

1.2.1 Percentage of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented

At SIESGST the framework comprises the Academic Board of Studies based on syllabus framed by University of Mumbai. All programs are following the CBCS system from R-2016. SIESGST offers various elective courses under all programs as per university prescribed curriculum.

Process of elective

Students are offered elective courses choice as per curriculum. Students fill the choice sheets and review is taken to offer elective courses with sufficient choices from students.

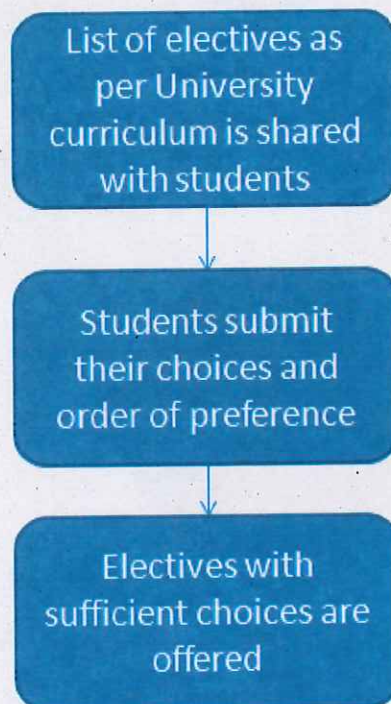
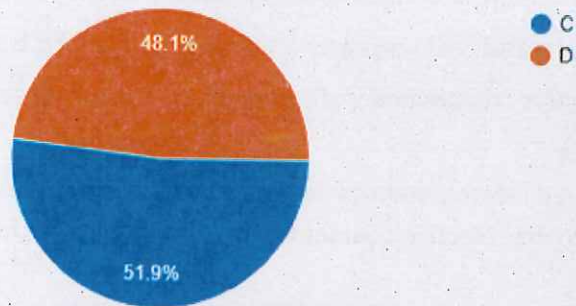


Fig 1.2.1 Process of Elective Offered

1. Response and choice sheets shared with students for elective courses

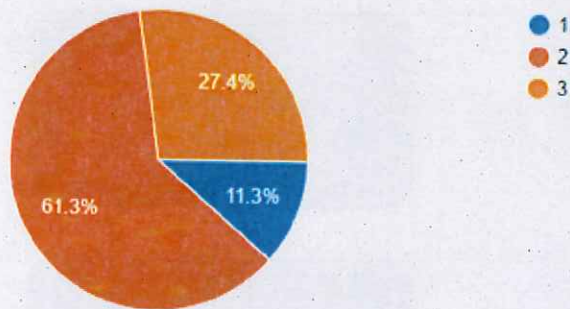
Division

106 responses



Elective Subject 1 :Advanced System Security and Digital Forensics (CSDLO7031)

106 responses



Elective Subject 2 : Big Data Analytics(CSDLO7032)



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SIES Graduate School of Technology						
Department of Electronics & Telecommunication						
Elective Choice sheet						
Class: BE B		Sem-VIII		AY2018-19		
Give 1 as first choice, 2 as second choice and 3 as third choice						
Sr. No.	Roll No.	Name	Speech Processing	Microwave Integrated Circuits	Telecom Network Management	Sign
1	114A2007	ASHWIN RAJAN ANNU	2	3	1	[Signature]
2	114A2007	MUDALIAR YUVARAJ VENKATESH	2	3	1	[Signature]
3	114A2009	VIJAY MUDALIYAR	2	3	1	[Signature]
4	114A2078	ASHWINI NAIK	2	3	1	[Signature]
5	114A2102	SHANBHAG GUDAL ADITYA ASHOK	2	3	1	[Signature]
6	114A2113	ADAIKALAM KRISHNAH	2	3	1	[Signature]
7	114A2114	THEVAR VASANT KUMAR ARUMUGAM	2	3	1	[Signature]
8	215A2127	KIRTI DASHASASTRA	2	3	1	[Signature]
9	215A2129	JAINISH EDISON DURAI	2	3	1	[Signature]
10	215A2137	NEHA KAREKAR	2	3	1	[Signature]
11	215A2142	RAHUL NADAR	2	3	1	[Signature]
12	215A2144	NAIR ABHUEET	2	3	1	[Signature]
13	215A2162	TAMILARASAN SUBBIAH	2	3	1	[Signature]
14	215A2163	VENKATESH MADHAWAN	2	3	1	[Signature]
15	216A2092	ABDULLAH RIZWAN DAWOODBHOY	2	3	1	[Signature]
16	216A2093	ANSARI MOHD AMMAR SIRAJUL HAQUE	2	3	1	[Signature]
17	216A2094	BABAR DNYANESHWAR SHAHURAJ	2	3	1	[Signature]
18	216A2095	BAGHEL RAJENDRA AADIRAM	2	3	1	[Signature]
19	216A2096	BHANDARI SHUBHAM PRAMOD	2	3	1	[Signature]
20	216A2097	BHOITE HRISHIKESH NAMDEV	2	3	1	[Signature]
21	216A2099	CHAVAN SATWIK SANTOSH	2	3	1	[Signature]
22	216A2100	CHAVAN TEJAS	2	3	1	[Signature]
23	216A2101	CHITRAKALA M	2	3	1	[Signature]
24	216A2102	DABHOLKAR CHINMAY SURENDRA	3	2	1	[Signature]

2. Electives Offered as per students choice



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1.2.1 Number of Programmes in which Choice Based Credit System (CBCS/ elective course system has been implemented

Programme Code	Programme name	Year of Introduction	Status of implementation of CBCS / elective course system (Yes/No)	Year of implementation of CBCS / elective course system	Link to the relevant document
ME	Mechanical Engineering	2012	Yes	2012	
ME	Mechanical Engineering	2016	Yes	2016	
ME	Mechanical Engineering	2019	Yes	2019	

Academic Year	Sem / FH Year	Sem	Class	Total no. of Electives as per syllabus	No. of Electives Offered	Names of Electives Offered	Names of Electives Opted by Students	Elective Category	Syllabus Scheme
2015-16	Gr12015	VII	BE	12	2	1) Product Life Cycle Management, 2) Power Plant Engineering	1) Product Life Cycle Management, 2) Power Plant Engineering	DLO	Rev 2012
	Fr12016	VIII	BE	12	2	1) Renewable Energy Sources, 2) Project Management	1) Renewable Energy Sources, 2) Project Management	DLO	Rev 2012
2016-17	Gr12016	VII	BE	12	2	1) Product Life Cycle Management, 2) Power Plant Engineering	1) Product Life Cycle Management, 2) Power Plant Engineering	DLO	Rev 2012
	Fr12017	VIII	BE	12	2	1) Renewable Energy Sources, 2) Project Management	1) Renewable Energy Sources, 2) Project Management	DLO	Rev 2012
2017-18	Gr12017	VII	BE	12	2	1) Product Life Cycle Management, 2) Power Plant Engineering	1) Product Life Cycle Management, 2) Power Plant Engineering	DLO	Rev 2012
	Fr12018	VIII	BE	12	2	1) Renewable Energy Sources, 2) Project Management	1) Renewable Energy Sources, 2) Project Management	DLO	Rev 2012
2018-19	Gr12018	V	TE	3	2	1) Press Tool Design, 2) Machining Sciences and Tool Design	1) Press Tool Design, 2) Machining Sciences and Tool Design	DLO	Rev 2016
		VII	BE	12	2	1) Product Life Cycle Management, 2) Power Plant Engineering	1) Product Life Cycle Management, 2) Power Plant Engineering	DLO	Rev 2012
	Fr12019	VI	TE	3	2	1) Mechatronics, 2) Robotics	1) Mechatronics, 2) Robotics	DLO	Rev 2016
		VIII	BE	12	2	1) Renewable Energy Sources, 2) Project Management	1) Renewable Energy Sources, 2) Project Management	DLO	Rev 2012
2019-20	Gr12019	V	TE	3	2	1) Press Tool Design, 2) Machining Sciences and Tool Design	1) Press Tool Design, 2) Machining Sciences and Tool Design	DLO	Rev 2016
		VII	BE	4	2	1) Automobile Engineering, 2) Pumps, Compressors and Fans	1) Automobile Engineering, 2) Pumps, Compressors and Fans	DLO	Rev 2016
		VII	BE	9	6	1) Product Lifecycle Management 2) Operation Research 3) Disaster Management and Mitigation Measures 4) Energy Audit and Management 5) Reliability Engineering 6) Cyber Security and Laws	1) Product Lifecycle Management 2) Operation Research 3) Disaster Management and Mitigation Measures 4) Energy Audit and Management 5) Reliability Engineering 6) Cyber Security and Laws	ILO	Rev 2016
	Fr12020	VI	TE	3	2	1) Mechatronics, 2) Robotics	1) Mechatronics, 2) Robotics	DLO	Rev 2016
		VIII	BE	4	2	1) Power Plant Engineering, 2) Renewable Energy Systems	1) Power Plant Engineering, 2) Renewable Energy Systems	DLO	Rev 2016
		VIII	BE	9			1) Project Management 2) Finance Management 3) Digital Business Management 4) Environmental Management	ILO	Rev 2016

Curriculum Planning by various committees

All programs conduct timely meetings under the various committees, Department Advisory Board, Quality Improvement Committee and Program Assessment Committee to ensure academic curriculum planning and execution. Following are syllabus schemes of programs at SIESGST prescribed by Mumbai University Rev - 2016.

1) EXTC Department -



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**Program Structure for
B.E. Electronics & Telecommunication Engineering (Rev. 2016)
University of Mumbai (With Effect from 2017-2018)
Semester V**

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned		
		Theory	Praes	Tut	Theory	TW/ Praes	Total
ECC501	Microprocessor & Peripherals Interfacing	4	-	-	4	-	4
ECC502	Digital Communication	4	-	-	4	-	4
ECC503	Electromagnetic Engineering	4	-	1@	4	1	5
ECC504	Discrete Time Signal Processing	4	-	-	4	-	4
ECCDLO 501X	Department Level Optional Course I	4	-	-	4	-	4
ECL501	Microprocessor & Peripherals Interfacing Lab	-	2	-	-	1	1
ECL502	Digital Communication Lab	-	2	-	-	1	1
ECL503	Business Communication & Ethics Lab	-	2+2*	-	-	2	2
ECL504	Open Source Technology for Communication Lab	-	2	-	-	1	1
ECLDLO 501X	Department Level Optional Lab I	-	-	2#	-	1	1
Total		20	10	3	20	7	27

@ 1 hour to be taken as tutorial classwise #2 hours to be taken as either lab or tutorial based on subject requirement
*2 hours to be taken as tutorial batchwise

Course Code	Department Level Optional Course I
ECCDLO 5011	Microelectronics
ECCDLO 5012	TV & Video Engineering
ECCDLO 5013	Finite Automata Theory
ECCDLO 5014	Data Compression and Encryption


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Semester VI

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned		
		Theory	Pracs	Tut	Theory	TW/ Pracs	Total
ECC601	Microcontrollers & Applications	4	-	--	4	--	4
ECC602	Computer Communication Networks	4	-	-	4	-	4
ECC603	Antenna & Radio Wave Propagation	4	-	-	4	-	4
ECC604	Image Processing and Machine Vision	4	-	--	4	--	4
ECCDLO 602X	Department Level Optional Course II	4	-	-	4	-	4
ECL601	Microcontroller & Applications Lab	-	2	-	-	1	1
ECL602	Computer Communication Network Lab	-	2	-	-	1	1
ECL603	Antenna & Radio Wave Propagation Lab	-	2	-	-	1	1
ECL604	Image Processing and Machine Vision Lab	-	2	-	-	1	1
ECLDLO 602X	Department Level Optional Lab II	-	2	-	-	1	1
Total		20	10	-	20	5	25

Course Code	Department Level Optional Course II
ECCDLO 6021	Digital VLSI Design
ECCDLO 6022	Radar Engineering
ECCDLO 6023	Database Management System
ECCDLO 6024	Audio Processing



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Semester VII

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned		
		Theory	Pracs	Tut.	Theory	TW/ Pracs	Total
ECC701	Microwave Engineering	4	-	-	4	-	4
ECC702	Mobile Communication System	4	-	-	4	-	4
ECC703	Optical Communication	4	-	-	4	-	4
ECCDLO 703X	Department Level Optional Course III	4	-	-	4	-	4
ILO701X	Institute Level Optional Course I	3	-	-	3	-	3
ECL701	Microwave Engineering Lab	-	2	-	-	1	1
ECL702	Mobile Communication System Lab	-	2	-	-	1	1
ECL703	Optical Communication Lab	-	2	-	-	1	1
ECLDLO 703X	Department Level Optional Lab III	-	2	-	-	1	1
ECL704	Project-I	-	6	-	-	3	3
Total		19	14	-	19	7	26

Course Code	Department Level Optional Course III	Course Code	Institute Level Optional Course I [#]
ECCDLO7031	Neural Networks and Fuzzy Logic	ILO7011	Product Lifecycle Management
ECCDLO7032	Big Data Analytics	ILO7012	Reliability Engineering
ECCDLO7033	Internet Communication Engineering	ILO7013	Management Information System
ECCDLO7034	CMOS Mixed Signal VLSI	ILO7014	Design of Experiments
ECCDLO7035	Embedded System	ILO7015	Operation Research
		ILO7016	Cyber Security and Laws
		ILO7017	Disaster Management and Mitigation Measures
		ILO7018	Energy Audit and Management
		ILO7019	Development Engineering

Common with all branches



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Semester VIII

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned		
		Theory	Pracs	Tut	Theory	TW/ Pracs	Total
ECC801	RF Design	4	-	--	4	--	4
ECC802	Wireless Networks	4	-	-	4	-	4
ECCDLO 804X	Department Level Optional Course IV	4	-	-	4	-	4
ILO802X	Institute Level Optional Course II	3	-	-	3	-	3
ECL801	RF Design Lab	-	2	-	-	1	1
ECL802	Wireless Networks Lab	-	2	-	-	1	1
ECLDLO 804X	Department Level Optional Lab IV	-	2	-	-	1	1
ECL803	Project-II	-	12	-	-	6	6
Total		15	18	-	15	9	24

Course Code	Department Level Elective Course IV	Course Code	Institute Level Elective Course II"
ECCDLO8041	Optical Networks	ILO8021	Project Management
ECCDLO8042	Advanced Digital Signal Processing	ILO8022	Finance Management
ECCDLO8043	Satellite Communication	ILO8023	Entrepreneurship Development and Management
ECCDLO8044	Network management in Telecommunication	ILO8024	Human Resource Management
		ILO8025	Professional Ethics and CSR
		ILO8026	Research Methodology
		ILO8027	IPR and Patenting
		ILO8028	Digital Business Management
		ILO8029	Environmental Management

Common with all branches


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2) CE Department -

Program Structure B.E. Computer Engineering, (Rev. 2016) w.e.f. AY 2018-19

T. E. Computer Engineering (Semester-V)

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract	Tut	Theory	TW/Pract	Tut	Total
CSC501	Microprocessor	4	-	-	4	-	-	4
CSC502	Database Management System	4	-	-	4	-	-	4
CSC503	Computer Network	4	-	-	4	-	-	4
CSC504	Theory of Computer Science	3+1@	-	-	4	-	-	4
CSDLO 501X	Department Level Optional Course -I	4	-	-	4	-	-	4
CSL501	Microprocessor Lab	-	2	-	-	1	-	1
CSL502	Computer Network Lab	-	2	-	-	1	-	1
CSL503	Database & Info. System Lab	-	2	-	-	1	-	1
CSL504	Web Design Lab	-	2+2 ^A	-	-	2	-	2
CSL505	Business Comm. & Ethics	-	2+2 ^A	-	-	2	-	2
	Total	20	14	-	20	7	-	27

@ 1 hour to be taken tutorial as class wise.

*2 hours shown as Practical's to be taken class wise and other 2 hours to be taken as batch wise



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T. E. Computer Engineering (Semester-VI)

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract	Tut	Theory	TW/Pract	Tut	Total
CSC601	Software Engineering	4	-	-	4	-	-	4
CSC602	System Programming & Compiler Construction	4	-	-	4	-	-	4
CSC603	Data Warehousing & Mining	4	-	-	4	-	-	4
CSC604	Cryptography & System Security	4	-	-	4	-	-	4
CSDLO 60IX	Department Level Optional Course-II	4	-	-	4	-	-	4
CSL601	Software Engineering Lab	-	2	-	-	1	-	1
CSL602	System software Lab	-	2	-	-	1	-	1
CSL603	Data Warehousing & Mining Lab	-	2	-	-	1	-	1
CSL604	System Security Lab	-	2	-	-	1	-	1
CSP605	Mini-Project	-	4	-	-	2	-	2
	Total	20	12	-	20	6	-	26

B. E. Computer Engineering (Semester-VII)

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract	Tut	Theory	TW/Pract	Tut	Total
CSC701	Digital Signal & Image Processing	4	-	-	4	-	-	4
CSC702	Mobile Communication & Computing	4	-	-	4	-	-	4
CSC703	Artificial Intelligence & Soft Computing	4	-	-	4	-	-	4
CSDLO 70IX	Department Level Optional Course-III	4	-	-	4	-	-	4
ILO701X	Institute Level Optional Course-I	3	-	-	3	-	-	3
CSI 701	Digital Signal & Image Processing Lab	-	2	-	-	1	-	1
CSL702	Mobile App. Development. Tech. Lab	-	2	-	-	1	-	1
CSI 703	Artificial Intelligence & Soft Computing Lab	-	2	-	-	1	-	1
CSI 704	Computational Lab-I	-	2	-	-	1	-	1
CSI705	Major Project-I	-	6	-	-	3	-	3
	Total	19	14	-	19	7	-	26


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B. E. Computer Engineering (Semester-VIII)

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract	Tut	Theory	TW/ Pract	Tut	Total
CSC801	Human Machine Interaction	4	-	-	4	-	-	4
CSC802	Distributed Computing	4	-	-	4	-	-	4
CSDLO 801X	Department Level Optional Course-IV	4	-	-	4	-	-	4
ILO801X	Institute Level Optional Course-II	3	-	-	3	-	-	3
CST 801	Human Machine Interaction Lab	-	2	-	-	1	-	1
CSL802	Distributed Computing Lab	-	2	-	-	1	-	1
CST 803	Cloud Computing Lab	-	4	-	-	2	-	2
CSL804	Computational Lab-II	-	2	-	-	1	-	1
CSP805	Major Project-II	-	12	-	-	6	-	6
	Total	15	22	-	15	11	-	26


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Sem.	Department Level Optional Course (DLOC)	Institute Level Optional Course (ILOC)
V	CSDLO5011: Multimedia System CSDLO5012: Advance Operating System CSDLO5013: Advance Algorithm	-----
VI	CSDLO6021: Machine Learning CSDLO6022: Advance Database System CSDLO6023: Enterprise Resource Planning CSDLO6024: Advance Computer Network	-----
VII	CSDLO7031: Advance System Security & Digital Forensics CSDLO7032: Big Data & Analytics CSDLO7033: Robotics	II O7011. Product Lifecycle Management ILO7012. Reliability Engineering II O7013. Management Information System ILO7014. Design of Experiments II O7015. Operation Research ILO7016. Cyber Security and Laws ILO7017. Disaster Management & Mitigation Measures ILO7018. Energy Audit and Management II O7019. Development Engineering
VIII	DLO8011: High Performance Computing DLO8012: Natural Language Processing DLO8013: Adhoc Wireless Network	ILO8021. Project Management ILO8022. Finance Management II O8023. Entrepreneurship Development and Management ILO8024. Human Resource Management II O8025. Professional Ethics and CSR ILO8026. Research Methodology ILO8027. IPR and Patenting ILO8028. Digital Business Management ILO8029. Environmental Management




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3) IT Department -

Program Structure B.E. Information Technology, (Rev. 2016)

T. E. Information Technology (Semester-V)

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract	Tut	Theory	TW/ Pract	Tut	Total
ITC501	Microcontroller and Embedded Programming	4	-	-	4	-	-	4
ITC502	Internet Programming	4	-	-	4	-	-	4
ITC503	Advanced Data Management Technology	4	-	-	4	-	-	4
ITC504	Cryptography & Network Security	4	-	-	4	-	-	4
ITDLO-I	Department Level Optional Course-I	4	-	-	4	-	-	4
ITL501	Internet Programming Lab	-	2	-	-	1	-	1
ITL502	Security Lab	-	2	-	-	1	-	1
ITL503	OLAP Lab	-	2	-	-	1	-	1
ITL504	IOT (Mini Project) Lab	-	2	-	-	1	-	1
ITL505	Business Communication and Ethics	-	2+2*	-	-	2	-	2
	Total	20	14	-	20	7	-	26


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Subject Code	Department Level Optional Course (DLO)
Semester V	
ITDLO5011	Advanced Data Structures & Analysis of Algorithms
ITDLO5012	Image Processing
ITDLO5013	E-Commerce & E-Business
ITDLO5014	IT Enabled Services
ITDLO5015	Computer Graphics & Virtual Reality




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T. E. Information Technology (Semester-VI)

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract	Tut	Theory	TW/Pract	Tut	Total
ITC601	Software Engineering with Project Management	4	-	-	4	-	-	4
ITC602	Data Mining and Business Intelligence	4	-	-	4	-	-	4
ITC603	Cloud Computing & Services	4	-	-	4	-	-	4
ITC604	Wireless Networks	4	-	-	4	-	-	4
ITDLO-II	Department Level Optional Course -II	4	-	-	4	-	-	4
ITL601	Software Design Lab	-	2	-	-	1	-	1
ITL602	Business Intelligence Lab	-	2	-	-	1	-	1
ITL603	Cloud Service Design Lab	-	2	-	-	1	-	1
ITL604	Sensor Network Lab	-	2	-	-	1	-	1
ITM605	Mini-project	-	4	-	-	2	-	2
Total		20	12	-	20	6	-	26

Subject Code	Department Level Optional Course (DLO)
Semester VI	
ITDLO6021	Advance Internet Programming
ITDLO6022	Software Architecture
ITDLO6023	Digital Forensics
ITDLO6024	Multimedia Systems
ITDLO6025	Green IT



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B. E. Information Technology (Semester-VII)

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract	Tut	Theory	TW/ Pract	Tut	Total
ITC701	Enterprise Network Design	4	-	-	4	-	-	4
ITC702	Infrastructure Security	4	-	-	4	-	-	4
ITC703	Artificial Intelligence	4	-	-	4	-	-	4
ITDLO-II	Department Level Optional Course-III	4	-	-	4	-	-	4
ILO-I	Institute Level Optional Course-I	3	-	-	3	-	-	3
ITL701	Network Design Lab	-	2	-	-	1	-	1
ITL702	Advanced Security Lab	-	2	-	-	1	-	1
ITL703	Intelligence System Lab	-	2	-	-	1	-	1
ITL704	Android Apps Development Lab	-	2	-	-	1	-	1
ITM705	Project-1	-	6/8	-	-	3	-	3
	Total	19	14	-	19	7	-	26



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Subject Code	Department Level Optional Course (DLO)	Subject Code	Institute Level Optional Course (ILO)
Semester VII			
ITDLO7031	Storage Area Networks	ILO7011	Product Lifecycle Management
ITDLO7032	Mobile Application Development	ILO7012	Reliability Engineering
ITDLO7033	High Performance Computing	ILO7013	Management Information System
ITDLO7034	Software Testing and Quality Assurance	ILO7014	Design of Experiments
ITDLO7035	Soft Computing	ILO7015	Operatton Research
		ILO7016	Cyber Security and Laws
		ILO7017	Disaster Management and Mitigation Measures
		ILO7018	Energy Audit and Management
		ILO7019	Development Engineering


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B. E. Information Technology (Semester-VIII)

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract	Tut	Theory	TW/ Pract	Tut	Total
ITC801	Big Data Analytics	4	-	-	4	-	-	4
ITC802	Internet of Everything	4	-	-	4	-	-	4
ITDLO-IV	Department Level Optional Course-IV	4	-	-	4	-	-	4
ILO-II	Institute Level Optional Course-II	3	-	-	3	-	-	3
ITL801	Big Data Lab	-	2	-	-	1	-	1
ITL802	Internet of Everything Lab	-	2	-	-	1	-	1
ITL803	DevOps Lab	-	2	-	-	1	-	1
ITL804	R Programming Lab	-	2	-	-	1	-	1
ITM805	Project-II	-	16	-	-	8	-	8
	Total	15	24	-	15	12	-	27


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Subject Code	Department Level Optional Course (DLO)	Subject Code	Institute Level Optional Course (ILO)
Semester VIII			
ITDLO8041	User Interaction Design	ILO8021	Project Management
ITDLO8042	Information Retrieval Systems	ILO8022	Finance Management
ITDLO8043	Knowledge Management	ILO8023	Entrepreneurship Development and Management
ITDLO8044	Robotics	ILO8024	Human Resource Management
ITDLO8045	Enterprise Resource Planning	ILO8025	Professional Ethics and CSR
		ILO8026	Research Methodology
		ILO8027	IPR and Patenting
		ILO8028	Digital Business Management
		ILO8029	Environmental Management



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4) MECH Department -

Semester V

Course Code	Course Name	Teaching Scheme (Contact Hours)		Credits Assigned		
		Theory	Pract	Theory	Pract	Total
MEC501	Internal Combustion Engines*	04	--	04	--	04
MEC502	Mechanical Measurements and Control*	04	--	04	--	04
MEC503	Heat Transfer*	04	--	04	--	04
MEC504	Dynamics of Machinery	04	--	04	--	04
MEDLO501X	Department Level Optional Course I	04	--	04	--	04
MEL501	Internal Combustion Engines	--	02	--	01	01
MEL502	Mechanical Measurements and Control	--	02	--	01	01
MEL503	Heat Transfer	--	02	--	01	01
MEL504	Dynamics of Machinery	--	02	--	01	01
MEL505	Manufacturing Sciences Lab	--	02	--	01	01
MEL506	Business Communication and Ethics	--	04	--	02	02
Total		20	14	20	07	27

Course Code	Department Level Elective Course I
MEDLO5011	Press Tool Design
MEDLO5012	Machining Sciences and Tool Design
MEDLO5013	Design of Jigs and Fixtures

Semester VI

Course Code	Course Name	Teaching Scheme (Contact Hours)		Credits Assigned		
		Theory	Pract	Theory	Pract	Total
MEC601	Metrology and Quality engineering	04	--	04	--	04
MEC602	Machine Design I	04	--	04	--	04
MEC603	Finite Element analysis	04	--	04	--	04
MEC604	Refrigeration and Air Conditioning	04	--	04	--	04
MEDLO602X	Department Level Optional Course II	04	--	04	--	04
MEL601	Metrology and Quality Engineering	--	02	--	01	01
MEL602	Machine Design I	--	02	--	01	01
MEL603	Finite Element Analysis	--	02	--	01	01
MEL604	Refrigeration and Air Conditioning	--	02	--	01	01
MEL605	Mechatronics Lab	--	02	--	01	01
Total		20	10	20	05	25

Course Code	Department Level Optional Course II
MEDLO6021	Mechatronics
MEDLO6022	Robotics
MEDLO6023	Industrial Automation



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Semester VII


Course Code	Course Name	Teaching Scheme (Contact Hours)		Credits Assigned		
		Theory	Pract	Theory	Pract	Total
MEC701	Machine Design II	04	--	04	--	04
MEC702	CAD/CAM/CAE	04	--	04	--	04
MEC703	Production Planning and Control	04	--	04	--	04
MEDLO703X	Department Level Optional Course III	04	--	04	--	04
ILO701X	Institute Level Optional Course I [#]	03	--	03	--	03
MEL701	Machine Design II	--	02	--	01	01
MEL702	CAD/CAM/CAE	--	02	--	01	01
MEL703	Production Planning and Control	--	02	--	01	01
MEL704	Project I	--	06	--	03	03
Total		19	12	19	06	25

Course Code	Department Level Optional Course III	Course Code	Institute Level Optional Course I [#]
MEDLO7031	Mechanical Vibrations	ILO7011	Product Lifecycle Management
MEDLO7032	Automobile Engineering	ILO7012	Reliability Engineering
MEDLO7033	Pumps, Compressors and Fans	ILO7013	Management Information System
MEDLO7034	Computational Fluid Dynamics	ILO7014	Design of Experiments
		ILO7015	Operation Research
		ILO7016	Cyber Security and Laws
		ILO7017	Disaster Management and Mitigation Measures
		ILO7018	Energy Audit and Management
		ILO7019	Development Engineering

Common with all branches

Semester VIII

Course Code	Course Name	Teaching Scheme (Contact Hours)		Credits Assigned		
		Theory	Pract	Theory	Pract	Total
MEC801	Design of Mechanical Systems	04	--	04	--	04
MEC802	Industrial Engineering and Management	04	--	04	--	04
MEC803	Power Engineering	04	--	04	--	04
MEDLO804X	Department Level Optional Course IV	04	--	04	--	04
ILO802X	Institute Level Optional Course II [#]	03	--	03	--	03
MEL801	Design of Mechanical Systems	--	02	--	01	01
MEL802	Power Engineering	--	02	--	01	01
MEP801	Project II	--	12	--	06	06
Total		19	16	19	08	27


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Course Code	Department Level Elective Course IV	Course Code	Institute Level Elective Course II*
MEDLO8041	Power Plant Engineering	ILO8021	Project Management
MEDLO8042	Rapid Prototyping	ILO8022	Finance Management
MEDLO8043	Renewable Energy Systems	ILO8023	Entrepreneurship Development and Management
MEDLO8044	Energy Management in Utility Systems	ILO8024	Human Resource Management
		ILO8025	Professional Ethics and CSR
		ILO8026	Research Methodology
		ILO8027	IPR and Patenting
		ILO8028	Digital Business Management
		ILO8029	Environmental Management

Common with all branches


5) PPT Department -

Sem	Paper Code	Paper Name (As displayed on Mark Sheet)	Assessment Method	SEMESTER - VI				Examination Scheme							Total Marks			
				Teaching Scheme (hr/wk)			Credits Assigned				Theory Marks			Term-work		Practical	Oral	
				L	T	P	L	T	P	Total	Internal Assessment		End Sem Exam					
				T1	T2	Av.												
VI	PPC601	Packaging Machineries & Systems	Theory	3	-	-	3	-	-	3	20	20	20	80	-	-	-	100
VI	PPC602	Food & Pharmaceutical Packaging	Theory	4	-	-	4	-	-	4	20	20	20	80	-	-	-	100
VI	PPC603	Flexographic Printing	Theory	4	-	-	4	-	-	4	20	20	20	80	-	-	-	100
VI	PPC604	Colour Management	Theory	3	-	-	3	-	-	3	20	20	20	80	-	-	-	100
VI	PPC605*	Elective - I	Theory	4	-	-	4	-	-	4	20	20	20	80	-	-	-	100
VI	PPI601	Packaging Machineries & Systems	TW/Or	-	-	2	-	-	1	1	-	-	-	-	25	-	25	50
VI	PPI602	Package Design & Graphics - II	TW/Pr	-	-	4	-	-	2	2	-	-	-	-	25	50	-	75
VI	PPI603	Flexographic Printing	TW/Pr	-	-	3	-	-	1.5	1.5	-	-	-	-	25	25	-	50
VI	PPI604	Colour Management	TW/Or	-	-	2	-	-	1	1	-	-	-	-	25	-	25	50
VI	PPI605*	Elective - I	TW/Or	-	-	2	-	-	1	1	-	-	-	-	25	-	25	50
VI	PPS601	Industrial Visits	TW/Or	-	-	3	-	-	1.5	1.5	-	-	-	-	25	-	25	50
TOTAL				18	0	16	18	-	8	26	-	-	100	400	150	75	100	825

Elective - I: 1. Packaging Distribution & Dynamics 2. Inks & Coatings 3. Digital & Security Printing 4. Print Finishing & Converting

Sem	Paper Code	Paper Name (As displayed on Mark Sheet)	Assessment Method	SEMESTER - VII				Examination Scheme							Total Marks			
				Teaching Scheme (hr/wk)			Credits Assigned				Theory Marks			Term-work		Practical	Oral	
				L	T	P	L	T	P	Total	Internal Assessment		End Sem Exam					
				T1	T2	Av.												
VII	PPC701	Sustainable Packaging	Theory	2	-	-	2	-	-	2	15	15	15	60	-	-	-	75
VII	PPC702	Packaging Laws & Regulations	Theory	2	-	-	2	-	-	2	15	15	15	60	-	-	-	75
VII	PPC703	Packaging Distribution & Logistics	Theory	4	-	-	4	-	-	4	20	20	20	80	-	-	-	100
VII	PPC704	Total Quality Management & Economics	Theory	3	-	-	3	-	-	3	20	20	20	80	-	-	-	100
VII	PPC705	Project Management & Entrepreneurship	Theory	3	-	-	3	-	-	3	20	20	20	80	-	-	-	100
VII	PPC706*	Elective - II	Theory	4	-	-	4	-	-	4	20	20	20	80	-	-	-	100
VII	PPT701	Cost Estimation & Statistical Analysis	TW	-	2	-	-	2	-	2	-	-	-	-	25	-	-	25
VII	PPT702	Project Management & Entrepreneurship	TW	-	2	-	-	2	-	2	-	-	-	-	25	-	-	25
VII	PPL703	Packaging Distribution & Logistics	TW/Or	-	-	3	-	-	1.5	1.5	-	-	-	-	25	-	25	50
VII	PPL704	Elective - II	TW/Or	-	-	3	-	-	1.5	1.5	-	-	-	-	25	-	25	50
VII	PPS701	Mmi Project	TW/Or	-	-	4	-	-	2	2	-	-	-	-	50	-	25	75
TOTAL				18	4	10	18	4	5	27	-	-	110	440	150	-	75	775

Elective - II: 1. Advance Food Packaging 2. Advanced Industrial Products Packaging 3. Labelling Technology 4. e-Publishing


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