



KUMARAGURU COLLEGE OF TECHNOLOGY, COIMBATORE

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

R2018 CURRICULUM

Total Credits: 151

SEMESTER I

S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT	Pre-requisite
1	U18ENI1201	Fundamentals of Communication I	Embedded	2	0	2	0	3	4	HS	Nil
2	U18MAI1201	Linear Algebra and Calculus	Embedded	3	0	2	0	4	5	BS	Nil
3	U18 PHI1200	Engineering Physics	Embedded	3	0	2	0	4	5	BS	Nil
4	U18MEI1201	Engineering Graphics	Embedded	2	0	2	0	3	4	ES	Nil
5	U18CSI1201	Problem Solving and Programming Using C	Embedded	2	0	2	0	3	4	ES	Nil
6	U18INI1300	Engineering Clinics I	Embedded	1	0	0	4	3	5	ES	Nil
Total								20	27		

SEMESTER II

S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT	Pre-requisite
1	U18MAI2101	Advanced Calculus and Laplace Transforms	Embedded	3	0	2	0	4	5	BS	Nil
2	U18ENI2201	English Language Communication II	Embedded	2	0	2	0	3	4	HS	Nil
3	U18CHI2201	Engineering Chemistry	Embedded	3	0	2	0	4	5	BS	Nil
4	U18EII2201	Foundation in Electrical and Electronics Engineering	Embedded	3	0	2	0	4	5	PC	Nil
5	U18CSI2201	Problem Solving and Programming Using Python	Embedded	2	0	2	0	3	4	ES	U18CSI1201
6	U18INI2300	Engineering Clinics II	Embedded	1	0	0	4	3	5	ES	Nil
Total								21	28		

SEMESTER III

S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT	Pre-requisite
1	U18EII3201	Analog Electronics	Embedded	3	0	2	0	4	5	PC	U18EII2201
2	U18MAT3103	Numerical methods and Probability	Theory & Tutorial	3	1	0	0	4	4	BS	Nil
3	U18BTI0201	Biology for Engineers	Theory	2	0	2	0	3	4	BS	Nil
4	U18EII3202	Sensors and Measurements	Embedded	3	0	2	0	4	5	PC	Nil
5	U18MET3007	Mechanics and Thermodynamics	Theory	3	0	0	0	3	3	ES	Nil
6	U18INI3300	Engineering Clinics III	Embedded	1	0	0	4	3	5	ES	Nil
Total								21	26		



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SEMESTER IV

S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT	Pre-requisite
1	U18EII4201	Electronic signal conditioning	Embedded	3	0	2	0	4	5	PC	U18EII3201 U18EII3202
2	U18EII4202	Digital Fundamentals and Microprocessor	Embedded	3	0	2	0	4	5	PC	U18EII2201
3	U18EII4203	Analysis and Design of Dynamic Systems	Embedded	3	0	2	0	4	5	PC	U18MAI2101
4	U18EII4004	MEMS and Sensor Design	Theory	3	0	0	0	3	3	PC	U18EII3202
5	U18EII4005	Ancillary support system	Theory	3	0	0	0	3	3	PC	Nil
6	U18INI4300	Engineering Clinics IV	Embedded	1	0	0	4	3	5	ES	Nil
Total								21	26		

SEMESTER V

S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT	Pre-requisite
1	U18EII5201	Process dynamics and control	Embedded	3	0	2	0	4	5	PC	U18EII4203
2	U18EII5202	Microcontrollers	Embedded	3	0	2	0	4	5	PC	U18EII4202
3	U18EII5203	Field Instrumentation	Embedded	3	0	2	0	4	5	PC	U18EII3202
4	U18EII5004	Communication and networks	Theory	3	0	0	0	3	3	PC	Nil
5	U18EIE00XX	Professional Elective I	Theory	3	0	0	0	3	3	PE	Nil
6	U18INI5300	Engineering Clinics V	Embedded	1	0	0	4	3	5	ES	Nil
Total								21	26		

SEMESTER VI

S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT	Pre-requisite
1	U18EII6201	Industrial Automation	Embedded	3	0	2	0	4	5	PC	U18EII5201U U18EII5203
2	U18EII6202	Digital Signal Processing & Deep learning	Embedded	3	0	2	0	4	5	PC	U18EII4203
3	U18EIE00XX	Professional Elective II	Theory	3	0	0	0	3	3	PE	Nil
4	U18XXO00XX	Open Elective I	Theory	3	0	0	0	3	3	OE	Nil
5	U18EII6003	Comprehension	Theory	2	0	0	0	2	2	OE	Nil
6	U18INT6000	Professional Communication	Theory	3	0	0	0	3	3	HS	Nil



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			Total						19	21		
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SEMESTER VII

S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT	Pre-requisite
1	U18MBT7000	Engineering Economics and financial management	Industry	3	0	0	0	3	3	HS	Nil
2	U18EII7001	Analytical Instrumentation	Theory	3	0	0	0	3	3	PC	U18EII3202
3	U18EII7202	Advanced Control system	Embedded	3	0	2	0	4	5	PC	U18EII5201
4	U18EIE00XX	Professional Elective III/Internship	Theory	3	0	0	0	3	3	PE	Nil
5	U18EIP7703	Design project	Project Only Course	0	0	0	6	3	6	PW	Nil
		Total						16	20		

SEMESTER VIII

S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT	Pre-requisite
1	U18EIP8701	Capstone Project	Project Only Course	0	0	0	24	12	24	Project	U18EIP7703
		Total						12	24		

Professional Elective – Electronic Automation

S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT
1	U18EIE0001	Flexible and Wearable Electronics	Theory	3	0	0	0	3	3	PE
2	U18EIE0002	Lab on a chip	Theory	3	0	0	0	3	3	PE
3	U18EIE0003	VLSI Design	Theory	3	0	0	0	3	3	PE
4	U18EIE0004	Robotics technology and flexible automation	Theory	3	0	0	0	3	3	PE

Professional Elective – Advanced Instrumentation

S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT
1	U18EIE0005	MEMS Fabrication and sensor design	Theory	3	0	0	0	3	3	PE
2	U18EIE0006	Bio sensors & Medical Instrumentation	Theory	3	0	0	0	3	3	PE
3	U18EIE0007	Sensor and Data fusion	Theory	3	0	0	0	3	3	PE
4	U18EIE0008	Optical instrumentation	Theory	3	0	0	0	3	3	PE



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Professional Elective – Process Automation										
S.No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT
1	U18EIE0009	Fault detection and Diagnosis	Theory	3	0	0	0	3	3	PE
2	U18EIE0010	Advanced Intelligent Controllers	Theory	3	0	0	0	3	3	PE
3	U18EIE0011	Industry 4.0	Theory	3	0	0	0	3	3	PE
4	U18EIE0012	System Identification, modelling and Simulation	Theory	3	0	0	0	3	3	PE

Mandatory Non credit courses					
S.No	Couse Code	Course Title	Course Mode	CT	Sem
1	U18VEP3503	Human Excellence-Family Values	Lab	HS	3
2	U18CHT3000	Environmental Science	Theory	MC	3
3	U18VEP4504	Human Excellence-Professional Values	Lab	HS	4
4	U187INT4000	Indian Constitution	Theory	MC	4
5	U18VEP5505	Human Excellence-Social Values	Lab	HS	5
6	U18VEP6506	Human Excellence-National Values	Lab	HS	6
7	U18VEP7507	Human Excellence-Global Values	Lab	HS	7