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**MIT**

Academy of  
Engineering

(An Autonomous Institute Affiliated to Savitribai Phule Pune University)

**MIT ACADEMY OF ENGINEERING, ALANDI**

**Curriculum for  
Bachelor of Technology in  
E&TC Engineering**

(Choice Based Credit System)

**REVISION 2022 (2.0)**

(Four Year Curriculum W.E.F, AY: 2022-2023)

**BoS Chairman  
E&TC Engineering**

**Member Secretary  
Academic Council  
Dean Academics**

**Chairman  
Academic Council  
Director MITAOE**

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**MIT**

Academy of  
Engineering


(An Autonomous Institute Affiliated to Savitribai Phule Pune University)

**MIT ACADEMY OF ENGINEERING, ALANDI**

**Curriculum for  
First Year  
Bachelor of Technology**


**REVISION 2022 (2.0)**

**(First Year Curriculum W.E.F., AY: 2022-2023)**

 <b>Academy of Engineering</b> <small>(An Autonomous Institute Affiliated to Savitribai Phule Pune University)</small>	<b>COURSE STRUCTURE (REVISION 2022)</b>			
	<b>SCHOOL OF E&amp;TC ENGINEERING</b>	<b>W. E. F</b>	:	<b>2022-2023</b>
<b>FIRST YEAR BACHELOR OF TECHNOLOGY</b>	<b>RELEASE DATE</b>	:	<b>01/11/2022</b>	
	<b>REVISION NO.</b>	:	<b>2.0</b>	

<b>SEMESTER: I (PART A)</b>													
<b>INDUCTION PROGRAM</b>													
<b>COURSE</b>			<b>TEACHING SCHEME</b>			<b>EXAMINATION SCHEME AND MARKS</b>						<b>C R E D I T</b>	
<b>TYPE</b>	<b>CODE</b>	<b>NAME</b>	<b>HOUR / WEEK</b>			<b>THEORY</b>			<b>PRACT</b>		<b>T O T A L</b>		
			<b>L</b>	<b>P</b>	<b>T</b>	<b>IA</b>	<b>MSE</b>	<b>ESE</b>	<b>CA</b>	<b>D/P</b>			
BSC	AS105	Calculus and Differential Equations	3	-	1	30	20	50	30	20	150	4	
BSC	AS106	Engineering Physics	3	2	-	30	20	50	30	20	150	4	
ESC	ET101	Electrical and Electronics Engineering	3	2	-	30	20	50	30	20	150	4	
ESC	ME107	Engineering Graphics	2	2	-	15	20	40	30	20	125	3	
ESC	CS103	Foundations of Computing	2	4	-	15	20	40	50	25	150	4	
HSSM AEC	HP107/ (10/12/14)	English for Communication /(German/Japanese/French)	-	2	-	-	-	-	50	-	50	1	
HSSM VEC	HP109	Universal Human Values	2	-	-	-	-	-	-	-	<b>Audit</b>		
<b>TOTAL</b>			<b>15</b>	<b>12</b>	<b>1</b>						<b>775</b>	<b>20</b>	

<b>SEMESTER: II (PART A)</b>													
<b>COURSE</b>			<b>TEACHING SCHEME</b>			<b>EXAMINATION SCHEME AND MARKS</b>						<b>C R E D I T</b>	
<b>TYPE</b>	<b>CODE</b>	<b>NAME</b>	<b>HOUR / WEEK</b>			<b>THEORY</b>			<b>PRACT</b>		<b>T O T A L</b>		
			<b>L</b>	<b>P</b>	<b>T</b>	<b>IA</b>	<b>MSE</b>	<b>ESE</b>	<b>CA</b>	<b>D/P</b>			
BSC	AS107	Statistics and Integral Calculus	3	-	1	30	20	50	30	20	150	4	
BSC	CH101	Science of Nature	3	2	-	30	20	50	30	20	150	4	
ESC	CV103	Applied Mechanics	2	2	-	15	20	40	30	20	125	3	
ESC	ME106	Design Thinking	1	2	-	40	-	-	-	35	75	2	
ESC	CS104	Essentials of Data Science	2	4	-	15	20	40	50	25	150	4	
HSSM AEC	HP108 (11/13/15)	Functional English /(German/Japanese/French)	-	2	-	-	-	-	50	-	50	1	
VSEC	ET104	Emerging Technologies	1	2	-	25	-	-	-	50	75	2	
HSSM VEC	HP106	Indian Constitution	1	-	-	-	-	-	-	-	<b>Audit</b>		
<b>TOTAL</b>			<b>13</b>	<b>14</b>	<b>1</b>						<b>775</b>	<b>20</b>	

 <b>Academy of Engineering</b> <small>(An Autonomous Institute Affiliated to Savitribai Phule Pune University)</small>	<b>COURSE STRUCTURE (REVISION 2022)</b>			
	<b>SCHOOL OF E&amp;TC ENGINEERING</b>	<b>W.E.F</b>	:	<b>2022-2023</b>
<b>FIRST YEAR BACHELOR OF TECHNOLOGY</b>	<b>RELEASE DATE</b>	:	<b>01/11/2022</b>	
	<b>REVISION NO.</b>	:	<b>2.0</b>	

<b>SEMESTER: I (PART B)</b>													
<b>INDUCTION PROGRAM</b>													
<b>COURSE</b>			<b>TEACHING SCHEME</b>			<b>EXAMINATION SCHEME AND MARKS</b>						<b>C R E D I T</b>	
<b>TYPE</b>	<b>CODE</b>	<b>NAME</b>	<b>HOURLY / WEEK</b>			<b>THEORY</b>			<b>PRACT</b>		<b>T O T A L</b>		
			<b>L</b>	<b>P</b>	<b>T</b>	<b>IA</b>	<b>MSE</b>	<b>ESE</b>	<b>CA</b>	<b>D/P</b>			
BSC	AS105	Calculus and Differential Equations	3	-	1	30	20	50	30	20	150	4	
BSC	CH101	Science of Nature	3	2	-	30	20	50	30	20	150	4	
ESC	CV103	Applied Mechanics	2	2	-	15	20	40	30	20	125	3	
ESC	ME106	Design Thinking	1	2	-	40	-	-	-	35	75	2	
ESC	CS103	Foundations of Computing	2	4	-	15	20	40	50	25	150	4	
HSSM AEC	HP107/ (10/12/14)	English for Communication /(German/Japanese/French)	-	2	-	-	-	-	50	-	50	1	
HSSM VEC	HP109	Universal Human Values	2	-	-	-	-	-	-	-	<b>Audit</b>		
<b>TOTAL</b>			<b>13</b>	<b>12</b>	<b>1</b>						<b>700</b>	<b>18</b>	

<b>SEMESTER: II (PART B)</b>													
<b>COURSE</b>			<b>TEACHING SCHEME</b>			<b>EXAMINATION SCHEME AND MARKS</b>						<b>C R E D I T</b>	
<b>PE</b>	<b>CODE</b>	<b>NAME</b>	<b>HOURLY / WEEK</b>			<b>THEORY</b>			<b>PRACT</b>		<b>T O T A L</b>		
			<b>L</b>	<b>P</b>	<b>T</b>	<b>IA</b>	<b>MSE</b>	<b>ESE</b>	<b>CA</b>	<b>D/P</b>			
BSC	AS107	Statistics and Integral Calculus	3	-	1	30	20	50	30	20	150	4	
BSC	AS106	Engineering Physics	3	2	-	30	20	50	30	20	150	4	
ESC	ET101	Electrical and Electronics Engineering	3	2	-	30	20	50	30	20	150	4	
ESC	ME107	Engineering Graphics	2	2	-	15	20	40	30	20	125	3	
ESC	CS104	Essentials of Data Science	2	4	-	15	20	40	50	25	150	4	
VSEC	ET104	Emerging Technologies	1	2	-	25	-	-	-	50	75	2	
HSSM AEC	HP108/ (11/13/15)	Functional English /(German/Japanese/French)	-	2	-	-	-	-	50	-	50	1	
HSSM VEC	HP106	Indian Constitution	1	-	-	-	-	-	-	-	<b>Audit</b>		
<b>TOTAL</b>			<b>15</b>	<b>14</b>	<b>1</b>						<b>850</b>	<b>22</b>	

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**MIT ACADEMY OF ENGINEERING, ALANDI**

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Bachelor of Technology in  
E&TC Engineering**

**REVISION 2022 (2.0)**

**(Second Year Curriculum W.E.F., AY: 2023-2024)**

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 <b>Academy of Engineering</b> <small>(An Autonomous Institute Affiliated to Savitribai Phule Pune University)</small>	<b>COURSE STRUCTURE (REVISION 2022)</b>			
	<b>SCHOOL OF E&amp;TC ENGINEERING</b>	<b>W. E. F</b>	<b>:</b>	<b>2023-2024</b>
<b>SECOND YEAR BACHELOR OF TECHNOLOGY E&amp;TC ENGINEERING</b>	<b>RELEASE DATE</b>	<b>:</b>	<b>01/07/2023</b>	
	<b>REVISION NO.</b>	<b>:</b>	<b>2.0</b>	

<b>SEMESTER: III</b>													
<b>COURSE</b>			<b>TEACHING SCHEME</b>			<b>EXAMINATION SCHEME AND MARKS</b>						<b>C R E D I T</b>	
<b>TYPE</b>	<b>CODE</b>	<b>NAME</b>	<b>HOURLY / WEEK</b>			<b>THEORY</b>			<b>PRACT</b>		<b>T O T A L</b>		
			<b>L</b>	<b>P</b>	<b>T</b>	<b>IA</b>	<b>MSE</b>	<b>ESE</b>	<b>CA</b>	<b>D/P</b>			
OE	2301255	Applied Mathematics	3	2	-	30	20	50	20	30	150	4	
PCC	2307211	Electromagnetics	3	-	1	30	20	50	20	30	150	4	
PCC	2307212	Digital Systems Design	3	2	-	30	20	50	20	30	150	4	
PCC	2307213	Electronic Circuits & Applications	3	2	-	30	20	50	20	30	150	4	
VSEC	2304261	Problem Solving Using OOP (C++)	-	4	-	-	-	-	35	40	75	2	
	2307264/5	Discipline Skill Dev. Course	-	4	-	-	-	-	35	40	75	2	
OE	2311251	Prototyping	-	4	-	-	-	-	35	40	75	2	
ELC PRJ	2307291	Minor Project Design	-	2	-	-	-	-	20	30	50	1	
HSSM VEC	2301286	Environmental Science	2	-	-	35	-	40	-	-	75	2	
<b>TOTAL</b>			<b>14</b>	<b>16</b>	<b>1</b>						<b>875</b>	<b>23</b>	

<b>SEMESTER: IV</b>													
<b>COURSE</b>			<b>TEACHING SCHEME</b>			<b>EXAMINATION SCHEME AND MARKS</b>						<b>C R E D I T</b>	
<b>TYPE</b>	<b>CODE</b>	<b>NAME</b>	<b>HOURLY / WEEK</b>			<b>THEORY</b>			<b>PRACT</b>		<b>T O T A L</b>		
			<b>L</b>	<b>P</b>	<b>T</b>	<b>IA</b>	<b>MSE</b>	<b>ESE</b>	<b>CA</b>	<b>D/P</b>			
MDM	2307231	Engineering Informatics	3	2	-	30	20	50	20	30	150	4	
PCC	2307214	ARM Based Embedded System Design	3	2	-	30	20	50	20	30	150	4	
PCC	2307215	Circuit Theory	2	2	-	15	20	40	20	30	125	3	
PCC	2307216	Principles of Communication Systems	2	2	-	15	20	40	20	30	125	3	
VSEC	2307268	Data Structures	-	4	-	-	-	-	35	40	75	2	
ELC PRJ	2307292	Minor Project Implementation	-	2	-	-	-	-	20	30	50	1	
HSSM VEC	2301287	Universal Human Values-II	1	4	-	25	-	-	-	75	100	3	
ELC SI	2307296	Internship (Life And Soft Skills)	-	-	-	-	-	-	-	-	<b>Audit</b>		
<b>TOTAL</b>			<b>11</b>	<b>18</b>	<b>-</b>						<b>775</b>	<b>20</b>	

\*Two Credit Internship need to accomplish after completion of Second Year Credit Transfer in Semester V

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**Curriculum for  
Third Year  
Bachelor of Technology in  
E&TC Engineering**

**REVISION 2022 (2.0)**

**(With Effect from Academic Year: 2024-2025)**

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 <b>Academy of Engineering</b> (An Autonomous Institute Affiliated to Savitribai Phule Pune University)	<b>COURSE STRUCTURE (REVISION 2022)</b>			
	<b>SCHOOL OF E&amp;TC ENGINEERING</b>	<b>W. E. F</b>	:	<b>2024-2025</b>
<b>THIRD YEAR BACHELOR OF TECHNOLOGY E&amp;TC ENGINEERING</b>	<b>RELEASE DATE</b>	:	<b>01/07/2022</b>	
	<b>REVISION NO.</b>	:	<b>2.0</b>	

SEMESTER: V												
COURSE			TEACHING SCHEME			EXAMINATION SCHEME AND MARKS					CREDIT	
TYPE	CODE	NAME	HOUR/WEEK			THEORY			PRACT			TOTAL
			TH	P	TU	IA	MSE	ESE	CA	D/P		
PCC	2307311T	Computational Intelligence	3	-	-	30	20	50	-	-	100	3
	2307311L	Computational Intelligence Lab	-	2	-	-	-	-	20	30	50	1
PCC	2307312T	Control Systems	3	-	-	30	20	50	-	-	100	3
	2307312L	Control Systems Lab	-	2	-	-	-	-	20	30	50	1
PEC	230732XT	Program Elective Courses	3	-	-	30	20	50	-	-	100	3
	230732XL	Program Elective Courses Lab	-	2	-	-	-	-	20	30	50	1
VSEC	230736XL	Skill Development Courses	-	4	-	-	-	-	35	40	75	2
MDM	*MDM Annexure List	Multi-Disciplinary Minor Course-II	2	-	-	15	20	40	-	-	75	2
	*MDM Annexure List	Multi-Disciplinary Minor Course-II Lab	-	2	-	-	-	-	20	30	50	1
ELC PRJ	2307391	Project - I	-	4	-	-	-	-	35	40	75	2
ELC SI	2307396	Internship (Technical)	-	-	-	-	-	-	-	75	75	2
<b>TOTAL</b>			<b>11</b>	<b>16</b>	<b>-</b>						<b>800</b>	<b>21</b>

SEMESTER: VI												
COURSE			TEACHING SCHEME			EXAMINATION SCHEME AND MARKS					CREDIT	
TYPE	CODE	NAME	HOUR/WEEK			THEORY			PRACT			TOTAL
			TH	P	TU	IA	MSE	ESE	CA	D/P		
PCC	2307313T	Embedded Edge AI	3	-	-	30	20	50	-	-	100	3
	2307313L	Embedded Edge AI Lab	-	2	-	-	-	-	20	30	50	1
PCC	2307314T	Digital Signal & Image Processing	3	-	-	30	20	50	-	-	100	3
	2307314L	Digital Signal & Image Processing Lab	-	2	-	-	-	-	20	30	50	1
PEC	230732XT	Program Elective Course	3	-	-	30	20	50	-	-	100	3
	230732XL	Program Elective Course Lab	-	2	-	-	-	-	20	30	50	1
VSEC	230736XL	Skill Development Courses	-	4	-	-	-	-	35	40	75	2
MDM	*MDM Annexure List	Multi-Disciplinary Minor Course-III	2	-	-	15	20	40	-	-	75	2
	*MDM Annexure List	Multi-Disciplinary Minor Course-III Lab	-	2	-	-	-	-	20	30	50	1
HSSM AEC	2307371	Employability and Career Development	-	4	-	-	-	-	35	40	75	2
ELC PRJ	2307392	Project - II	-	4	-	-	-	-	35	40	75	2
<b>TOTAL</b>			<b>11</b>	<b>20</b>	<b>-</b>						<b>800</b>	<b>21</b>

\*Four Credit Internship needs to be completed after Completion of the Third Year



 <b>Academy of Engineering</b> <small>(An Autonomous Institute Affiliated to Savitribai Phule Pune University)</small>	<b>COURSE STRUCTURE (REVISION 2022)</b>		
	<b>SCHOOL OF E&amp;TC ENGINEERING</b>	<b>W. E. F</b>	<b>: 2024-2025</b>
<b>FINAL YEAR BACHELOR OF TECHNOLOGY E&amp;TC ENGINEERING</b>	<b>RELEASE DATE</b>	<b>: 01/06/2020</b>	
	<b>REVISION NO.</b>	<b>: 1.0</b>	

SEMESTER: VII												
COURSE			TEACHING SCHEME			EXAMINATION SCHEME AND MARKS					CREDIT	
TYPE	CODE	NAME	HOUR/WEEK			THEORY			PRACT			TOTAL
			L	P	T	MSE	ESE	IA	T/P	DM		
DC13	ET461	HDL-Digital Circuit Design	3	2	-	35	35	30	50	0	150	4
DE01	ET48# / EX48#	Discipline Elective	3	-	-	35	35	30	0	0	100	3
OE03	ET47# / EX47#	Open Elective	3	2	-	35	35	30	50	0	150	4
SDP10	ET46#	Skill Development Course	0	4	-	0	0	25	50	0	75	2
SDP11	ET470	Project Evaluation	0	8	-	0	0	50	0	100	150	4
SDP12	ET400	Summer Internship	-	-	-	-	-	-	-	150	150	4
<b>TOTAL</b>			<b>9</b>	<b>16</b>	<b>0</b>	<b>105</b>	<b>105</b>	<b>165</b>	<b>150</b>	<b>250</b>	<b>775</b>	<b>21</b>

SEMESTER: VIII (PART A)												
COURSE			TEACHING SCHEME			EXAMINATION SCHEME AND MARKS					CREDIT	
TYPE	CODE	NAME	HOUR/WEEK			THEORY			PRACT			TOTAL
			L	P	T	MSE	ESE	IA	T/P	DM		
DC14	ET462	Process Automation	3	2	-	35	35	30	50	0	150	4
DE01	ET49# / EX49#	Discipline Elective	3	-	-	35	35	30	0	0	100	3
SDP13	ET480	Capstone Work	-	8	-	0	0	75	0	75	150	4
HSS7	HP405	Engineering Economics	2	-	-	0	50	25	0	0	75	2
HSS8	HP406	Psychology	2	-	-	0	50	25	0	0	75	2
<b>TOTAL</b>			<b>10</b>	<b>10</b>	<b>0</b>	<b>70</b>	<b>170</b>	<b>185</b>	<b>50</b>	<b>75</b>	<b>550</b>	<b>15</b>

<b>Program Elective (PEC) : 3 Courses</b>		
<b>Sl. No.</b>	<b>Course Code</b>	<b>Course</b>
<b>Internet of Things</b>		
1	2307321	Embedded Systems for IoT
2	2307324	Introduction to Security of Cyber Physical Systems
3	2307421	Ubiquitous Sensing, Computing and Communication
4		*Swayam Course
<b>Electric Vehicle</b>		
5	2307322	EV architecture and Dynamics
6	2307325	EV Power Electronics
7	2307422	Battery Technology and EV charging ecosystem
8		*Swayam Course
<b>Semiconductor Technologies</b>		
9	2307323	Configurable Logic Design
10	2307326	CMOS VLSI Design
11	2307423	
12		*Swayam Course

<b>Skill Development and Project (VSEC) : 09 Courses</b>		
<b>Sl. No.</b>	<b>Course</b>	
1.	2304261	Problem Solving Using OOP (C++)
2.	2307268	Data Structures
3.	2307361	Database Management Systems (DBMS)
4.	2307362	Embedded Linux
5.	2307363	Web Technologies (by Tech-Saksham)
6.	2307364	RTOS
7.	2307365	Computer Network
8.	2307366	Model Based Design (MBD)
9.	2307367	Cloud Computing

<b>Multi-Disciplinary Minor (MDM) : 09 Courses</b>		
<b>Sl. No.</b>	<b>Course Code</b>	<b>Course</b>
1	2307231	Engineering Informatics
<b>Healthcare Technology</b>		
2	2307331	Fundamentals of Healthcare Technology
3	2307334	Healthcare Informatics
4	2307431	AI in Healthcare
5		*Swayam Course
<b>Blockchain Technologies</b>		
6	2307332	Cyber Security Essentials
7	2307335	Network Security
8	2307432	Blockchain Technology & Applications
9		*Swayam Course

<b>Discipline Elective (DE) : 2 Courses and 6 Credits</b>			
<b>Sl. No.</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Course Credits</b>
1.	ET481	Deep Learning	3
	ET482	Digital Image Processing	
	ET483	Electric Vehicles	
	ET484	RTOS	
2.	ET491	ASIC Design	3
	ET492	Network Security	
	ET493	Signal Detection and Estimation Techniques	
	ET494	Biomedical Engineering	
	ETSWAYAM01	Discipline Elective Swayam MOOC Course	
	ETSWAYAM02	Discipline Elective Swayam MOOC Course	
	ETSWAYAM03	Discipline Elective Swayam MOOC Course	

<b>Skill Development and Project (SDP) : 13 Courses and 30 Credits</b>			
<b>Sl. No.</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Course Credits</b>
1.	ET224	Digital Prototyping	2
2.	ET230	Minor Project Design	1
3.	ET225	Skill Development Course - Data Structures & Algorithms	2
4.	ET235	Rapid Prototyping	2
5	ET240	Minor Project Implementation	1
6. A	ET344	Skill Development course – Data Science	2
6. B	ET345	Skill Development - Infosys Springboard : Foundation in Data Science	2
6.C	ET346	Skill Development Course - Image Analytics	2
7	ET350	Project Design	2
8. A	ET364	Skill Development Course - Networking	2
8. B	ET365	Skill Development Course – MATLAB Based System Modeling	2
8. C	ET366	Skill development Course - Digital Image Processing and Computer vision	2
9	ET360	Project Implementation	2
10. A	ET463	Skill Development Course – Embedded Linux	2
10. B	ET464	Skill Development Course – Cloud Computing	2
10. C	ET465	Skill Development Course – System Verilog	2
10.D	ET466	Skill development Course - Digital Image Processing and Computer vision	2
11	ET470	Project Evaluation	4
12	ET400	B Tech Summer Internship	4
12	ET480	Capstone Work	4
14	ET467	Semester Long Internship Design (Elective)	4
15	ET468	Semester Long Internship Implementation (Elective)	4
Audit	ET200	SY Summer Internship	Audit
Audit	ET300	TY Summer Internship	Audit

**SEMESTER: VIII (PART B SEMESTER LONG INTERNSHIP)**  
**NPTEL / SWAYAM COURSES RECOMMENDED BY SEE**

<b>Sl. No.</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Credits</b>	<b>Duration in Week</b>	<b>Offering Institute</b>
1	ETSW01	Deep Learning for Computer Vision	3	12	IIT Hyderabad
2	ETSW02	Natural Language Processing	3	12	IIT Kharagpur
3	ETSW03	Modern Digital communication Techniques	3	12	IIT Kharagpur
4	ETSW04	Digital Speech Processing	3	12	IIT Kharagpur
5	ETSW05	Introduction To Industry 4.0 And Industrial Internet of Things	3	12	IIT Kharagpur
6	ETSW06	Introduction To Cloud Computing	3	12	IIT KGP
7	ETSW07	Introduction To Biomedical Imaging System	3	12	IIT Madras
8	EXSW01	Introduction to Robotics	3	12	IIT Madras
9	ETSW08	Data Analytics with Python	3	12	IIT Roorkee
10	ETSW09	Artificial Intelligence: Knowledge Representation And Reasoning	3	12	IIT Madras

**SEMESTER: VIII (PART B SEMESTER LONG INTERNSHIP)**  
**NPTEL / SWAYAM COURSES RECOMMENDED BY SEE**

<b>Sl. No.</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Credits</b>	<b>Duration in Week</b>	<b>Offering Institute</b>
11	ETSW10	Computer Networks and Internet Protocol	3	12	IIT Kharagpur
12	ETSW11	Programming in Java	3	12	IIT Kharagpur
13	ETSW12	Introduction To Internet of Things	3	12	IIT Kharagpur
14	ETSW13	Microprocessors and Interfacing	3	12	IIT Guwahati
15	ETSW14	Digital System Design	3	12	IIT Ropar
16	ETSW15	Computer Vision and Image Processing - Fundamentals and Applications	3	12	IIT Guwahati

Open Electives (OE): 03 Courses and 12 Credits							
Programme Name	Minor Track Name	Semester V		Semester VI		Semester VII	
		Course Code	Course Name	Course Code	Course Name	Course Code	Course Name
Chemical Engineering	Process Engineering	CH351	Process Engineering	CH371	Process Modeling and Simulation	CH471	Process Intensification and Integration
	Piping Design and engineering	CH352	Piping Engineering	CH372	Piping Layout	CH472	Piping Design & Engineering
Civil Engineering	Construction Project Management	CV325	Construction Planning and Management	CV332	Operation Research	CV422	Financial Management
	Environmental Engineering	CV326	Solid Waste Management	CV333	Unit Operations for Liquid Waste/Effluent Treatment	CV423	Environmental Impact assessment and Climate Change
	Structural Engineering	CV327	Advanced mechanics of Solids	CV334	Advanced Structural Analysis	CV424	Advanced RC design
Computer Engineering	Data science	CS351	Descriptive Analytics	CS353	Predictive Analysis	CS461	Big Data Analytics
	Machine Learning	CS352	Artificial Intelligence	CS354	Machine Learning	CS462	Deep Learning
Electronics Engineering	Robotics	ME352	Robot fundamentals and Kinematics	EX371	Robot Dynamics and Control	EX471	AI in Robotics



Open Electives (OE): 03 Courses and 12 Credits							
Programme Name	Minor Track Name	Semester V		Semester VI		Semester VII	
		Course Code	Course Name	Course Code	Course Name	Course Code	Course Name
<b>Electronics &amp; Telecommunication Engineering</b>	Internet of Things	ET352	IoT Architecture and Sensors	ET372	IoT Network & Protocols	ET472	Data Management and Analytics
	Healthcare Technology	ET351	Fundamentals of Healthcare Technology	ET371	Healthcare Informatics	E471	AI in Healthcare
<b>Information Technology</b>	Computer Security	ET471	Cryptography and System Security	ET471	Cyber Security and Forensics	IT461	Ethical Hacking & Cyber Laws
<b>Mechanical Engineering</b>	Computer Aided Engineering	ME351	Finite Element Analysis	ME361	Computational Fluid Dynamics	ME491	Advanced Analysis
	Robotics and Automation	ME352	Fundamentals of Robotics	ME362	Kinematics & Dynamics of Robots	ME492	Electrical and Electronics Systems of Robots
	Industrial Engineering & Management	ME353	Industrial Engineering	ME363	Operations Management	ME493	Supply Chain Management
	Automobile Engineering	ME354	Automobile System Design	ME364	Vehicle Dynamics	ME494	Autotronics and e-Vehicles
<b>Entrepreneurship Cell</b>	Innovation, Entrepreneurship & Venture Development	HP311	Foundational Course in Entrepreneurship	HP312	Advanced Course in Entrepreneurship	HP411	Startup and Incubation