



**KUMARAGURU COLLEGE OF TECHNOLOGY, COIMBATORE**  
**DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING**  
**R2017 CURRICULUM**

**Total Credit: 156**

<b>SEMESTER I</b>										
S. No	Course code	Course Title	Course Type (Theory/Lab/ Embedded /Project Based Courses)	L	T	P	J	C	Periods	R17 Course Type
1	U17MAI1202	Matrices and Differential Equations	Embedded	3	0	2	0	4	5	BS
2	U17PHT1007	Physics for Instrumentation Engineering	Theory	3	0	0	0	3	3	BS
3	U17CHT1004	Chemistry for Circuit Engineering	Theory	3	0	0	0	3	3	BS
4	U17CSI1211	Structured Programming using C	Embedded	3	0	2	0	4	5	ES
5	U17EII1201	Basic Electronics	Embedded	3	0	2	0	4	5	PC
6	U17ENI1201	English for Cognizance	Embedded	1	0	2	0	2	3	HS
7	U17CHP1501	Chemistry Laboratory	Lab	0	0	2	0	1	2	BS
8	U17VEP1501	Personal values	Lab	0	0	2	0	1	2	HS
<b>Total</b>								<b>22</b>	<b>28</b>	

<b>SEMESTER II</b>										
S. No	Course code	Course Title	Course Type (Theory/Lab/ Embedded /Project Based Courses)	L	T	P	J	C	Periods	R17 Course Type
1	U17MAT2102	Advanced Calculus and Laplace Transforms	Theory	3	1	0	0	4	4	BS
2	U17PHT2005	Material Science for Instrumentation Engineering	Theory	3	0	0	0	3	3	BS
3	U17EII2201	Electric Circuits	Embedded	3	0	2	0	4	5	PC
4	U17MET2101	Engineering Graphics	Theory	2	1	0	0	3	3	ES
5	U17PHP2501	Physics Laboratory	Lab	0	0	2	0	1	2	BS
6	U17MEP2501	Engineering Practices Laboratory	Lab	0	0	2	0	1	2	ES
7		Language Elective	Lab	0	0	4	0	2	4	HS
8	U17ISP2701	Social Immersion Project	Project	0	0	0	4	2	5	eRIDE
9	U17VEP2502	Inter-Personal values	Lab	0	0	2	0	1	2	HS
<b>Total</b>								<b>21</b>	<b>30</b>	



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**SEMESTER III**

S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT	Pre-requisite
1	U17EII3201	Analog Electronics	Embedded	3	0	2	0	4	5	PC	U17EII2201
2	U17MAT3103	Numerical methods and Probability	Theory & Tutorial	3	1	0	0	4	4	BS	Nil
3	U17BTI0201	Biology for Engineers	Theory	2	0	2	0	3	4	BS	Nil
4	U17EII3202	Sensors and Measurements	Embedded	3	0	2	0	4	5	PC	Nil
5	U17MET3007	Mechanics and Thermodynamics	Theory	3	0	0	0	3	3	ES	Nil
6	U17INI3300	Engineering Clinics I	Embedded	1	0	0	4	3	5	ES	Nil
<b>Total</b>								<b>21</b>	<b>26</b>		

**SEMESTER IV**

S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT	Pre-requisite
1	U17EII4201	Electronic signal conditioning	Embedded	3	0	2	0	4	5	PC	U17EII3201 U17EII3202
2	U17EII4202	Digital Fundamentals and Microprocessor	Embedded	3	0	2	0	4	5	PC	U17EII2201
3	U17EII4203	Analysis and Design of Dynamic Systems	Embedded	3	0	2	0	4	5	PC	U17MAI2101
4	U17EII4004	MEMS and Sensor Design	Theory	3	0	0	0	3	3	PC	U17EII3202
5	U17EII4005	Ancillary support system	Theory	3	0	0	0	3	3	PC	Nil
6	U17INI4300	Engineering Clinics II	Embedded	1	0	0	4	3	5	ES	Nil
<b>Total</b>								<b>21</b>	<b>26</b>		

**SEMESTER V**

S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT	Pre-requisite
1	U17EII5201	Process dynamics and control	Embedded	3	0	2	0	4	5	PC	U17EII4203
2	U17EII5202	Microcontrollers	Embedded	3	0	2	0	4	5	PC	U17EII4202
3	U17EII5203	Field Instrumentation	Embedded	3	0	2	0	4	5	PC	U17EII3202
4	U17EII5004	Communication and networks	Theory	3	0	0	0	3	3	PC	Nil
5	U17EIE00X X	Professional Elective I	Theory	3	0	0	0	3	3	PE	Nil
5	U17INI5300	Engineering Clinics III	Embedded	1	0	0	4	3	5	ES	Nil
<b>Total</b>								<b>21</b>	<b>26</b>		



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<b>SEMESTER VI</b>												
<b>S. No</b>	<b>Course code</b>	<b>Course Title</b>	<b>Course Mode</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>J</b>	<b>C</b>	<b>Periods</b>	<b>CT</b>	<b>Pre-requisite</b>	
1	U17EII6201	Industrial Automation	Embedded	3	0	2	0	4	5	PC	U17EII5201U 17EII5203	
2	U17EII6202	Digital Signal Processing & Deep learning	Embedded	3	0	2	0	4	5	PC	U17EII4203	
3	U17EIE00XX	Professional Elective II	Theory	3	0	0	0	3	3	PE	Nil	
4	U17XXO00XX	Open Elective I	Theory	3	0	0	0	3	3	OE	Nil	
5	U17EII6003	Comprehension	Theory	2	0	0	0	2	2	OE	Nil	
6	U17INT6000	Professional Communication	Theory	3	0	0	0	3	3	HS	Nil	
7	U17INI6300	Engineering Clinics IV	Embedded	1	0	0	4	3	5	ES	Nil	
		<b>Total</b>								<b>22</b>	<b>26</b>	

<b>SEMESTER VII</b>												
<b>S. No</b>	<b>Course code</b>	<b>Course Title</b>	<b>Course Mode</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>J</b>	<b>C</b>	<b>Periods</b>	<b>CT</b>	<b>Pre-requisite</b>	
1	U17MBT7000	Engineering Economics and financial management	Industry	3	0	0	0	3	3	HS	Nil	
2	U17EII7001	Analytical Instrumentation	Theory	3	0	0	0	3	3	PC	U17EII3202	
3	U17EII7202	Advanced Control system	Embedded	3	0	2	0	4	5	PC	U17EII5201	
4	U17EIE00XX	Professional Elective III/Internship	Theory	3	0	0	0	3	3	PE	Nil	
5	U17EIP7703	Design project	Project Only Course	0	0	0	6	3	6	PW	Nil	
		<b>Total</b>								<b>16</b>	<b>20</b>	

<b>SEMESTER VIII</b>												
<b>S. No</b>	<b>Course code</b>	<b>Course Title</b>	<b>Course Mode</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>J</b>	<b>C</b>	<b>Periods</b>	<b>CT</b>	<b>Pre-requisite</b>	
1	U17EIP8701	Capstone Project	Project Only Course	0	0	0	24	12	24	Project	U17EIP7703	
		<b>Total</b>								<b>12</b>	<b>24</b>	



<b>Professional Elective – Electronic Automation</b>										
S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT
1	U17EIE0001	Flexible and Wearable Electronics	Theory	3	0	0	0	3	3	PE
2	U17EIE0002	Lab on a chip	Theory	3	0	0	0	3	3	PE
3	U17EIE0003	VLSI Design	Theory	3	0	0	0	3	3	PE
4	U17EIE0004	Robotics technology and flexible automation	Theory	3	0	0	0	3	3	PE
<b>Professional Elective – Advanced Instrumentation</b>										
S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT
1	U17EIE0005	MEMS Fabrication and sensor design	Theory	3	0	0	0	3	3	PE
2	U17EIE0006	Bio sensors & Medical Instrumentation	Theory	3	0	0	0	3	3	PE
3	U17EIE0007	Sensor and Data fusion	Theory	3	0	0	0	3	3	PE
4	U17EIE0008	Optical instrumentation	Theory	3	0	0	0	3	3	PE

<b>Professional Elective – Process Automation</b>										
S. No	Course code	Course Title	Course Mode	L	T	P	J	C	Periods	CT
1	U17EIE0009	Fault detection and Diagnosis	Theory	3	0	0	0	3	3	PE
2	U17EIE0010	Advanced Intelligent Controllers	Theory	3	0	0	0	3	3	PE
3	U17EIE0011	Industry 4.0	Theory	3	0	0	0	3	3	PE
4	U17EIE0012	System Identification, modelling and Simulation	Theory	3	0	0	0	3	3	PE

<b>Mandatory Non credit courses</b>					
S.No	Couse Code	Course Title	Course Mode	CT	Sem
1	U17VEP3503	Human Excellence-Family Values	Lab	HS	3
2	U17CHT3000	Environmental Science	Theory	MC	3
3	U17VEP4504	Human Excellence-Professional Values	Lab	HS	4
4	U177INT4000	Indian Constitution	Theory	MC	4
5	U17VEP5505	Human Excellence-Social Values	Lab	HS	5
6	U17VEP6506	Human Excellence-National Values	Lab	HS	6
7	U17VEP7507	Human Excellence-Global Values	Lab	HS	7



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