



DAYANANDA SAGAR
UNIVERSITY

Dayananda Sagar University

School of Engineering

Devarakagalahalli, Harohalli,

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

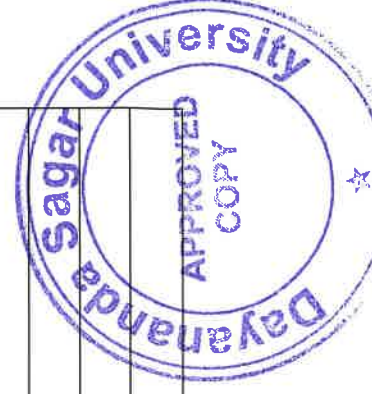
SCHEME AND SYLLABUS

M.Tech. PROGRAMME- 2024 BATCH

Embedded Systems

Definitions / Descriptions

Definition of Credit:	
1 Hour Lecture (L) Per Week	01 Credit
1 Hour Tutorial (T) Per Week	01 Credit
1 Hour Practical (P) Per Week	0.5 Credit
1 Hour Project (I) Per Week	0.5 Credit
Course code and Definition:	
BSC	Basic Science Courses
ESC	Engineering Science Courses
HSMC	Humanities and Social Sciences including Management Courses
IPCC	Integrated Professional Core Course
PCC	Professional Core Courses
PEC	Professional Elective Courses
OEC	Open Elective Courses
SEC	Skill Enhancement Courses
INT	Internship
PROJ	Project Work



APPROVED
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Implementation of National Education Policy (NEP) 2020 for the M.Tech students of Batch 2023-25

The implementation of Curriculum follows NEP 2020 and addresses the following features and categories of courses:

1. Student Centric flexible curriculum.
2. Inter-disciplinary Courses,
3. Ability Enhancement Courses,
4. Skill Enhancement Courses,
5. Value Added Courses,
6. Product Design and Development
7. Internship (Rural Internship, Industry Internship, Research/Development Internship)



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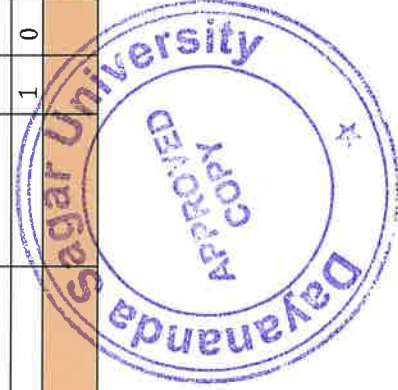
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SCHEME 2024 - 2026 Batch

M.Tech Embedded Systems -Department of ECE

I SEMESTER

Sl.No	Course Code	Course Name	Teaching Department	Teaching Hours / Week				Examination				Credits
				Lecture	Tutorial	Practical	Project	Duration in Hours	CIE Marks	SEE Marks	Total Marks	
1	24ESE5101	Advanced Microcontroller and Programming	ECE	3	0	0	0	03	60	40	100	3
2	24ESE5102	Digital CMOS VLSI Design	ECE	3	0	0	0	03	60	40	100	3
3	24ESE51XX	PEC 1	ECE	3	0	0	0	03	60	40	100	3
4	24ESE51XX	PEC 2	ECE	3	0	0	0	03	60	40	100	3
5	24ESE5103	Advanced Microcontroller and programming lab	ECE	0	0	4	0	02	60	40	100	2
6	24ESE5104	Digital CMOS VLSI Design Lab	ECE	0	0	4	0	02	60	40	100	2
7	24ESE5105	Research Methodology and IPR		2	0	0	0	02	60	40	100	2
8	24ESE5106	Model based design		1	0	2	0	02	100	*	*	2
		Total										20





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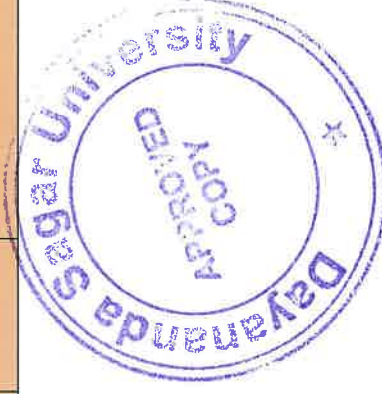
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II SEMESTER											
Sl.No	Course Code	Course Name	Teaching Department	Teaching Hours / Week				Examination			
				Lecture	Tutorial	Practical	Project	Duration in Hours	CIE Marks	SEE Marks	Total Marks
1	24ESE5201	Reconfigurable System Design	ECE	3	0	0	0	03	60	40	100
2	24ESE5202	Real Time Operating System	ECE	3	0	0	0	03	60	40	100
3	24ESE52XX	PEC 3	ECE	3	0	0	0	03	60	40	100
4	24ESE52XX	PEC 4	ECE	3	0	0	0	03	60	40	100
5	24ESE5203	Real Time Operating System Lab	ECE	0	0	4	0	02	60	40	100
6	24ESE5204	Reconfigurable System Design Lab	ECE	0	0	4	0	02	60	40	100
7	24ESE5205	MOOC/NPTEL		1	0	2	0	02	100		2
8	24ESE5206	Seminar	ECE	2	0	0	0	04			100
		Total									20





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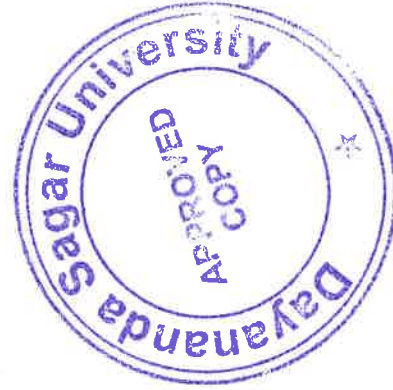
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III SEMESTER											
Sl.No	Course Code	Course Name	Teaching Department	Teaching Hours / Week				Examination			
				Lecture	Tutorial	Practical	Project	Duration in Hours	CIE Marks	SEE Marks	Total Marks
				L	T	P	J				
1	24ESE63XX	PEC 5	ECE	0	0	2	0	03	60	40	100
2	24OEXXX	OE	ECE	0	0	2	0	03	60	40	100
3	24ESE6301	Industrial Internship	ECE	0	0	0	0	03	60	40	100
4	24ESE6302	Project Phase I	ECE	0	0	0	16	03	0	100	100
		Total									16





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IV SEMESTER											
Sl.No	Course Code	Course Name	Teaching Department	Teaching Hours / Week				Examination			
				Lecture	Tutorial	Practical	Project	Duration in Hours	CIE Marks	SEE Marks	Total Marks
1	24ESE6401	Project Phase II/DISSERTATION-II	ECE	0	0	36	0	36	60	40	100
		Total									16





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Professional Elective Courses

S. No	Course Type	Subject	Course Code
1	PEC 1	1. Embedded System for Robotics	24ESE5107
		2. Modern Automotive Electronics Systems	24ESE5108
2	PEC 2	1. Embedded Machine Learning	24ESE5109
		2. Linux System	24ESE5110
3	PEC 3	1. PLC SCADA	24ESE5207
		2. Advanced Control Systems	24ESE5208
		3. Embedded Systems in Health Care	24ESE5209
4	PEC 4	1. Industrial IoT (IIOT)	24ESE52010
		2. Electronic Hardware System Design	24ESE52011
		3. In Vehicle Network	24ESE52012
5	PEC 5	1. Linux Device Driver	24ESE6303
		2. Hardware Software Codesign	24ESE6304
6	OE	1. Industrial Safety	24OE0027
		2. Operations Research	24OE0028

