CURRICULUM

SEMESTER I

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSE								
1.	HS23111	Technical Communication I	HSM	2	2	0	0	2
2.	MA23112	Algebra and Calculus	BS	4	3	1	0	4
3.	GE23111	Engineering Graphics	ES	4	2	0	4	4
4	GE23211	Engineering Mechanics	ES	3	2	1	0	3
5	GE23117	தமிழர்மரபு /Heritage of Tamils	MC	1	1	0	0	1
LAB ORIENTED THEORY COURSE								
6.	EE23132	Basic Electrical Engineering	ES	5	3	0	2	4
LABORATORY COURSE								
7.	GE23121	Engineering Practices – Civil and Mechanical	ES	2	0	0	2	1
8.	GE23122	Engineering Practices-Electrical and Electronics	ES	2	0	0	2	1
9.	MT23121	Computer Aided Drawing Laboratory	ES	2	0	0	2	1
MANDATORY COURSE								
10.	MC23112	Environmental Science and Engineering	MC	3	3	0	0	0
			TOTAL	30	16	2	12	21

SEMESTER II

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSE								
1.	MA23212	Differential Equations and Complex Variables	BS	4	3	1	0	4
2	GE23217	தமிழரும் தொழில்நுட்பமும் / Tamils and Technology	MC	1	1	0	0	1
LAB ORIENTED THEORY COURSE								
3.	CY23131	Chemistry for Electronics Engineering	BS	5	3	0	2	4
4.	PH23131	Physics of Materials	BS	5	3	0	2	4
5	GE23131	Programming Using C	ES	7	1	0	6	4
6.	MT23131	Elements of Mechatronics	ES	4	2	0	2	3
LABORATORY COURSE								
7.	HS23221 / HS23222	Technical Communication II / English for Professional Competence	HSM	2	0	0	2	1
MANDATORY COURSE								
8.	MC23111	Indian Constitution and Freedom Movement	MC	3	3	0	0	0
			TOTAL	31	16	1	14	21

SEMESTER III

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSE								
1.	MA23311	Transforms And Partial Differential Equations	BS	4	3	1	0	4
2.	MT23311	Analog Circuits and Drives	PC	3	3	0	0	3
3	MT23312	Mechanics of Solids	PC	3	3	0	0	3
4	MT23313	Digital System Design	PC	3	3	0	0	3
LAB ORIENTED THEORY COURSE								
5.	MT23331	Manufacturing Technology	PC	5	3	0	2	4
6.	CS23336	Introduction to Python Programming	ES	6	2	0	4	4
LABORATORY COURSE								
7.	MT23321	Analog and Digital System Design Laboratory	PC	2	0	0	2	1
			TOTAL	**26**	**17**	**1**	**8**	**22**

SEMESTER IV

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSE								
1	MT23411	Fluid mechanics and Thermal Sciences	PC	4	4	0	0	4
2		Open Elective - I	OE	3	3	0	0	3
LAB ORIENTED THEORY COURSE								
3.	MA23432	Statistics and Numerical Methods	BS	5	3	0	2	4
4.	MT23431	Microcontrollers and Embedded Systems	PC	5	3	0	2	4
5.	MT23432	Sensors and Instrumentation	PC	5	3	0	2	4
6.	MT23433	System Dynamics and Control	PC	4	2	0	2	3
LABORATORY COURSE								
7.	MT23421	Strength of Materials and Fluid Mechanics Laboratory	PC	4	0	0	4	2
8	GE23327	Soft skills – I	EEC	2	0	0	2	1
			TOTAL	**32**	**18**	**1**	**12**	**25**

SEMESTER V

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSE								
1	MT23511	Design of Mechatronics System	PC	3	3	0	0	3
2	MT23512	Theory of Machines And Mechanisms	PC	4	3	1	0	4
3		Open Elective - II	OE	3	3	0	0	3
4		Professional Elective -I	PE	3	3	0	0	3
LAB ORIENTED THEORY COURSE								
5	MT23531	Industrial Electronics	PC	5	3	0	2	4
LABORATORY COURSE								
6	MT23521	Theory of Machines Laboratory	PE	2	0	0	2	1
7	CS23422	Python Programming for Machine Learning	PC	4	0	0	4	2
8	MT23522	Industry Internship	EEC	2	0	0	2	1
9	GE23427	Soft Skills – II	EEC	2	0	0	2	1
			TOTAL	**28**	**15**	**1**	**12**	**22**

SEMESTER VI

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSE								
1	GE23311	Fundamentals of Management for Engineers	HSM	3	3	0	0	3
2	MT23611	Fundamentals of Machine Design	PC	3	2	1	0	3
3		Professional Elective -II	PE	3	3	0	0	3
LAB ORIENTED THEORY COURSE								
4	MT23631	Industrial Robotics	PC	6	2	0	4	4
5	MT23632	Applied Hydraulics and Pneumatics	PC	6	2	0	4	4
LABORATORY COURSE								
6	GE23627	Problem solving Techniques	EEC	2	0	0	2	1
7	MT23621	Design Thinking For Innovation In Mechatronics Engineering	EEC	3	1	0	2	2
			TOTAL	**26**	**13**	**1**	**12**	**20**

SEMESTER VII

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSE								
1		Professional Elective - III	PE	3	3	0	0	3
2		Professional Elective - IV	PE	3	3	0	0	3
LAB ORIENTED THEORY COURSE								
3	MT23731	Industrial Automation	PC	6	2	0	4	4
4	MT23732	Machine Vision	PC	6	2	0	4	4
LABORATORY COURSE								
5	MT23721	Computer Aided Engineering Laboratory	PC	2	0	0	2	1
6	MT23722	Mechatronics Engineering Problem Solving using AI, ML and DL	PC	4	0	0	4	2
7	MT23723	Project Work- Phase I	EEC	4	0	0	4	2
			TOTAL	**28**	**10**	**0**	**18**	**19**

SEMESTER VIII

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSE								
1		Professional Elective - V	PE	3	3	0	0	3
2		Professional Elective - VI	PE	3	3	0	0	3
PRACTICAL COURSE								
3	MT23821	Project Work- Phase II	EEC	16	0	0	16	8
			TOTAL	**22**	**6**	**0**	**16**	**14**

TOTAL NO. OF CREDITS: 164

SUMMARY

	Subject Area	Credits Per Semester								Credits Total	Percentage %
	DEPARTMENT OF MECHATRONICS ENGINEERING										
	Semester	I	II	III	IV	V	VI	VII	VIII		
1.	Humanities, Social Studies and management science (HSM)	3	2				3			8	4.88
2.	Basic Sciences (BS)	4	12	4	4					24	14.63
3.	Engineering Sciences (ES)	14	7	4						25	15.24
4.	Professional Core (PC)			14	17	14	11	11		67	40.85
5.	Professional Electives (PE)					3	3	6	6	18	10.97
6.	Open Electives (OE)				3	3				6	3.66
7.	Project Work/ Employability Enhancement Course (PR/EEC)				1	2	3	2	8	16	9.76
	TOTAL	21	21	22	25	22	20	19	14	164	
8.	Non-Credit*/ (Mandatory)	√	√	—	-	-	-	-	-		