

KUMARAGURU COLLEGE OF TECHNOLOGY
DEPARTMENT OF MECHATRONICS ENGINEERING
Regulation 2017 - B.E MCE - Curriculum

Semester III										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U17MAT3101	Partial Differential Equations and Transforms	Theory	BS	3	1	0	0	4	Nil
2	U17MCI3201	Electrical Machines	Embedded - Theory & Lab	PC	3	0	2	0	4	Nil
3	U17MCT3002	Mechanics of solids	Theory	ES	3	1	0	0	4	U17MET2102
4	U17MCT3003	Fluid Mechanics and Thermal Sciences	Theory	ES	3	0	0	0	3	Nil
5	U17MCP3504	Manufacturing Technology	Lab	PC	0	0	2	0	1	Nil
6	U17INI3300	Engineering Clinics	Embedded - Theory & Project	ES	1	0	0	4	3	Nil
Total Credits									19	
Total Contact Hours/week									23	

Semester IV										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U17MAT4101	Numerical Methods and Probability	Theory	BS	3	1	0	0	4	Nil
2	U17MCI4201	Hydraulics and Pneumatics	Embedded - Theory & Lab	PC	3	0	2	0	4	U17MCT3003
3	U17MCI4202	Sensors and Instrumentation	Embedded - Theory & Lab	PC	3	0	2	0	4	Nil
4	U17MCT4003	Theory of Machines	Theory	PC	3	1	0	0	4	U17MET2102
5	U17MCT4004	Digital Electronics and Microprocessor	Theory	PC	3	0	0	0	3	U17MCT2002
6	U17INI4300	Engineering Clinics	Embedded - Theory & Project	ES	1	0	0	4	3	Nil
Total Credits									22	
Total Contact Hours/week									26	

Semester V										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U17MCI5201	Industrial Electronics and drives	Embedded - Theory & Lab	PC	3	0	2	0	4	U17MCI3201
2	U17MCI5202	Programable logic controllers	Embedded - Theory & Lab	PC	3	0	2	0	4	Nil
3	U17MCT5003	Design of Machine Elements	Theory	PC	3	0	0	0	3	U17MCT3002
4	U17MCT5004	Controls Engineering	Theory	PC	3	1	0	0	4	Nil
5	U17MCI5205	Computer aided Manufacturing	Embedded - Theory & Lab	PC	3	0	2	0	4	U17MCT2001
6	U17INI5300	Engineering Clinics	Embedded - Theory & Project	ES	1	0	0	4	3	Nil
Total Credits									22	
Total Contact Hours/week									27	

Semester VI										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U17MCT6101	Robotics Engineering	Embedded - Theory & Lab	PC	3	0	2	0	4	U17MCT4003
2	U17MCI6102	Microcontroller and Embedded Systems	Embedded - Theory & Lab	PC	3	0	2	0	4	U17MCT4004
3	PE1	Programme Elective I	Theory	PE	3	0	0	0	3	Nil
4	OE	Open Elective	Theory	OE	3	0	0	0	3	Nil
5	U17INI6001	Professional Communication	Embedded - Theory & Project	HS	3	0	0	0	3	Nil
6	U17INI6300	Engineering Clinics	Embedded - Theory & Project	ES	1	0	0	4	3	Nil
Total Credits									21	
Total Contact Hours/week									25	

Semester VII										Pre-requisite
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C	
1	U17MBT7001	Engineering Economics and Financial Management	Theory	HS	3	0	0	0	3	Nil
2	U17MCT7001	Image Processing and Computer Vision	Theory	PC	3	1	0	0	4	Nil
3	U17MCT7002	Autonomous Vehicle	Theory	PC	3	0	0	0	3	U17MCI6202
4	PE2	Programme Elective II	Theory	PE	3	0	0	0	3	Nil
5	PE3	Programme Elective III	Theory	PE	3	0	0	0	3	Nil
Total Credits									15	
Total Contact Hours/week									15	

Semester VIII									
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C
1	U17MCP8701	Capstone Project	Project only Course	PW	0	0	0	30	15
Total Credits									15
Total Contact Hours/week									30

List of mandatory courses

S.No	Couse Code	Course Title	Course Mode	CT	Sem
1	U17VEP3503	Family Values	Lab	MC	3
2	U17EST003	Environmental Science	Theory	MC	4
	U17VEP4504	Professional Values	Lab	MC	
3	U17VEP5505	Social Values	Lab	MC	5
4	U17VEP6506	National Values	Lab	MC	6
5	U17VEP7507	Global Values	Lab	MC	7

Programme Electives									
S.No	Course code	Course Title	Course Mode	CT	L	T	P	J	C
Elective I									
1	U17MCE601	Automotive Electronics I	Theory	PE	3	0	0	0	3
2	U17MCE602	Condition Monitoring	Theory	PE	3	0	0	0	3
3	U17MCE603	Data Analytics	Theory	PE	3	0	0	0	3
Elective II									
1	U17MCE701	Artificial Intelligence and Machine Learning	Theory	PE	3	0	0	0	3
2	U17MCE702	Composite and Smart Materials	Theory	PE	3	0	0	0	3
3	U17MCE703	Micro Electro Mechanical Systems	Theory	PE	3	0	0	0	3
Elective III									
1	U17MCE704	Automotive Electronics II	Theory	PE	3	0	0	0	3
2	U17MCE705	Statistical Quality Control	Theory	PE	3	0	0	0	3
3	U17MCE706	Database Management System	Theory	PE	3	0	0	0	3
List of Open Elective Courses									
1	U17MCOE001	Robotics for Engineers	Theory	OE	3	0	0	0	3
2	U17MCOE002	Automation in Agriculture	Theory	OE	3	0	0	0	3
3	U17MCOE003	Introduction to Sensors and PLC	Theory	OE	3	0	0	0	3
4	U17MCOE004	Mechanics in Cricket	Theory	OE	3	0	0	0	3
5	U17MCOE005	Low Cost Automation	Theory	OE	3	0	0	0	3