



CURRICULUM

UG & PG

(REGULATIONS 2023)

ACADEMIC YEAR 2023-2024

INDEX

S.No.	Description	Page No.
1.	Curriculum of B.E. Civil Engineering	3
2.	Curriculum of B.E. Mechanical Engineering	11
3.	Curriculum of B.E. Aeronautical Engineering	19
4.	Curriculum of B.E. Aerospace Engineering	27
5.	Curriculum of B.E. Automobile Engineering	35
6.	Curriculum of B.E. Mechatronics Engineering	44
7.	Curriculum of B.E. Electronics And Communication Engineering	52
8.	Curriculum of B.E. Electrical And Electronics Engineering	60
9.	Curriculum of B.E. Computer Science And Engineering	67
10.	Curriculum of B.E. Computer Science And Engineering (Cyber Security)	74
11.	Curriculum of B.Tech Information Technology	81
12.	Curriculum of B.Tech Artificial Intelligence And Data Science	88
13.	Curriculum of B.Tech Fashion Technology	95
14.	Curriculum of M.E. Aeronautical Engineering	103
15.	Curriculum of M.E. Manufacturing Engineering	107
16.	Curriculum of M.E. Communication Systems	110
17.	Curriculum of M.E. Power Electronics And Drives	115
18.	Curriculum of M.E. Computer Science And Engineering	119

B.E. CIVIL ENGINEERING

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
	23IP101	Induction Programme		-	-	-	-	-
THEORY								
1	23HS101	Essential Communication	HSMC	3	0	0	3	3
2	23MA101	Matrices and Calculus	BSC	3	0	0	3	3
3	23AD101	Programming in Python	ESC	3	0	0	3	3
4	23HS102	Heritage of Tamils	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
5	23PH111	Engineering Physics	BSC	3	0	2	5	4
6	23CY111	Engineering Chemistry	BSC	3	0	2	5	4
PRACTICALS								
7	23AD121	Python Programming Laboratory	ESC	0	0	4	4	2
8	23HS121	Communication Skills Laboratory	HSMC	0	0	2	2	1
9	23HS122	General Clubs / Technical Clubs / NCC / NSS / Extension Activities	HSMC	0	0	2	2	1*
TOTAL				16	0	12	28	21

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23HS201/ 23HS202	Professional English / Foreign Language	HSMC	3	0	0	3	3
2	23MA203	Statistics and Numerical Methods	BSC	3	1	0	4	4
3	23PH201	Physics for Civil Engineering	BSC	3	0	0	3	3
4	23CE201	Building Materials	PCC	3	0	0	3	3
5	23HS203	Tamils and Technology	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
6	23EE282	Basic Electrical, Electronics and Instrumentation Engineering	ESC	2	0	2	4	3
7	23ME211	Engineering Graphics	ESC	3	0	2	5	4
PRACTICALS								
8	23ME221	Engineering Practices Laboratory	ESC	0	0	4	4	2
9	23CE221	Materials Testing Laboratory	PCC	0	0	4	4	2
10	23HS221	Soft Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	33	25

*The grades earned by the students will be recorded in the Mark Sheet, however the same shall not be considered for the computation of CGPA

SEMESTER III

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA302	Transforms and Partial Differential Equations	BSC	3	1	0	4	4
2	23CE301	Mechanics of Materials I	PCC	3	0	0	3	3
3	23CE302	Fluid Mechanics & Hydraulic Engineering	PCC	3	0	0	3	3
4	23HS301	Universal Human Values and Ethics	HSMC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23CE311	Surveying	PCC	3	0	2	5	4
6	23CE312	Advanced Construction and Concrete Technology	PCC	3	0	2	5	4
PRACTICALS								
7	23CE321	Mechanics of Materials Laboratory	PCC	0	0	4	4	2
8	23CE322	Hydraulic Engineering Laboratory	PCC	0	0	4	4	2
9	23ES391	Presentation Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	33	25

SEMESTER IV

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA402	Optimization Techniques	BSC	3	1	0	4	4
2	23CE401	Soil Mechanics	PCC	3	0	0	3	3
3	23CE402	Water supply & Waste Water Engineering	PCC	3	0	0	3	3
4	23CE403	Mechanics of Materials II	PCC	3	0	0	3	3
5	23CE0xx	Department Elective 1	DEC	3	0	0	3	3
6	23CE0xx	Department Elective 2	DEC	3	0	0	3	3
PRACTICALS								
7	23CE421	Soil Mechanics Laboratory	PCC	0	0	4	4	2
8	23CE422	Water & Waste water Analysis Laboratory	PCC	0	0	4	4	2
9	23ES491	Aptitude & Logical reasoning 1	EEC	0	0	2	2	*1
10	23CE423	In-plant training	EEC	0	0	2	2	1
TOTAL				18	1	12	31	24

SEMESTER V

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23RE501	Research Methodology & IPR	ESC	2	0	0	2	2
2	23CE501	Design of Reinforced Concrete Elements	PCC	3	0	0	3	3
3	23CE502	Structural Analysis I	PCC	3	0	0	3	3
4	23CE0xx	Department Elective 3	DEC	3	0	0	3	3
5	23CE0xx	Department Elective 4	DEC	3	0	0	3	3
6	23NE9xx	Non Department Elective 1 (Emerging Technology)	NEC	3	0	0	3	3
PRACTICALS								
7	23CE521	Building Drawing and Detailing Laboratory	PCC	0	0	4	4	2
8	23CE522	Survey Camp	PCC	0	0	2	2	1
9	23CE523	Mini Project	EEC	0	0	4	4	2
10	23ES591	Aptitude & Logical reasoning 2	EEC	0	0	2	2	*1
TOTAL				17	0	12	29	22

SEMESTER VI

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23CE601	Design of Steel Structures	PCC	3	0	0	3	3
2	23CE602	Structural Analysis II	PCC	3	0	0	3	3
3	23CE0xx	Department Elective 5	DEC	3	0	0	3	3
4	23CE0xx	Department Elective 6	DEC	3	0	0	3	3
5	23NE9xx	Non Department Elective 2 (Management /safety)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23CE611	Environmental Sciences and Engineering	ESC	3	0	2	5	4
PRACTICALS								
7	23CE621	Project Work - Phase 1	EEC	0	0	4	4	2
8	23CE622	Technical Training	EEC	0	0	2	2	1
9	23CE623	Technical Seminar - 1	ESC	0	0	2	2	1
TOTAL				18	0	10	28	23

SEMESTER VII

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23NE9xx	Non Department Elective 3 (Engineering Management and Law)	NEC	3	0	0	3	3
2	23CE701	Repair & Rehabilitation of Structures	PCC	3	0	0	3	3
3	23CE702	Highways, Railways, Air ports & Harbour Engineering	PCC	3	0	0	3	3
4	23CE703	Comprehension	EEC	2		0	2	2
THEORY AND PRACTICALS								
5	23CE711	Estimation Costing & Valuation Engineering	PCC	3	0	2	5	4
PRACTICALS								
6	23CE721	Project Work - Phase 2	EEC	0	0	6	6	3
7	23CE722	Technical Seminar - 2	ESC	0	0	4	4	2
TOTAL				14	0	12	26	20

SEMESTER VIII

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23CE821/ 23CE822	Internship/ Capstone Project	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

TOTAL CREDITS: 170

DEPARTMENT ELECTIVE COURSES: VERTICALS

VERTICAL 1: STRUCTURES

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CE031	Concrete Structures	DEC	3	0	0	3	3
2	23CE032	Steel Structures	DEC	3	0	0	3	3
3	23CE033	Prestressed Structures	DEC	3	0	0	3	3
4	23CE034	Prefabricated Structures	DEC	3	0	0	3	3
5	23CE035	Composite Structures	DEC	3	0	0	3	3
6	23CE036	Dynamics & Earthquake Resistant Structures	DEC	3	0	0	3	3
7	23CE037	Finite Element Method	DEC	3	0	0	3	3

VERTICAL 2: GEOTECHNICAL

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CE038	Ground Improvement Techniques	DEC	3	0	0	3	3
2	23CE039	Foundation Engineering	DEC	3	0	0	3	3
3	23CE040	Pile Foundation	DEC	3	0	0	3	3
4	23CE041	Tunneling Engineering	DEC	3	0	0	3	3
5	23CE042	Earth Retaining Structures	DEC	3	0	0	3	3
6	23CE043	Soil Dynamics & Machine Foundations	DEC	3	0	0	3	3
7	23CE044	Geo environmental Engineering	DEC	3	0	0	3	3

VERTICAL 3: TRANSPORTATION & INFRASTRUCTURES

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CE045	Highway & Railway Engineering	DEC	3	0	0	3	3
2	23CE046	Urban Planning & Development	DEC	3	0	0	3	3
3	23CE047	Airports & Harbours	DEC	3	0	0	3	3
4	23CE048	Smart Cities	DEC	3	0	0	3	3
5	23CE049	Pavement Engineering	DEC	3	0	0	3	3
6	23CE050	Traffic Engineering & Management	DEC	3	0	0	3	3
7	23CE051	Intelligent Transport Systems	DEC	3	0	0	3	3

VERTICAL 4: WATER RESOURCES

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CE052	Water Quality and Management	DEC	3	0	0	3	3
2	23CE053	Ground Water Engineering	DEC	3	0	0	3	3
3	23CE054	Watershed Conservation and Management	DEC	3	0	0	3	3
4	23CE055	Integrated Water Resources Management	DEC	3	0	0	3	3
5	23CE056	Hydrology and Irrigation Engineering	DEC	3	0	0	3	3
6	23CE057	Water Resources system Engineering	DEC	3	0	0	3	3
7	23CE058	Urban Water Infrastructure	DEC	3	0	0	3	3

VERTICAL 5: GEO INFORMATICS

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CE059	Total Station and GPS Surveying	DEC	3	0	0	3	3
2	23CE060	Remote Sensing Concepts	DEC	3	0	0	3	3
3	23CE061	Satellite Image Processing	DEC	3	0	0	3	3
4	23CE062	Cartography and GIS	DEC	3	0	0	3	3
5	23CE063	Photogrammetry	DEC	3	0	0	3	3
6	23CE064	Hydrographic Surveying	DEC	3	0	0	3	3
7	23CE065	Airborne and Terrestrial Laser Mapping	DEC	3	0	0	3	3

VERTICAL 6: CONSTRUCTION TECHNIQUES & PRACTICES

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CE066	Formwork Engineering	DEC	3	0	0	3	3
2	23CE067	Sustainable Construction and Lean Construction	DEC	3	0	0	3	3
3	23CE068	Construction Management & Safety	DEC	3	0	0	3	3
4	23CE069	Construction Techniques Equipment & Practices	DEC	3	0	0	3	3
5	23CE070	Energy Efficient Buildings	DEC	3	0	0	3	3
6	23CE071	Rainwater Harvesting	DEC	3	0	0	3	3

VERTICAL 7: ENVIRONMENT

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CE072	Climate Change Adaptation and Mitigation	DEC	3	0	0	3	3
2	23CE073	Air and Noise Pollution Control Engineering	DEC	3	0	0	3	3
3	23CE074	Environmental Impact Assessment	DEC	3	0	0	3	3
4	23CE075	Solid and Hazardous Waste Management	DEC	3	0	0	3	3
5	23CE076	Environmental Health and Safety	DEC	3	0	0	3	3
6	23CE077	Environmental Policy and Legislations	DEC	3	0	0	3	3
7	23CE078	Environmental Quality Monitoring	DEC	3	0	0	3	3

VERTICAL 8: OCEAN ENGINEERING

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CE079	Ocean Wave Dynamics	DEC	3	0	0	3	3
2	23CE080	Marine Geotechnical Engineering	DEC	3	0	0	3	3
3	23CE081	Coastal Engineering	DEC	3	0	0	3	3
4	23CE082	Port and Harbour Engineering	DEC	3	0	0	3	3
5	23CE083	Coastal Hazards and Mitigation	DEC	3	0	0	3	3
6	23CE084	Coastal Zone Management and Remote Sensing	DEC	3	0	0	3	3
7	23CE085	Offshore Structures	DEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE - EMERGING TECHNOLOGY

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23NE971	Quantum Technology	NEC	3	0	0	3	3
2	23NE972	Block Chain Technologies	NEC	3	0	0	3	3
3	23NE973	Big Data Analytics	NEC	3	0	0	3	3
4	23NE974	Augmented Reality / Virtual Reality	NEC	3	0	0	3	3
5	23NE975	Artificial Intelligence and Machine Learning Fundamentals	NEC	3	0	0	3	3
6	23NE976	IoT concepts and applications	NEC	3	0	0	3	3
7	23NE977	Data Science and Fundamentals	NEC	3	0	0	3	3
8	23NE978	Remote Sensing Concepts	NEC	3	0	0	3	3
9	23NE979	Urban Agriculture	NEC	3	0	0	3	3
10	23NE980	Electric Vehicle Technology	NEC	3	0	0	3	3
11	23NE981	Nanotechnology	NEC	3	0	0	3	3
12	23NE982	Functional Materials	NEC	3	0	0	3	3
13	23NE983	Introduction to Renewable Energy Systems	NEC	3	0	0	3	3
14	23NE984	Integrated Energy Planning for Sustainable Development	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE - MANAGEMENT COURSES

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS971	Total Quality Management	NEC	3	0	0	3	3
2	23HS972	Engineering Economics and Financial Accounting	NEC	3	0	0	3	3
3	23HS973	Engineering Management and Law	NEC	3	0	0	3	3
4	23HS974	Knowledge Management	NEC	3	0	0	3	3
5	23HS975	Industrial Management	NEC	3	0	0	3	3
6	23HS976	Entrepreneurship and Business Opportunities	NEC	3	0	0	3	3
7	23HS977	Modern Business Administration and Financing	NEC	3	0	0	3	3
8	23HS978	Essentials of Management	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE - SAFETY RELATED COURSES

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS979	Disaster Management	NEC	3	0	0	3	3
2	23HS980	Industrial Safety	NEC	3	0	0	3	3
3	23HS981	Automotive Safety	NEC	3	0	0	3	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	HSMC	BSC	ESC	PCC	DEC	NEC	EEC	Total
Semester I	5	11	5					21
Semester II	4	7	9	5				25
Semester III	3	4		18				25
Semester IV		4		13	6		1	24
Semester V			2	9	6	3	2	22
Semester VI			5	6	6	3	3	23
Semester VII			2	10		3	5	20
Semester VIII							10	10
KCG - Civil	13	25	23	61	18	9	24	170

B.E. MECHANICAL ENGINEERING

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
	23IP101	Induction Programme		-	-	-	-	-
THEORY								
1	23HS101	Essential Communication	HSMC	3	0	0	3	3
2	23MA101	Matrices and Calculus	BSC	3	0	0	3	3
3	23AD101	Programming in Python	ESC	3	0	0	3	3
4	23HS102	Heritage of Tamils	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
5	23PH111	Engineering Physics	BSC	3	0	2	5	4
6	23CY111	Engineering Chemistry	BSC	3	0	2	5	4
PRACTICALS								
7	23AD121	Python Programming Laboratory	ESC	0	0	4	4	2
8	23HS121	Communication Skills Laboratory	HSMC	0	0	2	2	1
9	23HS122	General Clubs / Technical Clubs / NCC / NSS / Extension Activities	HSMC	0	0	2	2	1*
TOTAL				16	0	12	28	21

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23HS201/ 23HS202	Professional English / Foreign Language	HSMC	3	0	0	3	3
2	23MA203	Statistics and Numerical Methods	BSC	3	1	0	4	4
3	23PH206	Material Science	BSC	3	0	0	3	3
4	23ME201	Applied Mechanics	PCC	3	0	0	3	3
5	23HS203	Tamils and Technology	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
6	23EE281	Basic Electrical and Electronics Engineering	ESC	2	0	2	4	3
7	23ME211	Engineering Graphics	ESC	3	0	2	5	4
PRACTICALS								
8	23ME221	Engineering Practices Laboratory	ESC	0	0	4	4	2
9	23ME222	Applied Mechanics Laboratory	PCC	0	0	4	4	2
10	23HS221	Soft Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	33	25

SEMESTER - III

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA302	Transforms and Partial Differential Equations	BSC	3	1	0	4	4
2	23ME301	Engineering Thermodynamics	PCC	3	0	0	3	3
3	23ME302	Engineering Metallurgy	PCC	3	0	0	3	3
4	23HS301	Universal Human Values and Ethics	HSMC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23ME311	Manufacturing Processes	PCC	3	0	2	5	4
6	23ME312	Fluid Mechanics and Fluid Machinery	PCC	3	0	2	5	4
PRACTICALS								
7	23ME321	Computer Aided Machine Drawing Laboratory	PCC	0	0	4	4	2
8	23ES391	Presentation Skills	EEC	0	0	2	2	1*
TOTAL				18	1	10	29	23

SEMESTER - IV

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA402	Optimization Techniques	BSC	3	1	0	4	4
2	23ME401	Thermal Engineering	PCC	3	0	0	3	3
3	23ME402	Theory of Machines	PCC	3	0	0	3	3
4		Department Elective 1	DEC	3	0	0	3	3
5		Department Elective 2	DEC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23ME411	Strength of Materials for Mechanical Sciences	PCC	3	0	2	5	4
PRACTICALS								
7	23ME421	Thermal Engineering Laboratory	PCC	0	0	4	4	2
8	23ME422	Kinematics and Dynamics Laboratory	PCC	0	0	4	4	2
9	23ES491	Aptitude & Logical Reasoning - 1	EEC	0	0	2	2	1*
10	23ME423/ 23ME424	Mini Project -1/ In-plant Training - 1	EEC	0	0	0	0	1
TOTAL				18	1	12	31	25

SEMESTER - V

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23RE501	Research Methodology & IPR	ESC	2	0	0	2	2
2	23ME501	Design of Machine Elements	PCC	3	0	0	3	3
3	23ME502	Heat and Mass Transfer	PCC	3	0	0	3	3
4		Department Elective 3	DEC	3	0	0	3	3
5		Non Department Elective 1 (Emerging Technology)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23ME511	Engineering Metrology and Measurements	PCC	3	0	2	5	4
PRACTICALS								
7	23ME521	Heat Transfer Laboratory	PCC	0	0	4	4	2
8	23ME522/ 23ME523	Mini Project - 2 / In-plant Training - 2	EEC	0	0	4	4	2
9	23ES591	Aptitude & Logical Reasoning - 2	EEC	0	0	2	2	1*
TOTAL				17	0	12	29	22

SEMESTER VI

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Department Elective 4	DEC	3	0	0	3	3
2		Department Elective 5	DEC	3	0	0	3	3
3		Non Department Elective 2 (Management /Safety Courses)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
4	23CE611	Environmental Sciences and Engineering	ESC	3	0	2	5	4
5	23ME611	CAD/CAM	PCC	3	0	2	5	4
6	23ME612	Finite Element Analysis	PCC	3	0	2	5	4
PRACTICALS								
7	23ME621	Project Work - Phase 1	EEC	0	0	4	4	2
8	23ME622	Technical Training	EEC	0	0	2	2	1
9	23ES623	Technical Seminar - 1	ESC	0	0	2	2	1
TOTAL				18	0	14	32	25

SEMESTER VII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Department Elective 6	DEC	3	0	0	3	3
2		Non Department Elective 3 (Management Courses)	NEC	3	0	0	3	3
3	23ME701	Fluid Power Automation	PCC	3	0	0	3	3
4	23ME702	Comprehension	EEC	2		0	2	2
THEORY AND PRACTICALS								
5	23ME711	Mechatronics & IOT	PCC	3	0	2	5	4
PRACTICALS								
6	23ME721	Project Work - Phase 2	EEC	0	0	6	6	3
7	23ME722	Technical Seminar - 2	ESC	0	0	4	4	2
TOTAL				14	0	12	26	20

SEMESTER VIII

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23ME821/23ME822	Internship / Capstone Project	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

TOTAL CREDITS: 171

DEPARTMENT ELECTIVE COURSES: VERTICALS

VERTICAL 1: MANUFACTURING ENGINEERING

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23ME031	Additive Manufacturing	DEC	3	0	0	3	3
2	23ME032	Digital Manufacturing and IOT	DEC	3	0	0	3	3
3	23ME033	Lean Manufacturing	DEC	3	0	0	3	3
4	23ME034	Non-traditional Machining Processes	DEC	3	0	0	3	3
5	23ME035	Process Planning and Cost Estimation	DEC	3	0	0	3	3
6	23ME036	Failure Analysis and NDT Techniques	DEC	3	0	0	3	3
7	23ME037	Design for Manufacturing	DEC	3	0	0	3	3
8	23ME038	Quality Control and Reliability Engineering	DEC	3	0	0	3	3

VERTICAL 2: COMPUTATIONAL ENGINEERING

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23ME039	Design Concepts in Engineering	DEC	3	0	0	3	3
2	23ME040	Design of Transmission Systems	DEC	3	0	0	3	3
3	23ME041	Product Design and Development	DEC	3	0	0	3	3
4	23ME042	Computational Fluid Dynamics and Heat Transfer	DEC	3	0	0	3	3
5	23ME043	Machine Learning for Intelligent Systems	DEC	3	0	0	3	3
6	23ME044	Mechanical System Design	DEC	3	0	0	3	3
7	23ME045	Computational Bio-Mechanics	DEC	3	0	0	3	3
8	23ME046	Ergonomics in Design	DEC	3	0	0	3	3

VERTICAL 3: THERMAL SCIENCES

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23ME047	Power Plant Engineering	DEC	3	0	0	3	3
2	23ME048	Refrigeration and Air-Conditioning	DEC	3	0	0	3	3
3	23ME049	Renewable Energy Technologies	DEC	3	0	0	3	3
4	23ME050	Bio-energy Conversion Technologies	DEC	3	0	0	3	3
5	23ME051	Thermal Management of Batteries and Fuel Cells	DEC	3	0	0	3	3
6	23ME052	Advanced Internal Combustion Engineering	DEC	3	0	0	3	3
7	23ME053	Energy Storage Devices	DEC	3	0	0	3	3
8	23ME054	Energy Conservation in Industries	DEC	3	0	0	3	3

VERTICAL 4: MODERN MOBILITY SYSTEMS

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23ME055	Hybrid and Electric Vehicle Technology	DEC	3	0	0	3	3
2	23ME056	Energy Storage and Management System for Electric Vehicles	DEC	3	0	0	3	3
3	23ME057	Intelligent and Autonomous Vehicle	DEC	3	0	0	3	3
4	23ME058	Vehicle Dynamics and Control	DEC	3	0	0	3	3
5	23ME059	Electric Vehicle Design, Modeling and Simulation	DEC	3	0	0	3	3
6	23ME060	Vehicle Health Monitoring, Maintenance and Safety	DEC	3	0	0	3	3
7	23ME061	Conventional and Futuristic Vehicle Technology	DEC	3	0	0	3	3
8	23ME062	Automotive Materials, Components, Design & Testing	DEC	3	0	0	3	3

VERTICAL 5: ROBOTICS AND AUTOMATION

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23ME063	Sensors and Transducers	DEC	3	0	0	3	3
2	23ME064	Electrical Drives and Actuators	DEC	3	0	0	3	3
3	23ME065	Robotics	DEC	3	0	0	3	3
4	23ME066	Robot Operating System and Programming	DEC	3	0	0	3	3
5	23ME067	Autonomous Robots	DEC	3	0	0	3	3
6	23ME068	Robotics in Manufacturing and Automation	DEC	3	0	0	3	3
7	23ME069	Industrial Automation	DEC	3	0	0	3	3
8	23ME070	Drone Technologies	DEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 1 - EMERGING TECHNOLOGY

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23NE971	Quantum Technology	NEC	3	0	0	3	3
2	23NE972	Blockchain Technologies	NEC	3	0	0	3	3
3	23NE973	Big Data Analytics	NEC	3	0	0	3	3
4	23NE974	Augmented Reality/Virtual Reality	NEC	3	0	0	3	3
5	23NE975	Artificial Intelligence and Machine Learning Fundamentals	NEC	3	0	0	3	3
6	23NE976	IoT Concepts and Applications						
7	23NE977	Data Science and Fundamentals	NEC	3	0	0	3	3
8	23NE978	Remote Sensing Concepts	NEC	3	0	0	3	3
9	23NE979	Urban Agriculture	NEC	3	0	0	3	3
10	23NE980	Electric Vehicle Technology	NEC	3	0	0	3	3
11	23NE981	Nano Technology	NEC	3	0	0	3	3
12	23NE982	Functional Materials	NEC	3	0	0	3	3
13	23NE983	Introduction to Renewable Energy Systems	NEC	3	0	0	3	3
14	23NE984	Integrated Energy Planning for Sustainable Development	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 2 - MANAGEMENT COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS971	Total Quality Management	NEC	3	0	0	3	3
2	23HS972	Engineering Economics and Financial Accounting	NEC	3	0	0	3	3
3	23HS973	Engineering Management and Law	NEC	3	0	0	3	3
4	23HS974	Knowledge Management	NEC	3	0	0	3	3
5	23HS975	Industrial Management	NEC	3	0	0	3	3
6	23HS976	Entrepreneurship and Business Opportunities	NEC	3	0	0	3	3
7	23HS977	Modern Business Administration and Financing	NEC	3	0	0	3	3
8	23HS978	Essentials of Management	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 3 - SAFETY COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS979	Disaster Management	NEC	3	0	0	3	3
2	23HS980	Industrial Safety	NEC	3	0	0	3	3
3	23HS981	Automotive Safety	NEC	3	0	0	3	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	HSMC	BSC	ESC	PCC	DEC	NEC	EEC	Total
Semester I	5	11	5	-	-	-	-	21
Semester II	4	7	9	5	-	-	-	25
Semester III	3	4	-	16	-	-	-	23
Semester IV	-	4	-	14	6	-	1	25
Semester V	-	-	2	12	3	3	2	22
Semester VI	-	-	5	8	6	3	3	25
Semester VII	-	-	2	7	3	3	5	20
Semester VIII	-	-	-	-	-	-	10	10
KCG - Mech	12	26	23	62	18	9	21	171

B.E. AERONAUTICAL ENGINEERING

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
	23IP101	Induction Programme		-	-	-	-	-
THEORY								
1	23HS101	Essential Communication	HSMC	3	0	0	3	3
2	23MA101	Matrices and Calculus	BSC	3	0	0	3	3
3	23AD101	Programming in Python	ESC	3	0	0	3	3
4	23HS102	Heritage of Tamils	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
5	23PH111	Engineering Physics	BSC	3	0	2	5	4
6	23CY111	Engineering Chemistry	BSC	3	0	2	5	4
PRACTICALS								
7	23AD121	Python Programming Laboratory	ESC	0	0	4	4	2
8	23HS121	Communication Skills Laboratory	HSMC	0	0	2	2	1
9	23HS122	General Clubs / Technical Clubs / NCC / NSS / Extension Activities	HSMC	0	0	2	2	1*
TOTAL				16	0	12	28	21

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23HS201/ 23HS202	Professional English / Foreign Language	HSMC	3	0	0	3	3
2	23MA201	Vector Calculus and Complex Functions	BSC	3	1	0	4	4
3	23PH207	Applied Physics	BSC	3	0	0	3	3
4	23AE201	Elements of Aeronautical Engineering	PCC	3	0	0	3	3
5	23HS203	Tamils and Technology	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
6	23EE281	Basic Electrical and Electronics Engineering	ESC	2	0	2	4	3
7	23ME211	Engineering Graphics	ESC	3	0	2	5	4
PRACTICALS								
8	23ME221	Engineering Practices Laboratory	ESC	0	0	4	4	2
9	23AE221	Aeromodelling Lab	PCC	0	0	4	4	2
10	23HS221	Soft Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	33	25

SEMESTER - III

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA302	Transforms and Partial Differential Equations	BSC	3	1	0	4	4
2	23AE301	Solid Mechanics	PCC	3	0	0	3	3
3	23HS301	Universal Human Values	HSMC	3	0	0	3	3
THEORY AND PRACTICALS								
4	23ME312	Fluid Mechanics and Machinery	PCC	3	0	2	5	4
5	23AE311	Aero Engineering Thermodynamics	PCC	3	0	2	5	4
PRACTICALS								
6	23AE321	Strength of Materials Laboratory	PCC	0	0	4	4	2
7	23ES391	Presentation skills	EEC	0	0	2	2	1*
TOTAL				15	1	10	26	20

SEMESTER - IV

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA203	Statistics and Numerical Methods	BSC	3	1	0	4	4
2	23AE401	Low speed Aerodynamics	PCC	3	0	0	3	3
3	23AE402	Air Breathing Propulsion	PCC	3	0	0	3	3
4	23AE403	Aircraft Structures	PCC	3	0	0	3	3
5		Department Elective 1	DEC	3	0	0	3	3
6		Department Elective 2	DEC	3	0	0	3	3
PRACTICALS								
7	23AE421	Aerodynamics Laboratory	PCC	0	0	4	4	2
8	23AE422	Propulsion Laboratory	PCC	0	0	4	4	2
9	23ES491	Aptitude & Logical reasoning 1	EEC	0	0	2	2	1*
10	23AE423	Mini Project (Ideation Lit Survey+ Methodology + Development +Testing)	EEC	0	0	2	2	1
TOTAL				18	1	12	31	24

SEMESTER - V

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23RE501	Research Methodology & IPR	ESC	2	0	0	2	2
2	23AE501	Advanced Aerodynamics	PCC	3	0	0	3	3
3	23AE502	Advanced Aircraft Structures	PCC	3	0	0	3	3
4		Department Elective 3	DEC	3	0	0	3	3
5		Department Elective 4	DEC	3	0	0	3	3
6		Non Department Elective 1 (Emerging Technology)	NEC	3	0	0	3	3
PRACTICALS								
7	23AE521	Aircraft Structures Laboratory	PCC	0	0	4	4	2
8	23AE522	Computational Analysis Laboratory	PCC	0	0	2	2	1
9	23ES591	Aptitude & Logical reasoning 2	EEC	0	0	2	2	1*
TOTAL				17	0	8	25	20

SEMESTER - VI

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Department Elective 5	DEC	3	0	0	3	3
2		Department Elective 6	DEC	3	0	0	3	3
3		Non Department Elective 2 (Management related Courses)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
4	23CE611	Environmental Sciences and Engineering	ESC	3	0	2	5	4
5	23AE611	Flight Dynamics & Simulation	PCC	3	0	2	5	4
6	23AE612	Avionics	PCC	3	0	2	5	4
PRACTICALS								
7	23AE621	Project Work - Phase 1	EEC	0	0	4	4	2
8	23AE622	Technical Training	EEC	0	0	2	2	1
9	23AE623	Technical Seminar - 1	ESC	0	0	2	2	1
TOTAL				18	0	14	32	25

SEMESTER - VII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Non Department Elective 3 (Management and Safety related Courses)	NEC	3	0	0	3	3
2	23AE701	UAV Systems	PCC	3	0	0	3	3
3	23AE702	Finite Element Method	PCC	3	0	0	3	3
4	23AE703	Comprehension	EEC	2	0	0	2	2
5	23AE704	Total Quality and Continuing Airworthiness	PCC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23AE711	Composite Materials and Structures	PCC	3	0	2	5	4
PRACTICALS								
7	23AE721	Aircraft Design Project	EEC	0	0	4	4	2
8	23AE722	Project Work - Phase 2	EEC	0	0	6	6	3
9	23AE723	Technical Seminar – 2	ESC	0	0	4	4	2
TOTAL				17	0	16	33	25

SEMESTER - VIII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23AE821/ 23AE822	Internship/Capstone Project	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

TOTAL CREDITS: 170

PROFESSIONAL ELECTIVE COURSES

LIST OF IDENTIFIED VERTICALS	
1	Avionics and Drone Technology
2	Computational Engineering
3	Aerodynamics and Propulsion
4	Aerospace Structures
5	Aircraft Maintenance and Practices
6	Diversified Courses

VERTICAL 1: AVIONICS AND DRONE TECHNOLOGY

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AE031	Drone rules and Aviation regulations	DEC	2	0	2	4	3
2	23AE032	Control Engineering	DEC	3	0	0	3	3
3	23AE033	Guidance and Control	DEC	3	0	0	3	3
4	23AE034	Navigation and Communication System	DEC	3	0	0	3	3
5	23AE035	Design of UAV systems	DEC	3	0	0	3	3
6	23AE036	Aerodynamics of Drones	DEC	3	0	0	3	3
7	23AE037	Drone Avionics	DEC	3	0	0	3	3
8	23AE038	Digital Image Processing in Drone	DEC	3	0	0	3	3

VERTICAL 2: COMPUTATIONAL ENGINEERING

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AE039	Numerical Methods in Fluid Dynamics	DEC	3	0	0	3	3
2	23AE040	Computational Heat Transfer	DEC	3	0	0	3	3
3	23AE041	Basics of Computational Fluid Dynamics	DEC	3	0	0	3	3
4	23AE042	Computer Aided Design and Analysis	DEC	3	0	0	3	3
5	23AE043	Grid Generation Techniques	DEC	3	0	0	3	3
6	23AE044	Computer Integrated Manufacturing	DEC	3	0	0	3	3
7	23AE045	Boundary Layer Theory	DEC	3	0	0	3	3
8	23AE046	Programming Tools in Aerospace Engineering	DEC	3	0	0	3	3

VERTICAL 3: AERODYNAMICS AND PROPULSION

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AE047	Experimental Aerodynamics	DEC	3	0	0	3	3
2	23AE048	Highspeed Aerodynamics	DEC	3	0	0	3	3
3	23AE049	Industrial Aerodynamics	DEC	3	0	0	3	3
4	23AE050	Rocket Propulsion	DEC	3	0	0	3	3
5	23AE051	Advanced Propulsion Systems	DEC	3	0	0	3	3
6	23AE052	Hypersonic Aerodynamics	DEC	3	0	0	3	3
7	23AE053	Wind tunnel Techniques	DEC	3	0	0	3	3
8	23AE054	Helicopter Aerodynamics	DEC	3	0	0	3	3

VERTICAL 4: AEROSPACE STRUCTURES

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AE055	Fatigue and Fracture Mechanics	DEC	3	0	0	3	3
2	23AE056	Experimental Stress Analysis	DEC	3	0	0	3	3
3	23AE057	Vibrations and Aero elasticity	DEC	3	0	0	3	3
4	23AE058	Additive Manufacturing	DEC	3	0	0	3	3
5	23AE059	Non Destructive Testing and Evaluation	DEC	3	0	0	3	3
6	23AE060	Aerospace Materials	DEC	3	0	0	3	3
7	23AE061	Theory of Elasticity	DEC	3	0	0	3	3
8	23AE062	Spacecraft Structures	DEC	3	0	0	3	3

VERTICAL 5: AIRCRAFT MAINTENANCE AND PRACTICES

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AE063	Airframe Maintenance and Repair	DEC	3	0	0	3	3
2	23AE064	Aircraft General Engineering And Maintenance Practices	DEC	3	0	0	3	3
3	23AE065	Civil Aviation Regulations	DEC	3	0	0	3	3
4	23AE066	Aircraft Engine Maintenance and Repair	DEC	3	0	0	3	3
5	23AE067	Air Traffic Control	DEC	3	0	0	3	3
6	23AE068	Airport Management	DEC	3	0	0	3	3
7	23AE069	Aircraft Safety & Operations	DEC	3	0	0	3	3
8	23AE070	Crisis Management in Aircraft Industry	DEC	3	0	0	3	3

VERTICAL 6: DIVERSIFIED COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AE071	Manufacturing Technology	DEC	3	0	0	3	3
2	23AE701	Rockets and launch vehicles	DEC	3	0	0	3	3
3	23AE072	Theory of Machines	DEC	3	0	0	3	3
4	23AE073	Helicopter Maintenance	DEC	3	0	0	3	3
5	23AS701	Rockets and Missiles	DEC	3	0	0	3	3
6	23AS601	Space Mechanics	DEC	3	0	0	3	3
7	23AE075	Wind Power Engineering	DEC	3	0	0	3	3
8	23AE076	High Temperature Materials	DEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 1 - EMERGING TECHNOLOGY

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23NE971	Quantum Technology	NEC	3	0	0	3	3
2	23NE972	Block chain Technology	NEC	3	0	0	3	3
3	23NE973	Big Data Analytics	NEC	3	0	0	3	3
4	23NE974	Augmented Reality / Virtual Reality	NEC	3	0	0	3	3
5	23NE975	Artificial Intelligence and Machine Learning Fundamentals	NEC	3	0	0	3	3
6	23NE976	IoT concepts and applications	NEC	3	0	0	3	3
7	23NE977	Data Science and Fundamentals	NEC	3	0	0	3	3
8	23NE978	Remote Sensing Concepts	NEC	3	0	0	3	3
9	23NE979	Urban Agriculture	NEC	3	0	0	3	3
10	23NE980	Electric Vehicle Technology	NEC	3	0	0	3	3
11	23NE981	Nano Technology	NEC	3	0	0	3	3
12	23NE982	Functional Materials	NEC	3	0	0	3	3
13	23NE983	Introduction to Renewable Energy systems	NEC	3	0	0	3	3
14	23NE984	Integrated Energy planning for sustainable Development	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 2 - MANAGEMENT COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT S
				L	T	P		
1	23HS971	Total Quality Management	NEC	3	0	0	3	3
2	23HS972	Engineering Economics and Financial Accounting	NEC	3	0	0	3	3
3	23HS973	Engineering Management and Law	NEC	3	0	0	3	3
4	23HS974	Knowledge Management	NEC	3	0	0	3	3
5	23HS975	Industrial Management	NEC	3	0	0	3	3
6	23HS976	Entrepreneurship and Business opportunities	NEC	3	0	0	3	3
7	23HS977	Modern Business Administration and Financing	NEC	3	0	0	3	3
8	23HS978	Essentials of Management	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 3 - SAFETY RELATED COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS979	Disaster Management	NEC	3	0	0	3	3
2	23HS980	Industrial Safety	NEC	3	0	0	3	3
3	23HS981	Automotive Safety	NEC	3	0	0	3	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	HSMC	BSC	ESC	PCC	DEC	NEC	EEC	Total
Semester I	5	11	5					21
Semester II	4	7	9	5				25
Semester III	3	4		13				20
Semester IV		4		13	6		1	24
Semester V			2	9	6	3		20
Semester VI			5	8	6	3	3	25
Semester VII			2	13		3	7	25
Semester VIII							10	10
B. E - Aeronautical Engineering	12	26	23	61	18	9	21	170

B.E. AEROSPACE ENGINEERING

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
	23IP101	Induction Programme		-	-	-	-	-
THEORY								
1	23HS101	Essential Communication	HSMC	3	0	0	3	3
2	23MA101	Matrices and Calculus	BSC	3	0	0	3	3
3	23AD101	Programming in Python	ESC	3	0	0	3	3
4	23HS102	Heritage of Tamils	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
5	23PH111	Engineering Physics	BSC	3	0	2	5	4
6	23CY111	Engineering Chemistry	BSC	3	0	2	5	4
PRACTICALS								
7	23AD121	Python Programming Laboratory	ESC	0	0	4	4	2
8	23HS121	Communication Skills Laboratory	HSMC	0	0	2	2	1
9	23HS122	General Clubs / Technical Clubs / NCC / NSS / Extension Activities	HSMC	0	0	2	2	1*
TOTAL				16	0	12	28	21

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23HS201/ 23HS202	Professional English / Foreign Language	HSMC	3	0	0	3	3
2	23MA201	Vector Calculus and Complex Functions	BSC	3	1	0	4	4
3	23PH207	Applied Physics	BSC	3	0	0	3	3
4	23AS201	Elements of Aerospace Engineering	PCC	3	0	0	3	3
5	23HS203	Tamils and Technology	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
6	23EE281	Basic Electrical and Electronics Engineering	ESC	2	0	2	4	3
7	23ME211	Engineering Graphics	ESC	3	0	2	5	4
PRACTICALS								
8	23ME221	Engineering Practices Laboratory	ESC	0	0	4	4	2
9	23AS221	Aerospace Modelling Lab	PCC	0	0	4	4	2
10	23HS221	Soft Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	33	25

SEMESTER - III

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA302	Transforms and Partial Differential Equations	BSC	3	1	0	4	4
2	23AE301	Solid Mechanics	PCC	3	0	0	3	3
3	23HS301	Universal Human Values	HSMC	3	0	0	3	3
THEORY AND PRACTICALS								
4	23ME312	Fluid Mechanics and Machinery	PCC	3	0	2	5	4
5	23AE311	Aero Engineering Thermodynamics	PCC	3	0	2	5	4
PRACTICALS								
6	23AE321	Strength of Materials Laboratory	PCC	0	0	4	4	2
7	23ES391	Presentation skills	EEC	0	0	2	2	1*
TOTAL				15	1	10	26	20

SEMESTER - IV

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA203	Statistics and Numerical Methods	BSC	3	1	0	4	4
2	23AS401	Aerodynamics	PCC	3	0	0	3	3
3	23AS402	Aerospace Propulsion	PCC	3	0	0	3	3
4	23AS403	Aerospace Structural Mechanics	PCC	3	0	0	3	3
5	23AS0xx	Department Elective 1	DEC	3	0	0	3	3
6	23AS0xx	Department Elective 2	DEC	3	0	0	3	3
PRACTICALS								
7	23AS421	Low And High Speed Aerodynamics Laboratory	PCC	0	0	4	4	2
8	23AS422	Aerospace Structures Laboratory	PCC	0	0	4	4	2
9	23ES491	Aptitude & Logical reasoning 1	EEC	0	0	2	2	1*
10	23AS423	Mini Project (Ideation Lit Survey+ Methodology + Development +Testing)	EEC	0	0	2	2	1
TOTAL				18	1	12	31	24

SEMESTER - V

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23RE501	Research Methodology & IPR	ESC	2	0	0	2	2
2	23AS501	Advanced Propulsion	PCC	3	0	0	3	3
3		Department Elective 3	DEC	3	0	0	3	3
4		Department Elective 4	DEC	3	0	0	3	3
5		Non Department Elective 1 (Emerging Technology)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23AE511	Flight Dynamics and Simulation	PCC	3	0	2	5	4
PRACTICALS								
7	23AS521	Space Propulsion Laboratory	PCC	0	0	4	4	2
8	23AE522	Computational Analysis Laboratory	PCC	0	0	2	2	1
9	23AS522	Space Launch Vehicle Design Project	EEC	0	0	4	4	2
10	23ES591	Aptitude & Logical reasoning 2	EEC	0	0	2	2	1*
TOTAL				17	0	14	31	23

SEMESTER - VI

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Department Elective 5	DEC	3	0	0	3	3
2		Department Elective 6	DEC	3	0	0	3	3
3		Non Department Elective 2 (Management Courses)	NEC	3	0	0	3	3
4	23AS602	Space Mechanics	PCC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23CE611	Environmental Sciences and Engineering	ESC	3	0	2	5	4
6	23AS612	Avionics	PCC	3	0	2	5	4
PRACTICALS								
7	23AS621	Project Work - Phase 1	EEC	0	0	4	4	2
8	23AS622	Technical Training	EEC	0	0	2	2	1
9	23AS623	Technical Seminar- 1	ESC	0	0	2	2	1
TOTAL				18	0	12	30	24

SEMESTER - VII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Non Department Elective 3 (Management and Safety related Courses)	NEC	3	0	0	3	3
2	23AS701	Rocket and launch Vehicle	PCC	3	0	0	3	3
3	23AE702	Finite Element Method	PCC	3	0	0	3	3
4	23AS702	Comprehension	EEC	2	0	2	2	2
5	23AE704	Total Quality and Continuing Airworthiness	PCC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23AE711	Composite Materials and Structures	PCC	3	0	2	5	4
PRACTICALS								
7	23AS722	Project Work - Phase 2	EEC	0	0	4	4	3
8	23AS723	Technical Seminar - 2	ESC	0	0	4	4	2
TOTAL				17	0	12	27	23

SEMESTER - VIII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23AS821/ 23AS622	Internship/Capstone Project	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

TOTAL CREDITS: 170

PROFESSIONAL ELECTIVE COURSES

LIST OF IDENTIFIED VERTICALS	
1	Space Technology
2	Computational Engineering
3	Aerodynamics and Propulsion
4	Aerospace Structures
5	Aircraft Maintenance and Practices
6	Satellite Technology
7	Diversified Courses

VERTICAL 1: SPACE TECHNOLOGY

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AS031	Cryogenics	DEC	3	0	0	3	3
2	23AS032	High Temperature Gas Dynamics	DEC	3	0	0	3	3
3	23AS033	Launch Vehicle Aerodynamics	DEC	3	0	0	3	3
4	23AS034	Orbital Mechanics	DEC	3	0	0	3	3
5	23AS035	Launch Vehicle Configuration Design	DEC	3	0	0	3	3
6	23AS036	Space Missions	DEC	3	0	0	3	3
7	23AS037	Geospatial Information Systems	DEC	3	0	0	3	3
8	23AS038	Space Exploration	DEC	3	0	0	3	3

VERTICAL 2: COMPUTATIONAL ENGINEERING

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AE039	Numerical Methods in Fluid Dynamics	DEC	3	0	0	3	3
2	23AE040	Computational Heat Transfer	DEC	3	0	0	3	3
3	23AE041	Basics of Computational Fluid Dynamics	DEC	3	0	0	3	3
4	23AE042	Computer Aided Design and Analysis	DEC	3	0	0	3	3
5	23AE043	Grid Generation Techniques	DEC	3	0	0	3	3
6	23AE044	Computer Integrated Manufacturing	DEC	3	0	0	3	3
7	23AE045	Boundary Layer Theory	DEC	3	0	0	3	3
8	23AE046	Programming Tools in Aerospace Engineering	DEC	3	0	0	3	3

VERTICAL 3: AERODYNAMICS AND PROPULSION

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AE047	Experimental Aerodynamics	DEC	3	0	0	3	3
2	23AE048	Highspeed Aerodynamics	DEC	3	0	0	3	3
3	23AE049	Industrial Aerodynamics	DEC	3	0	0	3	3
4	23AE050	Rocket Propulsion	DEC	3	0	0	3	3
5	23AE051	Advanced Propulsion Systems	DEC	3	0	0	3	3
6	23AE052	Hypersonic Aerodynamics	DEC	3	0	0	3	3
7	23AE053	Wind tunnel Techniques	DEC	3	0	0	3	3
8	23AE054	Helicopter Aerodynamics	DEC	3	0	0	3	3

VERTICAL 4: AEROSPACE STRUCTURES

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AE055	Fatigue and Fracture Mechanics	DEC	3	0	0	3	3
2	23AE056	Experimental Stress Analysis	DEC	3	0	0	3	3
3	23AE057	Vibrations and Aeroelasticity	DEC	3	0	0	3	3
4	23AE058	Additive Manufacturing	DEC	3	0	0	3	3
5	23AE059	Non Destructive Testing and Evaluation	DEC	3	0	0	3	3
6	23AE060	Aerospace Materials	DEC	3	0	0	3	3
7	23AE061	Theory of Elasticity	DEC	3	0	0	3	3
8	23AE062	Spacecraft Structures	DEC	3	0	0	3	3

VERTICAL 5: AIRCRAFT MAINTENANCE AND PRACTICES

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AE063	Airframe Maintenance and Repair	DEC	3	0	0	3	3
2	23AE064	Aircraft General Engineering And Maintenance Practices	DEC	3	0	0	3	3
3	23AE065	Civil Aviation Regulations	DEC	3	0	0	3	3
4	23AE066	Aircraft Engine Maintenance and Repair	DEC	3	0	0	3	3
5	23AE067	Air Traffic Control	DEC	3	0	0	3	3
6	23AE068	Airport Management	DEC	3	0	0	3	3
7	23AE069	Aircraft Safety & Operations	DEC	3	0	0	3	3
8	23AE070	Crisis Management in Aircraft Industry	DEC	3	0	0	3	3

VERTICAL 6: SATELLITE TECHNOLOGY

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AS039	Spacecraft Power Systems	DEC	3	0	0	3	3
2	23AS040	Satellite Navigation and Control	DEC	3	0	0	3	3
3	23AS041	Spacecraft Sensors and Instrumentation	DEC	3	0	0	3	3
4	23AS042	Spacecraft Systems Engineering	DEC	3	0	0	3	3
5	23AS043	Satellite Architecture	DEC	3	0	0	3	3
6	23AS044	Spacecraft Dynamics	DEC	3	0	0	3	3
7	23AS045	Space Science & Science Environment	DEC	3	0	0	3	3
8	23AS046	Satellite Communication	DEC	3	0	0	3	3

VERTICAL 7: DIVERSIFIED COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AE071	Manufacturing Technology	DEC	3	0	0	3	3
2	23AE072	Theory of Machines	DEC	3	0	0	3	3
3	23AS047	Space Weapons And Warfare	DEC	3	0	0	3	3
4	23AS048	Turbo machines	DEC	3	0	0	3	3
5	23AS049	Heat Transfer in Space Applications	DEC	3	0	0	3	3
6	23AS050	Digital Image Processing in Aerospace Applications	DEC	3	0	0	3	3
7	23AE075	Wind Power Engineering	DEC	3	0	0	3	3
8	23AE076	High Temperature Materials	DEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 1 - EMERGING TECHNOLOGY

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23NE971	Quantum Technology	NEC	3	0	0	3	3
2	23NE972	Block chain Technology	NEC	3	0	0	3	3
3	23NE973	Big Data Analytics	NEC	3	0	0	3	3
4	23NE974	Augmented Reality / Virtual Reality	NEC	3	0	0	3	3
5	23NE975	Artificial Intelligence and Machine Learning Fundamentals	NEC	3	0	0	3	3
6	23NE976	IoT concepts and applications	NEC	3	0	0	3	3
7	23NE977	Data Science and Fundamentals	NEC	3	0	0	3	3
8	23NE978	Remote Sensing Concepts	NEC	3	0	0	3	3
9	23NE979	Urban Agriculture	NEC	3	0	0	3	3
10	23NE980	Electric Vehicle Technology	NEC	3	0	0	3	3
11	23NE981	Nanotechnology	NEC	3	0	0	3	3
12	23NE982	Functional Materials	NEC	3	0	0	3	3
13	23NE983	Introduction to Renewable Energy systems	NEC	3	0	0	3	3
14	23NE984	Integrated Energy planning for sustainable Development	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 2 - MANAGEMENT COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS971	Total Quality Management	NEC	3	0	0	3	3
2	23HS972	Engineering Economics and Financial Accounting	NEC	3	0	0	3	3
3	23HS973	Engineering Management and Law	NEC	3	0	0	3	3
4	23HS974	Knowledge Management	NEC	3	0	0	3	3
5	23HS975	Industrial Management	NEC	3	0	0	3	3
6	23HS976	Entrepreneurship and Business opportunities	NEC	3	0	0	3	3
7	23HS977	Modern Business Administration and Financing	NEC	3	0	0	3	3
8	23HS978	Essentials of Management	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 4 - SAFETY RELATED COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS979	Disaster Management	NEC	3	0	0	3	3
2	23HS980	Industrial Safety	NEC	3	0	0	3	3
3	23HS981	Automotive Safety	NEC	3	0	0	3	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	HSMC	BSC	ESC	PCC	DEC	NEC	EEC	Total
Semester I	5	11	5					21
Semester II	4	7	9	5				25
Semester III	3	4		13				20
Semester IV		4		13	6		1	24
Semester V			2	10	6	3	2	23
Semester VI			5	7	6	3	3	24
Semester VII			2	13		3	5	23
Semester VIII							10	10
B. E. - Aerospace Engineering	12	26	23	61	18	9	21	170

B.E. AUTOMOBILE ENGINEERING

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
	23IP101	Induction Programme		-	-	-	-	-
THEORY								
1	23HS101	Essential Communication	HSMC	3	0	0	3	3
2	23MA101	Matrices and Calculus	BSC	3	0	0	3	3
3	23AD101	Programming in Python	ESC	3	0	0	3	3
4	23HS102	Heritage of Tamils	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
5	23PH111	Engineering Physics	BSC	3	0	2	5	4
6	23CY111	Engineering Chemistry	BSC	3	0	2	5	4
PRACTICALS								
7	23AD121	Python Programming Laboratory	ESC	0	0	4	4	2
8	23HS121	Communication Skills Laboratory	HSMC	0	0	2	2	1
9	23HS122	General Clubs / Technical Clubs / NCC / NSS / Extension Activities	HSMC	0	0	2	2	1*
TOTAL				16	0	12	28	21

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23HS201/ 23HS202	Professional English / Foreign Language	HSMC	3	0	0	3	3
2	23MA203	Statistics and Numerical Methods	BSC	3	1	0	4	4
3	23PH206	Material Science	BSC	3	0	0	3	3
4	23ME201	Applied Mechanics	PCC	3	0	0	3	3
5	23HS203	Tamils and Technology	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
6	23EE281	Basic Electrical and Electronics Engineering	ESC	2	0	2	4	3
7	23ME211	Engineering Graphics	ESC	3	0	2	5	4
PRACTICALS								
8	23ME221	Engineering Practices Laboratory	ESC	0	0	4	4	2
9	23ME222	Applied Mechanics Laboratory	PCC	0	0	4	4	2
10	23HS221	Soft Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	33	25

SEMESTER-III

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA302	Transforms and Partial Differential Equations	BSC	3	1	0	4	4
2	23AU301	Thermodynamics and Heat transfer	PCC	3	0	0	3	3
3	23AU302	Automotive Engines	PCC	3	0	0	3	3
4	23HS301	Universal Human Values and Ethics	HSMC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23ME311	Manufacturing Processes	PCC	3	0	2	5	4
6	23AU311	Fuel & Lubricants	PCC	3	0	2	5	4
PRACTICALS								
7	23AU321	Computer Aided Design Laboratory	PCC	0	0	4	4	2
8	23AU322	Automotive Engines Laboratory	PCC	0	0	4	4	2
9	23ES391	Presentation Skills	HSMC	0	0	2	2	1*
TOTAL				18	1	14	33	25

SEMESTER-IV

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA402	Optimization Techniques	BSC	3	1	0	4	4
2	23AU401	Automotive Transmission	PCC	3	0		3	3
3	23AU402	Automotive Electrical and Electronics Engineering	PCC	3	0	0	3	3
4		Department Elective1	DEC	3	0	0	3	3
5		Department Elective2	DEC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23ME411	Strength of Materials for Mechanical Sciences	PCC	3	0	2	5	4
PRACTICALS								
7	23AU421	Automotive Components Laboratory	PCC	0	0	4	4	2
8	23AU422	Automotive Electrical and Electronics Engineering Laboratory	PCC	0	0	4	4	2
9	23ES491	Aptitude and Logical Reasoning - I	EEC	0	0	2	2	1*
10	23AU423/ 23AU424	Mini Project - 1/ In-plant Training - 1	EEC	0	0	2	2	1
TOTAL				18	1	14	33	25

SEMESTER-V

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23RE501	Research Methodology & IPR	ESC	2	0	0	2	2
2	23AU501	Automotive Chassis	PCC	3	0	0	3	3
3	23AU502	Electric and Hybrid vehicles	PCC	3	0	0	3	3
4		Department Elective 3	DEC	3	0	0	3	3
5		Department Elective 4	DEC	3	0	0	3	3
6		Non-Department Elective1 (Emerging Technologies)	NEC	3	0	0	3	3
PRACTICALS								
7	23AU521	Modelling and Simulation Laboratory	PCC	0	0	4	4	2
8	23AU523	Mini Project - 2 / In-plant Training - 2	EEC	0	0	4	4	2
9	23ES591	Aptitude and Logical Reasoning - 2	EEC	0	0	2	2	1*
TOTAL				17	0	10	27	21

SEMESTER VI

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Department Elective 5	DEC	3	0	0	3	3
2		Department Elective 6	DEC	3	0	0	3	3
3		Non-Department Elective 2 (Management /Safety)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
4	23CE611	Environmental Sciences and Engineering	ESC	3	0	2	5	4
5	23AU611	Automotive Engine & Chassis components Design	PCC	3	0	2	5	4
6	23AU612	Two & Three-Wheeler	PCC	3	0	2	5	4
PRACTICALS								
7	23AU621	Project Work - Phase 1	EEC	0	0	4	4	2
8	23AU622	Technical Training	EEC	0	0	2	2	1
9	23AU623	Technical Seminar- 1	ESC	0	0	2	2	1
TOTAL				18	0	14	32	25

SEMESTER -VII

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Non-Department Elective 3 (Management)	NEC	3	0	0	3	3
2	23AU701	Intelligent vehicle Technology	PCC	3	0	0	3	3
3	23AU702	Vehicle Dynamics	PCC	3	0	0	3	3
4	23AU703	Comprehension	EEC	2	0	0	2	2
THEORY AND PRACTICALS								
5	23AU711	Vehicle Maintenance	PCC	3	0	2	5	4
PRACTICALS								
6	23AU721	Project Work - Phase 2	EEC	0	0	6	6	3
7	23AU722	Technical Seminar - 2	ESC	0	0	4	4	2
TOTAL				14	0	12	26	20

SEMESTER -VIII

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23AU821/23AU822	Internship / Capstone Project	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

TOTALCREDITS: 172

PROFESSIONAL ELECTIVE COURSES: VERTICALS

VERTICAL 1	VERTICAL 2	VERTICAL 3	VERTICAL 4	VERTICAL 5	VERTICAL 6
ELECTRIC VEHICLES	COMPUTATIONAL DESIGN	VEHICLE RESEARCH AND VALIDATION	SPECIAL PURPOSE VEHICLES	PRODUCT AND PROCESS DEVELOPMENT	DIVERSIFIED COURSES
Electric vehicle, Drive and storage system	Computer Aided Design and Manufacturing	Advanced Automotive Materials	Agricultural Vehicles	Automotive Product Design	Hydraulics and Pneumatics
Batteries and Management system	Integrated Computational Materials Engineering	Automotive Functional Safety	Defence Vehicles	Ergonomics in Automotive Design	Fundamentals of Nano science
New Generation and Hybrid Vehicles	Vehicle design data characteristics	Combustion Thermodynamics and Heat Transfer	Constructions Vehicles	Vehicle Control Systems	Road Vehicle Aerodynamics
Automotive Power Electronics	Computational and Visualization Theory	Alternative Fuels and Energy Systems	Marine Vehicles	Additive Manufacturing	Lean Six Sigma
Fuel cell Technologies	Computer Integrated Manufacturing in Automotive Sector	Automotive Instrumentation	Space vehicles	Finite Element Analysis	Renewable Sources of Energy
Sensors and Actuators	CFD and Heat transfer	Testing and Measurement Systems	Gas Dynamics and Jet Propulsion	New Product Development Process	Vehicle Air-Conditioning
Electronics and Microprocessor	Mechanics of Machine	Vehicle Body Engineering	Drone Technologies	Automotive Product Life Cycle Management	Solar Energy Technology
Automotive Electrical Systems and Drives	Design of Machine Elements	IC Engine Process Modelling	Autonomous and Connected Vehicles	Dynamics of Ground Vehicles	Digital Manufacturing of Automobiles

DEPARTMENT ELECTIVE COURSES: VERTICALS

VERTICAL 1: ELECTRIC VEHICLES

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AU031	Electric vehicle, Drive and storage system	DEC	3	0	0	4	3
2	23AU032	Batteries and Management system	DEC	3	0	0	4	3
3	23AU033	New Generation and Hybrid Vehicles	DEC	3	0	0	4	3
4	23AU034	Automotive Power Electronics	DEC	3	0	0	4	3
5	23AU035	Fuel cell Technologies	DEC	3	0	0	4	3
6	23AU036	Sensors and Actuators	DEC	3	0	0	4	3
7	23AU037	Automotive Embedded systems	DEC	3	0	0	4	3
8	23AU038	Automotive Electrical Systems and Drives	DEC	3	0	0	4	3

VERTICAL 2: COMPUTATIONAL DESIGN

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AU039	Computer Aided Design and Manufacturing	DEC	3	0	0	4	3
2	23AU040	Integrated Computational Materials Engineering	DEC	3	0	0	4	3
3	23AU041	Vehicle design data characteristics	DEC	3	0	0	4	3
4	23AU042	Computational and Visualization Theory	DEC	3	0	0	4	3
5	23AU043	Computer Integrated Manufacturing in Automotive Sector	DEC	3	0	0	4	3
6	23AU044	CFD and Heat transfer	DEC	3	0	0	4	3
7	23AU045	Vehicle Components Design	DEC	3	0	0	4	3
8	23AU046	Design of Machine Elements	DEC	3	0	0	4	3

VERTICAL 3: VEHICEL RESEARCH AND VALIDATION

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AU047	Advanced Automotive Materials	DEC	3	0	0	4	3
2	23AU048	Automotive Functional Safety	DEC	3	0	0	4	3
3	23AU049	Combustion Thermodynamics and Heat Transfer	DEC	3	0	0	4	3
4	23AU050	Alternative Fuels and Energy Systems	DEC	3	0	0	4	3
5	23AU051	Automotive Instrumentation	DEC	3	0	0	4	3
6	23AU052	Testing and Measurement Systems	DEC	3	0	0	4	3
7	23AU053	Vehicle Body Engineering	DEC	3	0	0	4	3
8	23AU054	IC Engine Process Modelling	DEC	3	0	0	4	3

VERTICAL 4: SPECIAL PURPOSE VEHICLES

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AU055	Agricultural Vehicles	DEC	3	0	0	4	3
2	23AU056	Defence Vehicles	DEC	3	0	0	4	3
3	23AU057	Constructions Vehicles	DEC	3	0	0	4	3
4	23AU058	Marine Vehicles	DEC	3	0	0	4	3
5	23AU059	Space vehicles	DEC	3	0	0	4	3
6	23AU060	Gas Dynamics and Jet Propulsion	DEC	3	0	0	4	3
7	23AU061	Drone Technologies	DEC	3	0	0	4	3
8	23AU062	Autonomous and Connected Vehicles	DEC	3	0	0	4	3

VERTICAL 5: PRODUCT AND PROCESS DEVELOPMENT

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AU063	Automotive Product Design	DEC	3	0	0	4	3
2	23AU064	Ergonomics in Automotive Design	DEC	3	0	0	4	3
3	23AU065	Vehicle Control Systems	DEC	3	0	0	4	3
4	23AU066	Additive Manufacturing	DEC	3	0	0	4	3
5	23AU067	Finite Element Analysis	DEC	3	0	0	4	3
6	23AU068	New Product Development Process	DEC	3	0	0	4	3
7	23AU069	Automotive Product Life Cycle Management	DEC	3	0	0	4	3
8	23AU070	Dynamics of Ground Vehicles	DEC	3	0	0	4	3

VERTICAL 6: DIVERISIFIED COURSES GROUP

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AU071	Hydraulics and Pneumatics	DEC	3	0	0	4	3
2	23AU072	Fundamentals of Nano science	DEC	3	0	0	4	3
3	23AU073	Road Vehicle Aerodynamics	DEC	3	0	0	4	3
4	23AU074	Lean Six Sigma	DEC	3	0	0	4	3
5	23AU075	Renewable Sources of Energy	DEC	3	0	0	4	3
6	23AU076	Vehicle Air - Conditioning	DEC	3	0	0	4	3
7	23AU077	Solar Energy Technology	DEC	3	0	0	4	3
8	23AU078	Digital Manufacturing of Automobiles	DEC	3	0	0	4	3

NON-DEPARTMENT ELECTIVE 1- EMERGING TECHNOLOGIES

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23NE971	Quantum Technology	NEC	3	0	0	3	3
2	23NE972	Blockchain Technology	NEC	3	0	0	3	3
3	23NE973	Big Data Analytics	NEC	3	0	0	3	3
4	23NE974	Augmented Reality / Virtual Reality	NEC	3	0	0	3	3
5	23NE975	Artificial Intelligence and Machine Learning Fundamentals	NEC	3	0	0	3	3
6	23NE976	IoT concepts and applications	NEC	3	0	0	3	3
7	23NE977	Data Science and Fundamentals	NEC	3	0	0	3	3
8	23NE978	Remote Sensing Concepts	NEC	3	0	0	3	3
9	23NE979	Urban Agriculture	NEC	3	0	0	3	3
10	23NE980	Electric Vehicle Technology	NEC	3	0	0	3	3
11	23NE981	Nano Technology	NEC	3	0	0	3	3
12	23NE982	Functional Materials	NEC	3	0	0	3	3
13	23NE983	Introduction to Renewable Energy System	NEC	3	0	0	3	3
14	23NE984	Integrated Energy Planning for Sustainable Development	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 2-MANAGEMENT COURSES

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS971	Total Quality Management	NEC	3	0	0	3	3
2	23HS972	Engineering Economics and Financial Accounting	NEC	3	0	0	3	3
3	23HS973	Engineering Management and Law	NEC	3	0	0	3	3
4	23HS974	Knowledge Management	NEC	3	0	0	3	3
5	23HS975	Industrial Management	NEC	3	0	0	3	3
6	23HS976	Entrepreneurship and Business Opportunities	NEC	3	0	0	3	3
7	23HS977	Modern Business Administration and Financing	NEC	3	0	0	3	3
8	23HS978	Essentials of Management	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 3-SAFETY RELATED COURSES

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS979	Disaster Management	NEC	3	0	0	3	3
2	23HS980	Industrial Safety	NEC	3	0	0	3	3
3	23HS981	Automotive Safety	NEC	3	0	0	3	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	HSMC	BSC	ESC	PCC	DEC	NEC	EEC	Total
Semester I	5	11	5					21
Semester II	4	7	7	7				25
Semester III	3	4		18				25
Semester IV		4		14	6		1	25
Semester V			2	8	6	3	2	21
Semester VI			5	8	6	3	3	25
Semester VII			2	10		3	5	20
Semester VIII							10	10
Total	12	26	21	65	18	9	21	172

B.E. MECHATRONICS ENGINEERING

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
	23IP101	Induction Programme		-	-	-	-	-
THEORY								
1	23HS101	Essential Communication	HSMC	3	0	0	3	3
2	23MA101	Matrices and Calculus	BSC	3	0	0	3	3
3	23AD101	Programming in Python	ESC	3	0	0	3	3
4	23HS102	Heritage of Tamils	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
5	23PH111	Engineering Physics	BSC	3	0	2	5	4
6	23CY111	Engineering Chemistry	BSC	3	0	2	5	4
PRACTICALS								
7	23AD121	Python Programming Laboratory	ESC	0	0	4	4	2
8	23HS121	Communication Skills Laboratory	HSMC	0	0	2	2	1
9	23HS122	General Clubs / Technical Clubs / NCC / NSS / Extension Activities	HSMC	0	0	2	2	1*
TOTAL				16	0	12	28	21

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23HS201/ 23HS202	Professional English / Foreign Language	HSMC	3	0	0	3	3
2	23MA203	Statistics and Numerical Methods	BSC	3	1	0	4	4
3	23PH202	Applied Material Science	BSC	3	0	0	3	3
4	23ME201	Applied Mechanics	PCC	3	0	0	3	3
5	23HS203	Tamils and Technology	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
6	23EE283	Basic Electrical, Electronics Engineering and Measurements	ESC	2	0	2	4	3
7	23ME211	Engineering Graphics	ESC	3	0	2	5	4
PRACTICALS								
8	23ME221	Engineering Practices Laboratory	ESC	0	0	4	4	2
9	23HS221	Soft Skills	EEC	0	0	2	2	1*
TOTAL				18	1	10	29	23

SEMESTER - III

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA302	Transforms and Partial Differential Equations	BSC	3	1	0	3	4
2	23MT301	Manufacturing Technology	PCC	3	0	0	3	3
3	23MT311	Electrical Drives and Actuators	PCC	3	0	0	3	3
4	23HS301	Universal Human Values and Ethics	HSMC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23MT312	Digital Electronics and Microprocessor	PCC	3	0	2	5	4
6	23MT302	Kinematics and Dynamics of Machinery	PCC	3	0	2	5	4
PRACTICALS								
7	23MT321	Manufacturing Technology laboratory	PCC	0	0	4	4	2
8	23MT322	Electrical Drives and Actuators laboratory	PCC	0	0	4	4	2
9	23ES391	Presentation Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	32	25

SEMESTER - IV

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA402	Optimization Techniques	BSC	3	1	0	4	4
2	23MT401	Strength of Materials for Mechatronics Engineers	PCC	3	0	0	3	3
3	23MT402	Sensors and Instrumentation	PCC	3	0	0	3	3
4	23MT403	Fluid Mechanics and Thermal Systems	PCC	3	0	0	3	3
5		Department Elective 1	DEC	3	0	0	3	3
6		Department Elective 2	DEC	3	0	0	3	3
PRACTICALS								
7	23MT421	Strength of Materials and Fluid Mechanics Laboratory	PCC	0	0	4	4	2
8	23MT422	Sensors and Instrumentation Laboratory	PCC	0	0	4	4	2
9	23ES491	Aptitude and Logical reasoning-1	EEC	0	0	2	2	1*
10	23MT423 /23MT424	Mini Project-1/ In-plant Training-1	EEC	0	0	2	2	1
TOTAL				18	1	12	31	24

SEMESTER - V

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23RE501	Research Methodology & IPR	ESC	2	0	0	2	2
2	23MT501	Robotics and Machine vision	PCC	3	0	0	3	3
3		Department Elective 3	DEC	3	0	0	3	3
4		Department Elective 4	DEC	3	0	0	3	3
5		Non-Department Elective 1 (Emerging Technology)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23MT511	Control Systems for Mechatronics engineering	PCC	3	0	2	5	4
PRACTICALS								
7	23MT521	Robotics Laboratory	PCC	0	0	4	4	2
8	23MT522/ 23MT523	Mini Project - 2/In-plant Training - 2	EEC	0	0	4	4	2
9	23ES591	Aptitude and Logical reasoning 2	EEC	0	0	2	2	1*
TOTAL				17	0	12	29	22

SEMESTER VI

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Department Elective 5	DEC	3	0	0	3	3
2		Department Elective 6	DEC	3	0	0	3	3
3		Non Department Elective 2	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
4	23CE611	Environmental Sciences and Engineering	ESC	3	0	2	5	4
5	23MT611	Industrial Automation	PCC	3	0	2	5	4
6	23MT612	Fluid power systems	PCC	3	0	2	5	4
7	23MT621	Project Work - Phase 1	EEC	0	0	4	4	2
8	23MT622	Technical Training	EEC	0	0	2	2	1
9	23MT623	Technical Seminar - 1	ESC	0	0	2	2	1
TOTAL				18	0	14	32	25

SEMESTER VII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23NE9xx	Non-Department Elective 3 (Engineering Management and Law)	NEC	3	0	0	3	3
2	23MT701	Mechatronics System Design	PCC	3	0	0	3	3
3	23MT702	Embedded systems and programming	PCC	3	0	0	3	3
4	23MT703	Comprehension	EEC	2	0	0	2	2
THEORY AND PRACTICALS								
5	23MT702	Computer Aided design and manufacturing	PCC	3	0	2	5	4
PRACTICALS								
6	23MT721	Project Work - Phase 2	EEC	0	0	6	6	3
7	23MT722	Technical Seminar - 2	ESC	0	0	4	4	2
TOTAL				14	0	12	26	20

SEMESTER VIII

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23ME821/23ME822	Internship / Capstone Project	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

TOTAL CREDITS: 171

PROFESSIONAL ELECTIVE COURSES: VERTICALS

VERTICAL 1: APPLIED ROBOTICS

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23MT031	Robots and Systems in Smart Manufacturing	DEC	3	0	0	3	3
2	23MT032	Drone Technologies	DEC	3	0	0	3	3
3	23MT033	Micro robotics	DEC	3	0	0	3	3
4	23MT034	Agricultural Robotics and Automation	DEC	3	0	0	3	3
5	23MT035	Collaborative Robotics	DEC	3	0	0	3	3
6	23MT036	Robot Operating Systems	DEC	3	0	0	3	3
7	23MT037	Medical Robotics	DEC	3	0	0	3	3
8	23MT038	Humanoid Robotics	DEC	3	0	0	3	3

VERTICAL 2: DESIGN AND MANUFACTURING

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23MT039	Robot and Machine Elements Design	DEC	3	0	0	3	3
2	23MT040	Design for X	DEC	3	0	0	3	3
3	23MT041	CNC Machine Tools and Programming	DEC	3	0	0	3	3
4	23MT042	Computer Integrated Manufacturing	DEC	3	0	0	3	3
5	23MT043	Advanced Manufacturing Systems	DEC	3	0	0	3	3
6	23MT044	Additive Manufacturing	DEC	2	0	2	4	3
7	23MT045	Electronics Manufacturing Technology	DEC	3	0	0	3	3
8	23MT046	Computer Aided Inspection and testing	DEC	3	0	0	3	3

VERTICAL 3: SMART MOBILITY SYSTEMS

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23MT047	Automobile Engineering	DEC	3	0	0	3	3
2	23MT048	Electric and Hybrid Vehicles	DEC	3	0	0	3	3
3	23MT049	Automotive Mechatronics	DEC	3	0	0	3	3
4	23MT050	Automotive System Modeling and Simulation	DEC	3	0	0	3	3
5	23MT051	Vehicle Dynamics and Controls	DEC	3	0	0	3	3
6	23MT052	Aircraft Mechatronics	DEC	3	0	0	3	3
7	23MT053	Smart mobility and Intelligent Vehicles	DEC	3	0	0	3	3
8	23MT054	Advanced Driver Assistance systems	DEC	3	0	0	3	0

VERTICAL 4: INTELLIGENCE SYSTEMS

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23MT055	Applied Signal Processing	DEC	3	0	0	3	3
2	23MT056	Applied Image Processing	DEC	3	0	0	3	3
3	23MT057	Machine Learning for Intelligent Systems	DEC	3	0	0	3	3
4	23MT058	Condition Monitoring and Fault Diagnostics	DEC	3	0	0	3	3
5	23MT059	Systems Modelling and Simulation Methods	DEC	3	0	0	3	3
6	23MT060	Design of UAV systems	DEC	3	0	0	3	3
7	23MT061	Immersive Technologies and Haptics	DEC	3	0	0	3	3
8	23MT062	Computer Vision and Deep Learning	DEC	3	0	0	3	3

VERTICAL 5: AUTOMATION

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23MT063	Object Oriented Programming in C++	DEC	3	0	0	3	3
2	23MT064	Power Electronics	DEC	3	0	0	3	3
3	23MT065	Computer Architecture and Organization	DEC	3	0	0	3	3
4	23MT066	Virtual Instrumentation	DEC	3	0	0	3	3
5	23MT067	Industrial Network Protocols	DEC	3	0	0	3	3
6	23MT068	Motion Control System	DEC	3	0	0	3	3
7	23MT069	Total Integrated Automation	DEC	3	0	0	3	3
8	23MT070	Digital Twin and Industry 5.0	DEC	3	0	0	3	3

VERTICAL 6: DIVERSIFIED GROUP 1

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23MT071	Linear Integrated Circuits	DEC	3	0	0	3	3
2	23MT072	Single Board Computers	DEC	3	0	0	3	3
3	23MT073	Reliability and Maintenance Engineering	DEC	3	0	0	3	3
4	23MT074	Medical Mechatronics	DEC	3	0	0	3	3
5	23MT075	Integrated Product Development	DEC	3	0	0	3	3
6	23MT076	Micro Electromechanical Systems	DEC	3	0	0	3	3
7	23MT077	Design of UAV Systems	DEC	3	0	0	3	3
8	23MT078	VLS and FPGA	DEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 1 - EMERGING TECHNOLOGY

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23NE971	Quantum Technology	NEC	3	0	0	3	3
2	23NE972	Black Chain Technologies	NEC	3	0	0	3	3
3	23NE973	Big Data Analytics	NEC	3	0	0	3	3
4	23NE974	Augmented Reality / Virtual Reality	NEC	3	0	0	3	3
5	23NE975	Artificial Intelligence and Machine Learning Fundamentals	NEC	3	0	0	3	3
6	23NE976	IoT concepts and applications	NEC	3	0	0	3	3
7	23NE977	Data Science and Fundamentals	NEC	3	0	0	3	3
8	23NE978	Remote Sensing Concepts	NEC	3	0	0	3	3
9	23NE979	Urban Agriculture	NEC	3	0	0	3	3
10	23NE980	Electric Vehicle Technology	NEC	3	0	0	3	3
11	23NE981	Nano Technology	NEC	3	0	0	3	3
12	23NE982	Functional Materials	NEC	3	0	0	3	3
13	23NE983	Introduction to Renewable Energy Systems	NEC	3	0	0	3	3
14	23NE984	Integrated Energy Planning for Sustainable Development	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 2 - MANAGEMENT COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS971	Total Quality Management	NEC	3	0	0	3	3
2	23HS972	Engineering Economics and Financial Accounting	NEC	3	0	0	3	3
3	23HS973	Engineering Management and Law	NEC	3	0	0	3	3
4	23HS974	Knowledge Management	NEC	3	0	0	3	3
5	23HS975	Industrial Management	NEC	3	0	0	3	3
6	23HS976	Entrepreneurship and Business Opportunities	NEC	3	0	0	3	3
7	23HS977	Modern Business Administration and Financing	NEC	3	0	0	3	3
8	23HS978	Essentials of Management	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 3 - SAFETY COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS979	Disaster Management	NEC	3	0	0	3	3
2	23HS980	Industrial Safety	NEC	3	0	0	3	3
3	23HS981	Automotive Safety	NEC	3	0	0	3	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	HSMC	BSC	ESC	PCC	DEC	NEC	EEC	Total
Semester I	5	11	5					21
Semester II	4	7	9	3				23
Semester III	3	4		18				25
Semester IV		4		13	6		1	24
Semester V			2	9	6	3	2	22
Semester VI			5	8	6	3	3	25
Semester VII			2	10		3	5	20
Semester VIII							10	10
KCG - MTR	12	26	23	61	18	9	21	170

B.E. -ELECTRONICS AND COMMUNICATION ENGINEERING

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
	23IP101	Induction Programme		-	-	-	-	-
THEORY								
1	23HS101	Essential Communication	HSMC	3	0	0	3	3
2	23MA101	Matrices and Calculus	BSC	3	0	0	3	3
3	23CS101	Programming in C	ESC	3	0	0	3	3
4	23HS102	Heritage of Tamils	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
5	23PH111	Engineering Physics	BSC	3	0	2	5	4
6	23CY111	Engineering Chemistry	BSC	3	0	2	5	4
PRACTICALS								
7	23CS121	C Programming Laboratory	ESC	0	0	4	4	2
8	23HS121	Communication Skills Laboratory	HSMC	0	0	2	2	1
9	23HS122	General Clubs / Technical Clubs / NCC / NSS / Extension Activities	HSMC	0	0	2	2	1*
TOTAL				16	0	12	28	21

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23HS201/ 23HS202	Professional English / Foreign Language	HSMC	3	0	0	3	3
2	23MA203	Statistics and Numerical Methods	BSC	3	1	0	4	4
3	23PH203	Physics for Electronics Engineering	BSC	3	0	0	3	3
4	23EC201	Circuit Analysis	PCC	3	1	0	4	4
5	23HS203	Tamils and Technology	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
6	23EE284	Basic Electrical and Instrumentation Engineering	ESC	2	0	2	4	3
7	23ME211	Engineering Graphics	ESC	3	0	2	5	4
PRACTICALS								
8	23ME221	Engineering Practices Laboratory	ESC	0	0	4	4	2
9	23EC221	Circuits Analysis Laboratory	PCC	0	0	4	4	2
10	23HS221	Soft Skills	EEC	0	0	2	2	1*
TOTAL				18	2	14	34	26

SEMESTER - III

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA301	Linear Algebra	BSC	3	1	0	4	4
2	23EC301	Electronic Circuits	PCC	3	0	0	3	3
3	23EC302	Control Systems	PCC	3	0	0	3	3
4	23HS301	Universal Human Values	HSMC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23EC311	Digital Systems Design	PCC	3	0	2	5	4
6	23EC312	Signals and Systems	PCC	3	0	2	5	4
PRACTICALS								
7	23EC321	Electronic Circuits Laboratory	PCC	0	0	4	4	2
8	23ES391	Presentation Skills	EEC	0	0	2	2	1*
TOTAL				18	1	10	29	23

SEMESTER - IV

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA403	Probability and Random Process	BSC	3	1	0	4	4
2	23EC401	Electromagnetic Fields	PCC	3	1	0	4	4
3	23EC402	Communication Systems	PCC	3	0	0	3	3
4	23EC403	Linear Integrated Circuits	PCC	3	0	0	3	3
5		Department Elective 1	DEC	3	0	0	3	3
6		Department Elective 2	DEC	3	0	0	3	3
PRACTICALS								
7	23EC421	Communication Systems Laboratory	PCC	0	0	4	4	2
8	23EC422	Linear Integrated Circuits Lab	PCC	0	0	4	4	2
9	23ES491	Aptitude / Logical reasoning	EEC	0	0	2	2	*1
10	23EC423	Mini Project - 1	EEC	0	0	2	2	1
TOTAL				18	2	12	32	25

SEMESTER - V

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23RE501	Research Methodology & IPR	ESC	2	0	0	2	2
2	23EC501	VLSI and Chip Design	PCC	3	0	0	3	3
3		Department Elective 3	DEC	3	0	0	3	3
4		Department Elective 4	DEC	3	0	0	3	3
5		Non Department Elective 1 (Emerging Technology)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23EC511	Digital Signal Processing	PCC	3	0	2	5	4
PRACTICALS								
7	23EC521	VLSI Laboratory	PCC	0	0	4	4	2
8	23EC522	Mini Project - 2	EEC	0	0	4	4	2
9	23ES591	Aptitude & Logical reasoning	EEC	0	0	2	2	*1
TOTAL				17	0	12	29	22

SEMESTER - VI

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Department Elective 5	DEC	3	0	0	3	3
2		Department Elective 6	DEC	3	0	0	3	3
3	23EC601	Transmission lines and RF Systems	PCC	3	1	0	4	4
4		Non Department Elective 2 or 3 (Management or safety related Courses)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23CE611	Environmental Sciences and Engineering	ESC	3	0	2	5	4
6	23EC611	Embedded Systems and IOT Design	PCC	3	0	2	5	4
PRACTICALS								
7	23EC621	Project Work Phase - 1	EEC	0	0	4	4	2
8	23EC622	Technical Training	EEC	0	0	2	2	1
9	23ES623	Technical Seminar - 1	ESC	0	0	2	2	1
TOTAL				18	1	12	31	25

SEMESTER - VII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Non Department Elective 3 (Management)	NEC	3	0	0	3	3
2	23EC701	Antenna & Wave Propagation	PCC	3	0	0	3	3
3	23EC702	Optical Communication	PCC	3	0	0	3	3
4	23EC703	Comprehension	EEC	2		0	2	2
THEORY AND PRACTICALS								
5	23EC711	Networks and Security	PCC	3	0	2	5	4
PRACTICALS								
6	23EC721	Advanced Communication Laboratory	PCC	0	0	4	4	2
7	23EC722	Project Work - Phase 2	EEC	0	0	6	6	3
8	23EC723	Technical Seminar - 2	ESC	0	0	4	4	2
TOTAL				14	0	16	30	22

SEMESTER - VIII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23EC821/ 23EC822	Internship / Capstone Project	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

DEPARTMENT ELECTIVE COURSES: VERTICALS

VERTICAL 1: SEMICONDUCTOR CHIP DESIGN AND TESTING

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23EC031	Advanced Digital System Design	DEC	3	0	1	3	3
2	23EC032	ASIC Design	DEC	3	0	0	3	3
3	23EC033	Low Power IC Design	DEC	3	0	1	3	3
4	23EC034	VLSI Testing and Design For Testability	DEC	3	0	0	3	3
5	23EC035	Physical Design	DEC	3	0	0	3	3
6	23EC036	Mixed Signal IC Design Testing	DEC	3	0	0	3	3

VERTICAL 2: SENSOR TECHNOLOGIES AND IOT

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23EC037	IoT Processors	DEC	3	0	1	3	3
2	23EC038	IoT Based System Design	DEC	3	0	1	3	3
3	23EC039	Wireless Sensor Network Design	DEC	3	0	1	3	3
4	23EC040	Industry IoT and Industry 4.0	DEC	3	0	1	3	3
5	23EC041	MEMS Design	DEC	3	0	1	3	3
6	23EC042	Fundamentals of Nano electronics	DEC	3	0	1	3	3

VERTICAL 3: HIGH SPEED COMMUNICATIONS

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23EC043	Wireless Communication	DEC	3	0	1	3	3
2	23EC044	Microwave Communication	DEC	3	0	1	3	3
3	23EC045	Satellite Communication	DEC	3	0	1	3	3
4	23EC046	Radar Technologies	DEC	3	0	1	3	3
5	23EC047	4G/5G Communication Networks	DEC	3	0	1	3	3
6	23EC048	Wireless Broadband Communication	DEC	3	0	1	3	3

VERTICAL 4: NETWORKS AND CYBER SECURITY

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23EC049	Network Essential	DEC	3	0	3	3	3
2	23EC050	Network Engineering	DEC	3	0	3	3	3
3	23EC051	Switching, Routing, And Wireless Essentials	DEC	3	0	3	3	3
4	23EC052	Enterprise Networking, Security, and Automation	DEC	3	0	3	3	3
5	23EC053	Network Design	DEC	3	0	0	3	3
6	23EC054	Cyber Security	DEC	3	0	0	3	3

VERTICAL 5: BIO MEDICAL TECHNOLOGIES

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23EC055	Wearable Devices	DEC	3	0	1	3	3
2	23EC056	Human Assist Devices	DEC	3	0	1	3	3
3	23EC057	Therapeutic Equipment	DEC	3	0	1	3	3
4	23EC058	Medical Imaging Systems	DEC	3	0	1	3	3
5	23EC059	Brain Computer Interface and Applications	DEC	3	0	1	3	3
6	23EC060	Body Area Networks	DEC	3	0	1	3	3

VERTICAL 6: SIGNAL PROCESSING

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23EC061	Advanced Digital Signal Processing	DEC	3	0	1	3	3
2	23EC062	Image Processing	DEC	3	0	1	3	3
3	23EC063	Speech Processing	DEC	3	0	1	3	3
4	23EC064	Software Defined Radio	DEC	3	0	1	3	3
5	23EC065	DSP Architecture and Programming	DEC	3	0	1	3	3
6	23EC066	Computer Vision	DEC	3	0	1	3	3

NON DEPARTMENT ELECTIVE 1 - EMERGING TECHNOLOGY

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23NE971	Quantum Technology	NEC	3	0	0	3	3
2	23NE972	Block Chain Technologies	NEC	3	0	0	3	3
3	23NE973	Big Data	NEC	3	0	0	3	3
4	23NE974	Augmented Reality / Virtual Reality	NEC	3	0	0	3	3
5	23NE975	Artificial Intelligence and Machine Learning Fundamentals	NEC	3	0	0	3	3
6	23NE976	IoT concepts and applications	NEC	3	0	0	3	3
7	23NE977	Data Science and Fundamentals	NEC	3	0	0	3	3
8	23NE978	Remote Sensing Concepts	NEC	3	0	0	3	3
9	23NE979	Urban Agriculture	NEC	3	0	0	3	3
10	23NE980	Electric Vehicle Technology	NEC	3	0	0	3	3
11	23NE981	Nano Technology	NEC	3	0	0	3	3
12	23NE982	Functional Materials	NEC	3	0	0	3	3
13	23NE983	Introduction to Renewable Energy systems	NEC	3	0	0	3	3
14	23NE984	Integrated Energy planning for sustainable Development	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 2 - MANAGEMENT COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS971	Total Quality Management	NEC	3	0	0	3	3
2	23HS972	Engineering Economics and Financial Accounting	NEC	3	0	0	3	3
3	23HS973	Engineering Management and Law	NEC	3	0	0	3	3
4	23HS974	Knowledge Management	NEC	3	0	0	3	3
5	23HS975	Industrial Management	NEC	3	0	0	3	3
6	23HS976	Entrepreneurship and Business Opportunities	NEC	3	0	0	3	3
7	23HS977	Modern Business Administration and Financing	NEC	3	0	0	3	3
8	23HS978	Essentials of Management	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE 3 - SAFETY RELATED COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS979	Disaster Management	NEC	3	0	0	3	3
2	23HS980	Industrial Safety	NEC	3	0	0	3	3
3	23HS981	Automotive Safety	NEC	3	0	0	3	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	HSMC	BSC	ESC	PCC	DEC	NEC	EEC	Total
Semester I	5	11	5					21
Semester II	4	7	9	6				26
Semester III	3	4		16				23
Semester IV		4		14	6		1	25
Semester V			2	9	6	3	2	22
Semester VI			5	8	6	3	3	25
Semester VII			2	12		3	5	22
Semester VIII							10	10
(ECE) Department curriculum	12	26	23	65	18	9	21	174

B.E. ELECTRICAL AND ELECTRONICS ENGINEERING

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
	23IP101	Induction Programme		-	-	-	-	-
THEORY								
1	23HS101	Essential Communication	HSMC	3	0	0	3	3
2	23MA101	Matrices and Calculus	BSC	3	0	0	3	3
3	23AD101	Programming in Python	ESC	3	0	0	3	3
4	23HS102	Heritage of Tamils	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
5	23PH111	Engineering Physics	BSC	3	0	2	5	4
6	23CY111	Engineering Chemistry	BSC	3	0	2	5	4
PRACTICALS								
7	23AD121	Python Programming Laboratory	ESC	0	0	4	4	2
8	23HS121	Communication Skills Laboratory	HSMC	0	0	2	2	1
9	23HS122	General Clubs / Technical Clubs / NCC / NSS / Extension Activities	HSMC	0	0	2	2	1*
TOTAL				16	0	12	28	21

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23HS201	Professional English	HSMC	3	0	0	3	3
2	23MA201	Vector Calculus and Complex Functions	BSC	3	1	0	4	4
3	23PH204	Physics for Electrical Engineering	BSC	3	0	0	3	3
4	23EE201	Electric Circuit Analysis	PCC	3	1	0	4	4
5	23ME271	Basic Mechanical and Building Sciences	ESC	3	0	0	3	3
6	23HS203	Tamils and Technology	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
7	23ME211	Engineering Graphics	ESC	3	0	2	5	4
PRACTICALS								
8	23ME221	Engineering Practices Laboratory	ESC	0	0	4	4	2
9	23EE221	Electric Circuits Laboratory	PCC	0	0	4	4	2
10	23HS221	Soft Skills	EEC	0	0	2	2	1*
TOTAL				19	2	12	33	26

SEMESTER - III

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA303	Transforms, Partial Differential Equations and Probability	BSC	3	1	0	4	4
2	23EE301	DC Machines and Transformers	PCC	3	0	0	3	3
3	23EE302	Analog and Digital electronics	PCC	3	0	0	3	3
4	23EE303	Electromagnetic Fields	PCC	3	0	0	3	3
5	23HS301	Universal Human Values and Ethics	HSMC	3	0	0	3	3
THEORY AND PRACTICALS (INTEGRATED COURSE)								
6	23CS381	Data Structures using C	PCC	3	0	2	5	4
PRACTICALS								
7	23EE321	DC Machines and Transformers Laboratory	PCC	0	0	4	4	2
8	23EE322	Analog and Digital Electronics Laboratory	PCC	0	0	4	4	2
9	23ES391	Presentation Skills	EEC	0	0	2	2	1*
TOTAL				18	1	12	31	24

SEMESTER - IV

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA203	Statistics and Numerical Methods	BSC	3	1	0	4	4
2	23EE401	Induction and Synchronous Machines	PCC	3	0	0	3	3
3	23EE402	Microprocessor and Microcontroller	PCC	3	0	0	3	3
4	23EE403	Measurements and Instrumentation	PCC	3	0	0	3	3
5	23EE404	Transmission and Distribution	PCC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23EE411	Linear Integrated Circuits	PCC	2	0	2	4	3
PRACTICALS								
7	23EE421	Induction and Synchronous Machines Laboratory	PCC	0	0	4	4	2
8	23EE422	Microprocessor and Microcontroller Laboratory	PCC	0	0	4	4	2
9	23ES491	Aptitude and Logical Reasoning - 1	EEC	0	0	2	2	1*
10	23EE423	In-plant Training / Industry Certification Courses	EEC	0	0	2	2	1
TOTAL				17	1	14	32	24

SEMESTER - V

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23RE501	Research Methodology & IPR	ESC	2	0	0	2	2
2	23EE501	Power Electronics	PCC	3	0	0	3	3
3	23EE502	Power System Analysis	PCC	3	1	0	4	4
4		Department Elective 1	DEC	3	0	0	3	3
5		Non-Department Elective 1/ (Emerging Technologies)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23EE511	Control Systems	PCC	3	0	2	5	4
PRACTICALS								
7	23EE521	Power Electronics Laboratory	PCC	0	0	4	4	2
8	23EE522	Mini Project	EEC	0	0	4	4	2
9	23ES591	Aptitude and Logical Reasoning -2	EEC	0	0	2	2	1*
TOTAL				17	1	12	30	23

SEMESTER - VI

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Department Elective 2	DEC	3	0	0	3	3
2		Department Elective 3	DEC	3	0	0	3	3
3		Department Elective 4	DEC	3	0	0	3	3
4		Non-Department Elective 2 (Management /safety)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23CE611	Environmental Sciences and Engineering	ESC	3	0	2	5	4
6	23EE611	Core Course 20 - Renewable Energy Systems	PCC	3	0	2	5	4
PRACTICALS								
7	23EE621	Project Work - Phase 1	EEC	0	0	4	4	2
8	23EE622	Technical Training	EEC	0	0	2	2	1
9	23EE623	Technical Seminar- 1	ESC	0	0	2	2	1
TOTAL				18	0	12	30	24

SEMESTER - VII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Non-Department Elective 3 (Management)	NEC	3	0	0	3	3
2		Department Elective 5	DEC	3	0	0	3	3
3		Department Elective 6	DEC	3	0	0	3	3
4	23EE701	Technical Comprehension	EEC	2	0	0	2	2
THEORY AND PRACTICALS								
5	23EE711	Power System Protection and Control	PCC	3	0	2	5	4
PRACTICALS								
6	23EE721	Project Work - Phase 2	EEC	0	0	6	6	3
7	23EE722	Technical Seminar - 2	ESC	0	0	4	4	2
TOTAL				14	0	12	26	20

SEMESTER - VIII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23EE821/ 23EE822	Internship / Capstone Project	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

TOTAL CREDITS: 172

VERTICAL 1: - CONVERTERS AND DRIVES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23EE031	Advanced Power Semiconductor Devices	DEC	3	0	0	3	3
2	23EE032	Multi-Level Power Converters	DEC	2	0	2	4	3
3	23EE033	Power Electronics for Renewable Energy Systems	DEC	2	0	2	4	3
4	23EE034	Special Electrical Machines	DEC	2	0	2	4	3
5	23EE035	SMPS & UPS	DEC	3	0	0	3	3
6	23EE036	Solid State Drives	DEC	3	0	0	3	3
7	23EE037	Control of Power Electronics Circuits	DEC	2	0	2	4	3
8	23EE038	Analysis of Electrical Machines	DEC	3	0	0	3	3

VERTICAL 2: ELECTRIC VEHICLES TECHNOLOGY

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23EE039	Electric Vehicle Architecture	DEC	3	0	0	3	3
2	23EE040	Design of Electric Vehicle Charging System	DEC	2	0	2	4	3
3	23EE041	Intelligent Control of Electric Vehicles	DEC	2	0	2	4	3
4	23EE042	Grid Integration of Electric Vehicles	DEC	3	0	0	3	3
5	23EE043	Testing of Electric Vehicles	DEC	2	0	2	4	3
6	23EE044	Design of Motor and Power Converters for Electric Vehicles	DEC	2	0	2	4	3
7	23EE045	Embedded System for Automotive Applications	DEC	2	0	2	4	3

VERTICAL 3: GREEN ENERGY TECHNOLOGIES

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23EE046	Solar Energy Systems	DEC	3	0	0	3	3
2	23EE047	Wind Energy Conversion System	DEC	3	0	0	3	3
3	23EE048	Energy Storage Systems	DEC	3	0	0	3	3
4	23EE049	Distributed Generation and Micro grid.	DEC	3	0	0	3	3
5	23EE050	Grid Integration Challenges for RES	DEC	3	0	0	3	3
6	23EE051	Smart Grids	DEC	3	0	0	3	3
7	23EE052	Hybrid Energy Technology	DEC	3	0	0	3	3

VERTICAL 4: POWER ENGINEERING

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23EE053	Utilization and Conservation of Electrical Energy	DEC	3	0	0	3	3
2	23EE054	HVDC Transmission	DEC	3	0	0	3	3
3	23EE055	Energy Management and Auditing	DEC	3	0	0	3	3
4	23EE056	Flexible AC Transmission Systems	DEC	3	0	0	3	3
5	23EE057	Power System Transients	DEC	3	0	0	3	3
6	23EE058	High Voltage Engineering	DEC	3	0	0	3	3
7	23EE059	Power Quality	DEC	3	0	0	3	3
8	23EE060	Restructured Power Market	DEC	3	0	0	3	3

VERTICAL 5: DIVERSIFIED COURSES

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23EE061	VLSI Design	DEC	2	0	2	4	3
2	23EE062	PLC Programming	DEC	2	0	2	4	3
3	23EE063	Wearable Electronics	DEC	3	0	0	3	3
4	23EE064	Embedded Systems	DEC	3	0	0	3	3
5	23EE065	Neural Network and Fuzzy Systems for Electrical Engineers	DEC	3	0	0	3	3
6	23EE066	IoT for Power Systems	DEC	3	0	0	3	3

NON-DEPARTMENT ELECTIVE (OPEN ELECTIVES)- EMERGING TECHNOLOGIES

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23NE971	Quantum Technology	NEC	3	0	0	3	3
2	23NE972	Blockchain Technologies	NEC	3	0	0	3	3
3	23NE973	Big data Analytics	NEC	3	0	0	3	3
4	23NE974	Augmented Reality / Virtual Reality	NEC	3	0	0	3	3
5	23NE975	Artificial Intelligence and Machine Learning Fundamentals	NEC	3	0	0	3	3
6	23NE976	IoT concepts and applications	NEC	3	0	0	3	3
7	23NE977	Data Science and Fundamentals	NEC	3	0	0	3	3
8	23NE978	Remote Sensing Concepts	NEC	3	0	0	3	3
9	23NE979	Urban Agriculture	NEC	3	0	0	3	3
10	23NE980	Electric Vehicle Technology	NEC	3	0	0	3	3
11	23NE981	Nano Technology	NEC	3	0	0	3	3
12	23NE982	Functional Materials	NEC	3	0	0	3	3
13	23NE983	Introduction to Renewable Energy systems	NEC	3	0	0	3	3
14	23NE984	Integrated Energy planning for sustainable Development	NEC	3	0	0	3	3

NON- DEPARTMENT ELECTIVE - MANAGEMENT COURSES

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS971	Total Quality Management	NEC	3	0	0	3	3
2	23HS972	Engineering Economics and Financial Accounting	NEC	3	0	0	3	3
3	23HS973	Engineering Management and Law	NEC	3	0	0	3	3
4	23HS974	Knowledge Management	NEC	3	0	0	3	3
5	23HS975	Industrial Management	NEC	3	0	0	3	3
6	23HS976	Entrepreneurship and Business Opportunities	NEC	3	0	0	3	3
7	23HS977	Modern Business Administration and Financing	NEC	3	0	0	3	3
8	23HS978	Essentials of Management	NEC	3	0	0	3	3

NON-DEPARTMENT ELECTIVE - SAFETY RELATED COURSES

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS979	Disaster Management	NEC	3	0	0	3	3
2	23HS980	Industrial Safety	NEC	3	0	0	3	3
3	23HS981	Automotive Safety	NEC	3	0	0	3	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	HSMC	BSC	ESC	PCC	DEC	NEC	EEC	Total
Semester I	5	11	5					21
Semester II	4	7	9	6				26
Semester III	3	4		17				24
Semester IV		4		19			1	24
Semester V			2	13	3	3	2	23
Semester VI			5	4	9	3	3	24
Semester VII			2	4	6	3	5	20
Semester VIII							10	10
Total - curriculum-EEE	12	26	23	63	18	9	21	172

B.E. COMPUTER SCIENCE AND ENGINEERING

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
	23IP101	Induction Programme		-	-	-	-	-
THEORY								
1	23HS101	Essential Communication	HSMC	3	0	0	3	3
2	23MA101	Matrices and Calculus	BSC	3	0	0	3	3
3	23CS101	Programming in C	ESC	3	0	0	3	3
4	23HS102	Heritage of Tamils	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
5	23PH111	Engineering Physics	BSC	3	0	2	5	4
6	23CY111	Engineering Chemistry	BSC	3	0	2	5	4
PRACTICALS								
7	23CS121	C Programming Laboratory	ESC	0	0	4	4	2
8	23HS121	Communication Skills Laboratory	HSMC	0	0	2	2	1
9	23CS122	Computational Thinking	ESC	0	0	2	2	1
10	23HS122	General Clubs / Technical Clubs / NCC / NSS / Extension Activities	HSMC	0	0	2	2	1*
TOTAL				16	0	14	30	22

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23HS201/ 23HS202	Professional English / Foreign Language	HSMC	3	0	0	3	3
2	23MA204	Probability and Statistics	BSC	3	1	0	4	4
3	23PH205	Physics for Information Science	BSC	3	0	0	3	3
4	23CS201	Data Structures using C	PCC	3	0	0	3	3
5	23HS203	Tamils and Technology	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
6	23EE281	Basic Electrical and Electronics Engineering	ESC	2	0	2	4	3
7	23ME211	Engineering Graphics	ESC	3	0	2	5	4
PRACTICALS								
8	23ME221	Engineering Practices Laboratory	ESC	0	0	4	4	2
9	23CS221	Data Structures Using C Laboratory	PCC	0	0	4	4	2
10	23HS221	Soft Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	33	25

SEMESTER III

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA202	Discrete Mathematics	BSC	3	1	0	4	4
2	23CS301	Object Oriented Programming	PCC	3	0	0	3	3
3	23CS302	Database Management Systems	PCC	3	0	0	3	3
4	23HS301	Universal Human Values and Ethics	HSMC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23CS311	Digital Principles and System Design	PCC	3	0	2	5	4
6	23CS312	Design and Analysis of Algorithms	PCC	3	0	2	5	4
PRACTICALS								
7	23CS321	Object Oriented Programming Laboratory	PCC	0	0	4	4	2
8	23CS322	Database Management Systems Laboratory	PCC	0	0	4	4	2
9	23ES391	Presentation Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	33	25

SEMESTER IV

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA301	Linear Algebra	BSC	3	1	0	4	4
2	23CS401	Operating Systems	PCC	3	0	0	3	3
3	23CS402	Artificial Intelligence	PCC	3	0	0	3	3
4	23CS403	Theory of Computation	PCC	3	0	0	3	3
5	23CS404	Computer Architecture	PCC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23CS411	Software Engineering	PCC	3	0	2	5	4
PRACTICALS								
7	23CS421	Operating Systems Laboratory	PCC	0	0	4	4	2
8	23CS422	Artificial Intelligence Laboratory	PCC	0	0	4	4	2
9	23ES491	Aptitude and Logical Reasoning - 1	EEC	0	0	2	2	1*
10	23CS421	Mini Project - 1	EEC	0	0	2	2	1
TOTAL				18	1	14	33	25

SEMESTER V

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23RE501	Research Methodology and IPR	ESC	2	0	0	2	2
2	23CS501	Computer Networks	PCC	3	0	0	3	3
3		Department Elective - 1	DEC	3	0	0	3	3
4		Department Elective - 2	DEC	3	0	0	3	3
5		Non Department Elective - 1 (Emerging Technologies)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23CS511	Compiler Design	PCC	3	0	2	5	4
PRACTICALS								
7	23CS521	Computer Networks Lab	PCC	0	0	4	4	2
8	23CS522	Mini Project - 2	EEC	0	0	4	4	2
9	23ES591	Aptitude and Logical Reasoning - 2	EEC	0	0	2	2	1*
TOTAL				17	0	12	29	22

SEMESTER VI

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23CS601	Cyber Security	PCC	3	0	0	3	3
2		Department Elective - 3	DEC	3	0	0	3	3
3		Department Elective - 4	DEC	3	0	0	3	3
4		Non-Department Elective - 2 (Management / safety)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23CE611	Environmental Sciences and Engineering	ESC	3	0	2	5	4
6	23CS611	Internet Programming	PCC	3	0	2	5	4
PRACTICALS								
7	23CS621	Project Work - Phase 1	EEC	0	0	4	4	2
8	23CS622	Technical Training	EEC	0	0	2	2	1
9	23CS623	Technical Seminar - 1	ESC	0	0	2	2	1
TOTAL				18	0	12	30	24

SEMESTER VII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Non-Department Elective - 3 (Management)	NEC	3	0	0	3	3
2		Department Elective - 5	DEC	3	0	0	3	3
3		Department Elective - 6	DEC	3	0	0	3	3
4	23CS701	Comprehension	EEC	2	0	0	2	2
THEORY AND PRACTICALS								
5	23CS711	Machine Learning and it's applications	PCC	3	0	2	5	4
PRACTICALS								
6	23CS721	Project Work - Phase 2	EEC	0	0	6	6	3
7	23CS722	Technical Seminar - 2	ESC	0	0	4	4	2
TOTAL				14	0	12	26	20

SEMESTER VIII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CS821/ 23CS822	Internship / Capstone Project	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

- **Internship duration of 2 months at a stretch and the rest of (1 month) 30 days spread over semesters 3 to 8**

TOTAL CREDITS: 173

DEPARTMENT ELECTIVE COURSES

ELECTIVE 1: CLOUD COMPUTING

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23IT031	Distributed and Cloud Computing	DEC	2	0	2	4	3
2	23IT032	Cloud Services Management	DEC	2	0	2	4	3
3	23IT033	Virtualization	DEC	2	0	2	4	3
4	23IT034	Cloud Database Management	DEC	2	0	2	4	3
5	23IT035	Storage Technologies	DEC	2	0	2	4	3
6	23IT036	Security and Privacy in Cloud	DEC	2	0	2	4	3
7	23IT037	Stream Processing	DEC	2	0	2	4	3
8	23IT038	GDP and Cloud Web Services	DEC	2	0	2	4	3

ELECTIVE 2: FULL STACK DEVELOPMENT

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CS031	Java Full Stack Development	DEC	2	0	2	4	3
2	23CS032	Mobile App Development	DEC	2	0	2	4	3
3	23CS033	UI and UX Design	DEC	2	0	2	4	3
4	23CS034	MERN Stack Web Development	DEC	2	0	2	4	3
5	23CS035	Dev Ops	DEC	2	0	2	4	3
6	23CS036	Cognitive Systems	DEC	2	0	2	4	3
7	23CS037	Advanced Java Programming	DEC	2	0	2	4	3
8	23CS038	Python Full Stack Development	DEC	2	0	2	4	3

ELECTIVE 3: ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23IT039	Knowledge Engineering	DEC	3	0	0	3	3
2	23IT040	Introduction to Data Science	DEC	3	0	0	3	3
3	23IT041	Neural Networks and Deep Learning	DEC	3	0	0	3	3
4	23IT042	Natural Language Processing	DEC	3	0	0	3	3
5	23IT043	Principle practices of AI	DEC	3	0	0	3	3
6	23IT044	Big Data Analytics	DEC	3	0	0	3	3
7	23IT045	Data Mining and Warehousing	DEC	3	0	0	3	3
8	23IT046	Ethics and AI	DEC	3	0	0	3	3

ELECTIVE 4: NETWORK & SECURITY

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CS039	Ethical Hacking	DEC		3	0	0	3
2	23CS040	Digital and Mobile Forensics	DEC		3	0	0	3
3	23CS041	Social Network Security	DEC		3	0	0	3
4	23CS042	Information Security	DEC		3	0	0	3
5	23CS043	High Performance Networks	DEC		3	0	0	3
6	23CS044	Crypto currency and Blockchain Technology	DEC		3	0	0	3
7	23CS045	Protocols and Architectures for Wireless Sensor Networks	DEC		3	0	0	3
8	23CS046	Mobile and Pervasive Computing	DEC		3	0	0	3

VERTICAL 5: EMERGING TECHNOLOGIES

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CS047	Augmented Reality/Virtual Reality	DEC	2	0	2	4	3
2	23CS048	Quantum Computing	DEC	2	0	2	4	3
3	23CS049	Crypto currency and Blockchain Technologies	DEC	2	0	2	4	3
4	23CS050	Game Development	DEC	2	0	2	4	3
5	23CS051	UI and UX Design	DEC	2	0	2	4	3
6	23CS052	Internet of Things	DEC	2	0	2	4	3
7	23CS053	Computer Vision	DEC	2	0	2	4	3
8	23CS054	Robotic Process Automation	DEC	2	0	2	4	3

NON DEPARTMENT ELECTIVE - EMERGING TECHNOLOGY

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23NE971	Quantum Technology	NEC	3	0	0	3	3
2	23NE972	Blockchain Technology	NEC	3	0	0	3	3
3	23NE973	Big data Analytics	NEC	3	0	0	3	3
4	23NE974	Augmented Reality / Virtual Reality	NEC	3	0	0	3	3
5	23NE975	Artificial Intelligence and Machine Learning Fundamentals	NEC	3	0	0	3	3
6	23NE976	IoT concepts and applications	NEC	3	0	0	3	3
7	23NE977	Data Science and Fundamentals	NEC	3	0	0	3	3
8	23NE978	Remote Sensing Concepts	NEC	3	0	0	3	3
9	23NE979	Urban Agriculture	NEC	3	0	0	3	3
10	23NE980	Electric Vehicle Technology	NEC	3	0	0	3	3
11	23NE981	Nano Technology	NEC	3	0	0	3	3
12	23NE982	Functional Materials	NEC	3	0	0	3	3
13	23NE983	Introduction to Renewable Energy systems	NEC	3	0	0	3	3
14	23NE984	Integrated Energy planning for sustainable Development	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE - MANAGEMENT COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS971	Total Quality Management	NEC	3	0	0	3	3
2	23HS972	Engineering Economics and Financial Accounting	NEC	3	0	0	3	3
3	23HS973	Engineering Management and Law	NEC	3	0	0	3	3
4	23HS974	Knowledge Management	NEC	3	0	0	3	3
5	23HS975	Industrial Management	NEC	3	0	0	3	3
6	23HS976	Entrepreneurship and Business Opportunities	NEC	3	0	0	3	3
7	23HS977	Modern Business Administration and Financing	NEC	3	0	0	3	3
8	23HS978	Essentials of Management	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE - SAFETY RELATED COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS979	Disaster Management	NEC	3	0	0	3	3
2	23HS980	Industrial Safety	NEC	3	0	0	3	3
3	23HS981	Automotive Safety	NEC	3	0	0	3	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	HSMC	BSC	ESC	PCC	DEC	NEC	EEC	Total
Semester I	5	11	6					22
Semester II	4	7	9	5				25
Semester III	3	4		18				25
Semester IV		4		20			1	25
Semester V			2	9	6	3	2	22
Semester VI			5	7	6	3	3	24
Semester VII			2	4	6	3	5	20
Semester VIII							10	10
Total - curriculum-CSE	12	26	24	63	18	9	21	173

B.E. COMPUTER SCIENCE AND ENGINEERING (CYBER SECURITY)

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
	23IP101	Induction Programme		-	-	-	-	-
THEORY								
1	23HS101	Essential Communication	HSMC	3	0	0	3	3
2	23MA101	Matrices and Calculus	BSC	3	0	0	3	3
3	23CS101	Programming in C	ESC	3	0	0	3	3
4	23HS102	Heritage of Tamils	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
5	23PH111	Engineering Physics	BSC	3	0	2	5	4
6	23CY111	Engineering Chemistry	BSC	3	0	2	5	4
PRACTICALS								
7	23CS121	C Programming Laboratory	ESC	0	0	4	4	2
8	23HS121	Communication Skills Laboratory	HSMC	0	0	2	2	1
9	23CS122	Computational Thinking	ESC	0	0	2	2	1
10	23HS122	General Clubs / Technical Clubs / NCC / NSS / Extension Activities	HSMC	0	0	2	2	1*
TOTAL				16	0	14	30	22

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23HS201/ 23HS202	Professional English / Foreign Language	HSMC	3	0	0	3	3
2	23MA204	Probability and Statistics	BSC	3	1	0	4	4
3	23PH205	Physics for Information Science	BSC	3	0	0	3	3
4	23CS201	Data Structures using C	PCC	3	0	0	3	3
5	23HS203	Tamils and Technology	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
6	23EE281	Basic Electrical and Electronics Engineering	ESC	2	0	2	4	3
7	23ME211	Engineering Graphics	ESC	3	0	2	5	4
PRACTICALS								
8	23ME221	Engineering Practices Laboratory	ESC	0	0	4	4	2
9	23CS221	Data Structures Using C Laboratory	PCC	0	0	4	4	2
10	23HS221	Soft Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	33	25

SEMESTER - III

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA202	Discrete Mathematics	BSC	3	1	0	4	4
2	23CS301	Object Oriented Programming	PCC	3	0	0	3	3
3	23CB301	Database Management Systems and Security	PCC	3	0	0	3	3
4	23HS301	Universal Human Values and Ethics	HSMC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23CB311	Digital Principles and Computer Organization	PCC	3	0	2	5	4
6	23CS312	Design and Analysis of Algorithms	PCC	3	0	2	5	4
PRACTICALS								
7	23CS321	Object Oriented Programming Laboratory	PCC	0	0	4	4	2
8	23CB321	Database Management Systems and Security Laboratory	PCC	0	0	4	4	2
9	23ES391	Presentation Skills	HSMC	0	0	2	2	1*
TOTAL				18	0	14	32	25

SEMESTER - IV

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA301	Linear Algebra	BSC	3	1	0	4	4
2	23CB401	Operating Systems and Security	PCC	3	0	0	3	3
3	23CS402	Artificial Intelligence	PCC	3	0	0	3	3
4	23CB402	Information Security Principles	PCC	3	0	0	3	3
5	23CB403	Engineering Secure Software Systems	PCC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23CS611	Internet Programming	PCC	3	0	2	5	4
PRACTICALS								
7	23CB421	Operating Systems and Security Laboratory	PCC	0	0	4	4	2
8	23CS422	Artificial Intelligence Laboratory	PCC	0	0	4	4	2
9	23ES491	Aptitude and Logical Reasoning - 1	EEC	0	0	2	2	1*
10	23CB421	Mini Project - 1	EEC	0	0	2	2	1
TOTAL				18	1	14	33	25

SEMESTER - V

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23RE501	Research Methodology and IPR	ESC	2	0	0	2	2
2	23CS501	Computer Networks	PCC	3	0	0	3	3
3		Department Elective - 1	DEC	3	0	0	3	3
4		Department Elective - 2	DEC	3	0	0	3	3
5		Non Department Elective - 1 (Emerging Technologies)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23CB511	Cryptography and Cyber Security	PCC	3	0	2	5	4
PRACTICALS								
7	23CS521	Computer Networks Lab	PCC	0	0	4	4	2
8	23CB522	Mini Project - 2	EEC	0	0	4	4	2
9	23ES591	Aptitude and Logical Reasoning - 2	EEC	0	0	2	2	1*
TOTAL				17	0	12	29	22

SEMESTER - VI

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23CB601	Cyber Forensics	PCC	3	0	0	3	3
2		Department Elective - 3	DEC	3	0	0	3	3
3		Department Elective - 4	DEC	3	0	0	3	3
4		Non-Department Elective - 2 (Management / safety)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23CE611	Environmental Sciences and Engineering	ESC	3	0	2	5	4
6	23CB611	Penetration and Security Testing	PCC	3	0	2	5	4
PRACTICALS								
7	23CB621	Project Work - Phase 1	EEC	0	0	4	4	2
8	23CB622	Technical Training	EEC	0	0	2	2	1
9	23CB623	Technical Seminar- 1	ESC	0	0	2	2	1
TOTAL				18	0	12	30	24

SEMESTER -VII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Non-Department Elective - 3 (Management)	NEC	3	0	0	3	3
2		Department Elective - 5	DEC	3	0	0	3	3
3		Department Elective - 6	DEC	3	0	0	3	3
4	23CB701	Comprehension	EEC	2	0	0	2	2
THEORY AND PRACTICALS								
5	23CB711	Blockchain and Security	PCC	3	0	2	5	4
PRACTICALS								
6	23CB721	Project Work - Phase 2	EEC	0	0	6	6	3
7	23CB722	Technical Seminar - 2	ESC	0	0	4	4	2
TOTAL				14	0	12	26	20

SEMESTER - VIII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23CB821/ 22CB822	Internship / Capstone Project Work	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

TOTAL CREDITS: 173

DEPARTMENT ELECTIVE COURSES

ELECTIVE 1: CLOUD COMPUTING

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23IT031	Distributed and Cloud Computing	DEC	2	0	2	4	3
2	23IT032	Cloud Services Management	DEC	2	0	2	4	3
3	23IT033	Virtualization	DEC	2	0	2	4	3
4	23IT034	Cloud Database Management	DEC	2	0	2	4	3
5	23IT035	Storage Technologies	DEC	2	0	2	4	3
6	23IT036	Security and Privacy in Cloud	DEC	2	0	2	4	3
7	23IT037	Stream Processing	DEC	2	0	2	4	3
8	23IT038	GDP and Cloud Web Services	DEC	2	0	2	4	3

ELECTIVE 2: FULL STACK DEVELOPMENT

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CS031	Java Full Stack Development	DEC	2	0	2	4	3
2	23CS032	Mobile App Development	DEC	2	0	2	4	3
3	23CS033	UI and UX Design	DEC	2	0	2	4	3
4	23CS034	MERN Stack Web Development	DEC	2	0	2	4	3
5	23CS035	Dev Ops	DEC	2	0	2	4	3
6	23CS036	Cognitive Systems	DEC	2	0	2	4	3
7	23CS037	Advanced Java Programming	DEC	2	0	2	4	3
8	23CS038	Python Full Stack Development	DEC	2	0	2	4	3

ELECTIVE 3: ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23IT039	Knowledge Engineering	DEC	3	0	0	3	3
2	23IT040	Introduction to Data Science	DEC	3	0	0	3	3
3	23IT041	Neural Networks and Deep Learning	DEC	3	0	0	3	3
4	23IT042	Natural Language Processing	DEC	3	0	0	3	3
5	23IT043	Principle practices of AI	DEC	3	0	0	3	3
6	23IT044	Big Data Analytics	DEC	3	0	0	3	3
7	23IT045	Data Mining and Warehousing	DEC	3	0	0	3	3
8	23IT046	Ethics and AI	DEC	3	0	0	3	3

VERTICAL 4: CYBER SECURITY & DATA PRIVACY

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CS039	Ethical Hacking	DEC	2	0	2	4	3
2	23CS040	Digital and Mobile Forensics	DEC	2	0	2	4	3
3	23CS041	Social Network Security	DEC	2	0	2	4	3
4	23CB031	Security in Computing	DEC	2	0	2	4	3
5	23CB032	Applied Cryptography	DEC	2	0	2	4	3
6	23CB033	Privacy Preserving Data Mining	DEC	2	0	2	4	3
7	23CB034	Malware Analysis	DEC	2	0	2	4	3
8	23CB035	Intrusion Detection, Prevention and Key Management Techniques	DEC	2	0	2	4	3

VERTICAL 5: EMERGING TECHNOLOGIES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CS047	Augmented Reality/Virtual Reality	DEC	2	0	2	4	3
2	23CS048	Quantum Computing	DEC	2	0	2	4	3
3	23CB036	Mobile Computing Techniques	DEC	2	0	2	4	3
4	23CS050	Game Development	DEC	2	0	2	4	3
5	23CB037	Crypto currency	DEC	2	0	2	4	3
6	23CB038	Ad-hoc and Senor Networks	DEC	2	0	2	4	3
7	23CS053	Computer Vision	DEC	2	0	2	4	3
8	23CS054	Robotic Process Automation	DEC	2	0	2	4	3

NON DEPARTMENT ELECTIVE - EMERGING TECHNOLOGY

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23NE971	Quantum Technology	NEC	3	0	0	3	3
2	23NE972	Block chain Technology	NEC	3	0	0	3	3
3	23NE973	Big data Analytics	NEC	3	0	0	3	3
4	23NE974	Augmented Reality / Virtual Reality	NEC	3	0	0	3	3
5	23NE975	Artificial Intelligence and Machine Learning Fundamentals	NEC	3	0	0	3	3
6	23NE976	IoT concepts and applications	NEC	3	0	0	3	3
7	23NE977	Data Science and Fundamentals	NEC	3	0	0	3	3
8	23NE978	Remote Sensing Concepts	NEC	3	0	0	3	3
9	23NE979	Urban Agriculture	NEC	3	0	0	3	3
10	23NE980	Electric Vehicle Technology	NEC	3	0	0	3	3
11	23NE981	Nano Technology	NEC	3	0	0	3	3
12	23NE982	Functional Materials	NEC	3	0	0	3	3
13	23NE983	Introduction to Renewable Energy systems	NEC	3	0	0	3	3
14	23NE984	Integrated Energy planning for sustainable Development	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE - MANAGEMENT COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS971	Total Quality Management	NEC	3	0	0	3	3
2	23HS972	Engineering Economics and Financial Accounting	NEC	3	0	0	3	3
3	23HS973	Engineering Management and Law	NEC	3	0	0	3	3
4	23HS974	Knowledge Management	NEC	3	0	0	3	3
5	23HS975	Industrial Management	NEC	3	0	0	3	3
6	23HS976	Entrepreneurship and Business Opportunities	NEC	3	0	0	3	3
7	23HS977	Modern Business Administration and Financing	NEC	3	0	0	3	3
8	23HS978	Essentials of Management	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE - SAFETY RELATED COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS979	Disaster Management	NEC	3	0	0	3	3
2	23HS980	Industrial Safety	NEC	3	0	0	3	3
3	23HS981	Automotive Safety	NEC	3	0	0	3	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	HSMC	BSC	ESC	PCC	DEC	NEC	EEC	Total
Semester I	5	11	6					22
Semester II	4	7	9	5				25
Semester III	3	4	0	18				25
Semester IV		4		20			1	25
Semester V			2	9	6	3	2	22
Semester VI			5	7	6	3	3	24
Semester VII			2	4	6	3	5	20
Semester VIII							10	10
Total - curriculum-CSE(CS)	12	26	24	63	18	9	21	173

B.TECH. INFORMATION TECHNOLOGY

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
	23IP101	Induction Programme		-	-	-	-	-
THEORY								
1	23HS101	Essential Communication	HSMC	3	0	0	3	3
2	23MA101	Matrices and Calculus	BSC	3	0	0	3	3
3	23CS101	Programming in C	ESC	3	0	0	3	3
4	23HS102	Heritage of Tamils	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
5	23PH111	Engineering Physics	BSC	3	0	2	5	4
6	23CY111	Engineering Chemistry	BSC	3	0	2	5	4
PRACTICALS								
7	23CS121	C Programming Laboratory	ESC	0	0	4	4	2
8	23HS121	Communication Skills Laboratory	HSMC	0	0	2	2	1
9	23IT121	Information Technology Essentials	ESC	0	0	2	2	1
10	23HS122	General Clubs / Technical Clubs / NCC / NSS / Extension Activities	HSMC	0	0	2	2	1*
TOTAL				16	0	14	30	22

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23HS201/ 23HS202	Professional English / Foreign Language	HSMC	3	0	0	3	3
2	23MA204	Probability and Statistics	BSC	3	1	0	4	4
3	23PH205	Physics for Information Science	BSC	3	0	0	3	3
4	23IT201	Data Structures and Algorithms	PCC	3	0	0	3	3
5	23HS203	Tamils and Technology	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
6	23EE281	Basic Electrical and Electronics Engineering	ESC	2	0	2	4	3
7	23ME211	Engineering Graphics	ESC	3	0	2	5	4
PRACTICALS								
8	23ME221	Engineering Practices Laboratory	ESC	0	0	4	4	2
9	23IT221	Data Structures and Algorithms Laboratory	PCC	0	0	4	4	2
10	23HS221	Soft Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	33	25

SEMESTER - III

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA202	Discrete Mathematics	BSC	3	1	0	4	4
2	23IT301	Java Programming	PCC	3	0	0	3	3
3	23CS302	Database Management Systems	PCC	3	0	0	3	3
4	23HS301	Universal Human Values and Ethics	HSMC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23CS311	Digital Principles and System Design	PCC	3	0	2	5	4
6	23IT311	Advanced Algorithms	PCC	3	0	2	5	4
PRACTICALS								
7	23IT321	Java Programming Laboratory	PCC	0	0	4	4	2
8	23CS322	Database Management Systems Laboratory	PCC	0	0	4	4	2
9	23ES391	Presentation Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	33	25

SEMESTER - IV

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA301	Linear Algebra	BSC	3	1	0	4	4
2	23IT401	Machine Learning	PCC	3	0	0	3	3
3	23CS401	Operating Systems	PCC	3	0	0	3	3
4	23IT402	Formal Languages and Automata Theory	PCC	3	0	0	3	3
5	23IT403	Computer Organization and Architecture	PCC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23IT411	Web Technology	PCC	3	0	2	5	4
PRACTICALS								
7	23IT421	Machine Learning Laboratory	PCC	0	0	4	4	2
8	23CS421	Operating Systems Laboratory	PCC	0	0	4	4	2
9	23ES491	Aptitude and Logical Reasoning -1	EEC	0	0	2	2	1*
10	23IT422	Mini Project - 1	EEC	0	0	2	2	1
TOTAL				18	1	14	33	25

SEMESTER - V

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23RE501	Research Methodology and IPR	ESC	2	0	0	2	2
2	23IT501	Data Communications and Networks	PCC	3	0	0	3	3
3		Department Elective - 1	DEC	3	0	0	3	3
4		Department Elective - 2	DEC	3	0	0	3	3
5		Non-Department Elective - 1 (Emerging Technologies)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23IT511	Object Oriented Software Engineering	PCC	3	0	2	5	4
PRACTICALS								
7	23IT521	Data Communications and Networks Laboratory	PCC	0	0	4	4	2
8	23IT522	Mini Project - 2	EEC	0	0	4	4	2
9	23ES591	Aptitude and Logical Reasoning - 2	EEC	0	0	2	2	1*
TOTAL				17	0	12	29	22

SEMESTER - VI

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23IT601	Cryptography and Network Security	PCC	3	0	0	3	3
2		Department Elective - 3	DEC	3	0	0	3	3
3		Department Elective - 4	DEC	3	0	0	3	3
4		Non Department Elective - 2 (Management / safety)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23CE611	Environmental Sciences and Engineering	ESC	3	0	2	5	4
5	23IT611	Embedded Systems and IoT	PCC	3	0	2	5	4
PRACTICALS								
7	23IT621	Project Work - Phase 1	EEC	0	0	4	4	2
8	23IT622	Technical Training	EEC	0	0	2	2	1
9	23IT623	Technical Seminar - 1	ESC	0	0	2	2	1
TOTAL				18	0	12	30	24

SEMESTER - VII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Non Department Elective - 3 (Management)	NEC	3	0	0	3	3
2		Department Elective - 5	DEC	3	0	0	3	3
3		Department Elective - 6	DEC	3	0	0	3	3
4	23IT701	Comprehension	EEC	2	0	0	2	2
THEORY AND PRACTICALS								
5	23IT711	Software Project Management and Testing	PCC	3	0	2	5	4
PRACTICALS								
6	23IT721	Project Work - Phase 2	EEC	0	0	6	6	3
7	23IT722	Technical Seminar - 2	ESC	0	0	4	4	2
TOTAL				14	0	12	26	20

SEMESTER - VIII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23IT821/ 23IT822	Internship / Capstone Project	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

TOTAL CREDITS: 173

DEPARTMENT ELECTIVE COURSES

ELECTIVE 1: CLOUD COMPUTING

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23IT031	Distributed and Cloud Computing	DEC	2	0	2	4	3
2	23IT032	Cloud Services Management	DEC	2	0	2	4	3
3	23IT033	Virtualization	DEC	2	0	2	4	3
4	23IT034	Cloud Database Management	DEC	2	0	2	4	3
5	23IT035	Storage Technologies	DEC	2	0	2	4	3
6	23IT036	Security and Privacy in Cloud	DEC	2	0	2	4	3
7	23IT037	Stream Processing	DEC	2	0	2	4	3
8	23IT038	GDP and Cloud Web Services	DEC	2	0	2	4	3

ELECTIVE 2: FULL STACK DEVELOPMENT

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CS031	Java Full Stack Development	DEC	2	0	2	4	3
2	23CS032	Mobile App Development	DEC	2	0	2	4	3
3	23CS033	UI and UX Design	DEC	2	0	2	4	3
4	23CS034	MERN Stack Web Development	DEC	2	0	2	4	3
5	23CS035	Dev Ops	DEC	2	0	2	4	3
6	23CS036	Cognitive Systems	DEC	2	0	2	4	3
7	23CS037	Advanced Java Programming	DEC	2	0	2	4	3
8	23CS038	Python Full Stack Development	DEC	2	0	2	4	3

ELECTIVE 3: ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23IT039	Knowledge Engineering	DEC	3	0	0	3	3
2	23IT040	Introduction to Data Science	DEC	3	0	0	3	3
3	23IT041	Neural Networks and Deep Learning	DEC	3	0	0	3	3
4	23IT042	Natural Language Processing	DEC	3	0	0	3	3
5	23IT043	Principle practices of AI	DEC	3	0	0	3	3
6	23IT044	Big Data Analytics	DEC	3	0	0	3	3
7	23IT045	Data Mining and Warehousing	DEC	3	0	0	3	3
8	23IT046	Ethics and AI	DEC	3	0	0	3	3

ELECTIVE 4: NETWORK & SECURITY

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CS039	Ethical Hacking	DEC		3	0	0	3
2	23CS040	Digital and Mobile Forensics	DEC		3	0	0	3
3	23CS041	Social Network Security	DEC		3	0	0	3
4	23CS042	Information Security	DEC		3	0	0	3
5	23CS043	High Performance Networks	DEC		3	0	0	3
6	23CS044	Crypto currency and Blockchain Technology	DEC		3	0	0	3
7	23CS045	Protocols and Architectures for Wireless Sensor Networks	DEC		3	0	0	3
8	23CS046	Mobile and Pervasive Computing	DEC		3	0	0	3

ELECTIVE 5: SOFTWARE ENGINEERING

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23IT047	Software Design	DEC	3	0	0	3	3
2	23IT048	Software Documentation	DEC	3	0	0	3	3
3	23IT049	Human Computer Interface	DEC	3	0	0	3	3
4	23IT050	Software Quality Assurance	DEC	3	0	0	3	3
5	23IT051	Agile Methodology	DEC	3	0	0	3	3
6	23IT052	Software Requirements Engineering	DEC	3	0	0	3	3
7	23IT053	Software Reliability Metrics and Models	DEC	3	0	0	3	3
8	23IT054	Software Architecture	DEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE - EMERGING TECHNOLOGY

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23NE971	Quantum Technology	NEC	3	0	0	3	3
2	23NE972	Blockchain Technology	NEC	3	0	0	3	3
3	23NE973	Big data Analytics	NEC	3	0	0	3	3
4	23NE974	Augmented Reality / Virtual Reality	NEC	3	0	0	3	3
5	23NE975	Artificial Intelligence and Machine Learning Fundamentals	NEC	3	0	0	3	3
6	23NE976	IoT concepts and applications	NEC	3	0	0	3	3
7	23NE977	Data Science and Fundamentals	NEC	3	0	0	3	3
8	23NE978	Remote Sensing Concepts	NEC	3	0	0	3	3
9	23NE979	Urban Agriculture	NEC	3	0	0	3	3
10	23NE980	Electric Vehicle Technology	NEC	3	0	0	3	3
11	23NE981	Nano Technology	NEC	3	0	0	3	3
12	23NE982	Functional Materials	NEC	3	0	0	3	3
13	23NE983	Introduction to Renewable Energy systems	NEC	3	0	0	3	3
14	23NE984	Integrated Energy planning for sustainable Development	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE - MANAGEMENT COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS971	Total Quality Management	NEC	3	0	0	3	3
2	23HS972	Engineering Economics and Financial Accounting	NEC	3	0	0	3	3
3	23HS973	Engineering Management and Law	NEC	3	0	0	3	3
4	23HS974	Knowledge Management	NEC	3	0	0	3	3
5	23HS975	Industrial Management	NEC	3	0	0	3	3
6	23HS976	Entrepreneurship and Business Opportunities	NEC	3	0	0	3	3
7	23HS977	Modern Business Administration and Financing	NEC	3	0	0	3	3
8	23HS978	Essentials of Management	NEC	3	0	0	3	3

NON DEPARTMENT ELECTIVE - SAFETY RELATED COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS979	Disaster Management	NEC	3	0	0	3	3
2	23HS980	Industrial Safety	NEC	3	0	0	3	3
3	23HS981	Automotive Safety	NEC	3	0	0	3	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	HSMC	BSC	ESC	PCC	DEC	NEC	EEC	Total
Semester I	5	11	6					22
Semester II	4	7	9	5				25
Semester III	3	4		18				25
Semester IV		4		20			1	25
Semester V			2	9	6	3	2	22
Semester VI			5	7	6	3	3	24
Semester VII			2	4	6	3	5	20
Semester VIII							10	10
Total - curriculum- IT	12	26	24	63	18	9	22	173

B. Tech ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
	23IP101	Induction Programme		-	-	-	-	-
THEORY								
1	23HS101	Essential Communication	HSMC	3	0	0	3	3
2	23MA101	Matrices and Calculus	BSC	3	0	0	3	3
3	23AD101	Programming in Python	ESC	3	0	0	3	3
4	23HS102	Heritage of Tamils	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
5	23PH111	Engineering Physics	BSC	3	0	2	5	4
6	23CY111	Engineering Chemistry	BSC	3	0	2	5	4
PRACTICALS								
7	23AD121	Python Programming Laboratory	ESC	0	0	4	4	2
8	23HS121	Communication Skills Laboratory	HSMC	0	0	2	2	1
9	23HS122	General Clubs / Technical Clubs / NCC / NSS / Extension Activities	HSMC	0	0	2	2	1*
TOTAL				16	0	12	28	21

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23HS201/ 23HS202	Professional English / Foreign Language	HSMC	3	0	0	3	3
2	23MA202	Discrete Mathematics	BSC	3	1	0	4	4
3	23PH205	Physics for Information Science	BSC	3	0	0	3	3
4	23AD201	C and Data Structures	PCC	3	0	0	3	3
5	23HS203	Tamils and Technology	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
6	23EE281	Basic Electrical and Electronics Engineering	ESC	2	0	2	4	3
7	23ME211	Engineering Graphics	ESC	3	0	2	5	4
PRACTICALS								
8	23ME221	Engineering Practices Laboratory	ESC	0	0	4	4	2
9	23AD221	C and Data Structures Lab	PCC	0	0	4	4	2
10	23HS221	Soft Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	33	25

SEMESTER - III

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA301	Linear Algebra	BSC	3	1	0	4	4
2	23CS302	Data Base Management System	PCC	3	0	0	3	3
3	23AD301	OOPs in C++ and Java	PCC	3	0	0	3	3
4	23HS301	Universal Human Values and Ethics	HSMC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23AD311	Fundamentals of Data Science	PCC	3	0	2	5	4
6	23CB311	Digital Principles and Computer Organization	ESC	3	0	2	5	4
PRACTICALS								
7	23CS322	DBMS Laboratory	PCC	0	0	4	4	2
8	23AD322	OOPs in C++ and Java Laboratory	PCC	0	0	4	4	2
9	23 ES391	Presentation Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	33	25

SEMESTER - IV

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA401	Mathematical Modeling for Data Science	BSC	2	0	2	4	4
2	23AD401	Design and Analysis of Algorithms	PCC	3	0	0	3	3
3	23CS401	Operating Systems	PCC	3	0	0	3	3
4	23AD402	Big Data Computing	PCC	3	0	0	3	3
5	23AD403	Data Warehousing and Data Mining	PCC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23AD411	Fundamentals of Artificial Intelligence	PCC	3	0	2	5	4
PRACTICALS								
7	23CS421	Operating Systems Laboratory	PCC	0	0	4	4	2
8	23AD421	Big Data Computing Laboratory	PCC	0	0	4	4	2
9	23ES491	Aptitude and Logical Reasoning - 1	EEC	0	0	2	2	1*
10	23AD422	Mini Project - 1	EEC	0	0	2	2	1
TOTAL				17	0	16	33	25

SEMESTER - V

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23RE501	Research Methodology and IPR	ESC	2	0	0	2	2
2	23AD501	Web Technologies	PCC	3	0	0	3	3
3		Department Elective - 1	DEC	3	0	0	3	3
4		Department Elective - 2	DEC	3	0	0	3	3
5		Non-Department Elective - 1 (Emerging Technologies)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23AD511	Machine Learning and Data Visualization	PCC	3	0	2	5	4
PRACTICALS								
7	23AD521	Web Technologies Laboratory	PCC	0	0	4	4	2
8	23AD522	Mini Project - 2	EEC	0	0	4	4	2
9	23ES591	Aptitude and Logical Reasoning - 2	EEC	0	0	2	2	1*
TOTAL				17	0	12	29	22

SEMESTER - VI

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Department Elective - 3	DEC	3	0	0	3	3
2		Department Elective - 4	DEC	3	0	0	3	3
3		Non-Department Elective - 2 (Management / Safety)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
4	23CE611	Environmental Sciences and Engineering	ESC	3	0	2	4	4
5	23AD611	Deep Learning	PCC	3	0	2	5	4
6	23AD612	Natural Language Processing	PCC	3	0	2	5	4
PRACTICALS								
7	23AD621	Project Work - Phase 1	EEC	0	0	4	4	2
8	23AD622	Technical Training	EEC	0	0	2	2	1
9	23AD623	Technical Seminar -1	ESC	0	0	2	2	1
TOTAL				18	0	14	31	25

SEMESTER - VII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Non-Department Elective 3 (Management)	NEC	3	0	0	3	3
2		Department Elective - 5	DEC	3	0	0	3	3
3		Department Elective - 6	DEC	3	0	0	3	3
4	23AD701	Comprehension	EEC	2	0	0	2	2
THEORY AND PRACTICALS								
5	23AD711	Computer Vision	PCC	3	0	2	5	4
PRACTICALS								
6	23AD721	Project Work - Phase 2	EEC	0	0	6	6	3
7	23AD722	Technical Seminar - 2	ESC	0	0	4	4	2
TOTAL				14	0	12	26	20

SEMESTER - VIII

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23AD821/23AD822	Internship / Capstone Project	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

TOTAL CREDITS: 173

DEPARTMENT ELECTIVE COURSES

VERTICAL 1: Generic Core Computer Engineering

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AD031	Data Processing using Python	DEC	3	0	2	5	4
2	23AD032	Object oriented Analysis and Design	DEC	3	0	2	5	4
3	23AD033	Automata Theory and Compiler Design	DEC	3	0	2	5	4
4	23AD034	Software Engineering Principles	DEC	3	0	0	3	3
5	23AD035	Distributed Computing	DEC	3	0	0	3	3
6	23AD035	Software Testing and Automation	DEC	3	0	2	5	4
7	23AD037	Principles of Programming Languages	DEC	3	0	2	5	4
8	23AD038	Social and Information Networks	DEC	3	0	0	3	3

VERTICAL 2: Analytical Sciences

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AD039	Business Intelligence and Analytics	DEC	3	0	0	3	3
2	23AD040	Software Project Management	DEC	3	0	2	5	4
3	23AD041	Exploratory Data Analysis	DEC	3	0	2	5	4
4	23AD042	Healthcare Data Analytics	DEC	3	0	0	3	3
5	23AD043	Intelligent Robots	DEC	3	0	0	3	3
6	23AD044	Pattern Recognition	DEC	3	0	2	5	4
7	23AD045	Soft Computing	DEC	3	0	2	5	4
8	23AD046	Knowledge Representation in AI	DEC	3	0	0	3	3

VERTICAL 3: Full Stack Development

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CS031	Java Full Stack Development	DEC	3	0	2	5	4
2	23CS032	Mobile App Development	DEC	3	0	2	5	4
3	23CS033	UI and UX Design	DEC	3	0	2	5	4
4	23CS034	MERN Stack Web Development	DEC	3	0	2	5	4
5	23CS035	Dev Ops	DEC	3	0	2	5	4
6	23CS036	Cognitive Systems	DEC	3	0	0	3	3
7	23CS037	Advanced Java Programming	DEC	3	0	2	5	4
8	23CS038	Python Full Stack Development	DEC	3	0	0	3	3

VERTICAL 4: Computational Intelligence

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AD047	Robotic Process Automation	DEC	3	0	0	3	3
2	23AD048	Augmented Reality and Virtual Reality	DEC	3	0	2	5	4
3	23AD049	Ethics of AI	DEC	3	0	2	5	4
4	23AD050	Speech Processing	DEC	3	0	2	5	4
5	23AD051	Evolutionary Computation	DEC	3	0	0	3	3
6	23AD052	Video Analytics	DEC	3	0	0	3	3
7	23AD053	Predictive Analysis and IOT	DEC	3	0	0	3	3
8	23AD054	Information Retrieval Techniques	DEC	3	0	2	5	4

VERTICAL 5: Cyber Security and Cloud Data Storage

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AD055	Web Application Security	DEC	3	0	3	3	3
2	23AD056	AI for Cyber Security	DEC	3	0	3	3	3
3	23AD057	Cyber Threat Intelligence	DEC	3	0	3	3	3
4	23AD058	Information Security Analysis and Audit	DEC	3	0	3	3	3
5	23AD059	Cloud Databases	DEC	3	0	3	3	3
6	23AD060	Ethical Hacking	DEC	3	0	3	3	3
7	23AD061	Steganography And Digital Watermarking	DEC	3	0	3	3	3
8	23AD062	Network Security & Cryptography	DEC	3	0	3	3	3

NON-DEPARTMENT ELECTIVE I - EMERGING TECHNOLOGY

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23NE971	Quantum Technology	NEC	3	0	0	3	3
2	23NE972	Blockchain Technology	NEC	3	0	0	3	3
3	23NE973	Big Data Analytics	NEC	3	0	0	3	3
4	23NE974	Augmented Reality / Virtual Reality	NEC	3	0	0	3	3
5	23NE975	Artificial Intelligence and Machine Learning Fundamentals	NEC	3	0	0	3	3
6	23NE976	IoT concepts and applications	NEC	3	0	0	3	3
7	23NE977	Data Science and Fundamentals	NEC	3	0	0	3	3
8	23NE978	Remote Sensing Concepts	NEC	3	0	0	3	3
9	23NE979	Urban Agriculture	NEC	3	0	0	3	3
10	23NE980	Electric Vehicle Technology	NEC	3	0	0	3	3
11	23NE981	Nano Technology	NEC	3	0	0	3	3
12	23NE982	Functional Materials	NEC	3	0	0	3	3
13	23NE983	Introduction to Renewable Energy systems	NEC	3	0	0	3	3
14	23NE984	Integrated Energy planning for sustainable Development	NEC	3	0	0	3	3

NON-DEPARTMENT ELECTIVE II - MANAGEMENT COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS971	Total Quality Management	NEC	3	0	0	3	3
2	23HS972	Engineering Economics and Financial Accounting	NEC	3	0	0	3	3
3	23HS973	Engineering Management and Law	NEC	3	0	0	3	3
4	23HS974	Knowledge Management	NEC	3	0	0	3	3
5	23HS975	Industrial Management	NEC	3	0	0	3	3
6	23HS976	Entrepreneur and Business Opportunity	NEC	3	0	0	3	3
7	23HS977	Modern Business Administration and Financing	NEC	3	0	0	3	3
8	23HS978	Essentials of Management	NEC	3	0	0	3	3

NON-DEPARTMENT ELECTIVE III - SAFETY RELATED COURSES

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS979	Disaster Management	NEC	3	0	0	3	3
2	23HS980	Industrial Safety	NEC	3	0	0	3	3
3	23HS981	Automotive Safety	NEC	3	0	0	3	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	HSMC	BSC	ESC	PCC	DEC	NEC	EEC	Total
Semester I	4	11	5				1	21
Semester II	4	7	9	5				25
Semester III	3	4		18				25
Semester IV		4		20			1	25
Semester V			2	9	6	3	2	22
Semester VI			5	8	6	3	3	25
Semester VII			2	4	6	3	5	20
Semester VIII							10	10
Total - curriculum- AIDS	11	26	23	64	18	9	22	173

B. Tech FASHION TECHNOLOGY

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
	23IP101	Induction Programme		-	-	-	-	-
THEORY								
1	23HS101	Essential Communication	HSMC	3	0	0	3	3
2	23MA101	Matrices and Calculus	BSC	3	0	0	3	3
3	23AD101	Programming in Python	ESC	3	0	0	3	3
4	23HS102	Heritage of Tamils	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
5	23PH111	Engineering Physics	BSC	3	0	2	5	4
6	23CY111	Engineering Chemistry	BSC	3	0	2	5	4
PRACTICALS								
7	23AD121	Python Programming Laboratory	ESC	0	0	4	4	2
8	23HS121	Communication Skills Laboratory	HSMC	0	0	2	2	1
9	23HS122	General Clubs / Technical Clubs / NCC / NSS / Extension Activities	HSMC	0	0	2	2	1*
TOTAL				16	0	12	28	21

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23HS201/ 23HS202	Professional English / Foreign Language	HSMC	3	0	0	3	3
2	23MA203	Statistics and Numerical Methods	BSC	3	1	0	4	4
3	23PH206	Material Science	BSC	3	0	0	3	3
4	23FT201	Introduction to global fashion industry and fashion design	PCC	3	0	0	3	3
5	23HS203	Tamils and Technology	HSMC	1	0	0	1	1
THEORY AND PRACTICALS								
6	23EE282	Basic Electrical, Electronics and Instrumentation Engineering	ESC	2	0	2	4	3
7	23ME211	Engineering Graphics	ESC	3	0	2	5	4
PRACTICALS								
8	23ME221	Engineering Practices Laboratory	ESC	0	0	4	4	2
9	23FT221	Fashion Designing Laboratory	PCC	0	0	4	4	2
10	23HS221	Soft Skills	EEC	0	0	2	2	1*
TOTAL				18	1	14	33	25

SEMESTER III

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MA304	Probability and Statistical Methods	BSC	4	0	0	4	4
2	23FT301	Technology of Spinning Processes	PCC	3	0	0	3	3
3	23FT302	Apparel Machineries and Equipment	PCC	3	0	0	3	3
4	23HS301	Universal Human Values and Ethics	HSMC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23FT311	Textile Fiber Science and Characteristics	PCC	3	0	2	5	4
6	23FT312	Pattern Engineering	PCC	2	0	4	6	4
PRACTICALS								
7	23FT321	Computer Aided Fashion Designing Laboratory	PCC	0	0	4	4	2
8	23FT322	Garment Components Construction Laboratory	PCC	0	0	4	4	2
9	23ES391	Presentation Skills	EEC	0	0	2	2	1*
TOTAL				18	0	16	34	25

SEMESTER IV

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23CY401	Chemistry for Textile Technologists	BSC	3	1	0	4	4
2	23FT401	Fabric Manufacturing	PCC	3	0	0	3	3
3	23FT402	Fabric Structures	PCC	3	0	0	3	3
4	23FT403	Garment Construction I	PCC	3	0	0	3	3
5		Department Elective - 1	DEC	3	0	0	3	3
6		Department Elective - 2	DEC	3	0	0	3	3
PRACTICALS								
7	23FT421	Fabric Structure Laboratory	PCC	0	0	4	4	2
8	23FT422	Garment Construction Laboratory I	PCC	0	0	4	4	2
9	23ES491	Aptitude and Logical reasoning -1	EEC	0	0	2	2	*1
10	23FT423 / 23FT424	In-plant Training / Mini Project - 1	EEC	0	0	2	2	1
TOTAL				18	1	12	31	24

SEMESTER V

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23RE501	Research Methodology & IPR	ESC	2	0	0	2	2
2	23FT501	Apparel Marketing and Merchandising	PCC	3	0	0	3	3
3		Department Elective - 3	DEC	3	0	0	3	3
4		Department Elective - 4	DEC	3	0	0	3	3
5		Non-Department Elective 1 (Emerging Technologies)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
6	23FT511	Textile Chemical Processing	PCC	3	0	2	5	4
PRACTICALS								
7	23FT521	Computer Aided Garment Designing Laboratory	PCC	0	0	4	4	2
8	23FT522	Mini Project - 2	EEC	0	0	4	4	2
9	23ES591	Aptitude & Logical Reasoning -2	EEC	0	0	2	2	*1
TOTAL				17	0	12	29	22

SEMESTER VI

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Department Elective 5	DEC	3	0	0	3	3
2		Department Elective 6	DEC	3	0	0	3	3
3		Non-Department Elective 2 (Management /safety)	NEC	3	0	0	3	3
THEORY AND PRACTICALS								
4	23CE611	Environmental Sciences and Engineering	ESC	3	0	2	5	4
5	23FT611	Garment Construction II	PCC	2	0	4	6	4
6	23FT612	Fabric and Garment Quality Evaluation	PCC	3	0	2	5	4
PRACTICALS								
7	23FT621	Project Work- Phase 1	EEC	0	0	4	4	2
8	23FT622	Technical Training	EEC	0	0	2	2	1
9	23FT623	Technical Seminar	ESC	0	0	2	2	1
TOTAL				17	0	16	33	25

SEMESTER VII

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Non-Department Elective 3 (Management)	NEC	3	0	0	3	3
2	23FT701	Apparel Production Planning and Process Control	PCC	3	0	0	3	3
3	23FT702	Fundamentals of Economics and Apparel Costing	PCC	3	0	0	3	3
4	23FT703	Comprehension	EEC	2	0	0	2	2
THEORY AND PRACTICALS								
5	23FT711	Industrial Engineering in Garment Manufacturing	PCC	3	0	2	5	4
PRACTICALS								
6	23FT721	Project work Phase - 2	EEC	0	0	6	6	3
7	23FT722	Industrial Training	EEC	0	0	4	4	2
TOTAL				14	0	12	26	20

SEMESTER VIII

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23FT821/ 23FT822	Internship/Capstone Project	EEC	0	0	20	20	10
TOTAL				0	0	20	20	10

TOTAL CREDITS: 172

DEPARTMENT ELECTIVE COURSES: VERTICALS

VERTICAL 1: FASHION DESIGNING

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23FT031	Fashion Evolution	DEC	3	0	0	3	3
2	23FT032	Indian Traditional Textiles and Crafts	DEC	3	0	0	3	3
3	23FT033	Color Science and Psychology	DEC	3	0	0	3	3
4	23FT034	Surface Embellishments	DEC	3	0	0	3	3
5	23FT035	Principles and Elements Of Designing	DEC	3	0	0	3	3
6	23FT036	Digital Fashion and Apparel Design	DEC	3	0	0	3	3
7	23FT037	Fashion Communication Design Foundation	DEC	3	0	0	3	3
8	23FT038	Fashion Psychology	DEC	3	0	0	3	3

VERTICAL 2: TEXTILE TECHNOLOGY

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23FT039	Technology of Nonwoven	DEC	3	0	0	3	3
2	23FT040	Technical Textiles	DEC	3	0	0	3	3
3	23FT041	Denim Technology	DEC	3	0	0	3	3
4	23FT042	Geo Textiles	DEC	3	0	0	3	3
5	23FT043	Agro Textiles	DEC	3	0	0	3	3
6	23FT044	Automotive Textiles	DEC	3	0	0	3	3

VERTICAL 3: APPAREL DESIGN AND DEVELOPMENT

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23FT045	Clothing Science and Comfort	DEC	3	0	0	3	3
2	23FT046	Fashion Product Development	DEC	3	0	0	3	3
3	23FT047	Garment Finishing and Care	DEC	3	0	0	3	3
4	23FT048	Knit Product Development	DEC	3	0	0	3	3
5	23FT049	Home Furnishing	DEC	3	0	0	3	3
6	23FT050	Apparel Trims, Accessories and Embellishments	DEC	3	0	0	3	3
7	23FT051	Production And Application of Sewing Threads	DEC	3	0	0	3	3
8	23FT052	Sustainable Fashion Product Development	DEC	3	0	0	3	3

VERTICAL 4: APPAREL MARKETING AND RETAIL

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23FT053	Fashion Forecasting	DEC	3	0	0	3	3
2	23FT054	Visual Merchandising	DEC	3	0	0	3	3
3	23FT055	Apparel Retail Management	DEC	3	0	0	3	3
4	23FT056	Apparel Brand Management	DEC	3	0	0	3	3
5	23FT057	Digital Marketing and E-Business	DEC	3	0	0	3	3
6	23FT058	Fashion Photography	DEC	3	0	0	3	3
7	23FT059	Digital Fashion and Branding	DEC	3	0	0	3	3

VERTICAL 5: GARMENT INDUSTRY MANAGEMENT

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23FT060	Entrepreneurship in Apparel Manufacture	DEC	3	0	0	3	3
2	23FT061	Sustainable Apparel Business Management	DEC	3	0	0	3	3
3	23FT062	International Textile and Apparel Business Management	DEC	3	0	0	3	3
4	23FT063	Energy Management in Apparel Industry	DEC	3	0	0	3	3
5	23FT064	Operation Research in Apparel Industry	DEC	3	0	0	3	3
6	23FT065	Human Resource Management	DEC	3	0	0	3	3

VERTICAL 6: SPECIALTY GARMENTS

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23FT066	Protective Garments	DEC	3	0	0	3	3
2	23FT067	Intimate Apparels	DEC	3	0	0	3	3
3	23FT068	Smart Textiles and Garments	DEC	3	0	0	3	3
4	23FT069	Sports Textiles and Garments	DEC	3	0	0	3	3
5	23FT070	Medical Textiles and Garments	DEC	3	0	0	3	3
6	23FT071	Leather Garment Technology	DEC	3	0	0	3	3

VERTICAL 7: GARMENT MANUFACTURING

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23FT072	Computer Applications In Apparel Manufacturing	DEC	3	0	0	3	3
2	23FT073	Advanced Technologies And Automations for Apparel Industry	DEC	3	0	0	3	3
3	23FT074	Lean Manufacturing	DEC	3	0	0	3	3
4	23FT075	Supply Chain Management for Apparel Industry	DEC	3	0	0	3	3
5	23FT076	Social Compliances and Quality Assurance In Apparel Industry	DEC	3	0	0	3	3
6	23FT077	ERP and MIS in Apparel Industry	DEC	3	0	0	3	3

NON-DEPARTMENT ELECTIVE - EMERGING TECHNOLOGY

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23NE971	Quantum Technology	NEC	3	0	0	3	3
2	23NE972	Blockchain Technologies	NEC	3	0	0	3	3
3	23NE973	Big data Analytics	NEC	3	0	0	3	3
4	23NE974	Augmented Reality / VirtualReality	NEC	3	0	0	3	3
5	23NE975	Artificial Intelligence and Machine Learning Fundamentals	NEC	3	0	0	3	3
6	23NE976	IoT concepts and applications	NEC	3	0	0	3	3
7	23NE977	Data Science and Fundamentals	NEC	3	0	0	3	3
8	23NE978	Remote Sensing Concepts	NEC	3	0	0	3	3
9	23NE979	Urban Agriculture	NEC	3	0	0	3	3
10	23NE980	Electric Vehicle Technology	NEC	3	0	0	3	3
11	23NE981	Nano Technology	NEC	3	0	0	3	3
12	23NE982	Functional Materials	NEC	3	0	0	3	3
13	23NE983	Introduction to Renewable Energy systems	NEC	3	0	0	3	3
14	23NE984	Integrated Energy planning for sustainable Development	NEC	3	0	0	3	3

NON-DEPARTMENT ELECTIVE - MANAGEMENT COURSES

SL. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS971	Total Quality Management	NEC	3	0	0	3	3
2	23HS972	Engineering Economics and Financial Accounting	NEC	3	0	0	3	3
3	23HS973	Engineering Management and Law	NEC	3	0	0	3	3
4	23HS974	Knowledge Management	NEC	3	0	0	3	3
5	23HS975	Industrial Management	NEC	3	0	0	3	3
6	23HS976	Entrepreneurship and Business Opportunities	NEC	3	0	0	3	3
7	23HS977	Modern Business Administration and Financing	NEC	3	0	0	3	3
8	23HS978	Essentials of Management	NEC	3	0	0	3	3

NON-DEPARTMENT ELECTIVE - SAFETY RELATED COURSES

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23HS979	Disaster Management	NEC	3	0	0	3	3
2	23HS980	Industrial Safety	NEC	3	0	0	3	3
3	23HS981	Automotive Safety	NEC	3	0	0	3	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	HSMC	BSC	ESC	PCC	DEC	NEC	EEC	Total
Semester I	5	11	5					21
Semester II	4	7	9	5				25
Semester III	3	4		18				25
Semester IV		4		13	6		1	24
Semester V			2	9	6	3	2	22
Semester VI			5	8	6	3	3	25
Semester VII			2	10		3	5	20
Semester VIII							10	10
KCG - FT	12	26	23	63	18	9	21	172

M.E. AERONAUTICAL ENGINEERING

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MAP101	Advanced Mathematical Methods	FC	4	0	0	4	4
2	23AEP102	Aerospace Propulsion	PCC	3	0	0	3	3
3	23AEP103	Aircraft Structural Mechanics	PCC	3	1	0	4	4
4	23AEP104	Flight Vehicle Aerodynamics	PCC	4	0	0	4	4
5	23RMP101	Advanced Research Methodology and IPR	RMC	2	0	0	2	2
6		Professional Elective- I	PEC	3	0	0	3	3
7		Audit Course-I*	AC	2	0	0	2	0
PRACTICAL								
8	23AEP121	Low Speed and High Speed Aerodynamics Laboratory	PCC	0	0	4	4	2
9	23AEP122	Jet Propulsion Laboratory	PCC	0	0	4	4	2
TOTAL				21	1	8	30	24

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23AEP201	Advanced Flight Dynamics & Simulation	PCC	3	0	2	5	4
2	23AEP202	CFD for Aerospace Applications	PCC	3	0	0	3	3
3	23AEP203	Analysis of Composite Structures	PCC	3	0	0	3	3
4	23AEP204	Advanced Finite Element Analysis	PCC	3	0	0	3	3
5		Professional Elective-II	PEC	3	0	0	3	3
6		Professional Elective-III	PEC	3	0	0	3	3
7		Audit Course-II*	AC	2	0	0	2	0
PRACTICAL								
8	23AEP221	Structures Laboratory	PCC	0	0	4	4	2
9	23AEP222	Mini Project with Seminar	EEC	0	0	4	4	2
10	23AEP223	Computational Laboratory	PCC	0	0	4	4	2
TOTAL				20	0	14	34	25

SEMESTER - III

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Professional Elective-IV	PEC	3	0	0	3	3
2		Professional Elective-V	PEC	3	0	0	3	3
3		Open Elective	OEC	3	0	0	3	3
PRACTICAL								
4	23AEP321	Project Work I	EEC	0	0	12	12	6
TOTAL				9	0	12	21	15

SEMESTER - IV

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICAL								
1	23AEP421	Project Work II	EEC	0	0	24	24	12
TOTAL				0	0	24	24	12

TOTALCREDITS: 76

**PROFESSIONAL ELECTIVE COURSES (PEC)
SEMESTER- I, ELECTIVE-I**

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AEP031	Theory of Vibrations	PEC	3	0	0	3	
2	23AEP032	Rocketry and Space Mechanics	PEC	3	0	0	3	
3	23AEP033	Computational Heat Transfer	PEC	3	0	0	3	
4	23AEP034	Theory of Elasticity	PEC	3	0	0	3	
5	23AEP035	Experimental Aerodynamics	PEC	3	0	0	3	
6	23AEP036	Control Engineering	PEC	3	0	0	3	

SEMESTER-II, ELECTIVE-II

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23AEP037	Structural Dynamics	PEC	3	0	0	3	
2	23AEP038	Hypersonic Aerodynamics	PEC	3	0	0	3	
3	23AEP039	Advanced Propulsion Systems	PEC	3	0	0	3	
4	23AEP040	Aerospace Materials	PEC	3	0	0	3	
5	23AEP041	Airworthiness and Air Regulations	PEC	3	0	0	3	
6	23AEP042	Experimental Methods of Stress Analysis	PEC	3	0	0	3	

SEMESTER-II, ELECTIVE-III

SL. NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
			L	T	P		
1	23AEP043	Aero elasticity	PEC	3	0	0	3
2	23AEP044	Theory of Boundary Layers	PEC	3	0	0	3
3	23AEP045	Combustion in Jet and Rocket Engines	PEC	3	0	0	3
4	23AEP046	Gas Dynamics	PEC	3	0	0	3
5	23AEP047	Fatigue and Fracture Mechanics	PEC	3	0	0	3

SEMESTER-III, ELECTIVE-IV

SL. NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
			L	T	P		
1	23AEP048	Vibration Isolation and Control	PEC	3	0	0	3
2	23AEP049	Non-Destructive Evaluation	PEC	3	0	0	3
3	23AEP050	Component Design of Aircraft Engines	PEC	3	0	0	3
4	23AEP051	Aircraft Systems Engineering	PEC	3	0	0	3
5	23AEP052	Aircraft Design	PEC	3	0	0	3
6	23AEP053	Composite Product Processing Methods	PEC	3	0	0	3

SEMESTER-III, ELECTIVE-V

SL. NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
			L	T	P		
1	23AEP054	Helicopter Aerodynamics	PEC	3	0	0	3
2	23AEP055	High Speed Jet Flows	PEC	3	0	0	3
3	23AEP056	Smart Materials and Structural Health Monitoring	PEC	3	0	0	3
4	23AEP057	Artificial Intelligence and Machine Learning	PEC	3	0	0	3
5	23AEP058	Aircraft Guidance and Control	PEC	3	0	0	3

AUDIT COURSES (AC)
Registration for any of these courses is optional to students

SL. NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
			L	T	P		
1	23AXP091	English for Research Paper Writing	2	0	0	0	0
2	23AXP092	Disaster Management	2	0	0	0	0
3	23AXP093	Constitution of India	2	0	0	0	0
4	23AXP094	நற்றமிழ் இலக்கியம்	2	0	0	0	0

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	FC	PCC	PEC	RMC	OEC	EEC	Total
Semester I	4	15	3	2			24
Semester II		17	6			2	25
Semester III			6		3	6	15
Semester IV						12	12
KCG - ME(Aero)	4	32	15	2	3	20	76

M.E. MANUFACTURING ENGINEERING

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MAP105	Applied Probability and Statistics for Manufacturing Engineering	FC	3	1	0	4	4
2	23MFP101	Advances in Manufacturing Processes	PCC	3	0	0	3	3
3	23MFP102	Advances in Casting and Welding	PCC	3	0	0	3	3
4	23MFP103	Theory of Metal Cutting	PCC	3	0	0	3	3
5	23MFP104	Computer Aided Design and Manufacturing	PCC	3	0	0	3	3
6	23RMP101	Advanced Research Methodology and IPR	RMC	2	0	0	2	2
7		Audit Course - I*	AC	2	0	0	2	0
PRACTICALS								
8	23MFP121	CAD/CAM Laboratory	PCC	0	0	4	4	2
9	23MFP122	Technical Seminar	EEC	0	0	2	2	1
TOTAL				19	1	6	26	21

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MFP201	Optimization Techniques in Manufacturing	PCC	3	0	0	3	3
2	23MFP202	Advances in Metrology and Inspection	PCC	3	0	0	3	3
3	23MFP203	Theory of Metal Forming	PCC	3	0	0	3	3
4	23MFP204	Additive Manufacturing	PCC	3	0	0	3	3
5	23MFP205	Fluid Power Automation	PCC	3	0	0	3	3
6		Professional Elective - I	PEC	3	0	0	3	3
7		Professional Elective - II	PEC	3	0	0	3	3
8		Audit Course - II*	AC	2	0	0	2	0
PRACTICALS								
9	23MFP221	Automation and Metal Forming Laboratory	PCC	0	0	4	4	2
10	23MFP222	Advanced Manufacturing Processes Laboratory	PCC	0	0	4	4	2
TOTAL				23	0	8	31	25

SEMESTER - III

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Professional Elective - III	PEC	3	0	0	3	3
2		Professional Elective - IV	PEC	3	0	0	3	3
3		Professional Elective - V	PEC	3	0	0	3	3
4		Open Elective	OEC	3	0	0	3	3
PRACTICALS								
5	23MFP321	Project Work - I	EEC	0	0	12	12	6
TOTAL				12	0	12	24	18

SEMESTER - IV

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23MFP421	Project Work - II	EEC	0	0	24	24	12
TOTAL				0	0	24	24	12

TOTAL CREDITS: 76

**PROFESSIONAL ELECTIVES FOR M.E. MANUFACTURING ENGINEERING
SEMESTER -II, ELECTIVES - I & II**

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23MFP031	Micro Manufacturing	PCC	3	0	0	3	3
2	23MFP032	Industrial Ergonomics	PCC	3	0	0	3	3
3	23MF033	Polymers and Composite Materials	PCC	3	0	0	3	3
4	23MFP034	Non-Destructive Testing	PCC	3	0	0	3	3
5	23MFP035	Lean Manufacturing	PCC	3	0	0	3	3
6	23MFP036	MEMS and Nanotechnology	PCC	3	0	0	3	3

SEMESTER- III, ELECTIVES - III, IV & V

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23MFP037	Quality and Reliability Engineering	PCC	3	0	0	3	3
2	23MFP038	Materials Management	PCC	3	0	0	3	3
3	23MFP039	Mechatronics	PCC	3	0	0	3	3
4	23MFP040	Internet of Things for Manufacturing	PCC	3	0	0	3	3
5	23MFP041	Product Lifecycle Management	PCC	3	0	0	3	3
6	23MFP042	Product Design and Development	PCC	3	0	0	3	3
7	23MFP043	Industrial Safety	PCC	3	0	0	3	3
8	23MFP044	Smart Manufacturing	PCC	3	0	0	3	3
9	23MFP045	Entrepreneurship Development	PCC	3	0	0	3	3

LIST OF OPEN ELECTIVES FOR PG PROGRAMMES

SL. NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			CREDITS
			L	T	P	
1	23OEP901	Principles of Sustainable Development	3	0	0	3
2	23OEP902	Environmental Impact Assessment	3	0	0	3
3	23OEP903	Machine Learning and Deep Learning	3	0	0	3
4	23OEP904	Renewable Energy Technology	3	0	0	3
5	23OEP905	Blockchain Technologies	3	0	0	3
6	23OEP906	Internet of Things and Cloud Computing Technologies	3	0	0	3
7	23OEP909	Micro and Small Business Management	3	0	0	3

AUDIT COURSES (AC)

Registration for any of these courses is optional to students

SL. NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			CREDITS
			L	T	P	
1	23AXP091	English for Research Paper Writing	2	0	0	0
2	23AXP092	Disaster Management	2	0	0	0
3	23AXP093	Constitution of India	2	0	0	0
4	23AXP094	நற்றமிழ் இலக்கியம்	2	0	0	0

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	FC	RMC	PCC	DEC	NEC	EEC	Total
Semester I	4	2	14	-	-	1	21
Semester II	-	-	19	6	-	-	25
Semester III	-	-	-	9	3	6	18
Semester IV	-	-	-	-	-	12	12
KCG Curriculum M.E - MFG.	4	2	33	15	3	19	76

M.E. COMMUNICATION SYSTEMS

SEMESTER I

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MAP103	Linear Algebra, Probability and Queueing Theory	FC	3	1	0	4	4
2	23RMP101	Advanced Research Methodology and IPR	RMC	2	0	0	2	2
3	23ECP101	Statistical Signal Processing	PCC	3	0	0	3	3
4	23ECP102	Modern Digital Communication Systems	PCC	3	0	0	3	3
5	23ECP103	Advanced Wireless Communication	PCC	3	0	0	3	3
6	23ECP104	Radiating Systems	PCC	3	0	0	3	3
7		Audit Course - I*	AC	2	0	0	2	0
PRACTICALS								
8	23ECP121	Digital Communication Systems Laboratory	PCC	0	0	3	3	1.5
9	23ECP122	Advanced Digital Signal Processing Laboratory	PCC	0	0	3	3	1.5
TOTAL				19	1	6	26	21

*Audit course is optional

SEMESTER II

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23ECP201	RF System Design	PCC	3	0	0	3	3
2	23ECP202	Advanced Wireless Networks	PCC	3	0	0	3	3
3		Professional Elective I	PEC	3	0	0	3	3
4		Professional Elective II	PEC	3	0	0	3	3
THEORY AND PRACTICALS								
5	23ECP211	Microwave Integrated Circuits	PCC	3	0	2	5	4
6	23ECP212	Machine Learning	PCC	3	0	2	5	4
7		Audit Course - II*	AC	2	0	0	2	0
PRACTICALS								
8	23ECP221	Wireless Communication Laboratory	PCC	0	0	4	4	2
9	23ECP222	Term Paper Writing and Seminar	EEC	0	0	2	2	1
TOTAL				20	0	10	30	23

SEMESTER III

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23ECP301	Optical Communication and Networking	PCC	3	0	0	3	3
2		Professional Elective III	PEC	3	0	0	3	3
THEORY AND PRACTICALS								
3		Professional Elective IV	PEC	3	0	2	5	4
4		Open Elective	OEC	3	0	0	3	3
PRACTICALS								
5	23ECP321	Project Work I	EEC	0	0	12	12	6
TOTAL				12	0	14	26	19

SEMESTER IV

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23ECP421	Project Work II	EEC	0	0	24	24	12
TOTAL				0	0	24	24	12

TOTAL NO. OF CREDITS: 75

PROFESSIONAL ELECTIVES

SEMESTER II, ELECTIVE I

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23ECP031	Electromagnetic Interference and Compatibility	PEC	3	0	0	3	3
2	23ECP032	Advanced Satellite Communication and Navigation Systems	PEC	3	0	0	3	3
3	23ECP033	High Speed Switching and Networking	PEC	3	0	0	3	3
4	23ECP034	Signal Integrity for High Speed Design	PEC	3	0	0	3	3
5	23ECP035	Wavelets and Subband Coding	PEC	3	0	0	3	3

SEMESTER II, ELECTIVE II

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23ECP036	Multimedia Compression Techniques	PEC	3	0	0	3	3
2	23ECP037	Cognitive Radio Networks	PEC	3	0	0	3	3
3	23ECP038	Speech Processing	PEC	3	0	0	3	3
4	23ECP039	mm Wave Communication	PEC	3	0	0	3	3
5	23ECP040	Analog and Mixed Signal VLSI Design	PEC	3	0	0	3	3

SEMESTER III, ELECTIVE III

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23ECP041	Ultra Wide Band Communications	PEC	3	0	0	3	3
2	23ECP042	VLSI for Wireless Communication	PEC	3	0	0	3	3
3	23ECP043	MEMS and NEMS	PEC	3	0	0	3	3
4	23ECP044	Advanced Antenna Design	PEC	3	0	0	3	3
5	23ECP045	Software Defined Radios	PEC	3	0	0	3	3

SEMESTER III, ELECTIVE IV

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23ECP046	Image Processing and Video Analytics	PEC	3	0	2	5	4
2	23ECP047	Radar Signal Processing	PEC	3	0	2	5	4
3	23ECP048	Telecommunication System Modeling and Simulation	PEC	3	0	2	5	4
4	23ECP049	Signal Detection and Estimation	PEC	3	0	2	5	4
5	23ECP050	Real Time Embedded Systems	PEC	3	0	2	5	4

AUDIT COURSES (AC)

Registration for any of these courses is optional to students

SL. NO.	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			CREDITS
			L	T	P	
1	23AXP091	English for Research Paper Writing	2	0	0	0
2	23AXP092	Disaster Management	2	0	0	0
3	23AXP093	Constitution of India	2	0	0	0
4	23AXP094	நற்றமிழ் இலக்கியம்	2	0	0	0

FOUNDATION COURSES (FC)

SL. NO.	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
			L	T	P		
1	23MAP171	Linear Algebra, Probability and Queueing Theory	3	1	0	4	4

PROFESSIONAL CORE COURSES (PCC)

SL. NO.	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			CREDITS	Semester
			L	T	P		
1	23ECP101	Statistical Signal Processing	3	0	0	3	I
2	23ECP102	Modern Digital Communication Systems	3	0	0	3	I
3	23ECP103	Advanced Wireless Communication	3	0	0	3	I
4	23ECP104	Radiating Systems	3	0	0	3	I
5	23ECP121	Digital Communication Systems Laboratory	0	0	3	1.5	I
6	23ECP122	Advanced Digital Signal Processing Laboratory	0	0	3	1.5	I
7	23ECP201	RF System Design	3	0	0	3	II
8	23ECP211	Microwave Integrated Circuits	3	0	2	4	II
9	23ECP203	Advanced Wireless Networks	3	0	0	3	II
10	23ECP212	Machine Learning	3	0	2	4	II
11	23ECP221	Wireless Communication Laboratory	0	0	4	2	II
12	23ECP222	Optical Communication and Networking	3	0	0	3	III

RESEARCH METHODOLOGY AND IPR COURSES (RMC)

SL. NO.	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			CREDITS	Semester
			L	T	P		
1	23RMP101	Advanced Research Methodology and IPR	2	0	0	2	1

EMPLOYABILITY ENHANCEMENT COURSES (EEC)

SL. NO.	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			CREDITS	Semester
			L	T	P		
1	23ECP222	Term Paper Writing and Seminar	0	0	2	1	II
2	23ECP321	Project Work I	0	0	12	6	III
3	23ECP421	Project Work II	0	0	24	12	IV

LIST OF OPEN ELECTIVES FOR PG PROGRAMMES

SL. NO.	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			CREDITS
			L	T	P	
1	23OEP901	Principles of Sustainable Development	3	0	0	3
2	23OEP902	Environmental Impact Assessment	3	0	0	3
3	23OEP903	Machine Learning and Deep Learning	3	0	0	3
4	23OEP904	Renewable Energy Technology	3	0	0	3
5	23OEP905	Blockchain Technologies	3	0	0	3
6	23OEP907	Additive Manufacturing	3	0	0	3
7	23OEP908	Electric Vehicle Technology	3	0	0	3
8	23OEP909	Micro and Small Business Management	3	0	0	3

Semester-wise Credit Distribution

SEMESTER	FC	RMC	EEC	PCC	PEC	OEC	AC	Total
Semester I	4	2		15			✓	21
Semester II			1	16	6		✓	23
Semester III			6	3	7	3	-	19
Semester IV			12				-	12
M.E. Communication Systems	4	2	19	34	13	3	-	75

M.E. POWER ELECTRONICS AND DRIVES

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MAP104	Applied Mathematics for Power Electronics Engineers	FC	3	1	0	4	4
2	23EEP101	Analysis of Electrical Machines	PCC	3	1	0	4	4
3	23EEP102	Analysis of Power Converters	PCC	3	1	0	4	4
4	23EEP103	Modeling and Design of SMPS	PCC	3	0	0	3	3
5	23RMP101	Advanced Research Methodology and IPR	RMC	2	0	0	2	2
6		Professional Elective I	PEC	3	0	0	3	3
7		Audit Course - I*	AC	2	0	0	2	0
PRACTICALS								
8	23EEP121	Power Converters Laboratory	PCC	0	0	4	4	2
9	23EEP122	Analog and Digital Controllers for PE Converters Laboratory	PCC	0	0	4	4	2
TOTAL				19	3	8	30	24

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23EEP201	Analysis of Electrical Drives	PCC	3	1	0	4	4
2	23EEP202	Special Electrical Machines	PCC	3	0	0	3	3
3	23EEP203	Electric Vehicles and Power Management	PCC	3	0	0	3	3
4		Professional Elective II	PEC	3	0	0	3	3
5		Professional Elective III	PEC	3	0	0	3	3
7		Audit Course II*	AC	2	0	0	2	0
PRACTICALS								
7	23EEP221	Power Electronics and Drives Laboratory	PCC	0	0	4	4	2
8	23EEP222	Design Laboratory for Power Electronics Systems	PCC	0	0	4	4	2
TOTAL				17	1	8	26	20

SEMESTER - III

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1		Professional Elective IV	PEC	3	0	0	3	3
2		Professional Elective V	PEC	3	0	0	3	3
3		Open Elective	OEC	3	0	0	3	3
PRACTICALS								
4	23EEP321	Project Work -1	EEC	0	0	12	12	6
TOTAL				9	0	12	21	15

SEMESTER - IV

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23EEP421/ 23EEP422	Project Work -II	EEC	0	0	24	24	12
TOTAL				0	0	24	24	12

PROFESSIONAL ELECTIVES

SEMESTER I ELECTIVE I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23EEP031	Power Semiconductor Devices	PEC	3	0	0	3	3
2	23EEP032	System Design Using Microcontroller	PEC	3	0	0	3	3
3	23EEP033	Electromagnetic Field Computation and Modelling	PEC	3	0	0	3	3
4	23EEP034	Soft Computing Techniques	PEC	3	0	0	3	3
5	23EEP035	Analog and Digital Controllers	PEC	3	0	0	3	3

**SEMESTER-II
ELECTIVE II&III**

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23EEP036	Power Electronics for Renewable Energy Systems	PEC	3	0	0	3	3
2	23EEP037	Modern Rectifiers and Resonant Converters	PEC	3	0	0	3	3
3	23EEP038	System Theory	PEC	3	0	0	3	3
4	23EEP039	Control of Power Electronic Circuits	PEC	3	0	0	3	3
5	23EEP040	Power Quality	PEC	3	0	0	3	3
6	23EEP041	DSP Based System Design	PEC	3	0	0	3	3
7	23EEP042	MEMS Design: Sensors and Actuators	PEC	3	0	0	3	3

**SEMESTER- III
ELECTIVE IV&V**

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23EEP043	Grid Integration of Renewable Energy Sources	PEC	3	0	0	3	3
2	23EEP044	Renewable Energy Technology	PEC	3	0	0	3	3
3	23EEP045	Wind Energy Conversion System	PEC	3	0	0	3	3
4	23EEP046	Optimization Techniques	PEC	3	0	0	3	3
5	23EEP047	Distributed Generation and Micro Grid	PEC	3	0	0	3	3
6	23EEP048	Energy Management and Auditing	PEC	3	0	0	3	3
7	23EEP049	Smart Grid	PEC	3	0	0	3	3
8	23EEP050	HVDC and FACTS	PEC	3	0	0	3	3

Registration for any of these courses is optional to students

SL. NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			CREDITS
			L	T	P	
1	23AXP091	English for Research Paper Writing	2	0	0	0
2	23AXP092	Disaster Management	2	0	0	0
3	23AXP093	Constitution of India	2	0	0	0
4	23AXP094	நற்றமிழ் இலக்கியம்	2	0	0	0

LIST OF OPEN ELECTIVES FOR PG PROGRAMMES

SL. NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			CREDITS
			L	T	P	
1	23OEP901	Principles of Sustainable Development	3	0	0	3
2	23OEP902	Environmental Impact Assessment	3	0	0	3
3	23OEP905	Blockchain Technologies	3	0	0	3
4	23OEP906	IoT & Cloud	3	0	0	3
5	23OEP907	Additive Manufacturing	3	0	0	3
6	23OEP908	Electric Vehicle Technology	3	0	0	3
7	23OEP909	Micro and Small Business Management	3	0	0	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	FC	RMC	PCC	PEC	OEC	EEC	AC	Total
Semester I	4	2	15	3			0	24
Semester II			14	6			0	20
Semester III				6	3	6		15
Semester IV						12		12
PSG- M.E. PED R2021	4	2	29	15	3	18	0	71

M.E. COMPUTER SCIENCE AND ENGINEERING

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23MAP102	Applied Probability and Statistics	FC	3	1	0	4	4
2	23CSP101	Advanced Data Structures and Algorithms	PCC	3	0	0	3	3
3	23CSP102	Advanced Network Technologies	PCC	3	0	0	3	3
4	23CSP103	Computational Intelligence and Data Visualization Techniques	PCC	3	0	0	3	3
5	23RMP101	Advanced Research Methodologies and IPR	RMC	2	0	0	2	2
6		Audit Course - I*	AC	2	0	0	2	0
THEORY AND PRACTICALS								
7	23CSP111	Advanced Database Management Systems	PCC	3	0	2	5	4
PRACTICALS								
8	23CSP121	Advanced Data Structures and Algorithms Laboratory	PCC	0	0	4	4	2
TOTAL				19	1	6	26	21

SEMESTER - II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23CSP201	Advanced Software Engineering	PCC	3	0	0	3	3
2		Professional Elective I	PEC	3	0	0	3	3
3		Professional Elective II	PEC	3	0	0	3	3
4		Audit Course - II*	AC	2	0	0	2	0
THEORY AND PRACTICALS								
5	23CSP211	Multicore Architecture and GPU Programming	PCC	3	0	2	5	4
6	23CSP212	Internet of Things and its Applications	PCC	3	0	2	5	4
7	23CSP213	Advanced Operating Systems	PCC	3	0	2	5	4
PRACTICALS								
8	23CSP221	Research Paper Writing and Seminar	EEC	0	0	2	2	1
9	23CSP222	Advanced Software Engineering Laboratory	PCC	0	0	4	4	2
TOTAL				20	0	12	32	24

SEMESTER - III

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	23CSP301	Applied Cryptography and Security	PCC	3	0	0	3	3
2		Professional Elective III	PEC	3	0	0	3	3
3		Professional Elective IV	PEC	3	0	0	3	3
4		Open Elective	OEC	3	0	0	3	3
PRACTICALS								
5	23CSP321	Project Work I	EEC	0	0	12	12	6
TOTAL				12	0	12	24	18

SEMESTER - IV

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
PRACTICALS								
1	23CSP421	Project Work II	EEC	0	0	24	24	12
TOTAL				0	0	24	24	12

TOTAL NO. OF CREDITS: 75

PROFESSIONAL ELECTIVES

SEMESTER- II, ELECTIVE- I

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CSP001	Distributed and Cloud Computing	PEC	3	0	0	3	3
2	23CSP002	Blockchain Technology	PEC	3	0	0	3	3
3	23CSP003	Machine Learning	PEC	3	0	0	3	3
4	23CSP004	Agile Methodologies and Software Design	PEC	3	0	0	3	3
5	23CSP005	Web Analytics	PEC	3	0	0	3	3

SEMESTER -II, ELECTIVE- II

SL. NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CSP006	High Performance Computing for Big Data	PEC	3	0	0	3	3
2	23CSP007	Mobile and Pervasive Computing	PEC	3	0	0	3	3
3	23CSP008	Soft Computing	PEC	3	0	0	3	3
4	23CSP009	Software Quality Assurance	PEC	3	0	0	3	3
5	23CSP010	Big Data Mining and Analytics	PEC	3	0	0	3	3

SEMESTER- III, ELECTIVE-III

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CSP011	Software Defined Networks	PEC	3	0	0	3	3
2	23CSP012	Web Services and API Design	PEC	3	0	0	3	3
3	23CSP013	Nature Inspired Computing Algorithms	PEC	3	0	0	3	3
4	23CSP014	Digital Image Processing	PEC	3	0	0	3	3
5	23CSP015	Natural Language Processing	PEC	3	0	0	3	3

SEMESTER -III, ELECTIVE-IV

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	23CSP016	Mixed Reality	PEC	3	0	0	3	3
2	23CSP017	Embedded Software Development	PEC	3	0	0	3	3
3	23CSP018	Deep Learning and Computer Vision	PEC	3	0	0	3	3
4	23CSP019	Cyber Physical Systems	PEC	3	0	0	3	3
5	23CSP020	Bioinformatics	PEC	3	0	0	3	3

AUDIT COURSES (AC)

Registration for any of these courses is optional to students

SL. NO.	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			CREDITS
			L	T	P	
1	23AXP091	English for Research Paper Writing	2	0	0	0
2	23AXP092	Disaster Management	2	0	0	0
3	23AXP093	Constitution of India	2	0	0	0
4	23AXP094	நற்றமிழ் இலக்கியம்	2	0	0	0

LIST OF OPEN ELECTIVES FOR PG PROGRAMMES

SL. NO.	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			CREDITS
			L	T	P	
1	23OEP901	Principles of Sustainable Development	3	0	0	3
2	23OEP902	Environmental Impact Assessment	3	0	0	3
3	23OEP904	Renewable Energy Technology	3	0	0	3
4	23OEP907	Additive Manufacturing	3	0	0	3
5	23OEP908	Electric Vehicle Technology	3	0	0	3
6	23OEP909	Micro and Small Business Management	3	0	0	3

SEMESTER-WISE CREDIT DISTRIBUTION

SEMESTER	FC	PCC	PEC	RMC	EEC	OEC	Total
Semester I	4	15		2			21
Semester II		17	6		1		24
Semester III		3	6		6	3	18
Semester IV					12		12
Total - KCG - Curriculum - ME(CSE)	4	35	12	2	19	3	75
AU	4	34	13	2	19	3	75