3
2		Professional Elective - VI	4	-	-	3
3	IT2529	Project	-	-	20	10
<b>Total</b>			<b>8</b>	<b>-</b>	<b>20</b>	<b>16</b>

L : Lecture      T : Tutorial      P : Practical



**IQAC**



**PRINCIPAL**  
Seshadri Rao  
Gudlavalleru Engineering College  
Seshadri Rao Knowledge Village  
Gudlavalleru - 521 356, Krishna District. A.P.

### Open Elective - I

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2515 Elements of Civil Engineering (Other than CE)	CE	4	-	-	3
2	CE2516 Building Services	CE	4	-	-	3
3	EE2515 Electrical Materials	EEE	4	-	-	3
4	EE2516 Control Systems Engineering (Other than EEE & ECE)	EEE	4	-	-	3
5	ME2520 Elements of Manufacturing Processes (Other than ME)	ME	4	-	-	3
6	ME2521 Automotive Engineering (Other than ME)	ME	4	-	-	3
7	EC2531 Introduction to MPMC (Other than ECE/EEE/CSE/IT)	ECE	4	-	-	3
8	EC2532 Fundamentals of Communications (Other than ECE)	ECE	4	-	-	3
9	CT2514 Computer Graphics (Other than IT)	CSE	4	-	-	3
10	CT2507 Object Oriented Programming through Java (other than CSE & IT)	CSE	4	-	-	3
11	CT2515 Systems Software	IT	4	-	-	3
12	IT2502 Web Programming (Other than CSE & IT)	IT	4	-	-	3
13	MA2516 Mathematical Cryptography (Other than CSE)	BS&H	4	-	-	3
14	PH2508 Semiconductor Physics (Other than ECE)	BS&H	4	-	-	3

### Open Elective - II

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2530 Geoinformatics (other than CE)	CE	4	-	-	3
2	CE2531 Environmental Sanitation	CE	4	-	-	3
3	EE2523 Modeling & Simulation of Engineering Systems	EEE	4	-	-	3
4	EE2524 Power Systems Engineering (Other than EEE)	EEE	4	-	-	3
5	ME2532 Elements of Mechanical Transmission (Other than ME)	ME	4	-	-	3
6	ME2533 Material Handling Equipment	ME	4	-	-	3
7	EC2543 Automotive Electronics	ECE	4	-	-	3
8	EC2544 Introduction to MEMS (other than ECE)	ECE	4	-	-	3
9	CS2508 Data Science	CSE	4	-	-	3
10	CT2524 Virtual and Augmented Reality (other than IT)	CSE	4	-	-	3
11	IT2505 Open Source Software	IT	4	-	-	3
12	IT2506 Cyber Laws	IT	4	-	-	3
13	MA2517 Quality, Reliability and Operations Research	BS&H	4	-	-	3

L : Lecture      T : Tutorial      P : Practical

### Open Elective - III

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2543 Hydrology (Other than CE)	CE	4	-	-	3
2	CE2544 Planning for Sustainable Development	CE	4	-	-	3
3	EE2531 Electrical and Hybrid Vehicles	EEE	4	-	-	3
4	EE2532 Power Plant Instrumentation	EEE	4	-	-	3
5	ME2541 Material Science (Other than ME)	ME	4	-	-	3
6	ME2542 Renewable Energy Sources (Other than ME)	ME	4	-	-	3
7	EC2523 Assistive Technologies (Other than ECE)	ECE	4	-	-	3
8	EC2507 Bio-Medical Engineering (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2512 Node and Angular JS	CSE	4	-	-	3
10	CS2513 Cyber Security	CSE	4	-	-	3
11	CT2529 Scripting Languages (Other than CSE)	IT	4	-	-	3
12	CT2531 Software Project Management (Other than CSE)	IT	4	-	-	3
13	MA2518 Elements of Stochastic Processes	BS&H	4	-	-	3
14	EG2505 Academic Communication	ENGLISH	4	-	-	3

### Open Elective - IV

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2562 Disaster Management (Other than CE)	CE	4	-	-	3
2	CE2563 Repair and Retrofitting Techniques	CE	4	-	-	3
3	EE2542 Modern Optimization Techniques	EEE	4	-	-	3
4	EE2543 Electrical Power Utilization (Other than EEE)	EEE	4	-	-	3
5	ME2553 Green Engineering	ME	4	-	-	3
6	ME2554 Non Destructive Evaluation (Other than ME)	ME	4	-	-	3
7	EC2563 Cyber Physical Systems	ECE	4	-	-	3
8	EC2508 Signals and Systems (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2521 Digital Forensics	CSE	4	-	-	3
10	CS2522 Business Intelligence & Decision Support Systems	CSE	4	-	-	3
11	IT2521 Adhoc and Sensor Networks	IT	4	-	-	3
12	CT2537 Information Retrieval Systems (Other than CSE)	IT	4	-	-	3
13	MA2514 Fuzzy Logic (Other than EEE, ME & CSE)	BS&H	4	-	-	3

L : Lecture      T : Tutorial      P : Practical

### Professional Electives

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
		<b>Professional Elective - I</b>	4	-	-	3
	CT2521	i) Artificial Intelligence				
	EC2512	ii) Embedded System Design				
	CT2514	iii) Computer Graphics				
	CT2522	iv) Advanced Data Structures				
		<b>Professional Elective - II</b>	4	-	-	3
	IT2511	i) Soft Computing Techniques				
	IT2512	ii) Real Time Systems				
	CT2530	iii) Image Processing				
	CT2532	iv) Agile Software Development Process				
		<b>Professional Elective - III</b>	4	-	-	3
	IT2517	i) Machine Learning and Pattern Recognition				
	IT2518	ii) Distributed Operating Systems				
	CT2526	iii) Human Computer Interaction				
	CT2523	iv) Software Testing Methodologies				
		<b>Professional Elective - IV</b>	4	-	-	3
	IT2519	i) Business Intelligence				
	CT2536	ii) Mobile Computing				
	IT2520	iii) Multimedia Tools				
	CT2533	iv) Cryptography and Network Security				
		<b>Professional Elective - V</b>	4	-	-	3
	IT2525	i) Steganography and Biometrics				
	IT2526	ii) Parallel Computing				
	CT2524	iii) Virtual and Augmented Reality				
	IT2527	iv) E-Commerce				
		<b>Professional Elective - VI</b>	4	-	-	3
	CT2535	i) Internet of Things				
	CT2540	ii) Cloud Computing				
	CT2541	iii) Blockchain Technologies				
	IT2528	iv) Design Patterns				

L : Lecture      T : Tutorial      P : Practical

**I Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CE3901	Advanced Structural Analysis **	3	-	-	3
2	CE3902	Theory of Elasticity	3	-	-	3
3		Professional Elective - I	3	-	-	3
4		Professional Elective - II	3	-	-	3
5	BA3901	Research Methodology & IPR	3	-	-	3
6	CE3908	Advanced Structural Engineering Lab	-	-	4	2
7	CE3909	Advanced Concrete Technology Lab	-	-	4	2
<b>Total</b>			<b>15</b>	<b>-</b>	<b>8</b>	<b>19</b>
8	BA3902	Constitution of India (Audit Course)	2	-	-	

**II Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CE3910	Finite Element Methods in Structural Engineering **	3	-	-	3
2	CE3911	Structural Dynamics	3	-	-	3
3		Professional Elective - III	3	-	-	3
4		Professional Elective - IV	3	-	-	3
5	CE3918	Computer Applications in Structural Engineering Lab	-	-	4	2
6	CE3919	Structural Design Lab	-	-	4	2
7	CE3920	Mini Project with Seminar	-	-	6	3
<b>Total</b>			<b>12</b>	<b>-</b>	<b>14</b>	<b>19</b>
8	EG3901	English for Research Paper Writing (Audit Course)	2	-	-	-

**III Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	3	-	-	3
2		Open Elective	3	-	-	3
3		Dissertation Phase - I	-	-	20	10
<b>Total</b>			<b>6</b>	<b>-</b>	<b>20</b>	<b>16</b>

\*\* Project Based Course

L : Lecture      T : Tutorial      P : Practical

#### IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Dissertation Phase - II	-	-	32	16
<b>Total</b>			-	-	<b>32</b>	<b>16</b>

#### Professional Electives:

##### Professional Elective - I

MA3901 Computational Methods in Structural Engineering

CE3903 Advanced R.C. Design

CE3904 Experimental Stress Analysis

##### Professional Elective - II

CE3905 Theory of Plates and Shells

CE3906 Advancements in Concrete Technology

CE3907 Design of Pre-stressed Concrete Structures

##### Professional Elective - III

CE3912 Advanced Design of Steel Structures

CE3913 Stability of Structures

CE3914 Design of High-rise Structures

##### Professional Elective - IV

CE3915 Design of Bridge Structures

CE3916 Repairs and Retrofitting of Structures

CE3917 Ground Improvement Methods

##### Professional Elective - V

CE3921 Earthquake Resistant Design of Structures

CE3922 Design of Sub-structures

CE3923 MOOCs

#### Open Electives:

CE3924 Sustainable Development

EE3924 Energy Audit, Conservation & Management

ME3924 Rapid Prototyping

EC4924 Automotive Electronics (Other than VLSID&ES)

CS3924 Soft Computing Techniques

**I Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EE3901	Electrical Machine Modeling and Analysis	3	-	-	3
2	EE3902	Analysis of Power Electronic Converters**	3	-	-	3
3		Professional Elective - I	3	-	-	3
4		Professional Elective - II	3	-	-	3
5	EA3901	Research Methodology & IPR	3	-	-	3
6	EE3909	Power Electronics Simulation Laboratory	-	-	4	2
7	EE3910	Power Converters Laboratory	-	-	4	2
<b>Total</b>			<b>15</b>	<b>-</b>	<b>8</b>	<b>19</b>
8	BA3902	Constitution of India (Audit Course)	2	-	-	

**II Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EE3911	Switched Mode Power Conversion	3	-	-	3
2	EE3912	Power Electronic Control of Electrical Drives **	3	-	-	3
3		Professional Elective - III	3	-	-	3
4		Professional Elective - IV	3	-	-	3
5	EE3919	Electric Drives Simulation Laboratory	-	-	4	2
6	EE3920	Electric Drives Laboratory	-	-	4	2
7	EE3921	Mini Project with Seminar	-	-	6	3
<b>Total</b>			<b>12</b>	<b>-</b>	<b>14</b>	<b>19</b>
8	EG3901	English for Research Paper Writing (Audit Course)	2	-	-	-

**III Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	3	-	-	3
2		Open Elective	3	-	-	3
3		Dissertation Phase - I	-	-	20	10
<b>Total</b>			<b>6</b>	<b>-</b>	<b>20</b>	<b>16</b>

\*\* Project Based Course

L : Lecture      T : Tutorial      P : Practical



  
**PRINCIPAL**  
 Seshadri Rao  
 Gudlavalleru Engineering College  
 Seshadri Rao Knowledge Village  
 Gudlavalleru - 521 356, Krishna District. A.P.



#### IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Dissertation Phase - II	-	-	32	16
Total			-	-	32	16

#### Professional Electives:

##### Professional Elective - I

- EE3903 Modern Control Theory
- EE3904 Power Quality and Custom Power Devices EE3905
- Programmable Logic Controllers and Applications

##### Professional Elective - II

- EE3906 Artificial Intelligence Techniques
- EE3907 Renewable Energy Technologies
- EE3908 Flexible AC Transmission Systems

##### Professional Elective - III

- EE3913 Control and Integration of Renewable Energy Systems
- EE3914 Hybrid Electric Vehicles
- EE3915 Advanced Digital Control Systems

##### Professional Elective - IV

- EE3916 Advanced Digital Signal Processing
- EE3917 Applications of Power Converters
- EE3918 Microcontrollers

##### Professional Elective - V

- EE3922 Digital Signal Processing Controlled Drives
- EE3923 Smart Grid Technologies
- EE39.... MOOCs

#### Open Electives:

- CE3924 Sustainable Development
- EE3924 Energy Audit, Conservation & Management
- ME3924 Rapid Prototyping
- EC4924 Automotive Electronics (Other than VLSI&ES)
- CS3924 Soft Computing Techniques

**I Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	ME3901	Mechanical Vibrations and Acoustics **	3	-	-	3
2	ME3902	Advanced mechanics of Solids	3	-	-	3
3		Professional Elective - I	3	-	-	3
4		Professional Elective - II	3	-	-	3
5	BA3901	Research Methodology & IPR	3	-	-	3
6	ME3909	Machine Dynamics Lab	-	-	4	2
7	ME3910	Advanced Material Testing Lab	-	-	4	2
<b>Total</b>			<b>15</b>	<b>-</b>	<b>8</b>	<b>19</b>
8	BA3902	Constitution of India (Audit Course)	2	-	-	

**II Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	MA3902	Computational Methods in Engineering	3	-	-	3
2	ME3911	Advanced Finite Element Methods **	3	-	-	3
3		Professional Elective - III	3	-	-	3
4		Professional Elective - IV	3	-	-	3
5	ME3918	Modeling and Simulation Lab	-	-	4	2
6	ME3919	Computational Methods Lab	-	-	4	2
7	ME3920	Mini Project with Seminar	-	-	6	3
<b>Total</b>			<b>12</b>	<b>-</b>	<b>14</b>	<b>19</b>
8	EG3901	English for Research Paper Writing (Audit Course)	2	-	-	-

**III Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	3	-	-	3
2		Open Elective	3	-	-	3
3	ME3926	Dissertation Phase - I	-	-	20	10
<b>Total</b>			<b>6</b>	<b>-</b>	<b>20</b>	<b>16</b>

\*\* Project Based Course

L : Lecture      T : Tutorial      P : Practical

#### IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	ME3927	Dissertation Phase - II	-	-	32	16
Total			-	-	32	16

#### Professional Electives:

##### Professional Elective - I

- ME3903 Analysis and Synthesis of Mechanisms
- ME3904 Advanced Materials
- ME3905 Industrial Robotics

##### Professional Elective - II

- ME3906 Gear Engineering
- ME3907 Advanced Optimization Techniques
- ME3908 Rotor Dynamics

##### Professional Elective - III

- ME3912 Design for Manufacturing and Assembly
- ME3913 Mechatronics
- ME3914 Vehicle Dynamics

##### Professional Elective - IV

- ME3915 Signal Analysis and Condition Monitoring
- ME3916 Fracture Mechanics
- ME3917 Experimental Stress Analysis

##### Professional Elective - V

- ME3921 Tribology
- ME3922 Composite Materials
- ME3923 MOOCs

#### Open Electives:

- CE3924 Sustainable Development
- EE3924 Energy Audit, Conservation & Management
- ME3924 Rapid Prototyping
- EC4924 Automotive Electronics (Other than VLSI&ES)
- CS3924 Soft Computing Techniques

**I Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC4901	CMOS VLSI Design	3	-	-	3
2	EC4902	Advanced Microcontrollers *	3	-	-	3
3		Professional Elective - I	3	-	-	3
4		Professional Elective - II	3	-	-	3
5	BA3901	Research Methodology & IPR	3	-	-	3
6	EC4909	CMOS VLSI Design Lab	-	-	4	2
7	EC4910	Advanced Microcontrollers Lab	-	-	4	2
<b>Total</b>			<b>15</b>	<b>-</b>	<b>8</b>	<b>19</b>
8	BA3902	Constitution of India (Audit Course)	2	-	-	

**II Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC4911	VLSI System Design *	3	-	-	3
2	EC4912	Embedded System Based IoT	3	-	-	3
3		Professional Elective - III	3	-	-	3
4		Professional Elective - IV	3	-	-	3
5	EC4919	VLSI System Design Lab	-	-	4	2
6	EC4920	Embedded System and IoT Lab	-	-	4	2
7	EC4921	Mini Project with Seminar	-	-	6	3
<b>Total</b>			<b>12</b>	<b>-</b>	<b>14</b>	<b>19</b>
8	EG3901	English for Research Paper Writing (Audit Course)	2	-	-	-

**III Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	3	-	-	3
2		Open Elective	3	-	-	3
3	EC4925	Dissertation Phase - I	-	-	20	10
<b>Total</b>			<b>6</b>	<b>-</b>	<b>20</b>	<b>16</b>

\* Project Based Theory Course

L : Lecture      T : Tutorial      P : Practical



**IQAC**



**PRINCIPAL**  
Seshadri Rao  
Gudlavalleru Engineering College  
Seshadri Rao Knowledge Village  
Gudlavalleru - 521 356, Krishna District. A.P.

#### IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC4925	Dissertation Phase - II	-	-	32	16
<b>Total</b>			-	-	<b>32</b>	<b>16</b>

#### Professional Electives:

##### Professional Elective - I

- EC4903 Testing and Testability of VLSI Circuits
- EC4904 Advanced Digital Design
- EC4905 Digital Signal and Image Processing

##### Professional Elective - II

- EC4906 VLSI Signal Processing
- EC4907 System Design with Embedded Linux
- EC4908 Parallel Processing

##### Professional Elective - III

- EC4913 Advances in VLSI Design
- EC4914 Embedded Computer Architecture
- EC4915 System on Chip Design

##### Professional Elective - IV

- EC4916 VLSI Interconnects
- EC4917 Communication Buses and Interfaces
- EC4918 Advanced Digital Signal Processing

##### Professional Elective - V

- EC4922 Lower Power VLSI Design
- EC4923 Network Security and Cryptography
- ME49... MOOCs

#### Open Electives:

- CE3924 Sustainable Development
- EE3924 Energy Audit, Conservation & Management
- ME3924 Rapid Prototyping
- EC4924 Automotive Electronics (Other than VLSI&ES)
- CS3924 Soft Computing Techniques

**SESHADRI RAO GUDLAVALLERU ENGINEERING COLLEGE**  
SeshadriRao Knowledge Village, Gudlavalleru

**Department of Computer Science and Engineering**

**R20 PG – M.Tech CSE (AI&ML)**

**Course Structure**

**I Semester**

Sl. No.	Course Code	Name of the Course / Laboratory		No. of hours per week			Total Credits
				L	T	P	
1	BA3901	Research Methodologies and IPR	HSS	3	-	-	3
2	CS3901	Advanced Data Structures and Algorithm Analysis	PC	3	-	-	3
3	CS3902	Data Science	ES	3	-	-	3
4	CS3903 CS3904 CS3905	<b>Professional Elective – I</b>	PE	3	-	-	3
		1. Digital Image Processing					
		2. Ad hoc and Sensor Networks					
5	CS3906 CS3907 CS3908	<b>Professional Elective – II</b>	PE	3	-	-	3
		1. Internet of Things					
		2. Principles of Computer Security					
6	CS3909	Advanced Data Structures and Algorithm Analysis Lab	PC	-	-	4	2
		Data Science Lab	ES	-	-	4	2
8	BA3902	Constitution of India	AC	2	-	-	-
<b>Total :</b>				<b>17</b>	<b>-</b>	<b>8</b>	<b>19</b>

**II Semester**

Sl. No.	Course code	Name of the Course / Laboratory		No. of hours per week			No. of Credits
				L	T	P	
1	CS3911	MEAN Stack Technologies	PC	3	-	-	3
2	CS3912	Machine Learning	PC	3	-	-	3
3	CS3913 CS3914 CS3915	<b>Professional Elective – III</b>	PE	3	-	-	3
		1. Blockchain Technology					
		2. Data Preparation and Analysis					
4	CS3916 CS3917 CS3918	<b>Professional Elective – IV</b>	PE	3	-	-	3
		1. Cloud Computing					
		2. Quantum Computing					
5	CS3919	MEAN Stack Technologies Lab	PC	-	-	4	2
6	CS3920	Machine Learning using Python Lab	PC	-	-	4	2
7	CS3921	Mini Project with Seminar	PROJ	-	-	6	3
8	EG3901	English for Research Paper Writing	AC	2	-	-	-
<b>Total:</b>				<b>14</b>	<b>-</b>	<b>14</b>	<b>19</b>

1

**III Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of hours per week			No. of Credits	
			L	T	P		
1	CS3922 CS3923	<b>Professional Elective – V</b>	PE	3	-	-	3
		1. Deep Learning					
		2. Recommender Systems					
		3. MOOCs-1 (NPTEL/SWAYAM) 12 Week Program related to the program which is not listed in the course structure					
2		<b>Open Elective- I</b>	OE	3	-	-	3
		1. Courses Offered by Other Departments					
		2. MOOCs-2 (NPTEL/SWAYAM)-Any 12 Week Course on Engineering/ Management/ Mathematics offered by other than parent department					
3	CS3925	Dissertation (Initiated in third Semester)	PROJ	-	-	20	10
<b>Total :</b>				<b>6</b>	<b>-</b>	<b>20</b>	<b>16</b>

**IV Semester**

Sl. No.	Course Code	Name of the Course / Laboratory	No. of hours per week			No. of Credits	
			L	T	P		
1	CS3926	Dissertation (Carried out in third & fourth Semesters)	PROJ	-	-	32	16
<b>Total :</b>				<b>-</b>	<b>-</b>	<b>32</b>	<b>16</b>

<b>Open Elective-I</b>	CS3924	Soft Computing Techniques
------------------------	--------	---------------------------

  
**IQAC**

  
**PRINCIPAL**  
Seshadri Rao  
Gudlavaluru Engineering College  
Seshadri Rao Knowledge Village  
Gudlavaluru - 521 356, Krishna District. A.P.

## COURSE STRUCTURE

### I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	BA3902	Perspectives of Management	4	-	-	4
2	BA3903	Managerial Economics	4	-	-	4
3	BA3904	Accounting for Managers	3	-	1	4
4	BA3905	Business Communication & Skill Development	4	-	-	4
5	BA3906	Business Environment and Legislation	4	-	-	4
6	BA3907	Quantitative Analysis for Business Decisions	3	-	1	4
7	BA3908	Business Law	4	-	-	4
8	BA3909	Information Technology Lab for Business Management	-	-	4	2
<b>Total</b>			<b>26</b>	<b>-</b>	<b>6</b>	<b>30</b>

### II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	BA3910	Financial Management	3	-	1	4
2	BA3911	Marketing Management	4	-	-	4
3	BA3912	Human Resource Management	4	-	-	4
4	BA3913	Production & Operations Management	4	-	-	4
5	BA3914	Business Research Methods	3	-	1	4
6	BA3915	International Business	4	-	-	4
7	BA3916	Organizational Behaviour	4	-	-	4
<b>Total</b>			<b>26</b>	<b>-</b>	<b>-</b>	<b>28</b>

L : Lecture      T : Tutorial      P : Practical



### III Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits	
			L	T	P		
1	BA3917	Business Policy & Strategic Management	4	-	-	4	
2	BA3918	Logistics & Supply Chain Management	4	-	-	3	
3	BA3919	Retail Management	4	-	-	3	
4	BA3920	Business Ethics & Corporate Governance	4	-	-	3	
5		Specialisation - I	Marketing subjects common to all	4	-	-	3
6		Specialisation - II		4	-	-	3
7		Specialisation - III	Finance (or) HR	4	-	-	3
8		Specialisation - IV		4	-	-	3
<b>Total</b>			<b>32</b>	<b>-</b>	<b>-</b>	<b>25</b>	

### IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits	
			L	T	P		
1	BA3927	Entrepreneurship & Project Management	4	-	-	4	
2	BA3928	Management of Retail Operations	4	-	-	3	
3		Specialisation - V	Marketing subjects common to all	4	-	-	3
4		Specialisation - VI		4	-	-	3
5		Specialisation - VII	Finance (or) HR	4	-	-	3
6		Specialisation - VIII		4	-	-	3
7		Project Report	-	-	-	5	
8		Comprehensive Viva-Voce	-	-	-	1	
<b>Total</b>			<b>20</b>	<b>0</b>	<b>0</b>	<b>25</b>	

### Specialisations:

III Semester	IV Semester
<b>Marketing</b> BA3921 Advertising & Brand Management BA3922 Consumer Behaviour <b>Finance</b> BA3923 Security Analysis & Portfolio Mgt. BA3924 International Financial Management <b>HR</b> BA3925 Human Resources Analytics BA3926 Industrial Relations and Labour Laws	<b>Marketing</b> BA3929 Marketing of Services BA3930 Sales & Distribution Management <b>Finance</b> BA3931 Financial Derivatives BA3932 Financial Institutions and Services <b>HR</b> BA3933 Compensation Management BA3934 Management of Change and Development