

## 1.2.1 Percentage of new courses introduced out of the total number of courses across all programmes offered during the last five years (From 2018-2019 to 2022-2023)

### 1. Total number of new courses introduced out of the total number of courses across all programmes offered during the last five years (From 2018-2019 to 2022-2023)

Sl.No	Programme	Name of the Department	No. of Courses	
<b>New Courses introduced during the last five years</b>				
1	UG	Electrical and Electronics Engineering	48	<b>Total no. of new courses introduced during the last five years = 225</b>
2		Electronics and Communication Engineering	26	
3		Computer Science and Engineering	21	
4		Metallurgical Engineering	12	
5		Civil Engineering	23	
6		Mechanical Engineering	41	
7	PG	Power Electronics and Drives	27	
8		Communication Systems	27	
<b>Consolidated Courses offered by the institution across all programmes (without repeat count) during the last five years</b>				
1	UG	Electrical and Electronics Engineering	100	<b>Total no. of courses offered during the last five years = 972</b>
2		Electronics and Communication Engineering	113	
3		Computer Science and Engineering	119	
4		Metallurgical Engineering	101	
5		Civil Engineering	135	
6		Mechanical Engineering	117	
7		Mathematics	4	
8		Chemistry	2	
1	PG	Structural Engineering	55	
2		Thermal Engineering	57	
3		Computer Aided Design	51	
4		Power Electronics and Drives	48	
5		Welding Technology	32	
6		Communication Systems	38	

$$\frac{\text{No. of new courses introduced during the last five years}}{\text{No. of courses offered during the last five years}} \times 100$$

$$\frac{225}{972} \times 100 = 23.14$$

**Percentage of new courses introduced during the last five years = 23.14%**

**2. Number of new courses introduced during the last five years (From 2018-2019 to 2022-2023)**

Academic Year	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	Total
Newly Added Courses	113	-	-	-	112	225

**2.1. Number of newly added courses department wise in last five years (From 2018-2019 to 2022-2023)**

Sl.No.	Department	No. of new Courses Added		
		R 2018	R 2022	Total
1.	B.E – Electrical and Electronics Engineering	9	39	48
2.	B.E – Electronics and Communication Engineering	17	9	26
3.	B.E – Computer Science and Engineering	15	6	21
4.	B.E – Metallurgical Engineering	9	3	12
5.	B.E – Civil Engineering	9	14	23
6.	B.E - Mechanical Engineering	-	41	41
7.	M.E – Power Electronics and Drives	27	-	27
8.	M.E- Communication Systems	27	-	27
<b>Total no. of courses</b>		<b>113</b>	<b>112</b>	<b>225</b>

  
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### 3. List of New Courses in last five years (From 2018-2019 to 2022-2023)

S.No	Department	Name of the Courses	Course Code	Regulation
1.	Electrical and Electronics Engineering	Biology for Electrical Engineers	18EEP02	R2018
2.		Electrical Machine Design	18EEP01	R2018
3.		Electrical Energy Conservation and Auditing	18EEP11	R2018
4.		Wind and Solar Energy Systems	18EEP14	R2018
5.		Advanced Electric Drives	18EEP17	R2018
6.		Industrial Electrical Systems	18EEP23	R2018
7.		Electrical and Hybrid Vehicles	18EEP15	R2018
8.		Distributed Generation and Micro Grid	18EEP13	R2018
9.		Discrete Control Systems	18EEP04	R2018
10.		Communicative English*	22EN101	R2022
11.		NCC Course - I (only for NCC Students) *	22NC21	R2022
12.		NCC COURSE – II (only for NCC Students) *	22NC31	R2022
13.		Placement and Soft Skills Laboratory	22EN401	R2022
14.		Control and Instrumentation Laboratory	22EE509	R2022
15.		Internship	22EE602	R2022
16.		Network Analysis and Synthesis	22EEPE11	R2022
17.		Artificial Intelligence and Computer Vision	22EEPE33	R2022
18.		Digital Signal Processing	22EEPE31	R2022
19.		Renewable Energy Sources	22EEOE01	R2022
20.		Industrial Drives	22EEOE02	R2022
21.		Substation Engineering and Automation	22EEHO101	R2022
22.		EMS and SCADA	22EEHO102	R2022
23.		Power system State Estimation and Security Control	22EEHO103	R2022
24.		Power System Automation	22EEHO104	R2022
25.		Power Plant Engineering	22EEHO105	R2022
26.		Computer Relaying and Wide Area Measurement Systems	22EEHO106	R2022

27.		Power System Planning and Reliability	22EEHO107	R2022
28.		Advanced Power System Protection	22EEHO108	R2022
29.		High Voltage Insulation Systems	22EEHO109	R2022
30.		Traction Engineering	22EEHO110	R2022
31.		Analysis of Electrical Machines	22EEHO201	R2022
32.		Multilevel Power Converters	22EEHO202	R2022
33.		SMPS and UPS	22EEHO203	R2022
34.		Modelling and Control of Power Converters	22EEHO204	R2022
35.		Digital Controller in Power Electronics Applications	22EEHO205	R2022
36.		PWM Converters and Application	22EEHO206	R2022
37.		Grid Converters for Renewable Energy Applications	22EEHO207	R2022
38.		Control and Integration of Renewable Energy Sources	22EEHO208	R2022
39.		Electric Vehicle Architecture	22EEHO301	R2022
40.		Design of Motor and Power Converters for Electric Vehicles	22EEHO302	R2022
41.		Electric Vehicle Design, Mechanics and Control	22EEHO303	R2022
42.		Design of Electric Vehicle Charging System	22EEHO304	R2022
43.		Testing of Electric Vehicles	22EEHO305	R2022
44.		Intelligent Control of Electric Vehicles	22EEHO306	R2022
45.		Hybrid Electric vehicles	22EEHO307	R2022
46.		Battery Management Systems	22EEHO308	R2022
47.		Advanced Electric Drives for EV	22EEHO309	R2022
48.		Energy Storage Systems and Applications	22EEHO310	R2022
49.	Electronics and Communication Engineering	Computer Architecture	18EC502	R2018
50.		Physics of Optoelectronics	18ECPE602	R2018
51.		Wireless Communication	18ECPE604	R2018
52.		FPGA based System Design	18ECPE701	R2018
53.		Radar Communication	18ECPE702	R2018
54.		VLSI Testing	18ECPE705	R2018
55.		Advanced Radiating System	18ECPE706	R2018

56.		Multimedia Compression Techniques	18ECPE802	R2018
57.		Pattern Recognition	18ECPE804	R2018
58.		System on Chip Design	18ECPE805	R2018
59.		Physics of Sensors	18ECPE808	R2018
60.		Network Security	18ECPE809	R2018
61.		Artificial Intelligence and Machine Learning	18ECPE812	R2018
62.		Principles of Modern Communication Systems	18ECOE02	R2018
63.		Microcontroller and its Applications	18ECOE03	R2018
64.		Basics of Embedded Systems	18ECOE05	R2018
65.		Basics of Internet of Things	18ECOE06	R2018
66.		Wireless and Mobile Communication	22EC703	R2022
67.		Modern Sensors and its Applications	22ECPE605	R2022
68.		Robotics	22ECPE611	R2022
69.		Automotive Electronics	22ECPE613	R2022
70.		Embedded C	22ECPE614	R2022
71.		VLSI Physical Design	22ECPE615	R2022
72.		RF& EMI /EMC Testing	22ECPE616	R2022
73.		Telecommunication and Switching Networks	22ECPE803	R2022
74.		Cognitive Radio	22ECPE808	R2022
75.	Computer Science and Engineering	Mini Project *	18CS605	R2018
76.		Distributed and Parallel Computing	18CSPE603	R2018
77.		Object Oriented Analysis and Design	18CSPE606	R2018
78.		Data Mining and Warehousing	18CSPE607	R2018
79.		Big Data Analytics	18CSPE702	R2018
80.		Cyber Forensic	18CSPE703	R2018
81.		Computer Graphics and Multimedia	18CSPE706	R2018
82.		C # & .NET Frameworks	18CSPE707	R2018
83.		Mobile Computing	18CSPE804	R2018
84.		Deep Learning	18CSPE805	R2018
85.		Cloud Computing	18CSPE807	R2018

86.		Computer Networks	18CSOE03	R2018
87.		Data Structures using C++	18CSOE07	R2018
88.		Neural Networks	18CSOE08	R2018
89.		Soft Computing	18CSOE09	R2018
90.		Web Technology	22CSPE103	R2022
91.		Blockchain Technologies	22CSPE202	R2022
92.		Mobile Application Development	22CSPE402	R2022
93.		Predictive Data Analytics	22CSPE404	R2022
94.		Game Theory and its Applications	22CSPE405	R2022
95.		Ethical Hacking	22CSPE506	R2022
96.	Metallurgical Engineering	Additive Manufacturing	18MTE55	R2018
97.		Thin films, Coating and applications	18MTE62	R2018
98.		Aerospace Materials	18MTE63	R2018
99.		Modeling and Simulation in Material Process	18MTE64	R2018
100.		Nuclear Materials	18MTE65	R2018
101.		Foundry and welding Technology	18MTOE01	R2018
102.		Surface Engineering	18MTOE02	R2018
103.		Design and Selection of materials	18MTOE03	R2018
104.		Nano Science and Technology	18MTOE04	R2018
105.		Welding Metallurgy	22MTE29	R2022
106.		Foundry Metallurgy	22MTE30	R2022
107.		Materials for Automobile Components	22MTOE05	R2022
108.	Civil Engineering	Biology for engineers	18CY301	R2018
109.		Effective technical communication	18EN301	R2018
110.		Disaster preparedness & planning	18CEMC02	R2018
111.		Open Channel flow	18CEPE14	R2018
112.		River Engineering	18CEPE15	R2018
113.		Transportation Engineering	18CE506	R2018
114.		Profession practices, ethics & building by-laws	18CE604	R2018
115.		Induction Program*	18CEMC01	R2018
116.		Repair and rehabilitation of building elements	18CEOE03	R2018

117.		Basic Electrical and Electronic Engineering ##	22EE101	R2022
118.		Basic Electrical and Electronic Engineering Laboratory ##	22EE102	R2022
119.		Environmental Science and Engineering	22CY201	R2022
120.		Engineering Mechanics #	22CE101	R2022
121.		Universal Human Values*	22HS201	R2022
122.		Estimation, Costing and Valuation	22CE703	R2022
123.		Building Information Modelling	22CEPE02	R2022
124.		Sustainable and Green Building Technology	22CEPE03	R2022
125.		Advanced Concrete Design	22CEPE08	R2022
126.		Earth retaining Structures	22CEPE24	R2022
127.		Rock mechanics and applications	22CEPE25	R2022
128.		Railway Engineering	22CEPE28	R2022
129.		Urban Planning & Development	22CEPE29	R2022
130.		Formwork for Concrete Structures	22CEPE30	R2022
131.	Mechanical Engineering	Engineering Sprints*	22MC1N01	R2022
132.		Innovation Sprints *	22MC1N02	R2022
133.		Design Sprints *	22MC1N03	R2022
134.		Ideation Sprints *	22MC1N04	R2022
135.		Applied Design Thinking *	22PSOE01	R2022
136.		Start- up Fundamentals *	22PSOE02	R2022
137.		Computational Hardware *	22PSPE01	R2022
138.		Coding for Innovators *	22PSPE02	R2022
139.		Industrial Design & Rapid Prototyping Techniques *	22MEPS15	R2022
140.		Heritage of Tamil / tamizar marabu (I Sem) *	22MC102	R2022
141.		Tamil and Technology / Tamizharum thozhil nutbamum (II Sem) *	22MC201	R2022
142.		Energy conversion in Industries	22MEPE15	R2022
143.		Energy efficient in Building Design	22MEPE22	R2022
144.		Hydrogen and Fuel Cell Technologies	22MEHO101	R2022

145.		Thermal Management of Electric Vehicle Battery Systems	22MEHO102	R2022
146.		Electric and Hybrid Vehicle Technology	22MEHO103	R2022
147.		Alternate Fuels for IC Engines	22MEHO104	R2022
148.		Advanced Energy Storage Technologies	22MEHO105	R2022
149.		Solar Power Plants	22MEHO106	R2022
150.		Materials for Solar Devices	22MEHO107	R2022
151.		Design of Solar and Wind Systems	22MEHO108	R2022
152.		Fire Engineering and Explosion Control	22MEHO109	R2022
153.		Energy Management and Environmental Benefits	22MEHO110	R2022
154.		Numerical methods in Mechanical Engineering	22MEHO201	R2022
155.		Advanced Fluid Mechanics	22MEHO202	R2022
156.		Fundamentals of Bio-Mechanics	22MEHO203	R2022
157.		Introduction to Machine Learning	22MEHO204	R2022
158.		Design Optimization and Design Theory	22MEHO205	R2022
159.		Advanced Finite Element Methods	22MEHO206	R2022
160.		Advanced Computational Fluid Dynamics	22MEHO207	R2022
161.		Smart Materials and Structures	22MEHO208	R2022
162.		Design of Pressure vessels	22MEHO209	R2022
163.		Mechanical Vibrations	22MEHO210	R2022
164.		Precision Engineering	22MEHO301	R2022
165.		Advanced Materials Technology	22MEHO302	R2022
166.		Non Destructive Testing and Failure Analysis	22MEHO304	R2022
167.		Product Life Cycle Management	22MEHO305	R2022
168.		Ergonomics in Design	22MEHO306	R2022
169.		Industrial Layout Design and Safety	22MEHO308	R2022
170.		Digital Manufacturing and IOT	22MEHO309	R2022
171.		Smart Mobility and Intelligent vehicles	22MEHO310	R2022
172.	Power	Modern Electrical Drives	18PEC22	R2018



173.	Electronics and Drives	Advanced Power Electronics Laboratory-I	18PEC13	R2018
174.		Advanced Digital Control Laboratory	18PEC14	R2018
175.		Research Methodology and IPR **	18MLC01	R2018
176.		English for Research paper writing **	18AC01	R2018
177.		Disaster Management**	18AC02	R2018
178.		Sanskrit for Technical Knowledge**	18AC03	R2018
179.		Value Education**	18AC04	R2018
180.		Constitution of India**	18AC05	R2018
181.		Pedagogy Studies**	18AC06	R2018
182.		Stress Management by Yoga**	18AC07	R2018
183.		Personality Development through Life Enlightenment Skills**	18AC08	R2018
184.		Advanced Power Electronics Laboratory-II	18PEC23	R2018
185.		Advanced Electrical Drives Laboratory	18PEC24	R2018
186.		Mini-Project with Seminar	18PEC25	R2018
187.		Advanced Microcontroller Based System Design	18PEE11	R2018
188.		Digital Signal Processing for Power Electronics	18PEE22	R2018
189.		Dynamics of power Converters	18PEE23	R2018
190.		Modulation Control for Power Converters	18PEE24	R2018
191.		Design of Power Converters	18PEE25	R2018
192.		Harmonics and Filters for Power Electronic Circuits	18PEE32	R2018
193.	Digital Simulation of Power Electronics System	18PEE35	R2018	
194.	Photo Voltaic System	18PEE41	R2018	
195.	Electric Vehicles	18PEE61	R2018	
196.	Internet of Things for Electrical Engineers	18PEE64	R2018	
197.	Digital Signal Processors for Power Converters	18PEE65	R2018	
198.	Smart Grid Technology	18PEE51	R2018	
199.		Statistical Information Processing	18COC11	R2018

200.	Communicati on Systems	Advanced Digital Communication Techniques	18COC12	R2018
201.		Statistical Information Processing Lab	18COC13	R2018
202.		Advanced Digital Communication System Lab	18COC14	R2018
203.		Antennas and Radiating Systems	18COC21	R2018
204.		Advanced Digital Signal Processing	18COC22	R2018
205.		Antennas and Radiating Systems lab	18COC23	R2018
206.		Advanced Digital Signal Processing lab	18COC24	R2018
207.		Multimedia Compression Techniques	18COE11	R2018
208.		Advanced Communication Networks	18COE12	R2018
209.		Wireless Sensor Networks	18COE13	R2018
210.		RF and Microwave Circuit Design	18COE21	R2018
211.		Optical Networks	18COE22	R2018
212.		Satellite Communication	18COE23	R2018
213.		Wireless and Mobile Communication	18COE31	R2018
214.		Pattern Recognition and Machine learning	18COE32	R2018
215.		Voice and data networks	18COE32	R2018
216.		Spread Spectrum Communication	18COE41	R2018
217.		MIMO Communication	18COE42	R2018
218.		High Performance Networks	18COE43	R2018
219.		Cognitive Radio	18COE51	R2018
220.		Internet of Things	18COE52	R2018
221.		VLSI for Wireless Communication	18COE53	R2018
222.		Remote Sensing	18COE61	R2018
223.		Wavelet signal processing	18COE62	R2018
224.		Bio Mems	18COE63	R2018
225.	Big Data Technologies	18COE64	R2018	
<b>Total Number of New Courses Added</b>				<b>225</b>

\* Common to all UG Departments.

# Common to Mechanical, Civil & Metallurgy

## Common to Mechanical, Civil & CSE

\*\* Common to all PG Departments

  
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**3. List of Consolidated Courses offered by institution across all programmes (without repeat count) in last five years (From 2018-2019 to 2022-2023).**

Sl. No	Department	Subject Code	Subject Name	Category
1.	Electrical and Electronics Engineering	18MA204	Fourier series and transforms	BS
2.		18PH202	Physics – waves & optics and quantum mechanics	BS
3.		18CM201	Basic civil and mechanical engineering	ES
4.		18CE201	Basic civil engineering laboratory	ES
5.		18EE301	Electric Circuit Analysis	PC
6.		18EE302	Electromagnetic Fields	PC
7.		18EE303	DC Machines and Transformers	PC
8.		18EE304	Electron Devices and Circuits	PC
9.		18EE305	DC Machines and Transformers Laboratory	PC
10.		18EE306	Electron Devices and Circuits Laboratory	PC
11.		18CYMC01	Environmental Science and Engineering	MC
12.		18EE401	Signals and systems	PC
13.		18EE402	Synchronous and Induction Machines	PC
14.		18EE403	Measurements and Instrumentation	PC
15.		18EE404	Analog and Digital Integrated Circuits	PC
16.		18EE405	Synchronous and Induction Machines Laboratory	PC
17.		18EE406	Measurements and Instrumentation Laboratory	PC
18.		18EE407	Analog and Digital Integrated Circuits Laboratory	PC
19.		18EE501	Power Generation, Transmission and Distribution System	PC
20.		18EE502	Control System	PC
21.		18EE503	Power Electronics	PC
22.		18EE505	Control System Laboratory	PC

23.	18EE506	Power Electronics Laboratory	PC
24.	18EE601	Power System Analysis and Stability	PC
25.	18EE602	Electric Drives and Control	PC
26.	18EE603	Professional Ethics and Human Values	HS
27.	18EE701	Power System Protection and Switch Gear	PC
28.	18EE702	Industrial Management and Economics	HS
29.	18EE703	Power Systems Laboratory	PC
30.	18EE704	Electric Drives and Control Laboratory	PC
31.	18EEP01	Electrical Machine Design	PE
32.	18EEP02	Biology for Electrical Engineers	PE
33.	18EEP04	Discrete Control Systems	PE
34.	18EEP05	High Voltage Engineering	PE
35.	18EEP06	HVDC Transmission Systems	PE
36.	18EEP07	EHVAC Transmission Systems	PE
37.	18EEP08	FACTS Controllers	PE
38.	18EEP09	Power Quality	PE
39.	18EEP10	Utilization of Electrical Energy	PE
40.	18EEP11	Electrical Energy Conservation and Auditing	PE
41.	18EEP12	Power System Operation and Control	PE
42.	18EEP13	Distributed Generation and Micro Grid	PE
43.	18EEP14	Wind and Solar Energy Systems	PE
44.	18EEP15	Electrical and Hybrid Vehicles	PE
45.	18EEP16	Soft Computing and Machine Learning	PE
46.	18EEP17	Advanced Electric Drives	PE
47.	18EEP18	Computational Electromagnetics	PE

48.	18EEP19	Special Electrical Machines	PE
49.	18EEP20	Electrical Wiring Estimation and Costing	PE
50.	18EEP22	Restructured Power System	PE
51.	18EEP23	Industrial Electrical Systems	PE
52.	18EEOE01	Renewable Energy Sources	OE
53.	18EEOE02	Smart Grid Technology	OE
54.	18EEOE03	Energy Conservation and Management	OE
55.	18EEOE04	Electric Vehicles	OE
56.	22CS103	C Programming for Electrical Engineers	ES
57.	22EE302	Electromagnetic Theory	dPC
58.	22EE504	Electrical Drives and Control	PC
59.	22EE506	Solar and Wind Energy Conversion System	PC
60.	22EE507	Power Electronics and Energy Systems Laboratory	PC
61.	22EE509	Control and Instrumentation Laboratory	PC
62.	22EE602	Internship	EE
63.	22EEPE11	Network Analysis and Synthesis	PE
64.	22EEPE12	Advanced Control Systems	PE
65.	22EEPE14	Biomedical Instrumentation	PE
66.	22EEPE23	Flexible AC Transmission System	PE
67.	22EEPE32	Embedded System Design	PE
68.	22EEPE33	Artificial Intelligence and Computer Vision	PE
69.	22EEPE35	Internet of Things for Electrical System	PE
70.	22EEPE41	Power System Transients	PE
71.	22EEPE63	Electric Vehicles and Control	PE
72.	22EEOE05	Industrial Drives	OE

73.	22EEHO101	Substation Engineering and Automation	PE
74.	22EEHO102	EMS and SCADA	PE
75.	22EEHO103	Power system State Estimation and Security Control	PE
76.	22EEHO104	Power System Automation	PE
77.	22EEHO106	Computer Relaying and Wide Area Measurement Systems	PE
78.	22EEHO107	Power System Planning and Reliability	PE
79.	22EEHO108	Advanced Power System Protection	PE
80.	22EEHO109	High Voltage Insulation Systems	PE
81.	22EEHO110	Traction Engineering	PE
82.	22EEHO201	Analysis of Electrical Machines	PE
83.	22EEHO202	Multilevel Power Converters	PE
84.	22EEHO203	SMPS and UPS	PE
85.	22EEHO204	Modelling and Control of Power Converters	PE
86.	22EEHO205	Digital Controller in Power Electronics Applications	PE
87.	22EEHO206	PWM Converters and Application	PE
88.	22EEHO207	Grid Converters for Renewable Energy Applications	PE
89.	22EEHO208	Control and Integration of Renewable Energy Sources	PE
90.	22EEHO209	Modern Electrical Drives	PE
91.	22EEHO301	Electric Vehicle Architecture	PE
92.	22EEHO302	Design of Motor and Power Converters for Electric Vehicles	PE
93.	22EEHO303	Electric Vehicle Design, Mechanics and Control	PE
94.	22EEHO304	Design of Electric Vehicle Charging System	PE
95.	22EEHO305	Testing of Electric Vehicles	PE
96.	22EEHO306	Intelligent Control of Electric Vehicles	PE
97.	22EEHO307	Hybrid Electric vehicles	PE

98.		22EEHO308	Battery Management Systems	PE
99.		22EEHO309	Advanced Electric Drives for EV	PE
100.		22EEHO310	Energy Storage Systems and Applications	PE
101.	Electrical and Communication Engineering	18MA203	Differential equations and laplace transforms	BS
102.		18EE201	Principles of electrical engineering	ES
103.		18EE202	Principles of electrical engineering laboratory	ES
104.		18MA303	Linear Algebra and Numerical Methods	BS
105.		18EC301	Semiconductor Physics and Devices	ES
106.		18EC302	Digital System Design	PC
107.		18EC303	Signals and Systems	PC
108.		18EC304	Network Theory and Synthesis	PC
109.		18EC305	Transmission Lines and Waveguides	PC
110.		18ECMC301	Constitution of India	MC
111.		18EC306	Electronic Devices and Circuits Laboratory	PC
112.		18EC307	Digital System Design Laboratory	PC
113.		18MA402	Probability and Stochastic Process	BS
114.		18EC401	Antenna and Wave Propagation	PC
115.		18EC402	Analog Circuits	PC
116.		18EC403/ 18EE503	Microprocessor and microcontroller	PC
117.		18EC404	Analog Communication	PC
118.		18EC405	Control systems	PC
119.		18EC406	Analog Circuits Laboratory	PC
120.		18EC407/ 18EE507	Microprocessor and microcontroller laboratory	PC
121.		18EC501	Digital Communication	PC
122.		18EC502	Computer Architecture	PC

123.	18EC503	Digital Signal Processing	PC
124.	18EC504/ 18CS401	Computer Networks	PC
125.	18EC505	Communication Systems Laboratory	PC
126.	18EC506	Digital Signal Processing Laboratory	PC
127.	18EC601	VLSI Design	PC
128.	18EC602	Wireless Communication	PC
129.	18EC603	VLSI Design Laboratory	PC
130.	18EC701	Optical and microwave engineering	PC
131.	18EC703	Embedded Systems Laboratory	PC
132.	18EC702	Optical and Microwave Engineering Laboratory	PC
133.	18ECPE601	Electronic Measurements	PE
134.	18ECPE602	Physics of Optoelectronics	PE
135.	18ECPE603	Digital Image Processing	PE
136.	18ECPE701	FPGA based System Design	PE
137.	18ECPE702	Radar Communication	PE
138.	18ECPE704	Nano Electronics	PE
139.	18ECPE705	VLSI Testing	PE
140.	18ECPE706	Advanced Radiating System	PE
141.	18ECPE707	High Speed Networks	PE
142.	18ECPE708	Virtual Instrumentation	PE
143.	18ECPE801	Low Power VLSI Design	PE
144.	18ECPE802	Multimedia Compression Techniques	PE
145.	18ECPE803	Software Defined Radio	PE
146.	18ECPE804	Pattern Recognition	PE
147.	18ECPE805	System on Chip Design	PE



148.	18ECPE806	Wireless Sensor Networks	PE
149.	18ECPE807	Microwave ICs	PE
150.	18ECPE808	Physics of Sensors	PE
151.	18ECPE809	Network Security	PE
152.	18ECPE810	Satellite Communication	PE
153.	18ECPE811	Bio medical electronics	PE
154.	18ECPE812	Artificial Intelligence and Machine Learning	PE
155.	18ECOEO1	Fundamentals of Electron Devices	OE
156.	18ECOEO2	Principles of Modern Communication Systems	OE
157.	18ECOEO3	Microcontroller and its Applications	OE
158.	18ECOEO4	Basic VLSI Design	OE
159.	18ECOEO5	Basics of Embedded Systems	OE
160.	18ECOEO6	Basics of Internet of Things	OE
161.	22MA101	Matrices, Calculus and Ordinary Differential Equations	BS
162.	22PH102	Material Science for Engineering	BS
163.	22MC101	Induction Program	MC
164.	22MA203	Linear Algebra, Partial Differential Equation Vector Calculus	BS
165.	22EC301	Semiconductor Devices and Circuits	PC
166.	22EC306	Semiconductor Devices and Circuits Laboratory	PC
167.	22EN401	Placement and Soft skills Laboratory	HS
168.	22EC702	Optical and Microwave Engineering	PC
169.	22EC703	Wireless and Mobile Communication	PC
170.	22EC705	VLSI Design and Embedded Systems Laboratory	PC
171.	22ECPE605	Modern Sensors and its Applications	PE
172.	22ECPE613	Automotive Electronics	PE

173.	22ECPE614	Embedded C	PE
174.	22ECPE615	VLSI Physical Design	PE
175.	22ECPE616	RF & EMI/EMC Testing	PE
176.	22ECPE801	Multimedia Compression and Communication Techniques	PE
177.	22ECPE803	Telecommunication and Switching Networks	PE
178.	22ECH101	VLSI technology	PEC
179.	22ECH102	Analog CMOS IC design	PEC
180.	22ECH103	Device modelling	PEC
181.	22ECH104	Network on chip	PEC
182.	22ECH105	DSP integrated circuits	PEC
183.	22ECH106	VLSI signal processing	PEC
184.	22ECH107	Mixed signal VLSI design	PEC
185.	22ECH108	VLSI for wireless communication	PEC
186.	22ECH109	VLSI for IOT systems	PEC
187.	22ECH110	VLSI for CAD Design	PEC
188.	22ECH201	High performance networks	PEC
189.	22ECH202	Optical communication networks	PEC
190.	22ECH203	Network security and management	PEC
191.	22ECH204	Artificial neural networks	PEC
192.	22ECH205	5G communication networks	PEC
193.	22ECH208	Embedded system for networking	PEC
194.	22ECH209	Cognitive radio networking	PEC
195.	22ECH210	Next generation networks	PEC
196.	22ECH301	Statistical Theory of Communication	PEC
197.	22ECH302	Information Theory and Coding	PEC

198.		22ECH303	mm Wave Communication	PEC
199.		22ECH304	Spread Spectrum Communication	PEC
200.		22ECH305	MIMO Communication	PEC
201.		22ECH306	Smart Antennas	PEC
202.		22ECH307	RF IC and Microwave MEMs	PEC
203.		22ECH309	Satellite Positioning and Navigation Systems	PEC
204.		22ECH310	Remote Sensing	PEC
205.		22ECH401	Advanced digital signal processing	PEC
206.		22ECH402	Speech processing	PEC
207.		22ECH404	Wavelet signal processing	PEC
208.		22ECH405	Pattern recognition and machine learning	PEC
209.		22ECH406	Adaptive/array signal processing	PEC
210.		22ECH407	Multimedia processing	PEC
211.		22ECH408	Biomedical signal and image processing	PEC
212.		22ECH409	VLSI signal processing	PEC
213.		22ECH410	Radar signal processing	PEC
214.	Computer Science and Engineering	18MA101	Matrices and calculus	BS
215.		18EN101	Professional english	HS
216.		18CS101	Fundamentals of problem solving and C programming	ES
217.		18EN102	Professional english laboratory	HS
218.		18CS102	Computer practice laboratory	ES
219.		18ME102	Workshop manufacturing practices	ES
220.		18MA202	Differential equations and linear algebra	BS
221.		18PH201	Semiconductor physics and optoelectronics	BS
222.		18EE101	Basic electrical and electronics engineering	ES

223.	18ME101	Engineering graphics & design	ES
224.	18PH103	Physics laboratory	BS
225.	18CY102	Chemistry laboratory	BS
226.	18MA301	Probability and Statistics	BS
227.	18CS301	Digital Principles and System Design	ES
228.	18CS302	Data Structures and Algorithms	PC
229.	18CS303	Computer Organization and Architecture	PC
230.	18CS304	Operating Systems	PC
231.	18CS305	Data Structures and Algorithms Laboratory	PC
232.	18CS306	Operating Systems Laboratory	PC
233.	18MA401	Numerical Methods and Linear Programming Problem	BS
234.	18CS402	Design and Analysis of Algorithms	PC
235.	18CS403	Object Oriented Programming using C++	PC
236.	18CS404	Software Engineering	PC
237.	18CS405	Microprocessors and Microcontrollers	ES
238.	18CS406	Object Oriented Programming using C++ Laboratory	PC
239.	18CS407	Microprocessors and Microcontrollers Laboratory	ES
240.	18CS501	Database Management Systems	PC
241.	18CS502	Theory of Computation	PC
242.	18CS503	Java Programming	PC
243.	18MG501	Principles of Management	HS
244.	18CS504	Database Management Systems Laboratory	PC
245.	18CS505	Java Programming Laboratory	PC
246.	18EN501	Communication Skills and Language Laboratory	HS
247.	18CS601	Principles of Compiler Design	PC

248.	18CS602	Web Technology	PC
249.	18CS603	Compiler Design Laboratory	PC
250.	18CS604	Web Technology Laboratory	PC
251.	18CS605	Mini Project	EEC
252.	18CS701	Cryptography and Network Security	PC
253.	18CS702	Network Security Laboratory	PC
254.	18CS703	Project Phase I	EEC
255.	18CSPE601	Software Project Management	PE
256.	18CSPE602	Artificial Intelligence	PE
257.	18CSPE603	Distributed and Parallel Computing	PE
258.	18CSPE605	Agile Technologies	PE
259.	18CSPE606	Object Oriented Analysis and Design	PE
260.	18CSPE607	Data Mining and Warehousing	PE
261.	18CSPE608	Component Based Technology	PE
262.	18CSPE609	Computer Hardware and Trouble Shooting	PE
263.	18CSPE610	Middleware Technologies	PE
264.	18CSPE701	UNIX Architecture	PE
265.	18CSPE702	Big Data Analytics	PE
266.	18CSPE704	User Interface Design	PE
267.	18CSPE705	Software Quality Assurance	PE
268.	18CSPE706	Computer Graphics and Multimedia	PE
269.	18CSPE707	C # & .NET Frameworks	PE
270.	18CSPE708	Advanced Databases	PE
271.	18CSPE709	Machine Learning	PE
272.	18CSPE710	Nano Computing	PE

273.	18CSPE801	Information Security	PE
274.	18CSPE802	Business Intelligence and Its Application	PE
275.	18CSPE803	E-Commerce	PE
276.	18CSPE804	Mobile Computing	PE
277.	18CSPE805	Deep Learning	PE
278.	18CSPE806	Adhoc and Sensor Networks	PE
279.	18CSPE807	Cloud Computing	PE
280.	18CSPE808	Service Oriented Architecture	PE
281.	18CSPE809	Free and Open Source Software	PE
282.	18CSPE810	Natural Language Processing	PE
283.	18CSOE04	Python Programming	OE
284.	18CSH101	Exploratory Data Analysis	PE
285.	18CSH102	Recommender Systems	PE
286.	18CSH103	Neural Networks and Deep Learning	PE
287.	18CSH104	Text and Speech Analysis	PE
288.	18CSH105	Business Analytics	PE
289.	18CSH106	Image and Video Analytics	PE
290.	18CSH107	Computer Vision	PE
291.	18CSH201	Full Stack Web Application Development	PE
292.	18CSH202	App Development	PE
293.	18CSH204	UI and UX Design	PE
294.	18CSH205	Software Testing and Automation	PE
295.	18CSH206	Web Application Security	PE
296.	18CSH207	DevOps	PE
297.	18CSH208	Principles of Programming Languages	PE

298.	18CSH302	Virtualization	PE
299.	18CSH303	Cloud Services Management	PE
300.	18CSH304	Data Warehousing	PE
301.	18CSH305	Storage Technologies	PE
302.	18CSH306	Software Defined Networks	PE
303.	18CSH307	Stream Processing	PE
304.	18CSH308	Security and Privacy in Cloud	PE
305.	22MA202	Linear Algebra and Linear Programming Problem	BS
306.	22MA303	Probability and Numerical Methods	BS
307.	22MA401	Discrete Mathematics	BS
308.	22CS705	Machine Learning Laboratory	PC
309.	22CSPE104	Agile Technology	PE
310.	22CSPE106	Computer Hardware and Troubleshooting	PE
311.	22CSPE201	Software Quality and Testing	PE
312.	22CSPE202	Blockchain Technologies	PE
313.	22CSPE203	Parallel Computing Architecture and Programming	PE
314.	22CSPE206	Cyber Forensics	PE
315.	22CSPE303	Open-Source Technologies	PE
316.	22CSPE402	Mobile Application Development	PE
317.	22CSPE403	Data Visualization Technique	PE
318.	22CSPE404	Predictive Data Analytics	PE
319.	22CSPE405	Game Theory and its Applications	PE
320.	22CSPE502	Data Science	PE
321.	22CSPE504	Social Network Analysis	PE
322.	22CSPE506	Ethical Hacking	PE

323.		22CSOE07	Data Structures Using C++	OE
324.		22PSPE01	Computational Hardware	PE
325.		22PSPE02	Coding for Innovators	PE
326.		22PSPE03	Industrial Automation	PE
327.		22GE601	Robotics/ML/MLOPs	EE
328.		22PSOE01	Applied Design Thinking	OE
329.		22PSOE02	Startup Fundamentals	OE
330.		22PSOE03	Prototype Development	OE
331.		22PSOE03	Industrial Design & Rapid Prototyping Techniques	OE
332.		22IPPS12	Start- up Fundamentals	EE
333.	Metallurgical Engineering	18EE203	Basic electrical engineering for metallurgy	ES
334.		18EE204	Basic electrical engineering laboratory for metallurgy	ES
335.		18MT301	Elements of Physical Metallurgy	PC
336.		18MT302	Mineral Dressing, Fuels & Furnaces	PC
337.		18MT303	Metallurgical Thermodynamics & Kinetics	PC
338.		18MT304	Testing of Materials	PC
339.		18MT305	Metallography Laboratory	PC
340.		18MT306	Chemical Metallurgy Laboratory	PC
341.		18MT401	Mechanical Behaviour of Materials	PC
342.		18MT402	Phase Transformation	PC
343.		18MT403	Iron Making	PC
344.		18MT404	Material Testing Laboratory	PC
345.		18MT405	Machine shop Practice	PC
346.		18MT501	Heat treatment and Surface Engineering	PC
347.		18MT502	Steel Making	PC



348.	18MT503	Corrosion engineering	PC
349.	18MT504	Introduction to Instrumentation	ES
350.	18MT505	Heat treatment Laboratory	PC
351.	18MT506	Corrosion science laboratory	PC
352.	18MT601	Non Ferrous Extractive Metallurgy	PC
353.	18MT602	Forming Processes	PC
354.	18MT603	Foundry Processes and Metallurgy	PC
355.	18MT604	Welding Processes and Metallurgy	PC
356.	18MT605	Welding & NDT Laboratory	PC
357.	18MT606	Foundry & Forming	PC
358.	18MT701	Characterization of Materials	PC
359.	18MT702	Introduction to Industrial Management	HS
360.	18MT703	Materials Characterization Laboratory	PC
361.	18MT704	Computer application in Metallurgy Laboratory	PC
362.	18MT801	Total Quality Management	HS
363.	18MTE11	Transport phenomena	PE
364.	18MTE12	Fractography and failure analysis	PE
365.	18MTE13	Metallurgical kinetics	PE
366.	18MTE14	Solidification processing	PE
367.	18MTE15	Fracture Mechanics	PE
368.	18MTE21	Ferrous and Non Ferrous alloys	PE
369.	18MTE23	Ceramic materials	PE
370.	18MTE24	Metallurgy of tool Steels	PE
371.	18MTE25	Bio and smart materials	PE
372.	18MTE32	Continuous casting of steel	PE

373.	18MTE33	Special casting Technology	PE
374.	18MTE34	Alternate routes of Iron making	PE
375.	18MTE35	Secondary steel making	PE
376.	18MTE41	Particulate processing Technology	PE
377.	18MTE42	Severe plastic deformation	PE
378.	18MTE43	Metallurgical waste utilization and management	PE
379.	18MTE44	Computational Materials Engineering	PE
380.	18MTE45	Special welding processes	PE
381.	18MTE51	Physics of Engineering Materials	PE
382.	18MTE52	X- ray diffraction and Electron microscopy	PE
383.	18MTE53	Electrical ,Electronics and magnetic materials	PE
384.	18MTE54	Surface engineering	PE
385.	18MTE55	Additive manufacturing	PE
386.	18MTE61	Nano Materials	PE
387.	18MTE62	Thin films, coatings and applications	PE
388.	18MTE63	Aerospace materials	PE
389.	18MTE64	Modeling and simulation in material processes	PE
390.	18MTE65	Nuclear materials	PE
391.	18MTOE01	Foundry and Welding Technology	OE
392.	18MTOE03	Design and Selection of Materials	OE
393.	18MTOE04	Nano science and Technology	OE
394.	18HMTW101	Advanced Metal Joining Processes	PE
395.	18HMTW102	Metallurgy of Welding	PE
396.	18HMTW103	Welding Equipment and consumables	PE
397.	18HMTW104	Welding codes and standards	PE

398.	18HMTW105	Automation and Robotics	PE
399.	18HMTW106	Welding Application Technology	PE
400.	18HMTW107	Brazing, Soldering, Surfacing and Cutting	PE
401.	18HMTW108	Design of Weldments	PE
402.	18HMTW109	Failure Analysis in Weldments	PE
403.	18HMTW110	Finite Element Analysis in welding	PE
404.	18HMTMP201	Electrical, Magnetic and Optical Materials	PE
405.	18HMTMP202	Material Technology	PE
406.	18HMTMP203	Polymers and Composites	PE
407.	18HMTMP205	High Temperature Materials	PE
408.	18HMTMP206	Processing of Nonmetallic Materials	PE
409.	18HMTMP207	Biomaterials	PE
410.	18HMTMP209	Automotive and Aerospace materials	PE
411.	18HMTMP210	Processing of Nonferrous alloys	PE
412.	18MDMT104	Rate Processes in Metallurgy	PE
413.	18MDMT105	Corrosion and Surface Engineering	PE
414.	18MDMT107	Automotive, Aerospace and Defence Materials	PE
415.	22EN101	Communicative English (Theory cum Practical)	HS
416.	22CS101	Problem Solving and C Programming	ES
417.	22CS102	Computer Practice and C Programming Laboratory	ES
418.	22MA306	Linear Algebra & Transforms	BS
419.	22MT303	Metallurgical Thermodynamics and Kinetics	PC
420.	22CY401	Non Metallic Materials	BS
421.	22MT401	Mechanical Behaviour and Testing of Materials	PC
422.	22MT402	Advanced Physical Metallurgy	PC

423.		22MT403	Heat Treatment Technology	PC
424.		22MT504	Casting Engineering	PC
425.		22MT505	Welding Engineering	PC
426.		22MT702	Introduction of Industrial Management	HS
427.		22MT704	Computer Application in Metallurgy Laboratory	PC
428.		22MT706	Casting & Forming Processes Laboratory	PC
429.		22MTE15	Powder Metallurgy	PE
430.		22MTE16	Non Destructive Evaluation	PE
431.		22MTE29	Welding Metallurgy	PE
432.		22MTE30	Foundry Metallurgy	PE
433.		22MTOE05	Materials for Automobile Components	OE
434.	Civil Engineering	18PH101	Physics – mechanics	BS
435.		18EN103	Professional communication laboratory	HS
436.		18MA205	Differential equations and transforms	BS
437.		18MA302	Statistics and Numerical Methods	BS
438.		18CY301	Biology for Engineers	BS
439.		18ES205	Mechanics of Solids	ES
440.		18CE301	Mechanics of Fluids	PC
441.		18CE302	Surveying & Geomatics	PC
442.		18EN301	Effective Technical Communication	HS
443.		18CE303	Surveying Practical	PC
444.		18CE304	Computer Aided Building Drawing	PC
445.		18CE401	Strength of Materials	PC
446.		18CE402	Design of Structural Steel Elements	PC
447.		18CE403	Engineering Geology	PC

448.	18CE404	Water Supply Engineering	PC
449.	18CE405	Applied Hydraulics and Fluid Machinery	PC
450.	18CE406	Concrete Technology	PC
451.	18CE407	Material testing & evaluation lab	PC
452.	18CE408	Hydraulic Engineering Laboratory Testing & Evaluating Strength of Materials	PC
453.	18CE501	Basic Structural Analysis	PC
454.	18CE502	Mechanics of soils	PC
455.	18CE503	Water Resources Engineering	PC
456.	18CE504	Design of RC Elements	PC
457.	18CE505	Waste Water Engineering	PC
458.	18CE506	Transportation Engineering	PC
459.	18CE507	Geotechnical Laboratory	PC
460.	18CE508	Environmental Engineering laboratory	PC
461.	18CE601	Advanced structural analysis	PC
462.	18CE602	Foundation Engineering	PC
463.	18CE603	Engineering Economics, Estimation and Costing	PC
464.	18CE604	Professional Practices, Ethics and Building by-laws	HS
465.	18CE605	Concrete Laboratory	PC
466.	18CE606	Computer Aided Design and Drawing (Concrete & Steel)	PC
467.	18CE701	Internship/Industrial training/Academic attachment*	EEC
468.	18CE702	Design project	EEC
469.	18CE801	Construction Management	PC
470.	18CE802	Project Work	EEC
471.	18CEPE01	Traffic Engineering	PE

472.	18CEPE02	Airports, Docks and Harbors Engineering	PE
473.	18CEPE03	Integrated Traffic Planning and Management	PE
474.	18CEPE04	Smart Materials and Smart Structures	PE
475.	18CEPE05	Construction Techniques and Equipments	PE
476.	18CEPE06	Project Safety Management	PE
477.	18CEPE07	Repair and Rehabilitation of Structures	PE
478.	18CEPE08	Industrial Waste Management	PE
479.	18CEPE09	Hazardous Waste Management	PE
480.	18CEPE10	Air Pollution Monitoring and Control	PE
481.	18CEPE11	Municipal Solid Waste Management	PE
482.	18CEPE12	Marine Pollution Monitoring and Control	PE
483.	18CEPE13	Environmental Impact Assessment	PE
484.	18CEPE14	Open Channel Flow	PE
485.	18CEPE15	River Engineering	PE
486.	18CEPE16	Groundwater Engineering	PE
487.	18CEPE17	Irrigation Engineering	PE
488.	18CEPE18	Water Shed Management	PE
489.	18CEPE19	Hydrology	PE
490.	18CEPE20	Design of Bridges	PE
491.	18CEPE21	Modern Structural Analysis	PE
492.	18CEPE22	Storage Structures	PE
493.	18CEPE23	Pre stressed Concrete Structures	PE
494.	18CEPE24	Advanced Steel Structures	PE
495.	18CEPE25	Tall Buildings	PE
496.	18CEPE26	Prefabricated Structures	PE

497.	18CEPE27	Design of Composite Structures	PE
498.	18CEPE28	Coastal Structures	PE
499.	18CEPE29	Dynamics and Earthquake Resistant Design of Structures	PE
500.	18CEPE30	Industrial Structures	PE
501.	18CEPE31	Ferro cement Technology	PE
502.	18CEPE32	Finite Elements Analysis	PE
503.	18CEPE33	Experimental Techniques and Instrumentation	PE
504.	18CEPE34	Ground Improvement Techniques	PE
505.	18CEPE35	Introduction to Soil Dynamics and Machine Foundation	PE
506.	18CEPE36	Soil Structure Interaction	PE
507.	18CEPE37	Subsurface Investigation and Instrumentation	PE
508.	18CEPE38	Fundamentals of Remote Sensing and GIS	PE
509.	18CEPE39	Advanced Surveying Techniques	PE
510.	18CEOE01	Environmental Management	OE
511.	18CEOE02	Disaster Mitigation and Management	OE
512.	18CEOE03	Repair and Rehabilitation of Building Elements	OE
513.	18CEOE04	Mechanics of Deformable bodies	OE
514.	18CEMC02	Disaster Preparedness & Planning	MC
515.	22PH101	Engineering Physics	BS
516.	22CY101	Engineering Chemistry	BS
517.	22EE101	Basics Electrical and Electronics Engineering	ES
518.	22EE102	Basic Electrical and Electronics Engineering Laboratory	ES
519.	22MC102	Heritage of Tamil / தமிழர் மரபு	HS
520.	22MA201	Partial Differential Equation, Vector Calculus and Complex Variables	BS
521.	22HS201	Universal Human Values	HS

522.	22MCIN01	Engineering Sprints	EE
523.	22MC201	Tamils and Technology / தமிழரும் தொழில்நுட்பமும்	HS MC
524.	22NC201	NCC COURSE – I (only for NCC Students)	NCC
525.	22MA301	Transforms and Numerical Methods	BS
526.	22CE302	Surveying	PC
527.	22CE303	Construction Materials and Technology	PC
528.	22EN301	Technical English	HS
529.	22MCIN02	Innovation Sprints	EE
530.	22CE304	Advanced Surveying and Basic GIS Practical	PC
531.	22CE305	Material Testing and Evaluation Laboratory	PC
532.	22NC301	NCC Course – II (Only for NCC Students)	NC
533.	22CE402	Steel Structural Elements	PC
534.	22MCIN03	Design Sprints	EE
535.	22CE408	Applied Hydraulics and Machinery Laboratory	PC
536.	22CE504	Design of Reinforced Concrete Elements	PC
537.	22MCIN04	Ideation Sprints	EE
538.	22CE507	Geotechnical Engineering Laboratory	PC
539.	22CE508	Environmental Quality Measurement Laboratory	PC
540.	22CE702	Human Values, Professional Practices, Ethics and Building by-laws	HS
541.	22CE703	Estimation, Costing and Valuation	PC
542.	22CE704	Concrete Technology Laboratory	PC
543.	22CEPE02	Building Information Modelling	PE
544.	22CEPE03	Sustainable and Green Building Technology	PE
545.	22CEPE07	Highrise Buildings	PE



546.		22CEPE08	Advanced Concrete Design	PE
547.		22CEPE11	Ferrocement Technology	PE
548.		22CEPE12	Air Pollution Control Engineering	PE
549.		22CEPE19	Watershed Management	PE
550.		22CEPE24	Earth Retaining Structures	PE
551.		22CEPE25	Rock Mechanics and Applications	PE
552.		22CEPE26	Traffic Engineering & Management	PE
553.		22CEPE28	Railway Engineering	PE
554.		22CEPE29	Urban Planning & Development	PE
555.		22CEPE30	Formwork for Concrete Structures	PE
556.		22CEH101	Bridge Engineering	PE
557.		22CEH102	Repair & Rehabilitation of Structures	PE
558.		22CEH107	Advanced Concrete Technology	PE
559.		22CEH201	Industrial Wastewater Treatment	PE
560.		22CEH202	Environmental Impact and Risk Assessment	PE
561.		22CEH203	Environmental Management & Sustainable development	PE
562.		22CEH204	Environmental Legislations in India	PE
563.		22CEH205	Environmental Microbiology	PE
564.		22CEH206	Waste Management Techniques	PE
565.		22CEH207	Unit Operations and Processes in Water and Wastewater Treatment	PE
566.		22CEH305	Functional Planning in Building Services	PE
567.		22CEH306	Building Valuation	PE
568.		22CEH307	Quality Control and Assurance in Construction	PE
569.	Mechanical Engineering	18PH102	Physics – electromagnetism	BS
570.		18EE103	Basics of electrical engineering	ES

571.	18EE104	Basics of electrical engineering laboratory	ES
572.	18MA201	Differential equations and complex variables	BS
573.	18ME301	Manufacturing Processes	PC
574.	18EC308	Basic Electronics Engineering	ES
575.	18ME302/ 18CE305	Engineering Mechanics	PC
576.	18ME303	Thermodynamics	PC
577.	18ME304	Manufacturing Technology Laboratory	PC
578.	18EC309	Electronics Laboratory	ES
579.	18ME401	Kinematics of Machinery	PC
580.	18ME402	Applied Thermodynamics	PC
581.	18ME403	Fluid Mechanics and Machinery	PC
582.	18ME404	Strength of materials	PC
583.	18ME405	Materials Engineering	PC
584.	18ME406	Strength of Materials and Fluid Mechanics Lab	PC
585.	18ME407	Thermal Engineering Laboratory	PC
586.	18ME501	Heat and Mass Transfer	PC
587.	18ME502	Instrumentation & Control	PC
588.	18ME503	Metrology and Quality Control	PC
589.	18ME504	Dynamics of Machinery	PC
590.	18ME505	Heat Transfer and Refrigeration Laboratory	PC
591.	18ME506	Dynamics and Metrology Laboratory	PC
592.	18ME601	Computer Integrated Manufacturing	PC
593.	18ME602	Finite Element Analysis	PC
594.	18ME603	Design of Machine Elements	PC
595.	18ME604	CAD /CAM Lab	PC

596.	18ME701	Mechatronics	PC
597.	18ME702	Mechatronics & Simulation Laboratory	PC
598.	18MEPE11	Composite Materials	PE
599.	18MEPE12	Design of Transmission System	PE
600.	18MEPE13	Gas Dynamics & Jet Propulsion	PE
601.	18MEPE14	Renewable Energy System	PE
602.	18MEPE15	Metal Cutting & Tool Design	PE
603.	18MEPE16	Aeronautical Engineering	PE
604.	18MEPE17	Operations Research	PE
605.	18MEPE21	Advanced Strength of Materials	PE
606.	18MEPE22	Internal Combustion Engines	PE
607.	18MEPE23	Power plant Engineering	PE
608.	18MEPE24	Machine Drawing	PE
609.	18MEPE25	Engineering System Analysis and Design	PE
610.	18MEPE31	Applied Hydraulics and Pneumatics	PE
611.	18MEPE33	Maintenance Engineering	PE
612.	18MEPE34	Fuels and Combustion	PE
613.	18MEPE35	Rapid Product Development Technologies	PE
614.	18MEPE36	Refrigeration & Air Conditioning	PE
615.	18MEPE41	Marine Engineering	PE
616.	18MEPE42	Fracture Mechanics and Failure Analysis	PE
617.	18MEPE43	Automation in Manufacturing	PE
618.	18MEPE44	Fundamentals of Tribology	PE
619.	18MEPE45	Advanced Decision Modelling Technique	PE
620.	18MEPE51	Advanced Mechanics of Solids	PE

621.	18MEPE52	Heat Transfer Problems in Electronics and Instrumentation	PE
622.	18MEPE53	Nuclear Engineering	PE
623.	18MEPE54	Analysis and Synthesis of Mechanism	PE
624.	18MEPE55	Thermal Turbo Machines	PE
625.	18MEPE61	Cryogenic Engineering	PE
626.	18MEPE62	Introduction to Computational Fluid Dynamics	PE
627.	18MEPE63	Robotics	PE
628.	18MEPE64	Engineering System Modeling and Simulation	PE
629.	18MEPE65	Design of Production Tooling	PE
630.	18MEOE01	Design of Machine Elements and Machining	OE
631.	18MEOE02	Industrial Engineering	OE
632.	18MEOE07	Robotic Process Automation	OE
633.	22MA305	Fourier Series, Boundary Value Problems and Transforms	BS
634.	22ME304	CAD Laboratory	PC
635.	22ME402	Thermal Engineering	PC
636.	22ME403	Metal cutting and Machine Tools	PC
637.	22CYMC01	Environmental Science	MC
638.	22EN502	Placement and Career Training Laboratory	HS
639.	22EN102	Professional Skills Laboratory	HS
640.	22ME703	Mechatronics Laboratory	PC
641.	22ME704	Simulation Laboratory	PC
642.	22ME705	CAM Laboratory	PC
643.	22MEPE11	Automobile Engineering	PE
644.	22MEPE15	Energy Conservation in Industries	PE
645.	22MEPE22	Energy Efficient Buildings Design	PE

646.	22MEPE24	Industrial Engineering and Management	PE
647.	22MEPE33	Non-traditional Machining Process	PE
648.	22MEPE37	Solar Energy Technology	PE
649.	22MEPE46	Metal Forming Processes	PE
650.	22MEPE47	Micro and Nano Machining	PE
651.	22MEPE52	Design of Jigs, Fixtures and Press tools	PE
652.	22MEPE54	Nano Technology	PE
653.	22MEPE62	Engineering System Modelling and Simulation	PE
654.	22MEPE63	Entrepreneurship Development	PE
655.	22MEPE64	Industrial Safety	PE
656.	22MEOE03	Industrial Robotics	OE
657.	22MEOE06	Professional Ethics in Engineering	OE
658.	22MEOE07	Renewable Sources of Energy	OE
659.	22MEH101	Hydrogen and Fuel Cell Technologies	PE
660.	22MEH102	Thermal Management of Electric Vehicle Battery Systems	PE
661.	22MEH103	Electric and Hybrid Vehicle Technology	PE
662.	22MEH104	Alternate Fuels for IC Engines	PE
663.	22MEH105	Advanced Energy Storage Technologies	PE
664.	22MEH106	Solar Power Plants	PE
665.	22MEH107	Materials for Solar Devices	PE
666.	22MEH108	Design of Solar and Wind Systems	PE
667.	22MEH109	Fire Engineering and Explosion Control	PE
668.	22MEH110	Energy Management and Environmental Benefits	PE
669.	22MEH201	Numerical methods in Mechanical Engineering	PE
670.	22MEH202	Advanced Fluid Mechanics	PE

671.		22MEH203	Fundamentals of Bio-Mechanics	PE
672.		22MEH204	Introduction to Machine Learning	PE
673.		22MEH205	Design Optimization and Design Theory	PE
674.		22MEH206	Advanced Finite Element Methods	PE
675.		22MEH207	Advanced Computational Fluid Dynamics	PE
676.		22MEH209	Design of Pressure vessels	PE
677.		22MEH210	Mechanical Vibrations	PE
678.		22MEH301	Precision Engineering	PE
679.		22MEH302	Advanced Materials Technology	PE
680.		22MEH304	Non Destructive Testing and Failure Analysis	PE
681.		22MEH305	Product Life Cycle Management	PE
682.		22MEH306	Ergonomics in Design	PE
683.		22MEH308	Industrial Layout Design and Safety	PE
684.		22MEH309	Digital Manufacturing and IOT	PE
685.		22MEH310	Smart Mobility and Intelligent vehicles	PE
686.	Mathematics	22MAOE01	Sampling Theory	OE
687.		22MAOE02	Numerical Methods	OE
688.		22MAOE03	Probability and Queuing Theory	OE
689.		18MAOE01	Fourier Series, Complex Variables and Z-Transform	OE
690.	Chemistry	18CYOE01	Applied Chemistry	OE
691.		18CYOE02	Analytical Techniques	OE
692.		22STC11	Advanced Structural Analysis	PC

693.	Structural Engineering	22STC12	Theory of Elasticity and Plasticity	PC
694.		22STC14	Concrete and Experimental Stress Analysis Lab	PC
695.		22MLC01	Research Methodology and IPR	MLC
696.		22STC21	Finite Element Method in Structural Engineering	PC
697.		22STC22	Structural Dynamics	PC
698.		22STC23	Model Testing Lab	PC
699.		22STC24	Numerical Analysis Lab	EEC
700.		22STC25	Mini Project	EEC
701.		22STC31	Dissertation Phase – I	EEC
702.		22STC41	Dissertation Phase – II	EEC
703.		22STE11	Theory of Thin Plates and Shells	PE
704.		22STE12	Theory and Applications of Cement Composites	PE
705.		22STE13	Theory of Structural Stability	PE
706.		22STE14	Corrosion and its Prevention	PE
707.		22STE21	Analytical and Numerical Methods for Structural Engineering	PE
708.		22STE22	Structural Health Monitoring	PE
709.		22STE23	Structural Optimization	PE
710.		22STE24	Experimental Techniques and Instrumentation	PE
711.		22STE31	Advanced Steel Design	PE
712.		22STE32	Design of Formwork	PE
713.		22STE33	Design of High-Rise Structures	PE
714.		22STE34	Design of Masonry Structures	PE
715.		22STE35	Design of Prefabricated Structures	PE
716.		22STE36	Design of Steel - Concrete Composite Structures	PE
717.		22STE41	Design of Advanced Concrete Structures	PE
718.		22STE42	Advanced Design of Foundations	PE
719.		22STE43	Design of Industrial Structures	PE
720.		22STE44	Sub Structure Design	PE
721.		22STE45	Design and Construction of Ferrocement Structures	PE
722.		22STE51	Design of Prestressed Concrete Structures	PE

723.		22STE52	Analysis of Laminated Composite Plates	PE
724.		22STE53	Fracture Mechanics of Concrete Structures	PE
725.		22STE54	Design of Plates and Shells	PE
726.		22STE55	Design of Bridges	PE
727.		22STE56	Modern Construction Materials	PE
728.		22STE61	Advanced Concrete Technology	PE
729.		22STE62	Disaster Resistant Structures	PE
730.		22STE63	Soil Structure Interaction	PE
731.		22STE64	Environmental Engineering and Offshore Structures	PE
732.		22STE65	Wind and Cyclone Effects on Structures	PE
733.		18STC13	Structural Design Lab	Core
734.		18STC21	FEM in Structural Engineering	Core
735.		18STC23	Advanced Concrete Lab	Core
736.		18STOE01	Repair and Rehabilitation of Structures	OE
737.		18STOE02	Corrosion and its remedial measures	OE
738.		22STC11	Advanced Structural Analysis	PC
739.		22AC01	English for Research Paper Writing	AC
740.		22AC02	Disaster Management	AC
741.		22AC03	Sanskrit for Technical Knowledge	AC
742.		22AC04	Value Education	AC
743.		22AC06	Pedagogy Studies	AC
744.		22AC07	Stress Management by Yoga	AC
745.		22AC08	Personality Development through Life Enlightenment Skills	AC
746.		18AC05	Constitution of India	AC
747.	Thermal Engineering	18THC11	Thermodynamics and Combustion	Core
748.		18THC24	Modelling Laboratory	Core
749.		18THE13	Alternative Fuels for IC Engines	PE
750.		18THE15	Analysis of Heat Transfer	PE
751.		18THE22	Advanced IC Engines	PE
752.		18THE31	Refrigeration and cryogenics	PE



753.	18THE33	Cogeneration and Waste Heat Recovery Systems	PE
754.	18THE34	Design of Condensers Evaporators and Cooling Towers	PE
755.	18THE35	Steam Engineering	PE
756.	18THE42	Simulation of IC Engines Processes	PE
757.	18THE43	Fuels and Combustion	PE
758.	18THE54	Internal Combustion Engine Design	PE
759.	18THE55	Advanced Finite Element Analysis	PE
760.	22THC11	Advanced Thermodynamics	PC
761.	22THC12	Advanced Fluid Dynamics	PC
762.	22THC13	Advanced Heat Transfer	PC
763.	22THC14	Thermal Engineering Laboratory	PC
764.	22THC21	Hydrogen and Fuel cell Technologies	PC
765.	22THC22	Computational Fluid Dynamics for Thermal Systems	PC
766.	22THC23	Instrumentation for Thermal Systems	PC
767.	22THC24	Analysis & Simulation Laboratory	PC
768.	22THC25	Applied Thermal Engineering Laboratory	PC
769.	22CDE11	Advanced Mathematical Methods in Engineering	PE
770.	22THE11	Combustion in IC Engines	PE
771.	22THE12	Thermal management of Electric Vehicle Battery Systems	PE
772.	22THE13	Nuclear Engineering	PE
773.	22THE14	Boundary Layer Theory and Turbulence	PE
774.	22THE21	Air Conditioning System Design	PE
775.	22THE22	Bio Energy Technologies	PE
776.	22THE23	Optimization Techniques in Engineering	PE
777.	22THE24	Electric and Hybrid Vehicle Technology	PE
778.	22THE25	Alternate Fuels for IC Engines	PE
779.	22THE31	Advanced Energy Storage Technologies Refrigeration systems	PE
780.	22THE32	Refrigeration systems	PE
781.	22THE33	Advanced Power Plant Engineering	PE

782.		22THE34	Electronic Engine Management Systems	PE
783.		22THE35	Design of Heat Exchangers	PE
784.		22THE41	Solar Power Plants	PE
785.		22THE42	Cryogenic Engineering	PE
786.		22THE43	Renewable Energy System	PE
787.		22THE44	Materials For Solar Devices	PE
788.		22THE45	Energy Systems Modelling & Analysis	PE
789.		22THE51	Design of Solar and Wind Systems	PE
790.		22THE52	Design and Analysis of Turbo machines	PE
791.		22THE53	Fire Engineering and Explosion control	PE
792.		22THE54	Waste to Energy	PE
793.		22THE55	Solar Refrigeration and Air-conditioning	PE
794.		22THE61	Environmental And Pollution control	PE
795.		22THE62	Nano Technology	PE
796.		22THE63	Solar Energy for Industrial Process Heating	PE
797.		22THE64	Energy Efficient Buildings Design	PE
798.		22THE65	Analysis Of Thermal Power Cycles	PE
799.		22THE71	Energy Forecasting, Modeling and Project Management	PE
800.		22THE72	Energy Management and Environmental Benefits	PE
801.		22THE73	Solar Energy Appliances	PE
802.		22THE74	Cost Management of Engineering Projects	PE
803.		22THE75	Advanced Composite materials	PE
804.	Computer Aided Design	18CDE23	Advanced Strength of Materials	PE
805.		18CDE25	Rapid Prototyping and Tooling	PE
806.		18CDE35	Computer Integrated Manufacturing system	PE
807.		18CDE36	Industrial Robotics and Expert Systems	PE
808.		18CDOE1	Business Analytics	OE
809.		18CDOE3	Operation Research	OE
810.			22CDC11	Concepts of Engineering Design

811.	22CDC12	Computer Aided Modelling and Design	PC
812.	22CDC13	Advanced Mechanics of Materials	PC
813.	22CDC14	CAD Modeling and Drafting Laboratory	PC
814.	22CDC15	Technical Seminar-I	EEC
815.	22CDC21	Finite Element Methods in Design	PC
816.	22CDC22	Mechanical Vibrations and Acoustics	PC
817.	22CDC23	Solid Freeform Manufacturing	PC
818.	22CDC24	Finite Element Analysis Laboratory	PC
819.	22CDC25	CAM and Robotics Laboratory	PC
820.	22CDC26	Technical Seminar-II	EEC
821.	22CDE11	Advanced Mathematical Methods in Engineering	PE
822.	22CDE13	Product Lifecycle Management	PE
823.	22CDE14	Advanced Engineering Materials	PE
824.	22CDE15	Experimental Stress Analysis	PE
825.	22CDE21	Advanced Kinematics of Mechanisms	PE
826.	22CDE22	Advanced Tool Design	PE
827.	22CDE23	Industry 4.0	PE
828.	22CDE24	Mechanics of Fracture	PE
829.	22CDE25	Design for Manufacturing, Assembly	PE
830.	22CDE31	Productivity Management and Re-engineering	PE
831.	22CDE32	Theory of Plates and Shells	PE
832.	22CDE33	Optimization Techniques in Design	PE
833.	22CDE34	Computational Fluid Dynamics	PE
834.	22CDE35	Supply Chain Management	PE
835.	22CDE41	Experimental Techniques and Data analysis	PE
836.	22CDE42	CAD/CAM tools	PE
837.	22CDE43	Contact Mechanics	PE
838.	22CDE44	Advanced Automotive Systems	PE
839.	22CDE45	Design of Material Handling Equipment	PE
840.	22CDE51	MEMS & NEMS Technology	PE

841.		22CDE52	Enterprise Resource Planning	PE
842.		22CDE53	Mechatronics System Design	PE
843.		22CDE54	Failure Analysis	PE
844.		22CDE55	Maintenance Engineering	PE
845.		22CDE61	Integrated Product and Processes Development	PE
846.		22CDE62	Industrial Safety Management	PE
847.		22CDE63	Reliability in Engineering Systems	PE
848.		22CDE64	Mechanical Measurement and Analysis	PE
849.		22CDE65	Ergonomics in Manufacturing	PE
850.		22CDE71	Quality concepts in design	PE
851.		22CDE72	Design of Pressure Vessels	PE
852.		22CDE73	Plasticity and Metal Forming	PE
853.		22CDE74	Nano Materials Technology	PE
854.		22CDE75	Tribology in design	PE
855.	Welding Technology	18WTE21	Materials and Behaviour	PE
856.		18WTE31	Testing and Inspection of Weldments	PE
857.		18WTOE02	Metal Joining and Cutting Processes	OE
858.		22WTC11	Advanced Mathematics and Statistics	Core
859.		22WTC12	Welding Processes – I	Core
860.		22WTC13	Metallography Lab	Core
861.		22WTC14	Joining Lab	Core
862.		22WTC21	Welding Processes – II	Core
863.		22WTC22	Welding Metallurgy	Core
864.		22WTC23	Quality Control in Weldments Lab	Core
865.		22WTC24	Characterization Lab	Core
866.		22WTC31	Project Phase – I	EEC
867.		22WTC41	Project Phase – II	EEC
868.		22WTE01	Physical Metallurgy and Heat Treatment	PE
869.		22WTE02	Welding Economics, Management and Safety	PE
870.	22WTE03	Composite Materials	PE	

871.		22WTE04	Materials Characterization	PE
872.		22WTE05	Failure Analysis in Weldments	PE
873.		22WTE06	Testing and Inspection of Materials	PE
874.		22WTE07	Non - metallic Materials	PE
875.		22WTE08	Finite Element Analysis	PE
876.		22WTE09	Electrical Aspects of Welding	PE
877.		22WTE10	Total Quality System and Engineering	PE
878.		22WTE11	Automation and Robots in Welding	PE
879.		22WTE12	Welding Application Technology	PE
880.		22WTE13	Brazing, Soldering, Surfacing and Cutting	PE
881.		22WTE14	Corrosion and Surface Engineering	PE
882.		22WTE15	Design of Weldments	PE
883.		22WTE16	Industrial Safety	PE
884.		22WTE17	Welding Codes and Standards	PE
885.		22WTE18	Foundry Processes and Metallurgy	PE
886.		22WTE19	Forming Processes	PE
887.	Power Electronics and Drives	18PEC13	Advanced Power Electronics Laboratory-I	Core
888.		18PEC23	Advanced Power Electronics Laboratory-II	Core
889.		18PEE13	Internet of Things for Electrical Engineers	PE
890.		18PEE15	Discrete Control System	PE
891.		18PEE35	Power System Optimization Techniques	PE
892.		18PEE55	Distributed Generation	PE
893.		18PEOE03	Energy Auditing and Management	OE
894.		18PEOE04	Industrial Automation	OE
895.		18PEOE05	Electrical Vehicles	OE
896.		18PESE1	Pattern Recognition	PE
897.		22PEC11	Power Semiconductor Devices and Components	PC
898.		22PEC12	Analysis of Power Converters	PC
899.		22PEC14	Advanced Digital Control Laboratory	PC
900.		22PEC21	Modelling and Analysis of Electrical Machines	PC

901.		22PEC22	Modern Electrical Drives	PC
902.		22PEC23	Power Electronics for Renewable Energy System Laboratory	PC
903.		22PEC24	Advanced Electrical Drives Laboratory	PC
904.		22PEE11	Advanced Microcontroller Based System Design	PE
905.		22PEE12	Applied Mathematics for Electrical Engineering	PE
906.		22PEE13	System Theory	PE
907.		22PEE14	Artificial Intelligence and Machine Learning	PE
908.		22PEE15	Digital Control System	PE
909.		22PEE21	Advanced Power Electronic Circuits	PE
910.		22PEE22	Applied Digital Control for Power Electronics	PE
911.		22PEE23	Modern Rectifiers and Resonant Converters	PE
912.		22PEE24	Modulation Control for Power Converters	PE
913.		22PEE25	Design of Power Converters	PE
914.		22PEE31	Advanced Power Quality	PE
915.		22PEE32	Harmonics and Filters for Power Electronic Circuits	PE
916.		22PEE33	Energy Conservation, Auditing and Management	PE
917.		22PEE34	Special Electrical Machines and Drives	PE
918.		22PEE35	Digital Simulation of Power Electronics System	PE
919.		22PEE36	Modeling of Switched Mode Power Converters	PE
920.		22PEE41	Solar Photo Voltaic System	PE
921.		22PEE42	Optimization Techniques	PE
922.		22PEE43	Dynamics of Power Converters	PE
923.		22PEE44	Wind Energy Conversion System	PE
924.		22PEE45	Power Electronics for Renewable Energy System	PE
925.		22PEE51	Smart Grid Technology	PE
926.		22PEE52	Distributed Generation and Micro Grid	PE
927.		22PEE53	FACTS Controllers	PE
928.		22PEE54	HVDC Transmission Systems	PE
929.		22PEE55	SCADA Systems and Applications	PE

930.		22PEE61	Electric Vehicles and Power Management	PE
931.		22PEE62	Grid Integration of Renewable Energy Sources	PE
932.		22PEE63	Energy Storage Technologies	PE
933.		22PEE64	Internet of Things for Smart System	PE
934.		22PEE65	Digital Signal Processors for Power Converters	PE
935.	Communication Systems	18COC11	Statistical Information Processing	Core
936.		18COC13	Statistical Information Processing Lab	Core
937.		18COE23	Satellite Communication	Core
938.		22COC11	Antennas and Radiating Systems	Core
939.		22COC12	Advanced Digital Communication Techniques	Core
940.		22COC13	Antennas and Radiating Systems lab	Core
941.		22COC14	Advanced Digital Communication Systems Lab	Core
942.		22COC21	RF and Microwave Circuit Design	Core
943.		22COC22	Advanced Digital Signal Processing	Core
944.		22COC23	Advanced Digital Signal Processing Lab	Core
945.		22COE11	Multimedia Compression Techniques	PE
946.		22COE12	Advanced Communication Networks	PE
947.		22COE13	Wireless Sensor Networks	PE
948.		22COE14	Deep Learning	PE
949.		22COE21	Signal Detection and Estimation	PE
950.		22COE22	Optical Networks	PE
951.		22COE23	Satellite Communication and Navigation Systems	PE
952.		22COE24	Cloud Computing Technologies	PE
953.		22COE31	Wireless and Mobile Communication	PE
954.		22COE32	Pattern Recognition and Machine learning	PE
955.		22COE33	Voice and data networks	PE
956.		22COE34	Digital Image and Video Processing	PE
957.		22COE41	Spread Spectrum Communication	PE
958.		22COE42	MIMO System	PE

959.		22COE43	High Performance Networks	PE
960.		22COE44	5G Communication Networks	PE
961.		22COE51	DSP Architecture	PE
962.		22COE52	Electromagnetic Interference and Compatibility	PE
963.		22COE53	Radar Signal Processing	PE
964.		22COE54	Natural Language Processing	PE
965.		22COE61	Cognitive Radio	PE
966.		22COE62	Internet of Things	PE
967.		22COE63	VLSI for Wireless Communication	PE
968.		22COE64	Cryptography and Network Security	PE
969.		22COE71	Remote Sensing	PE
970.		22COE72	Wavelet signal processing	PE
971.		22COE73	Bio Mems	PE
972.		22COE74	Big Data Technologies	PE

  
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