

# **Supporting Documents**

## **Criteria: 1.3.1**

**Curriculum of the Courses which address  
the Gender, Environment and Sustainability,  
Human Values and Professional Ethics**



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Environment and Sustainability  
CH 401/ECE/Regulation 2015  
ECE SECOND YEAR, FOURTH SEMESTER


A. THEORY							
Sl.No.	Field	Theory	Contact Hours/Week				Cr. Points
			L	T	P	Total	
1	HU401	Values & Ethics in Profession	3	0	0	3	3
2	PH401	Physics-II	3	1	0	4	4
3	CH401	Basic Environmental Engineering & Elementary Biology	2+1	0	0	3	3
4	EC401	1. EM Theory & Transmission Lines	3	1	0	4	4
5	EC402	2. Digital Electronic & Integrated Circuits	3	1	0	4	4
Total of Theory						18	18
B. PRACTICAL							
6	HU481	Technical Report Writing & Language Lab Practice	0	0	3	3	2
7	PH491	Physics-II Lab	0	0	3	3	2
8	EC491	1. EM Theory & Tx Lines Lab	0	0	3	3	2
9	EC492	2. Digital Electronic & Integrated Circuits Lab	0	0	3	3	2
Total of Practical						12	8
Total of Semester						30	26



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Environment and Sustainability  
HU 501/ECE/Regulation 2016

ELECTRONICS & COMMUNICATION ENGINEERING DEPARTMENT Curriculum for 2016-20 Batch & 2017-21 Batch						
Course Code	Course Title	Total Number of contact hours				Credits
		Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	
Semester V						
HU 501	Environmental Science	2	0	0	2	2
EC 501	Digital Communication Systems	2	2	0	4	3
EC 502	Microprocessor & Micro Controller	3	0	0	3	3
EC 503	Digital Signal Processing	3	0	0	3	3
EC 504 A/B/C	Power Electronics / Electrical & Electronics Measurement / Telecommunication Systems	3	0	0	3	3
EC 591	Digital Communication Systems Lab	0	0	3	3	2
EC 592	Microprocessor & Micro Controller Lab	0	0	3	3	2
EC 593	Digital Signal Processing Lab	0	0	3	3	2
EC 581	Mini Project -I	0	0	4	4	2
MC 581	Group Discussion Practice	0	0	2	2	2 Units
Total						22

  
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Environment and Sustainability  
MC 401/ECE/Regulation 2018

R18 B.Tech ECE

4 <sup>th</sup> Semester								
Sl No	Course Code	Paper Code		Contact Hours / Week				Credit Points
				L	T	P	Total	
<b>A. THEORY</b>								
1	BS	PH(ECE) 401	Physics II	3	0	0	3	3
2	PC	EC 401	Signals & Systems	3	0	0	3	3
3	PC	EC 402	Analog Electronic Circuits	3	0	0	3	3
4	PC	EC 403	Digital Electronic Circuits	3	0	0	3	3
5	PC	EC 404	Antenna & wave propagation	3	0	0	3	3
<b>Total of Theory</b>							15	15
<b>B. PRACTICAL</b>								
6	BS	PH(ECE)491	Physics II Lab	0	0	3	3	1.5
7	PC	EC 492	Analog Electronic Circuits Lab	0	0	3	3	1.5
8	PC	EC 493	Digital Electronic Circuits Lab	0	0	3	3	1.5
9	PC	EC 494	Antenna & wave propagation Lab	0	0	3	3	1.5
10	PROJ	PR 491	Project-IV	0	0	2	2	1
11	PROJ*	PR 492	Innovative activities-III	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
12	MC	MC 401	Environmental Science	3	0	0	3	
<b>Total of Theory, Practical &amp; Mandatory Activities: Courses</b>							32	22.5

Environment and Sustainability  
CH 401/EE/Regulation 2015

Curriculum for B.Tech Fourth Semester

A. THEORY							
Sl No	Paper Code	Course Name	Contact Hours /Week				Credit Points
			L	T	P	Total	
1	HU-401	Values and Ethics in Profession	3	0	0	3	2
2	PH(EE)-401	Physics-II	3	1	0	4	4
3	ME(EE)411	Thermal Power Engineering	3	0	0	3	3
4	CH-401	Basic Environmental Engineering & Elementary Biology	3	0	0	3	3
5	EE-401	Electric Machine-I	3	1	0	4	4
6	EE-402	Electrical & Electronic measurement	3	0	0	3	4
Total of Theory						20	20
B. PRACTICAL							
7	PH(EE)-491	Physics-II Lab	0	0	3	3	2
8	ME(EE)491	Thermal power Engineering Lab	0	0	3	3	2
9	EE-491	Electric Machine-I	0	0	3	3	2
10	EE-492	Electrical & Electronic measurement Lab	0	0	3	3	2
Total of Practical						12	8
Total of Theory, Practical/ Sessional						32	28

  
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Environment and Sustainability  
HU 501/EE/Regulation 2016


Third Year Fifth Semester

Sl. No.	Code	Paper	Contact Periods Per Week				Total Contact Hours	Credit	
			L	T	P	S			
THEORY									
1	HS	HU501	Environmental Science	2	0	0	0	2	1
2	PC	EE501	Electrical Machines-II	3	1	-	-	4	1
3	PC	EE502	Power Systems-I	3	1	-	-	4	1
4	PC	EE503	Control Systems-I	3	1	-	-	4	1
5	PC	EE504	Microprocessor Microcontroller	3	0	-	-	3	1
PRACTICAL									
1	PC	EE591	Electrical Machines-II Lab	0	0	3	0	3	1
2	PC	EE592	Power Systems-I Lab	0	0	3	0	3	1

  
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Environment and Sustainability  
MC 301/EE/Regulation 2018

3rd Semester								
Sl. No.	Category	Paper Code	Subject	Contact Hours/Week				Credit Points
				L	T	P	Total	
<b>A. THEORY</b>								
1	ES	EE 301	Electrical Circuit Analysis	3	1	0	4	4
2	PC	EE 302	Measurement and Instrumentation	3	0	0	3	3
3	PC	EE 303	Analog Electronics	3	0	0	3	3
4	BS	M(EE) 301	Mathematics – III	3	1	0	4	4
<b>Total of Theory</b>							<b>14</b>	<b>14</b>
<b>B. PRACTICAL</b>								
5	ES	EE 391	Electrical Circuit Analysis Laboratory	0	0	3	3	1.5
6	PC	EE 392	Measurement and Instrumentation Laboratory	0	0	3	3	1.5
7	PC	EE 393	Analog Electronics Laboratory	0	0	2	2	1
8	PROJ	PR 391	Project – III	0	0	2	2	1
9	PROJ*	PR 392	Innovative Activities – II	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
10	MC	MC 301	Environmental Science	3	0	0	3	0
<b>Total of Theory, Practical &amp; Mandatory Activities / Courses</b>							<b>27</b>	<b>19.5</b>

  
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Environment and Sustainability  
HU 401/ME/Regulation 2016

**Second Year, 4<sup>th</sup> SEMESTER**


Subject Type	Subject Code	Subject Name	Contact Hours/Week				Total Credits
			L	T	P	Total	
<b>A. THEORY</b>							
PC	ME 401	FLUID MACHINERY	3	0	0	3	3
PC	ME 402	PRIMARY MANUFACTURING PROCESS	3	0	0	3	3
PC	ME 403	ENGINEERING MATERIALS	3	0	0	3	3
PC	ME 404	MECHANISMS	3	0	0	3	3
B5	M/ME 401	NUMERICAL METHODS	3	0	0	3	3
HU	HU 401	ENVIRONMENTAL SCIENCE	2	0	0	2	2
<b>Total of Theory</b>						17	17
<b>B. PRACTICAL</b>							
PC	ME 491	FLUID MECHANICS & HYDRAULIC MACHINES LAB	0	0	3	3	2
PC	ME 492	MANUFACTURING TECHNOLOGY LAB	0	0	3	3	2
PC	ME 493	MATERIAL TESTING LAB	0	0	3	3	2
PC	ME 494	MACHINE DRAWING-II	0	0	3	3	2
B5	M(ME) 491	NUMERICAL METHODS LAB	0	0	3	3	2
<b>Total of Practical</b>						15	10
<b>C. SESSIONAL</b>							
H5	HU 481	TECHNICAL REPORT WRITING & LANGUAGE PRACTICE	0	0	2	2	1

  
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Environment and Sustainability  
MC 301/ME/Regulation 2018

R18 B. TECH ME

3 <sup>rd</sup> Semester								
Sl. No	Course Type	Course Code	Theory	Contact Hours/Week				Credit Points
				L	T	P	Total	
<b>A. THEORY</b>								
1	PC	ME 301	Engineering Thermodynamics	3	0	0	3	3
2	PC	ME 302	Strength of Material	3	0	0	3	3
3	PC	ME 303	Fluid Mechanics	3	0	0	3	3
4	PC	ME 304	Materials Engineering	3	0	0	3	3
5	B5	M 301	Mathematics -III	3	1	0	4	4
6	B5	PH/ME/301	Physics - II	3	0	0	3	3
<b>Total of Theory</b>							19	19
<b>B. PRACTICAL</b>								
7	PC	ME 391	Material Testing Lab	0	0	3	3	1.5
8	PC	ME 392	Machine Drawing	0	0	3	3	1.5
9	B5	PH/ME/391	Physics - II Lab	0	0	2	2	1
10	PROJ	PR 391	Project-III	0	0	2	2	1
11	PROJ*	PR 392	Innovative activities-II	0	0	0	1	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
12	MC	MC 301	Environmental Science	3	0	0	3	
<b>Total of Theory, Practical &amp; Mandatory Activities/Courses</b>							32	24.5

  
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Environment and Sustainability  
CH 301/CE/Regulation 2015

Civil Engineering  
Second Year – Third Semester

A. THEORY							
Sl. No	Field	Theory	Contact hours per week				Cr. Points
			L	T	P	Total	
1	HU301	Values & Ethics in Profession	3	0	0	3	3
2	PH301	Physics - 2	3	1	0	4	4
3	CH301	Basic Environmental Engineering & Elementary Biology	(2+1)	0	0	3	3
4	CE301	Solid Mechanics	3	0	0	3	3
5	CE302	Surveying	3	1	0	4	4
6	CE303	Building Material & Construction	3	1	0	4	4
Total Theory						21	21
B. PRACTICAL							
7	PH391	Physics - 2	0	0	3	3	2
8	CE391	Solid Mechanics	0	0	3	3	2
9	CE392	Surveying Practice I	0	0	3	3	2
10	CE393	Building Design & Drawing	0	0	3	3	2
Total Practical						12	8
Total of Semester						33	29




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Environment and Sustainability  
HU 401/CE/Regulation 2016

Second Year Fourth Semester

CURRICULUM

Subject Type	Subject Code	Subject Name	Contact Hours			Contact Hours/Week	Credits
			L	T	P	Total	Total
THEORY:							
HS	HU401	ENVIRONMENTAL SCIENCE	2	0	0	2	2
BS	M401	MATHEMATICS - III	3	1	0	4	4
PC	CE 401	SURVEYING - II	2	2	0	4	3
PC	CE 402	STRUCTURAL ANALYSIS - I	3	1	0	4	3
PC	CE 403	CONCRETE TECHNOLOGY	3	1	0	4	3
PC	CE 404	SOIL MECHANICS	3	1	0	4	3
PRACTICAL:							
PC	CE 491	SURVEYING PRACTICE - I	0	0	3	3	2
PC	CE 492	BUILDING PLANNING AND DRAWING	0	0	3	3	2
PC	CE 493	CONCRETE LAB	0	0	3	3	2
HS	HU481	TECHNICAL REPORT WRITING & LANGUAGE PRACTICE	0	0	2	2	1
		TOTAL: NINE	16	6	11	33	25

  
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Environment and Sustainability  
MC 401/CE/Regulation 2018

Sl No	Course Code	Paper Code	Theory	Contact Hours /Week				Credit Points
				L	T	P	Total	
<b>A. THEORY</b>								
1	BS	M401	Mathematics III	3	1	0	4	4
2	HS	HU401	Values & Ethics in Profession	2	0	0	2	2
3	PC	CE401	Structural Analysis	3	1	0	4	4
4	PC	CE402	Concrete Technology	2	0	0	2	2
5	PC	CE403	Soil Mechanics	3	0	0	3	3
Total of Theory							15	15
<b>B. PRACTICAL</b>								
6	PC	CE491	Building Planning And Drawing	0	0	3	3	1.5
7	PC	CE492	Concrete Lab	0	0	3	3	1.5
8	PC	CE493	Soil Mechanics Lab-I	0	0	3	3	1.5
9	PC	CE494	Quantity Surveying, Specifications and Valuation	0	0	3	3	1.5
10	PROJ	PR 491	Project-IV	0	0	2	2	1
11	PROJ*	PR 492	Innovative activities-III	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
12	MC	MC 401	Environmental Science	3	0	0	3	0
Total of Theory, Practical & Mandatory Activities: Courses							32	22.5

  
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Environment and Sustainability  
CH 301/CSE/Regulation 2015

Second Year - Third Semester

A. Theory							
SL No.	Field	Theory	Contact Hour / Week				Credit Point
			L	T	P	Total	
1	HU301	Values & Ethics in Profession	3	0	0	3	3
2	PH301	Physics-2	3	1	0	4	4
3	CH301	Basic Environmental Engineering & Elementary Biology	3	0	0	3	3
4	CS301	Analog & Digital Electronics	3	0	0	3	3
5	CS302	Data Structure & Algorithm	3	1	0	4	4
6	CS303	Computer Organisation	3	1	0	4	4


B. Practical

7	PH391	Physics-2	0	0	3	3	2
8	CS391	Analog & Digital Electronics	0	0	3	3	2
9	CS392	Data Structure & Algorithm	3	3	2	3	2
10	CS393	Computer Organisation	0	0	3	3	2
Total of Practical						12	8
Total of Semester						33	29

  
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Environment and Sustainability  
HU 401/CSE/Regulation 2016

4th Semester								
SL No	Type	Code	A. THEORY	Contact hours				Cr. Points
				L	T	P	Total	
1	BS	M(CSE)401	Numerical Methods and Statistics	3	0	0	3	3
2	HS	HU401	Environmental science	2	0	0	2	2
3	PC	CS401	Computer Architecture	3	0	0	3	3
4	PC	CS402	Design and Analysis of Algorithms	3	0	0	3	3
5	PC	CS 403	Formal Language And Automata Theory	3	0	0	3	3
<b>Total Theory</b>							14	14
<b>B. PRACTICAL</b>								
6	BS	M(CSE)491	Numerical Methods and Statistics Lab	0	0	3	3	2
7	PC	CS491	Computer Architecture Lab	0	0	3	3	2
8	PC	CS492	Algorithms Lab	0	0	3	3	2
9	PC	CS493	Programming with C++ Lab	1	0	2	3	2
<b>Total Practical</b>							12	8
<b>C. MANDATORY COURSES</b>								
10	MC	MC 481	Technical Communication & Soft Skills	0	0	3	3	2 Unit
<b>Total</b>							29	22

  
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Environment and Sustainability  
MC 501/CSE/Regulation 2018

5 <sup>th</sup> Semester								
Sl.No	Course Code	Paper Code	Theory	Contact Hours/Week				Credit Points
				L	T	P	Total	
<b>A. THEORY</b>								
1	PC	CS501	Computer Graphics	3	0	0	3	3
2	PC	CS502	Operating System	3	0	0	3	3
3	PC	CS503	Data Base Management System	3	0	0	3	3
4	OE	CS504	A. Object Oriented Programming using Java	3	0	0	3	3
			B. Multimedia Technology					
			C. Communication Engineering					
5	PE	CS505	A. Operations Research	3	0	0	3	3
			B. Computational Geometry					
			C. Distributed Algorithms					
<b>Total of Theory</b>							15	15
<b>B. PRACTICAL</b>								
6	PC	CS591	Computer Graphics Lab	0	0	3	3	1.5
7	PC	CS592	Operating System Lab	0	0	3	3	1.5
8	PC	CS 593	Data Base Management System Lab	0	0	3	3	1.5
9	OE	CS594	A. Object Oriented Programming Lab	0	0	3	3	1.5
			B. Multimedia Technology Lab					
			C. Communication Engineering Lab					
10	PROJ	PR 591	Project-V	0	0	2	2	1
11	PROJ*	PR 592	Innovative activities-IV	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
12	MC	MC 501	Environmental Science	3	0	0	3	
<b>Total of Theory, Practical &amp; Mandatory Activities/Courses</b>							32	22.5

  
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Environment and Sustainability  
HU 501/EIE/Regulation 2016

Sl. no.	Field	Code	Subjects	Contact hours/week				Credit points
				L	T	P	Total	
1	HS	HU501	Environmental Science	2	0	0	2	2
2	PC	EI 501	Industrial Instrumentation	3	0	0	3	3
3	PC	EI 502	Analog & Digital Communication Theory	3	0	0	3	3
4	PC	EI 503	Control Engineering	3	0	0	3	3

5	PE	EI 504A / EI 504B/ EI 504C	Digital Signal Processing/ Microwave Engineering/ Antenna Theory & Propagation	3	0	0	3	3
Total Theory							14	14

**B.PRACTICAL& SESSIONAL:**


Sl. no.	Field	Code	Subjects	Contact hours/week				Credit points
				L	T	P	Total	
1	PC	EI 591	Industrial Instrumentation Lab	0	0	3	3	2
2	PC	EI 592	Analog & Digital Communication Lab	0	0	3	3	2
3	PC	EI 593	Control Engineering Lab	0	0	3	3	2
4	PE	EI 594A / EI 594B / EI 594C	Digital Signal Processing Lab / Microwave Engineering Lab/ Antenna & Propagation Lab	0	0	3	3	2
<b>Sessional :</b>								
5	MC	MC581	Technical Skill development-II	2	0	0	2	0
Total practical							14	8
Total 5th Semester							28	22

  
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Environment and Sustainability  
MC 401/EIE/Regulation 2018

R18 B. TECH EIE


4 TH SEMESTER								
Sl No	Course Code	Paper Code	Theory	Contact Hours / Week				Credit Points
				L	T	P	Total	
<b>A. THEORY</b>								
1	BS	PH 401	Physics – II	3	0	0	3	3
2	PC	EI 401	Sensors and Transducers	3	0	0	3	3
3	PC	EI 402	Microprocessors and Microcontrollers	3	0	0	3	3
4	PC	EI403	Digital Signal Processing	3	0	0	3	3
5	PC	EI 404	Electromagnetic Theory and Transmission Line	3	0	0	3	3
<b>Total of Theory</b>							<b>15</b>	<b>15</b>
<b>B. PRACTICAL</b>								
6	BS	PH 491	Physics –II Lab	0	0	3	3	1.5
7	PC	EI 491	Sensors and Transducers Lab	0	0	3	3	1.5
8	PC	EI 492	Microprocessor and Microcontrollers Lab	0	0	3	3	1.5
9	PC	EI493	Digital Signal Processing Lab	0	0	3	3	1.5
10	PROJ	PR 491	Project-IV	0	0	2	2	1
11	PROJ*	PR 492	Innovative activities-III	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
10	MC	MC 401	Environmental Science	3	0	0	3	
<b>Total of Theory, Practical &amp; Mandatory Activities/ Courses</b>							<b>32</b>	<b>22.5</b>

  
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Environment and Sustainability  
MCA20-E105A/MCA/Regulation 2020


Department of Computer Applications

CURRICULUM							
Semester – I							
Sl. No.	Course Code	Course Name	Contact Hours / Week				Credit
			L	T	P	Total	
<b>THEORY</b>							
1	MCA20-101	Programming in Python	3	1	-	4	4
2	MCA20-102	Relational Database Management System	3	1	-	4	4
3	MCA20-103	Computer Organization and Architecture	3	1	-	4	4
4	MCA20-104	Discrete Mathematics and Graph Theory	3	1	-	4	4
5	Elective I		3	-	-	3	3
	MCA20-E105A	Environment and Ecology					
	MCA20-E105B	Management and Accountancy					
	MCA20-E105C	Constitution of India					
	MCA20-E105D	Stress Management through Yoga					
	MCA20-E105E	Values and Ethics in Profession					
	MCA20-E105F	Managerial Economics					
<b>PRACTICAL</b>							
1	MCA20-190	Soft Skill and Interpersonal Development	-	-	4	4	2
2	MCA20-191	Python Programming Lab	-	-	4	4	2
3	MCA20-192	Relational Database Management System Lab	-	-	4	4	2
		<b>Total Weekly Contact Hours and Credit</b>				<b>31</b>	<b>25</b>

  
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Environment and Sustainability  
EE 704D/EE/Regulation 2015

A. THEORY							
Sl No	Paper Code	Course Name	Contact Hours /Week				Credit Points
			L	T	P	Total	
1	EE 701	Electric drive	4	0	0	4	4
2	EE 702	Utilization of Electric power	3	1	0	4	4
3	EE 703	A. Power system-III, B. Control system-III, C. Electric Machine-III	3	0	0	3	3
4	EE 704	A. High voltage Engineering, B. Power Plant Engineering, C. Power generation and economics, D. Renewable & Non-conventional Energy	3	0	0	3	3
5	EE 705	A. Computer Network, B. AI & Soft Computing, C. Digital Communication, D. Digital Image Processing	3	0	0	3	3
Total of Theory						17	17
B. PRACTICAL							
6	EE 781	Seminar on industrial training	0	0	3	3	2
7	EE 791	Electric Drive	0	0	3	3	2
8	EE 792	A. Computer Network, B. AI & Soft Computing, C. Digital Communication, D. Digital Image Processing	0	0	3	3	2
9	EE 782	Electrical system design-I	0	0	3	3	2
10	EE 783	Project-I	0	0	3	3	2
Total of Practical						15	10
Total of Theory, Practical/ Sessional						32	27

  
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Environment and Sustainability  
EE 801A/EE/Regulation 2018

8th Semester								
Sl No	Category	Paper Code	Subject	Contact Hours/Week				Credit Points
				L	T	P	Total	
<b>A. THEORY</b>								
1	PE	EE 801	A. Wind and Solar Energy Systems	2	0	0	2	2
			B. Utilization of Electric Power					
			C. Line Commutated and Active Rectifiers					
2	PE	EE 802	A. Advanced Electric Drives	3	0	0	3	3
			B. Control Systems Design					
			C. Industrial Electrical System					
3	HS	HU 801	Principles of Management	2	0	0	2	2
<b>Total of Theory</b>							7	7
<b>B. PRACTICAL</b>								
4	PROJ	PR 891	Project – VIII	0	0	8	8	4
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
5	MC	MC 804	Essence of Indian Knowledge Tradition	3	0	0	3	0
<b>Total of Theory, Practical &amp; Mandatory Activities / Courses</b>							18	11

  
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Environment and Sustainability  
EE 505A/EE/Regulation 2018

5th Semester								
Sl. No.	Category	Paper Code	Subject	Contact Hours/Week				Credit Points
				L	T	P	Total	
<b>A. THEORY</b>								
1	PC	EE 501	Electrical Machines – II	3	0	0	3	3
2	PC	EE 502	Power System – I	3	0	0	3	3
3	PC	EE 503	Control System – I	3	0	0	3	3
4	OE	EE 504	A. Data Structure	3	0	0	3	3
			B. Computer Network					
			C. Internet of Things					
5	PE	EE 505	A. Electrical Energy Conservation and Auditing	3	0	0	3	3
			B. Electromagnetic Waves					
			C. Illumination Engineering					
			D. Power Plant Engineering					
<b>Total of Theory</b>							15	15
<b>B. PRACTICAL</b>								
6	PC	EE 591	Electrical Machines – II Laboratory	0	0	3	3	1.5
7	PC	EE 592	Power System – I Laboratory	0	0	3	3	1.5
8	PC	EE 593	Control System – I Laboratory	0	0	3	3	1.5
9	OE	EE 594	A. Data Structure Laboratory	0	0	3	3	1.5
			B. Computer Network Laboratory					
			C. Internet of Things Laboratory					
10	PROJ	PR 591	Project – V	0	0	2	2	1
11	PROJ*	PR 592	Innovative Activities – IV	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
12	MC	MC 501	Constitution of India	3	0	0	3	0
<b>Total of Theory, Practical &amp; Mandatory Activities / Courses</b>							32	22.5

  
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Environment and Sustainability  
EC 802C/ECE/Regulation 2015


Fourth Year - Eighth Semester							
A. THEORY							
Sl. No.	Field	Theory Paper Name	Contact Hours/Week			Cr. Pts	
			L	T	P		Total
1	HU801A	Organisational Behaviour	2	0	0	2	2
3	EC801 (No Lab)	A. Smart Antenna B. Digital Image Processing C. Satellite Communication & Remote Sensing	3	0	0	3	3
	EC802 (No Lab)	A. Neural N/W & Applications (CSE) B. Material Sc. & Engg (Mat. Sc) C. Renewable Energy (EE) D. Audio & Speech Processing (CSE)	3	0	0	3	3
Total of Theory						8	8
B. PRACTICAL							
	EC881	Design Lab / Industrial problem related practical training	0	0	6	6	4
	EC882	Project part-2	0	0	12	12	6
	EC893	Grand viva					3
Total of Practical						18	13
Total of Semester						26	21

  
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EC 704C/ECE/Regulation 2016

ELECTRONICS & COMMUNICATION ENGINEERING DEPARTMENT  
Curriculum for 2016-20 Batch & 2017-21 Batch

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	
Semester VII						
HU 705	Principles of Management	2	1	0	3	2
EC 701	RF & Microwave Engineering	3	0	0	3	3
EC 702	VLSI & Microelectronics	3	1	0	4	4
EC 703 A/B/C	Digital Image Processing / Computer Organization & Architecture / Data Base Management Systems	3	0	0	3	3
EC 704 A/B/C	Artificial Intelligence & Robotics / Biomedical Electronics & Imaging / Renewable Source & Applications	3	0	0	3	3
EC 791	RF & Microwave Engineering Lab	0	0	0	3	2
EC 792	VLSI & Microelectronics Lab	0	0	0	3	2
EC 793 A/B/C	Digital Image Processing Lab / Computer Organization & Architecture Lab / Data Base Management Systems Lab	0	0	0	3	2
EC 781	Project I	0	0		6	3
MC 782	Technical Seminar Presentation	0	0	3	3	3 Units
Total						24


  
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Environment and Sustainability  
EC 504B/ECE/Regulation 2018

R18 B.Tech ECE

Sl No	Course Code	Paper Code	Theory	5 <sup>th</sup> Semester				Credit Points
				Contact Hour: Week				
				L	T	P	Total	
<b>A. THEORY</b>								
1	HS	HU 502	Economics for Engineers	2	0	0	2	2
2	PC	EC 501	Analog & Digital Communication Systems	3	0	0	3	3
3	PC	EC 502	Microprocessor & Micro Controller	3	0	0	3	3
4	PC	EC 503	Digital Signal Processing	3	0	0	3	3
5	PE	EC 504	A. Information Theory & Coding	3	0	0	3	3
			B. Renewable Energy Sources & Applications					
			C. Nano Electronics					
<b>Total of Theory</b>							14	14
<b>B. PRACTICAL</b>								
6	PC	EC 591	Analog & Digital Communication Systems Lab	0	0	3	3	1.5
7	PC	EC 592	Microprocessor & Micro Controller Lab	0	0	3	3	1.5
8	PC	EC 593	Digital Signal Processing Lab	0	0	3	3	1.5
10	PROJ	PR 591	Project-V	0	0	2	2	1
11	PROJ*	PR 592	Innovative activities-IV	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
12	MC	MC 501	Constitution of India	3	0	0	3	
<b>Total of Theory, Practical &amp; Mandatory Activities/Courses</b>							31	20

  
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Environment and Sustainability  
ME 603/ME/Regulation 2015

**A. THEORY:**


A. THEORY							
	Code	Subjects	Contacts (periods/week)				Credit points
			L	T	P	Total	
1.	ME 601	Automation, CNC Machines and Robotics	4	0	0	4	4
2.	ME 602	Mechatronics and Modern Control	3	0	0	3	3
3.	ME 603	Energy Conversion and Management	4	0	0	4	4
4.	ME 604	Design of Mechanical Systems	4	0	0	4	4
5.	ME 605	Dynamics of Machines	3	0	0	3	3
<b>Total of Theory</b>						<b>18</b>	<b>18</b>

**B. PRACTICAL:**

B. PRACTICAL							
	Code	Subjects	Contacts (periods/week)				Credit points
			L	T	P	Total	
1.	ME 692	Mechatronics and Modern Control Laboratory	0	0	3	3	2
2.	ME 694	Design Practice - II	0	0	3	3	2
3.	ME 695	Dynamics of Machines Laboratory	0	0	3	3	2
4.	ME 696	Thermal Engineering Laboratory- II	0	0	3	3	2
<b>Total of Practical</b>						<b>12</b>	<b>8</b>


**C. SESSIONAL:**

C. SESSIONAL							
	Code	Subjects	Contacts (periods/week)				Credit points
			L	T	P	Total	
1.	ME 699	Seminar	0	0	3	3	2
<b>Total of Sessional</b>						<b>3</b>	<b>2</b>
<b>Total of 6<sup>th</sup> Semester</b>						<b>33</b>	<b>28</b>

  
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Environment and Sustainability  
ME 705A/ME/Regulation 2016

Subject Type	Subject Code	Subject Name	Contact Hours/Week				Total Credits
			L	T	P	Total	
<b>A. THEORY:</b>							
PC	ME 701	POWER PLANT ENGINEERING	3	0	0	3	3
PC	ME 702	ADVANCED MANUFACTURING TECHNOLOGY	3	0	0	3	3
PE-III	ME 703 A	ADVANCED WELDING TECHNOLOGY	3	0	0	3	3
	ME 703 B	BIOMECHANICS & BIOMATERIALS					
PE-IV	ME 703 C	FINITE ELEMENT METHOD					
	ME 704 A	TRIBOLOGY					
	ME 704 B	OPERATIONS RESEARCH	3	0	0	3	3
OE-II	ME 704 C	MATERIALS HANDLING					
	ME 705 A	ENERGY CONSERVATION & MANAGEMENT	3	0	0	3	3
	ME 705 B	QUALITY & RELIABILITY ENGINEERING					
	ME 705 C	HYDRO, WIND AND WAVE POWER					
<b>Total of Theory</b>						15	15
<b>B. PRACTICAL:</b>							
PC	ME 791	ADVANCED MANUFACTURING LAB	0	0	2	2	1
PE-III lab	ME 793 A	ADVANCED WELDING LAB					
	ME 793 B	BIOMECHANICS & BIOMATERIALS LAB	0	0	2	2	1
	ME 793 C	FINITE ELEMENT METHOD LAB					
<b>Total of Practical</b>						4	2
<b>C. SESSIONAL:</b>							
PW	ME 781	PROJECT - I	0	0	6	6	3
PW	ME 782	DESIGN OF MECHANICAL SYSTEM	0	0	3	3	2
PW	ME 783	VIVA-VOCE ON VACATIONAL TRAINING	0	0	0	0	2
<b>Total of Sessional</b>						9	7
<b>TOTAL: Ten</b>			15	0	13	28	24

  
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Environment and Sustainability  
ME 605A/ME/Regulation 2016

Subject Type	Subject Code	Subject Name	Contact Hours/Week				Total Credits
			L	T	P	Total	
<b>A. THEORY:</b>							
PC	ME 601	MACHINING PRINCIPLES & MACHINE TOOLS	3	0	0	3	3
PC	ME 602	DESIGN OF MACHINE ELEMENTS-II	3	0	0	3	3
PC	ME 603	IC ENGINE & GAS TURBINE	3	0	0	3	3
PE-II	ME 604A	ROBOTICS, MECHANICS AND CONTROL	3	0	0	3	3
	ME 604B	COMPOSITE MATERIALS					
	ME 604C	FLUID POWER CONTROL					
OE-I	ME 605A	RENEWABLE ENERGY SYSTEMS	3	0	0	3	3
	ME 605B	COMPUTATIONAL FLUID DYNAMICS					
	ME 605C	GAS DYNAMICS AND JET PROPULSION					
<b>Total of Theory</b>						15	15
<b>B. PRACTICAL:</b>							
PC	ME 691	MACHINING & MACHINE TOOLS LAB	0	0	3	3	2
PC	ME 692	DESIGN PRACTICE LAB	0	0	2	2	1
PC	ME 693	IC ENGINE LAB	0	0	3	3	2
PE-II LAB	ME 694 A	ROBOTICS LAB	0	0	3	3	2
	ME 694 B	COMPOSITE MATERIALS LAB					
	ME 694 C	FLUID POWER CONTROL LAB					
<b>Total of Practical</b>						11	7
<b>C. SESSIONAL:</b>							
PROJECT	ME 681	MINI PROJECT-II	0	0	3	3	2
MC	MC 682	GROUP DISCUSSION	0	0	2	2	0
<b>TOTAL: Eleven</b>			15	0	16	31	24

  
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Environment and Sustainability  
ME 703A/ME/Regulation 2018

7 <sup>th</sup> Semester								
Sl No	Course Type	Course Code	Theory	Contact Hours/Week			Credit Points	
				L	T	P		Total
<b>A. THEORY</b>								
1	HS	HU 704	Principle of Management	2	0	0	2	2
2	PC	ME 701	Advanced Manufacturing Technology	3	0	0	3	3
3	PE	ME 702	A. Materials Handling	3	0	0	3	3
			B. Design Of Transmission System					
			C. Nuclear Power Generation & Supply					
4	PE	ME 703	A. Renewable Energy System	3	0	0	3	3
			B. Tribology					
			C. Reliability & Maintenance					
5	OE	ME 704	A. Operation Research	3	0	0	3	3
			B. Robotics					
			C. Biomechanics & Biomaterials					
<b>Total of Theory</b>							<b>14</b>	<b>14</b>
<b>B. PRACTICAL</b>								
6	PC	ME 791	CNC Machine & Robotics Lab	0	0	3	3	1.5
7	PROJ	PR 791	Project-VIIA**	0	0	3	3	1.5
8	PROJ	PR 792	Project-VIIB	0	0	6	6	3
9	PROJ*	PR 793	Innovative activities-VI	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
10	MC	MC 781	Behavioural and Interpersonal Skills	0	0	3	3	
<b>Total of Theory, Practical &amp; Mandatory Activities/Courses</b>							<b>29</b>	<b>20.5</b>



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Human Values & Professional Ethics  
HU 301/CSE/Regulation 15

Second Year - Third Semester

A. Theory							
SL No.	Field	Theory	Contact Hour / Week				Credit Point
			L	T	P	Total	
1	HU301	Values & Ethics in Profession	3	0	0	3	3
2	PH301	Physics-2	3	1	0	4	4
3	CH301	Basic Environmental Engineering & Elementary Biology	3	0	0	3	3
4	CS301	Analog & Digital Electronics	3	0	0	3	3
5	CS302	Data Structure & Algorithm	3	1	0	4	4
6	CS303	Computer Organisation	3	1	0	4	4


**B. Practical**

7	PH391	Physics-2	0	0	3	3	2
8	CS391	Analog & Digital Electronics	0	0	3	3	2
9	CS392	Data Structure & Algorithm	3	3	2	3	2
10	CS393	Computer Organisation	0	0	3	3	2
<b>Total of Practical</b>						<b>12</b>	<b>8</b>
<b>Total of Semester</b>						<b>33</b>	<b>29</b>

  
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Human Values & Professional Ethics  
HU 702/CSE/Regulation 16


7TH SEMESTER							Cr. Points	
SL No	Type	Code	A. THEORY	Contact hours				Total
				L	T	P		
1	PC	CS701	Artificial Intelligence	3	0	0	3	3
2	HS	HU702	Values & Ethics in Profession	2	0	0	2	2
3	PE	CS702A	Soft Computing					
		CS702B	Natural Language Processing					
		CS702C	Web technology	3	0	0	3	3
4	PE	CS703A	Cloud Computing					
		CS703B	Data Analytics	3	0	0	3	3
		CS703C	Sensor Network and IOT					
5	PE	CS704A	Distributed Algorithms					
		CS704B	Bio-informatics					
		CS704C	Cryptography and Network Security	3	0	0	3	3
Total Theory							14	14
B. PRACTICAL								
6	PC	CS701	Artificial Intelligence Lab	0	0	3	3	2
7	PE	CS702A	Soft Computing Lab					
		CS702B	Natural Language Processing Lab					
		CS702C	Web Technology Lab	0	0	3	3	2
8		CS705	Project-1	0	0	3	3	2
Total Practical							9	6
C. SESSIONAL								
9		CS781	Industrial Training	0	0	0	0	2
Total Sessional								
D. MANDATORY COURSES								
10	MC	MC781	Technical Skill Development	0	0	3	3	2Unit
Total							26	22

  
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Human Values & Professional Ethics  
HU 401/IT/Regulation 18

R18 B. TECH IT

4 <sup>th</sup> Semester				Contact Hours /Week			
				L	T	P	Total
<b>A. THEORY</b>							
1	PC	IT401	Computer Organization & Architecture	3	0	0	3
2	PC	IT402	Object Oriented Programming using Java	3	0	0	3
3	PC	IT403	Formal Language and Automata Theory	3	0	0	3
4	PC	IT404	Communication Engineering & Coding Theory	3	0	0	3
5	HS	HU 401	Values & Ethics in Profession	2	0	0	2
<b>Total of Theory</b>				14			14
<b>B. PRACTICAL</b>							
6	PC	IT491	Computer Organization & Architecture Lab	0	0	3	3
7	PC	IT492	Object Oriented Programming Lab	0	0	3	3
8	PC	IT493	Programming Skill Development Lab	0	0	3	3
9	PROJ	PR 491	Project-IV	0	0	2	2
10	PROJ*	PR 492	Innovative activities-III	0	0	0	0
<b>C. MANDATORY ACTIVITIES / COURSES</b>							
11	MC	MC 401	Environmental Science	0	0	3	3
<b>Total of Theory, Practical &amp; Mandatory Activities/Courses:</b>							28

  
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Human Values & Professional Ethics  
HU 802/IT/Regulation 16

4<sup>TH</sup> YEAR: 8<sup>TH</sup> SEMESTER


Sl. No	Subject Category	Subject Code	Subject Name	Contact Hours/Week				Total Credits
				L	T	P	Total	
<b>THEORY</b>								
1	PE	IT801A	ADVANCED COMPUTER ARCHITECTURE	3	0	0	3	3
		IT801B	CRYPTOGRAPHY AND NETWORK SECURITY					
		IT801C	NATURAL LANGUAGE PROCESSING					
		IT801D	BIO-INFORMATICS					
2	OE	IT802A	BUSINESS ANALYTICS	3	1	0	4	4
		IT802B	CYBER LAW AND SECURITY POLICY					
		IT802C	ADVANCED DBMS					
		IT802D	INTERNET OF THINGS					
3	HS	HU802	VALUES & ETHICS IN PROFESSIONS	2	0	0	2	2
Total no. of Theory:								9
<b>PRACTICAL</b>								
<b>SESSIONAL</b>								
4	PW	IT 881	DESIGN LAB INDUSTRIAL PROBLEM RELATED PRACTICAL TRAINING	0	0	3	3	2
5	PW	IT 882	PROJECT II	0	0	12	12	6
6	PW	IT 883	GRAND VIVA	0	0	0	0	3
<b>TOTAL</b>								<b>20</b>

  
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Human Values & Professional Ethics  
HU 301/IT/Regulation 15

**II**  
Second Year - Third Semester


A. THEORY							
Sl.No.	Field	Theory	Contact Hours/Week				Cr. Points
			L	T	P	Total	
1	HU301	Values & Ethics in Profession	3	0	0	3	3
2	PH301	Physics-2	3	1	0	4	4
3	CH301	Basic Environmental Engineering & Elementary Biology	3	0	0	3	3
4	CS301	Analog & Digital Electronics	3	0	0	3	3
5	CS302	Data Structure & Algorithm	3	1	0	4	4
6	CS303	Computer Organisation	3	1	0	4	4
<b>Total of Theory</b>						<b>21</b>	<b>21</b>
B. PRACTICAL							
7	PH391	Physics-2	0	0	3	3	2
8	CS391	Analog & Digital Electronics	0	0	3	3	2
9	CS392	Data Structure & Algorithm	0	0	3	3	2
10	CS393	Computer Organisation	0	0	3	3	2
<b>Total of Practical</b>						<b>12</b>	<b>8</b>
<b>Total of Semester</b>						<b>33</b>	<b>29</b>

  
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Human Values & Professional Ethics  
HU 401/CE/Regulation 18

R18 B Tech CE

Sl No	Course Code	Paper Code	Theory	Contact Hours /Week				Credit Points
				L	T	P	Total	
<b>A. THEORY</b>								
1	BS	M401	Mathematics III	3	1	0	4	4
2	HS	HU401	Values & Ethics in Profession	2	0	0	2	2
3	PC	CE401	Structural Analysis	3	1	0	4	4
4	PC	CE402	Concrete Technology	2	0	0	2	2
5	PC	CE403	Soil Mechanics	3	0	0	3	3
<b>Total of Theory</b>							<b>15</b>	<b>15</b>
<b>B. PRACTICAL</b>								
6	PC	CE491	Building Planning And Drawing	0	0	3	3	1.5
7	PC	CE492	Concrete Lab	0	0	3	3	1.5
8	PC	CE493	Soil Mechanics Lab-I	0	0	3	3	1.5
9	PC	CE494	Quantity Surveying, Specifications and Valuation	0	0	3	3	1.5
10	PROJ	PR.491	Project-IV	0	0	2	2	1
11	PROJ*	PR.492	Innovative activities-III	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
12	MC	MC 401	Environmental Science	3	0	0	3	0
<b>Total of Theory, Practical &amp; Mandatory Activities/Courses</b>							<b>32</b>	<b>22.5</b>


  
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Human Values & Professional Ethics  
HU 502/CE/Regulation 16

Third Year Fifth Semester

CURRICULUM

Subject Type	Subject Code	Subject Name	Contact Hours			Contact Hours/Week	Credits
			L	T	P	Total	Credits
<b>THEORY:</b>							
HS	HU502	VALUE AND ETHICS IN PROFESSION	2	0	0	2	2
PC	CE 501	STRUCTURAL DESIGN - I	2	2	0	4	3
PC	CE 502	QUANTITY SURVEYING, SPECIFICATION AND VALUATION	2	1	0	3	2
PC	CE 503	STRUCTURAL ANALYSIS - II	3	1	0	4	3
PC	CE 504	FOUNDATION ENGINEERING	3	1	0	4	3
PE -I	CE 505A	HYDRAULICS	3	1	0	4	4
	CE 505B	WATER SUPPLY AND PLUMBING					
	CE 505C	WASTE WATER AND TREATMENT					
<b>PRACTICAL</b>							
PC	CE 591	SURVEYING PRACTICE - II	0	0	3	3	2
PC	CE 592	SOIL MECHANICS LAB - I	0	0	3	3	2
PC	CE 593	CIVIL ENGINEERING LAB	0	0	3	3	2
<b>SESSIONAL:</b>							
MC	MC 581	PRESENTATION SKILL	0	0	2	2	2 units
		<b>TOTAL: TEN</b>	<b>15</b>	<b>6</b>	<b>11</b>	<b>32</b>	<b>23</b>

  
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Human Values & Professional Ethics  
HU 301/CE/Regulation 15

Civil Engineering  
Second Year – Third Semester

A. THEORY							
Sl. No	Field	Theory	Contact hours per week				Cr. Points
			L	T	P	Total	
1	HU301	Values & Ethics in Profession	3	0	0	3	3
2	PH301	Physics - 2	3	1	0	4	4
3	CH301	Basic Environmental Engineering & Elementary Biology	(2+1)	0	0	3	3
4	CE301	Solid Mechanics	3	0	0	3	3
5	CE302	Surveying	3	1	0	4	4
6	CE303	Building Material & Construction	3	1	0	4	4
Total Theory						21	21
B. PRACTICAL							
7	PH391	Physics - 2	0	0	3	3	2
8	CE391	Solid Mechanics	0	0	3	3	2
9	CE392	Surveying Practice I	0	0	3	3	2
10	CE393	Building Design & Drawing	0	0	3	3	2
Total Practical						12	8
Total of Semester						33	29




Human Values & Professional Ethics  
HU 301/CSE/Regulation 15

Second Year - Third Semester

A. Theory							
SL No.	Field	Theory	Contact Hour / Week			Credit Point	
			L	T	P		Total
1	HU301	Values & Ethics in Profession	3	0	0	3	3
2	PH301	Physics-2	3	1	0	4	4
3	CH301	Basic Environmental Engineering & Elementary Biology	3	0	0	3	3
4	CS301	Analog & Digital Electronics	3	0	0	3	3
5	CS302	Data Structure & Algorithm	3	1	0	4	4
6	CS303	Computer Organisation	3	1	0	4	4

B. Practical

7	PH391	Physics-2	0	0	3	3	2
8	CS391	Analog & Digital Electronics	0	0	3	3	2
9	CS392	Data Structure & Algorithm	3	3	2	3	2
10	CS393	Computer Organisation	0	0	3	3	2
Total of Practical						12	8
Total of Semester						33	29

  
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Human Values & Professional Ethics  
HU 401/ECE/Regulation 15

ECE SECOND YEAR: FOURTH SEMESTER

A. THEORY							
Sl.No.	Field	Theory	Contact Hours/Week				Cr. Points
			L	T	P	Total	
1	HU401	Values & Ethics in Profession	3	0	0	3	3
2	PH401	Physics-II	3	1	0	4	4
3	CH401	Basic Environmental Engineering & Elementary Biology	2+1	0	0	3	3
4	EC401	1. EM Theory & Transmission Lines	3	1	0	4	4
5	EC402	2. Digital Electronic & Integrated Circuits	3	1	0	4	4
Total of Theory						18	18
B. PRACTICAL							
6	HU481	Technical Report Writing & Language Lab Practice	0	0	3	3	2
7	PH491	Physics-II Lab	0	0	3	3	2
8	EC491	1. EM Theory & Tx Lines Lab	0	0	3	3	2
9	EC492	2. Digital Electronic & Integrated Circuits Lab	0	0	3	3	2
Total of Practical						12	8
Total of Semester						30	26




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Human Values & Professional Ethics  
HU 301/ECE/Regulation 18

R18 B.Tech ECE

Sl No	Course Code	Paper Code	Theory	3 <sup>rd</sup> Semester				Credit Points
				Contact Hours / Week				
				L	T	P	Total	
<b>A. THEORY</b>								
1	BS	M 301	Mathematics-III	3	1	0	4	4
2	ES	M (CS) 301	Numerical Methods	3	0	0	3	3
3	PC	EC 301	Solid State Devices	3	0	0	3	3
4	PC	EC 302	Circuit Theory & Networks	3	0	0	3	3
5	ES	EC 303	Data Structure	3	0	0	3	3
6	HS	HU 301	Values & Ethics in Profession	2	0	0	2	2
<b>Total of Theory</b>							18	18
<b>B. PRACTICAL</b>								
7	ES	M (CS) 391	Numerical Methods Lab	0	0	3	3	1.5
8	PC	EC 392	Circuit Theory & Networks Lab	0	0	3	3	1.5
9	ES	EC 393	Data Structure Lab	0	0	3	3	1.5
10	PROJ	PR 391	Project-III	0	0	2	2	1
11	PROJ*	PR 392	Innovative activities-II	0	0	0	1	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
12	MC	MC 381	Behavioural & Interpersonal skills	0	0	3	3	
<b>Total of Theory, Practical &amp; Mandatory Activities / Courses</b>							33	24

  
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Human Values & Professional Ethics  
HU 401/EE/Regulation 18

4th Semester								
Sl. No.	Category	Paper Code	Subject	Contact Hours/Week				Credit Points
				L	T	P	Total	
<b>A. THEORY</b>								
1	BS	PH 401	Physics – II	3	0	0	3	3
2	PC	EE 401	Electrical Machines – I	3	0	0	3	3
3	PC	EE 402	Power Electronics	3	0	0	3	3
4	PC	EE 403	Digital Electronics	3	0	0	3	3
5	PC	EE 404	Electromagnetic Fields	2	0	0	2	2
6	HS	HU 401	Values and Ethics in Profession	2	0	0	2	2
Total of Theory							16	16
<b>B. PRACTICAL</b>								
7	BS	PH 491	Physics – II Laboratory	0	0	3	3	1.5
8	PC	EE 491	Electrical Machines – I Laboratory	0	0	3	3	1.5
9	PC	EE 492	Power Electronics Laboratory	0	0	3	3	1.5
10	PC	EE 493	Digital Electronics Laboratory	0	0	2	2	1
11	PROJ	PR 491	Project – IV	0	0	2	2	1
12	PROJ*	PR 492	Innovative Activities – III	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
13	MC	MC 481	Behavioural & Interpersonal Skills	0	0	3	3	0
Total of Theory, Practical & Mandatory Activities/ Courses							32	23




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Human Values & Professional Ethics  
HU 502/ME/Regulation 16

**Third Year, 5<sup>th</sup> SEMESTER**

Subject Type	Subject Code	Subject Name	Contact Hours/Week				Total Credits
			L	T	P	Total	
<b>A. THEORY:</b>							
PC	ME 501	HEAT TRANSFER	3	0	0	3	3
PC	ME 502	DESIGN OF MACHINE ELEMENTS-I	3	0	0	3	3
PC	ME 503	DYNAMICS OF MACHINES	3	0	0	3	3
PC	ME 504	METROLOGY & MEASUREMENT	3	0	0	3	3
HU	HU 502	VALUES & ETHICS IN PROFESSION	2	0	0	2	2
PE-I	ME 505A	REFRIGERATION & AIR CONDITIONING	3	0	0	3	3
	ME 505B	MECHATRONICS					
	ME 505C	APPLIED FLUID MECHANICS					
<b>Total of Theory</b>						<b>17</b>	<b>17</b>
<b>B. PRACTICAL:</b>							
PC	ME 591	HEAT TRANSFER LAB	0	0	3	3	2
PC	ME 592	DYNAMICS OF MACHINES LAB	0	0	3	3	2
PC	ME 593	METROLOGY & MEASUREMENT LAB	0	0	2	2	1
PE LAB-I	ME 594 A	REFRIGERATION & AIR CONDITIONING LAB	0	0	3	3	2
	ME 594 B	MECHATRONICS LAB					
	ME 594 C	APPLIED FLUID MECHANICS LAB					
<b>Total of Practical</b>						<b>11</b>	<b>7</b>
<b>C. SESSIONAL</b>							
PROJECT	ME 581	MINI PROJECT-I	0	0	3	3	2
MC	MC 582	SEMINAR	0	0	2	2	0
<b>TOTAL: Twelve</b>			<b>17</b>	<b>0</b>	<b>16</b>	<b>33</b>	<b>26</b>

  
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**Human Values & Professional Ethics**  
**HU 601/ME/Regulation 18**

R18 B. TECH ME

6 <sup>th</sup> Semester								
Sl No	Course Type	Course Code	Theory	Contact Hours/Week				Credit Points
				L	T	P	Total	
<b>A. THEORY</b>								
1	PC	MEe01	Internal Combustion Engine and Gas Turbine	3	0	0	3	3
2	PE	MEe02	A. Power Plant Engineering	3	0	0	3	3
			B. Fluid Power control					
			C. Total Quality Management					
3	OE	ME 603	A. Electrical Machines	3	0	0	3	3
			B. Data Base Management System					
			C. Internet Of Things					
4	OE	ME 604	A. Mechatronics Systems	3	0	0	3	3
			B. Computational Fluid Dynamics					
			C. Finite Element Analysis					
5	HS	HU601	Values & Ethics in Profession	2	0	0	2	2
<b>Total of Theory</b>							<b>14</b>	<b>14</b>
<b>B. PRACTICAL</b>								
6	PC	ME 691	Internal Combustion Engine Lab	0	0	3	3	1.5
7	OE	ME692	A. Mechatronics Systems Lab	0	0	3	3	1
			B. Computational Fluid Dynamics Lab					
			C. Finite Element Analysis Lab					
7	PROJ	PR 691	Project-VI**	0	0	2	2	1
8	PROJ*	PR 692	Innovative activities-V	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
10	MC	MC 681	Group Discussion	0	0	3	3	
<b>Total of Theory, Practical &amp; Mandatory Activities/Courses</b>							<b>22</b>	<b>18</b>



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Human Values & Professional Ethics  
HU 401/EIE/Regulation 15

Fourth Semester

A. Theory							
Sl. No.	Code	Paper	Contact Hours/Week				Credit Points
			L	T	P	Total	
1	HU 401	Values & Ethics in Profession	3	0	0	3	3
2	PH(EE) 401	Physics – II	3	1	0	4	4
3	CH 401	Basic Environmental Engineering & Elementary Biology	3	0	0	3	3
4	EI 401	Sensors and Transducers	3	1	0	4	4
5	EI 402	Microprocessors and Computer Architecture	3	1	0	4	4
6	EE 402(EI)	Field theory	3	0	0	3	3
Total Theory						20	21
B. Practical							
7	HU 481	Technical report writing & language laboratory practice	0	0	3	3	2
8	PH(EE) 491	Physics –II Lab	0	0	3	3	2
9	EI 491	Electrical Measurement & Instrumentation Lab	0	0	3	3	2
10	EI 492	Microprocessor Lab	0	0	3	3	2
Total Practical						12	8
Total of Semester						32	29
Total of Year							56




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MC 781/CSE/Regulation 2018

R18 B. TECH CSE


7 <sup>th</sup> Semester								
Sl No	Course Code	Paper Code	Theory	Contact Hours /Week				Credit Points
				L	T	P	Total	
<b>A. THEORY</b>								
1	HS	HU701	Values & Ethics in Profession	2	0	0	2	2
2	OE	CS701	A. Artificial Intelligence	3	0	0	3	3
			B. Robotics					
			C. Data Analytics					
3	PE	CS702	A. Soft Computing	3	0	0	3	3
			B. Natural Language Processing					
			C. Web Technology					
4	PE	CS703	A. Cloud Computing	3	0	0	3	3
			B. Sensor Network and IOT					
			C. Cryptography and Network Security					
<b>Total of Theory</b>							11	11
<b>B. PRACTICAL</b>								
5	OE	CS791	A. Artificial Intelligence Lab	0	0	3	3	1.5
			B. Robotics Lab					
			C. Data Analytics Lab					
6	PE	CS792	A. Soft Computing Lab	0	0	3	3	1.5
			B. Natural Language Processing Lab					
			C. Web Technology Lab					
8	PROJ	PR 791	Project-VII	0	0	0	6	3
9	PROJ*	PR 792	Innovative activities-VI	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
10	MC	MC 781	Social Awareness	0	0	3	3	
<b>Total of Theory, Practical &amp; Mandatory Activities/Courses</b>							26	17.5

  
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MC 501/ECE/Regulation 2018

R18 B.Tech ECE

Sl No	Course Code	Paper Code	Theory	5 <sup>th</sup> Semester				Credit Points
				Contact Hours /Week			Total	
				L	T	P		
<b>A. THEORY</b>								
1	HS	HU 502	Economics for Engineers	2	0	0	2	2
2	PC	EC 501	Analog & Digital Communication Systems	3	0	0	3	3
3	PC	EC 502	Microprocessor & Micro Controller	3	0	0	3	3
4	PC	EC 503	Digital Signal Processing	3	0	0	3	3
5	PE	EC 504	A. Information Theory & Coding	3	0	0	3	3
			B. Renewable Energy Sources & Applications					
			C. Nano Electronics					
Total of Theory							14	14
<b>B. PRACTICAL</b>								
6	PC	EC 591	Analog & Digital Communication Systems Lab	0	0	3	3	1.5
7	PC	EC 592	Microprocessor & Micro Controller Lab	0	0	3	3	1.5
8	PC	EC 593	Digital Signal Processing Lab	0	0	3	3	1.5
10	PROJ	PR 591	Project-V	0	0	2	2	1
11	PROJ*	PR 592	Innovative activities-IV	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
12	MC	MC 501	Constitution of India	3	0	0	3	
Total of Theory, Practical & Mandatory Activities/Courses							31	20




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MC 501/EIE/Regulation 2018

R18 B. TECH EIE


5 <sup>th</sup> Semester								
Sl No	Course Code	Paper Code	Theory	Contact Hours /Week				Credit Points
				L	T	P	Total	
<b>A. THEORY</b>								
1	HS	HU502	Economics for Engineers	2	0	0	2	2
2	PC	EI 501	Industrial Instrumentation	3	0	0	3	3
3	PC	EI 502	Analog & Digital Communication Theory	3	0	0	3	3
4	PC	EI 503	Control Engineering	3	1	0	4	4
5	PE	EI 504A	Optoelectronics & Fibre Optic Sensors	3	0	0	3	3
		EI 504B	Soft Computing					
		EI 504C	IoT based Instrumentation System					
<b>Total of Theory</b>							<b>15</b>	<b>15</b>
<b>B. PRACTICAL</b>								
6	PC	EI 591	Industrial Instrumentation Lab	0	0	3	3	1.5
7	PC	EI 592	Analog & Digital Communication Lab	0	0	3	3	1.5
8	PC	EI 593	Control Engineering Lab	0	0	3	3	1.5
9	PROJ	PR 591	Project-V	0	0	2	2	1
10	PROJ*	PR 592	Innovative activities-IV	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
10	MC	MC 501	Constitution of India	3	0	0	3	
<b>Total of Theory, Practical &amp; Mandatory Activities/Courses</b>							<b>29</b>	<b>21</b>

  
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R18 B. TECH IT

5 <sup>th</sup> Semester				Contact Hours /Week				Credit Points
				L	T	P	Total	
<b>A. THEORY</b>								
1	PC	IT501	Design & Analysis of Algorithm	3	0	0	3	3
2	PC	IT502	Software Engineering	3	0	0	3	3
3	PC	IT503	Operating System	3	0	0	3	3
4	HS	HU503	Industrial & Financial Management	2	0	0	2	2
			A. Programming practice with C++					
			B. Artificial Intelligence and Expert System					
			C. Microprocessor Microcontroller					
<b>Total of Theory</b>							14	14
<b>B. PRACTICAL</b>								
6	PC	IT591	Algorithm Lab	0	0	3	3	1.5
7	PC	IT592	Software Engineering Lab	0	0	3	3	1.5
8	PC	IT593	Operating System Lab	0	0	3	3	1.5
			A. Programming practice with C++ Lab					
			B. Artificial Intelligence and Expert System Lab					
			C. Microprocessor Microcontroller Lab					
10	PROJ	PR 591	Project-V	0	0	2	2	1
11	PROJ*	PR 592	Innovative activities-IV	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
12	MC	MC 501	Constitution of India	3	0	0	3	
<b>Total of Theory, Practical &amp; Mandatory Activities/Courses</b>							31	21.5


  
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R18 B.TECH. EE

5th Semester								
Sl. No.	Category	Paper Code	Subject	Contact Hours/Week			Credit Points	
				L	T	P		Total
<b>A. THEORY</b>								
1	PC	EE 501	Electrical Machines – II	3	0	0	3	3
2	PC	EE 502	Power System – I	3	0	0	3	3
3	PC	EE 503	Control System – I	3	0	0	3	3
4	OE	EE 504	A. Data Structure	3	0	0	3	3
			B. Computer Network					
			C. Internet of Things					
5	PE	EE 505	A. Electrical Energy Conservation and Auditing	3	0	0	3	3
			B. Electromagnetic Waves					
			C. Illumination Engineering					
			D. Power Plant Engineering					
<b>Total of Theory</b>							15	15
<b>B. PRACTICAL</b>								
6	PC	EE 591	Electrical Machines – II Laboratory	0	0	3	3	1.5
7	PC	EE 592	Power System – I Laboratory	0	0	3	3	1.5
8	PC	EE 593	Control System – I Laboratory	0	0	3	3	1.5
9	OE	EE 594	A. Data Structure Laboratory	0	0	3	3	1.5
			B. Computer Network Laboratory					
			C. Internet of Things Laboratory					
10	PROJ	PR 591	Project – V	0	0	2	2	1
11	PROJ*	PR 592	Innovative Activities – IV	0	0	0	0	0.5
<b>C. MANDATORY ACTIVITIES / COURSES</b>								
12	MC	MC 501	Constitution of India	3	0	0	3	0
<b>Total of Theory, Practical &amp; Mandatory Activities / Courses</b>							32	22.5

  
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