

DAYANANDA SAGAR UNIVERSITY

ShavigeMalleshwaraHills,KumaraswamyLayout,

Bengaluru - 560111, Karnataka.

SCHOOL OF ENGINEERING



SCHEME & SYLLABUS

FOR

MASTER OF TECHNOLOGY (M.Tech) – 2020 ELECTRONICS & COMMUNICATION ENGINEERING SPECIALIZATION: EMBEDDED SYSTEMS

(With Effect from 2020-21)

SEMESTER I

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	$\frac{CR}{AU}$	SCHEME OF TEACHING				
					L	T	P	S/P	C
1	201	20ESE5101	LINEAR ALGEBRA AND OPTIMIZATION TECHNIQUES	CR	03	01	-	-	04
2	201	20ESE5102	MODERN AUTOMOTIVE SYSTEMS	CR	03	-	-	-	03
3	201	20ESE5103	AUTOMOTIVE EMBEDDED SYSTEM	CR	03	-	-	-	03
4	201	20ESE5XXX	DEPARTMENT ELECTIVE – I	CR	03	-	02	-	04
5	201	20ESE5XXX	DEPARTMENT ELECTIVE – II	CR	03	-	02	-	04
6	201	20ESE5104	AUTOMOTIVE SYSTEM LAB	CR	-	-	04	-	02
7	201	20ESE5105	AUTOMOTIVE EMBEDDED SYSTEMS LAB	CR	-	-	04	-	02
					15	01	12	-	22

SEMESTER II

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	$\frac{CR}{AU}$	SCHEME OF TEACHING				
					L	T	P	S/P	C
1	201	20ESE5201	AUTOMOTIVE CONTROL AND SIMULATION	CR	03	-	-	-	03
2	201	20ESE5202	AUTOMOTIVE POWER ELECTRONICS AND DRIVES	CR	03	-	-	-	04
3	201	20ESE5203	AUTOMOTIVE SOFTWARE ARCHITECTURE	CR	03	-	02	-	03
4	201	20ESE5XXX	DEPARTMENT ELECTIVE – III	CR	03	-	02	-	04
5	201	20ESE5XXX	DEPARTMENT ELECTIVE – IV	CR	03	-	02	-	04
6	201	20ESE5204	CONTROL AND SIMULATION LAB	CR	-	-	04	-	02
7	201	20ESE5205	AUTOMOTIVE POWER ELECTRONICS LAB	CR	-	-	04	-	02
					15	-	14	-	22

CR – CREDIT, AU – AUDIT, L – LECTURE, T – TUTORIAL, P – PRACTICAL, S/P – SEMINAR/PROJECT, C – NO. OF CREDITS,

SEMESTER III

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	$\frac{CR}{AU}$	SCHEME OF TEACHING				
					L	T	P	S/P	C
1	201	20ESE5XXX	DEPARTMENT ELECTIVE – V	CR	03	-	02	-	04
2	201	20MOE53XX	OPEN ELECTIVE	CR	03	-	-	-	03
3	201	20ESE5301	DISSERTATION PHASE 1	CR	-	-	06	-	03
					06	-	08	-	10

SEMESTER IV

SL	PROGRAM CODE	COURSE CODE	COURSE TITLE	$\frac{CR}{AU}$	SCHEME OF TEACHING				
					L	T	P	S/P	C
1	201	20ESE5XX X	DEPARTMENT ELECTIVE – VI	CR	03	-	02	-	04
2	201	20ESE5401	DISSERTATION PHASE 2	CR	-	-	12	-	06
					03	-	14	-	10

CR – CREDIT, AU – AUDIT, L – LECTURE, T – TUTORIAL, P – PRACTICAL, S/P – SEMINAR/PROJECT, C – NO. OF CREDITS,

DEPARTMENTAL ELECTIVES

I SEM

SL	COURSE CODES	COURSE TITLE
1	20ESE5131	AUTOMOTIVE VEHICLE NETWORK
2	20ESE5132	REAL TIME EMBEDDED SYSTEMS

II

SEM

SL	COURSE CODES	COURSE TITLE
1	20ESE5231	EMBEDDED ARCHITECTURE AND TECHNOLOGY
2	20ESE5232	ADVANCED EMBEDDED SYSTEMS

III

SEM

SL	COURSE CODES	COURSE TITLE
1	20ESE5331	SAFETY CRITICAL SYSTEMS
2	20ESE5332	INSTRUMENT CLUSTER AND INFOTAINMENT SYSTEMS
3	20ESE5333	ENGINE MANAGEMENT SYSTEMS

IV

SEM

SL	COURSE CODES	COURSE TITLE
1	20ESE5431	PROTOCOL NETWORKS AND WIRELESS COMMUNICATION
2	20ESE5432	PRODUCT MANAGEMENT
3	20ESE5433	INTERNET OF THING AND SMART VEHICLE
4	20ESE5434	WEB AND MOBILE APPLICATIONS

OPEN ELECTIVES

SL	COURSE CODE	COURSE TITLE	OFFERING DEPARTMENT
1	20MOE5301	DIGITAL MARKETING	COMPUTER SCIENCE & ENGINEERING
2	20MOE5302	PRODUCT LIFE CYCLE MANAGEMENT	MECHANICAL ENGINEERING
3	20MOE5303	PROJECT MANAGEMENT	ELECTRONICS & COMMUNICATION ENGINEERING