SR UNIVERSITY
Department of Electrical and Electronics Engineering
B.Tech. (EEE) — R26 Course Structure

Semester	S.No	Course Name	L	R	P	C
I YEAR (I & II SEM)	1	Calculus and Differential Equations	4	0	0	4
	2	Technical and Professional Communication for Engineers	3	0	2	4
	3	Electrical and Electronics Engineering	3	0	2	4
	4	Computational Chemistry	3	0	2	4
	5	Linear Algebra and Numerical Methods	4	0	0	4
	6	Heritage, Democracy and Ecology	4	0	0	4
	7	Applied Physics	3	0	2	4
	8	Computational Biology	3	0	2	4
II SEM Only	9	Electrical Circuits and Modeling	3	1	2	5
		Hobbies, Co-Curricular and Extra-Curricular Elective (Registration)	0	0	1	0
		I Year Total (I & II SEM)	**30**	**1**	**13**	**37**
III SEM	10	Probability and Statistics	3	0	2	4
	11	AI Assisted Problem Solving Using Python	2	0	4	4
	12	Design Thinking and Entrepreneurial Innovation	2	0	4	4
	13	Electrical Power Generation and Transmission	5	0	0	5
	14	DC Machines and Transformers	3	1	2	5
		Undergraduate Research - Phase (Registration)	0	0	0	0
		III SEM Total	**15**	**1**	**12**	**22**
IV SEM	15	AC Machines	3	1	2	5
	16	Analog and Digital Electronics	4	0	2	5
	17	Control Systems	4	0	2	5
	18	Electric Vehicle Systems	4	0	2	5
	19	Applied AIML in Engineering	4	0	2	5
		IV SEM Total	**19**	**1**	**10**	**25**
V SEM	20	Power Electronics and Drives	4	0	2	5
	21	Power System Analysis	4	0	2	5
	22	Powertrain for Electric Vehicles	4	0	2	5
	23	Critical Thinking and Interpersonal Skills	2	0	4	4
	24	Hybrid Electric Vehicles	3	0	2	4
		V SEM Total	**17**	**0**	**12**	**23**
VI SEM	25	Electrical Power Distribution and Utilization	4	0	2	5
	26	Autonomous Vehicle	4	0	2	5
	27	Microprocessor and Microcontroller	4	0	2	5
	28	Quantitative Aptitude and Logical Reasoning	2	0	4	4
	29	Battery Management Systems	3	0	2	4
		VI SEM Total	**17**	**0**	**12**	**23**
	30	Program Elective	3	0	2	4
	31	Open Elective	4	0	0	4
	32	Capstone Project	0	0	16	8

VII SEM	33	Hobbies, Co-Curricular and Extra-Curricular Elective (Evaluation)	0	0	4	2
	34	Undergraduate Research - Phase (Evaluation)	0	0	4	2
		VII SEM Total	**7**	**0**	**26**	**20**
		OR				
		Industrial Project/R&D Project/Industry Internship/Start-up/Externship	0	0	32	16
		Hobbies, Co-Curricular and Extra-Curricular Elective (Evaluation)	0	0	4	2
		Undergraduate Research - Phase (Evaluation)	0	0	4	2
		VII SEM Total	**0**	**0**	**40**	**20**
VIII SEM	35	Major Project/Industrial Project/R&D Project/Industry Internship/Start-up/Externship	0	0	40	20
		VIII SEM Total	**0**	**0**	**40**	**20**

TOTAL CREDITS FOR THE PROGRAMME	**170**

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Program Elective (VII SEM)					
S.No	**Course Name**	**L**	**R**	**P**	**C**
1	EV Charging Infrastructure	3	0	2	4
2	Hydrogen and Fuel Cell Vehicles	3	0	2	4
3	Vehicle Dynamics and Control	3	0	2	4
4	Vehicle-to-Grid Technologies	3	0	2	4
5	Automotive Embedded Systems	3	0	2	4

Hobbies, Co-Curricular and Extra-Curricular (HCE) Electives					
S.No	**Course Name**	**L**	**R**	**P**	**C**
1	Community Engagement and Social Responsibility through NSS	0	0	4	2
2	Leadership and Collaboration through Student Clubs	0	0	4	2
3	Physical Education and Sports for Holistic Development	0	0	4	2
4	Experiential Learning through Internships	0	0	4	2
5	Skill Enrichment and Creativity through Hobby Activities	0	0	4	2
6	Visual Storytelling and Documentation through Photography	0	0	4	2
7	Skill Acceleration and Applied Learning through Boot Camps	0	0	4	2
8	Indian Classical Music	0	0	4	2
9	Classical and Folk-Dance Traditions of India	0	0	4	2
10	Traditional Indian Culinary Practices	0	0	4	2

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Open Electives (VII SEM)					
S.No	**Course Name**	**L**	**R**	**P**	**C**
1	Fundamentals of Database Management Systems	4	0	0	4
2	Fundamentals of Data Structures	4	0	0	4
3	Analysis and Design of Algorithms	4	0	0	4
4	Principles of Communication	4	0	0	4
5	Sensors and Transducers	4	0	0	4
6	Design for Social Impact	4	0	0	4
7	Introduction to Electric Vehicle Technologies	4	0	0	4
8	Introduction to PLC Programming	4	0	0	4
9	Operations Research	4	0	0	4
10	3D Printing	4	0	0	4
11	Renewable Energy Resources	4	0	0	4
12	Workshop Practices	4	0	0	4
13	Disaster Management	4	0	0	4
14	Pollution and Control Engineering	4	0	0	4
15	Smart Cities	4	0	0	4
16	Digital Marketing	4	0	0	4
17	Startup Launch and Ecosystems	4	0	0	4
18	Finance for Engineers	4	0	0	4
19	Space Physics	4	0	0	4
20	Nanomaterials and Technology	4	0	0	4
21	AI for Drug Discovery	4	0	0	4
22	Integral Transforms and Partial Differential Equations	4	0	0	4
23	Optimization Techniques	4	0	0	4
24	LSRW Language Skills	4	0	0	4
25	Learning How to Learn	4	0	0	4
26	German for Professionals	4	0	0	4
27	Japanese Language and Culture	4	0	0	4
28	Spanish for Global Work Place	4	0	0	4
29	NCC Foundation Course	4	0	0	4
30	NCC Basic Course	4	0	0	4
31	NCC Advanced Course	4	0	0	4
32	Food Safety and Quality Management from Farm to Fork	4	0	0	4
33	Socio-Economic Transformations in Indian Agriculture	4	0	0	4
34	Smart Farming Technologies for Doubling the Farmer Income	4	0	0	4
35	Sky Farming and Urban Horticulture Systems	4	0	0	4

Note:

- L – Lecture, R – Recitation, P – Practical/Lab, C – Credits. Credits are auto-calculated as C = L + R
- Major Course Credits can differ based on the Course (4 OR 5 CREDITS preferable).
- Maintain Maximum 30 Class+Lab hours per week per student.
- Final Evaluation of the HCE/UGR Course will be done in VII Semester only (Registration in II/III
- 1 Lecture Hour = 1 Credit; 1 Recitation Hour = 1 Credit; 1 Lab Hour = 0.5 Credit.
- Programme composition: Major – 10; Specialization Core – 3; Specialization Elective – 2; Program