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Shri G.S Institute of Technology and Science, Indore

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION
ENGINEERING

Minutes of the Board of Studies

15/12/2022

A mixed mode (online and offline) meeting of Board of studies of Electronics and Telecommunication Engineering Department was held in the department on 8th December, 2022 at 4.00PM. The following members attended the meeting:

Prof. (Mrs.) Anjana Jain	Chairman & Head of the Dept.
Prof. Vimal Bhatia (IIT, Indore)	Expert from outside parent univ.
Prof. Aditya Trivedi (IIIT, Gwalior),	Expert nominated by Director
Prof. Jyoti Singhai (MANIT, Bhopal),	Expert from outside the inst.
Prof. S.P Mahajan (CoEP, Pune),	Expert from outside parent univ.
Mr. Saumitra Kale (Director CISCO systems)	Expert from Industry
Prof. (Mrs.) S.V Charhate,	Member
Prof. Shekhar Sharma,	Member
Dr.(Mrs.) Anjulata Yadav,	Member
Dr. S.K Jain,	Member
Dr.(Mrs.) Preeti Trivedi,	Member
Dr. L.D Malviya	Member
Mrs. Rekha Jain,	Member
Mr. Manish Panchal,	Member
Mr. Amit Naik,	Member
Mrs. Jaya Dipti Lal ,	Member
Mr. Ashwin Shrivastav ,	Member
Mr. Ajay Parmar ,	Member

Prof. Sonali Chouhan (IIT, Guwahati), (other member of staff of the same faculty) & Prof. (Mrs.) S. V. Charhate could not attend the meeting.

Contract faculty members on duty attended the meeting as invitee, attendance list is enclosed.

The following points are discussed in the meeting:

(1) The scheme of examination for 1 year was already approved earlier in last standing committee. Syllabus of "EC10508-Basic Electronics Engineering" was discussed in this BoS and following changes suggested are incorporated and revised syllabus is attached herewith:

Unit -4

Following words have been added after "Introductions to A/D and D/A convertors & their types"

"& applications"

Unit -5

Following words have been added before "Electronics systems"

"Application of"

Following words have been added after "Electronics systems"

"in various engineering domains"

Following words have been added before "CRT, CRO"

"Flat Panel Displays"

A

(2) The schemes of II, III & IV year B.Tech. Electronics and Telecommunication Engineering were proposed as per NEP 2020 and discussed in BoS meeting. Changes suggested by the experts are incorporated in the scheme. Scheme of II Year Electronics and Telecommunication is approved while scheme of III Year & IV Year is tentatively approved by BoS. The new scheme of II, III & IV and syllabus of II Year are attached herewith.

(3) The following theory subjects of different departments are proposed to be removed in the view of introducing a new subject "Basic Electronics Engineering" in I Year in all engineering branches; however, the lab courses of EC22562, EC26563, EC29509 may be continued:

- (i) EC24010 Analog and Digital Electronics - withdrawn.
- (ii) EC22562 Digital Electronics - withdrawn - III yr - A & D Elex - 9
- (iii) EC26563 Basic Electronics Engineering - continue
- (iv) EC29509 Digital Electronics - withdrawn.

(4) Computer Engineering Department requested a new subject "Microprocessors & Microcontrollers," in third semester which has been approved in BoS and syllabus is attached herewith.

(5) In the existing scheme of III Year Electronics and Telecommunication Engineering the credit of Electronics Design and Simulation (EC35881) is changed from 2 to 1 credit. This will be implemented from academic year 2023-24 onwards. Modified existing scheme of III Year is attached herewith.

(6) Scheme of M.Tech. Electronics and Telecommunication Engg. is unchanged.

Anjanajain

Head

Dept. of Elex & TC

[Signature]

Shri. G.S. Institute of Technology & Science, Indore
Department of Electronics & Telecommunication Engineering
List of faculty members who have attended BOS Meeting held on 8/12/2022

Sl. No	Name	Designation	Signature
1	Prof. S.P. Mahajan	COEP, Pune	Attended Online
2	Prof. Aditya Trivedi	IITM, Gwalior	Attended Online
3	Prof. Vimal Bhatia	IIT, Indore	Attended Online
4	Prof. Jyoti Singhai	MANIT, Bhopal	Attended Online
5	Mr. Saumitra Kale	CISCO, Bangalore	On leave
6	Mrs. S.V. Charhate	Professor	On leave
7	Dr. (Mrs.) Anjana Jain	Professor	On leave
8	Dr. Shekhar Sharma	Professor	On leave
9	Dr. Anjulata Yadav	Associate Professor	On leave
10	Dr. S. K. Jain	Associate Professor	On leave
11	Dr. L.D. Malviya	Associate Professor	On leave
12	Dr. (Mrs.) Preeti Trivedi	Associate Professor	On leave
13	Mr. Manish Panchal	Associate Professor	On leave
14	Mr. Amit Naik	Associate Professor	On leave
15	Mrs. Rekha Jain	Assistant Professor	On leave
16	Mrs. Jayadipti Lal	Assistant Professor	On leave
17	Mr. Ashwin Shrivastava	Assistant Professor	On leave
18	Mr. Ajay Parmar	Assistant Professor	On leave
19	Ms. Vaishali Naik	Assistant Professor	On leave
20	Mr. Shubham Shrivastava	Assistant Professor	On leave
21	Ms. Deepali Kothari	Assistant Professor	On leave
22	Mrs. Ritika Nair	Assistant Professor	On leave
23	Mr. Mohit Khamele	Assistant Professor	On leave
24	Mr. Neeraj Malviya	Assistant Professor	On leave
25	Mrs. Shruchi Jain	Assistant Professor	On leave
26	Mr. Sunil Chouhan	Assistant Professor	On leave
27	Mrs. Neeta Sharma	Assistant Professor	On leave

Common To All Branches

Semester - A

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week				Credits		Maximum Marks			
				L	T	P	Th	Pr	Theory			Pr.	
									Th.	CW	SW		
1	BSC	MA 10001	Mathematics - I	3	1	0	4	0	70	30	0	0	100
2	BSC	PH10016	Physics	2	1	-	3	-	70	30	-	-	100
3	ESC	EE10015	Fundamentals of Electrical Engineering	2	1	-	3	0	70	30	0	0	100
4	ESC	CE10013	Fundamentals of Civil Engineering & Applied Mechanics	2	1	-	3	0	70	30	0	0	100
5	ESC	ME10049	Engineering Graphics	2	-	-	2	-	70	30	-	-	100
6	BSC (LC)	PH10151	Applied Physics Lab	-	-	2	-	1	-	-	20	30	50
7	ESC (LC)	EE10152	Electrical Engineering Lab	-	-	2	-	1	-	-	20	30	50
8	ESC (LC)	ME10153	Engineering Drawing/AutoCAD Lab	-	-	4	-	2	-	-	40	60	100
9	HSMC	HU10191	Extra/Cocurricular Activity	-	-	2	-	1	-	-	50	0	50
10	MC		Induction program & Universal Human Values										
TOTAL				11	4	10	15	5	350	150	130	120	750

Semester - B

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week				Credits		Maximum Marks			
				L	T	P	Th	Pr	Theory			Pr.	
									Th.	CW	SW		
1	BSC	MA 10501	Mathematics - II	3	1	-	4	-	70	30	0	0	100
2	BSC	CH10516	Chemistry	3	-	-	3	-	70	30	-	-	100
3	HSMC	HU10551	Technical English	2	-	-	2	-	70	30	0	0	100
4	ESC	CO10507	Programming for Problem Solving	2	1	-	3	-	70	30	0	0	100
5	ESC	EC10508	Basic Electronics Engineering	2	-	-	2	-	70	30	0	0	100
6	BSC (LC)	CH10652	Chemistry Lab	-	-	2	-	1	-	-	20	30	50
7	HSMC (LC)	HU10653	Language Lab	-	-	2	-	1	-	-	20	30	50
8	ESC (LC)	CO10654	Computer Programming Lab	-	-	2	-	1	-	-	20	30	50
9	ESC (LC)	IP10655	Manufacturing Practices	-	-	4	-	2	-	-	40	60	100
10	HSMC	HU10691	Extra/Cocurricular Activity	-	-	2	-	1	-	-	50	-	50
11	MC		Induction program & Universal Human Values										
TOTAL				12	2	12	14	6	350	150	150	150	800

Engineering Certificate shall be awarded after acquiring additional 10 credits out of which 6 credits as 2 Months industrial training within five years

II YEAR B.Tech. (Electronics and Telecommunication Engineering)

II YEAR Diploma in Electronics and Telecommunication Engineering

Semester - III

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1	BSC	MA25---	Mathematics - III	3	1	-	4	-	70	30	0	0	100
2	PCC	EC25---	Electronic Devices	3	-	-	3	-	70	30	0	0	100
3	PCC	EC25---	Signals and Systems	3	-	-	3	-	70	30	0	0	100
4	PCC	EE25---	Network Theory and Analysis	3	-	-	3	-	70	30	0	0	100
5	PCC	EC25---	Digital System Design	3	-	-	3	-	70	30	0	0	100
6	LC	EC25---	Electronic Devices Lab	-	-	2	-	1	-	-	20	30	50
7	LC	EE25---	Network Theory and Analysis Lab	-	-	2	-	1	-	-	20	30	50
8	LC	EC25---	Digital System Design Lab	-	-	2	-	1	-	-	20	30	50
9	HSMC	HU25---	Economics for Engineers	2	-	-	2	-	70	30	0	0	100
10	MC		Environmental Science	2	-	-	2	-	-	-	50	-	50
TOTAL				19	1	6	20	3	420	230	60	90	800

Semester - IV

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1	BSC	MA25---	Mathematics - IV	3	1	-	4	-	70	30	0	0	100
2	PCC	EC25---	Analog Circuits	3	-	-	3	-	70	30	0	0	100
3	PCC	EC25---	Analog and Digital Communication	3	-	-	3	-	70	30	0	0	100
4	PCC	EC25---	Electromagnetic Waves	3	-	-	3	-	70	30	0	0	100
5	PCC	EC25---	Microprocessor and Microcontroller	3	-	-	3	-	70	30	0	0	100
6	ESC	EC25---	Electronics Workshop	-	-	2	-	1	-	-	20	30	50
7	LC	EC25---	Analog Circuits Lab	-	-	2	-	1	-	-	20	30	50
8	LC	EC25---	Analog and Digital Communication Lab	-	-	2	-	1	-	-	20	30	50
9	LC	EC25---	Microprocessor and Microcontroller Lab	-	-	2	-	1	-	-	20	30	50
10	HSMC	HU25---	Values, Humanities and Professional Ethics	-	2	-	2	-	-	-	100	-	100
11	MC		Constitution of India	2	-	-	-	-	-	-	50	-	50
TOTAL				17	3	8	18	4	350	300	80	120	850

Diploma in Electronics and Telecommunication Engineering shall be awarded after accruing additional 10 credits out of which 6 credits as 3 Months industrial training within five years

Semester - V

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory	Practical		Total	
										CW	SW		Pr.
1	PCC	EC35---	Mobile Communication	3	-	-	3	-	70	30	0	0	100
2	PCC	EC35---	Antenna and Wave propagation	3	-	-	3	-	70	30	0	0	100
3	PCC	EC35---	VLSI Design	3	-	-	3	-	70	30	0	0	100
4	PEC		Program Elective Course - I	3	-	-	3	-	70	30	0	0	100
5	OEC	EC35---	Open Elective Course - I	3	-	-	3	-	70	30	0	0	100
6	LC	EC35---	Antenna and Wave propagation Lab	-	-	2	-	1	-	-	20	30	50
7	LC	EC35---	VLSI Design Lab	-	-	2	-	1	-	-	20	30	50
8	LC		Program Elective Course - I Lab	-	-	2	-	1	-	-	20	30	50
9	PROJ	EC35---	Internship	-	-	4	-	2	-	-	50	0	50
10	HSMC		Essence of Indian Knowledge Tradition	2	-	-	2	-	-	-	50	-	50
TOTAL				17	0	10	17	5	350	200	110	90	750

Semester - VI

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory	Practical		Total	
										CW	SW		Pr.
1	PCC	EC35---	Digital Signal Processing	3	-	-	3	-	70	30	0	0	100
2	PCC	EC35---	Wireless and Mobile Networks	3	-	-	3	-	70	30	0	0	100
3	PCC	EC35---	Computer Networks	3	-	-	3	-	70	30	0	0	100
4	PEC		Program Elective Course - II	3	-	-	3	-	70	30	0	0	100
5	OEC	EC35---	Open Elective Course - II	3	-	-	3	-	70	30	0	0	100
6	LC	EC35---	Digital Signal Processing Lab	-	-	2	-	1	-	-	20	30	50
7	LC	EC35---	Computer Networks Lab	-	-	2	-	1	-	-	20	30	50
8	ESC (LC)	EC35---	Electronics Design and Minor Project Lab	-	-	2	-	1	-	-	20	30	50
9	LC		Program Elective Course - II Lab	-	-	2	-	1	-	-	20	30	50
10	HSMC		Industrial Engineering & Management	2	-	-	2	-	-	-	50	-	50
TOTAL				17	0	8	17	4	350	200	80	120	750

Vocational Degree in E&TC Engineering shall be awarded after acquiring additional 10 credits out of which 6 credits as 3 Months industrial training within five years

IV YEAR B.Tech. (Electronics and Telecommunication Engineering)

Semester - VII

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1	PEC	EC45....	Program Elective Course - III	3	-	-	3	-	70	30	0	0	100
2	PEC	EC45....	Program Elective Course - IV	3	-	-	3	-	70	30	0	0	100
3	PEC		Program Elective Course - V	3	-	-	3	-	70	30	0	0	100
4	PEC		Program Elective Course - VI	3	-	-	3	-	70	30	0	0	100
5	OEC	EC45....	Open Elective Course - III	3	-	-	3	-	70	30	0	0	100
6	LC	EC45....	Program Elective Course - III Lab	-	-	2	-	1	-	-	20	30	50
7	LC	EC45....	Program Elective Course - IV Lab	-	-	2	-	1	-	-	20	30	50
8	PROJ	EC45....	Major Project Phase - I	-	-	8	-	4	-	-	40	60	100
TOTAL				15	0	12	15	6	350	150	80	120	700

Semester - VIII

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1	OEC	EC45....	Open Elective Course - IV	3	-	-	3	-	70	30	0	0	100
2	OEC	EC45....	Open Elective Course - V	3	-	-	3	-	70	30	0	0	100
3	PROJ	EC45....	Internship	-	-	16	-	8	-	-	100	0	100
4	PROJ	EC45....	Major Project Phase - II/Research Paper	-	-	8	-	4	-	-	40	60	100
TOTAL				6	0	24	6	12	140	60	140	60	400

* Minimum one research paper in the year should be submitted for publication in a Reputed Conference or Journal

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SUBJECT CODE	List of Program Elective courses (PEC) in Electronics & Communication Engineering	OFFERING DEPARTMENT	CLASS	COURSE TYPE	PREREQUISITE
1	Data Structure & Operating Systems (with Lab)	CSE	3rd Year	PEC-1	C/C++
2	Embedded Systems (with Lab)	E&TC	3rd Year	PEC-1	Microcontrollers
3	Electronics measurement and Sensors (with Lab)	E&TC	3rd Year	PEC-1	Electronics Devices
4	Artificial Intelligence and Machine Learning (with Lab)	CSE/IT	3rd Year	PEC-2	C/C++
5	Control System (with Lab)	E&TC	3rd Year	PEC-2	Network Theory and Analysis
6	Microwave Devices and Circuits (with Lab)	E&TC	4th Year	PEC-3	Electromagnetic waves
7	Optical Communication (with Lab)	E&TC	4th Year	PEC-3	Analog and Digital Communication
8	Advanced DSP (with Lab)	E&TC	4th Year	PEC-3	Signals & Systems, DSP
9	Advanced Antenna Design (with Lab)	E&TC	4th Year	PEC-4	Antenna and wave propagation Microprocessors And
10	Internet of Things (with NEW Lab)	E&TC	4th Year	PEC-4	Microcontrollers, Digital Electronics, Wireless communication
11	Digital Image Processing	BME	4th Year	PEC-5	Signals & Systems, DSP
12	Data Science	CSE/IT	4th Year	PEC-5	Probability Theory
13	VLSI Technology	E&I	4th Year	PEC-5	Electronic Devices, VLSI Design
14	Software Defined Radio & Cognitive Radio	E&TC	4th Year	PEC-6	Analog and Digital Communication
15	Computer Architecture and Organization	CSE	3rd Year	PEC-6	Microprocessor and Microcontrollers
List of NPTEL Open Elective courses in Electronics & Communication Engineering					
1	Modern Digital Communication Techniques	NPTEL	3rd Year	OEC-1	Analog and Digital Communication
2	The Joy of Computing using Python	NPTEL	3rd Year	OEC-1	Programming Language
3	Linear Algebra for Signal Processing, Data Analytics and Im	NPTEL	3rd Year	OEC-1	Maths-1,2
4	Analog IC Design	NPTEL	3rd Year	OEC-1	Analog Electronics
5	Digital IC Design	NPTEL	3rd Year	OEC-1	Analog Electronics
6	Op-Amp Practical Applications: Design, Simulation and Im	NPTEL	3rd Year	OEC-1	Analog Electronics
7	Communication Networks	NPTEL	3rd Year	OEC-1	Analog and Digital Communication, Data Communication
1	Electromagnetic Waves in Guided and Wireless Media	NPTEL	3rd Year	OEC-2	EM waves
2	An Introduction to Coding Theory	NPTEL	3rd Year	OEC-2	Analog and Digital Communication
3	Introduction to Machine Learning	NPTEL	3rd Year	OEC-2	Probability Theory, Linear Algebra
4	Digital System Design with PLDs and FPGAs	NPTEL	3rd Year	OEC-2	Digital Electronics
5	Design and Analysis of VLSI Subsystems	NPTEL	3rd Year	OEC-2	Analog Electronics, VLSI Design
1	Biomedical Signal Processing	NPTEL	4th Year	OEC-3	Signals & Systems, DSP
2	Spread Spectrum Communications And Jamming	NPTEL	4th Year	OEC-3	Analog and Digital Communication

3	Digital Speech Processing	NPTEL	4th Year	DEC - 3	DEC	Signals & Systems, DSP
4	Fundamentals of MIMO Wireless Communication	NPTEL	4th Year	DEC - 3	DEC	Wireless communication
5	Power Management Integrated Circuits	NPTEL	4th Year	DEC - 3	DEC	Analog circuits
6	Architectural Design of Digital Integrated Circuits	NPTEL	4th Year	DEC - 3	DEC	Analog Electronics
7	Neural Networks and applications	NPTEL	4th Year	DEC - 3	DEC	Linear Algebra
1	Deep Learning	NPTEL	4th Year	DEC - 4	DEC	Probability Theory, Linear Algebra, Machine learning
2	Bayesian/ MMSE Estimation for Wireless Communications	NPTEL	4th Year	DEC - 4	DEC	Analog and Digital Communication, Wireless communication
3	Evolution of Air Interface Towards 5G	NPTEL	4th Year	DEC - 4	DEC	Wireless communication
4	Wireless Local Area Network	NPTEL	4th Year	DEC - 4	DEC	Wireless communication, Computer networks
5	Digital Signal Processors and Applications	NPTEL	4th Year	DEC - 4	DEC	DSP
6	Multirate DSP	NPTEL	4th Year	DEC - 4	DEC	DSP
7	VLSI Signal Processing	NPTEL	4th Year	DEC - 4	DEC	VLSI Design, DSP
1	Cryptography and network security	NPTEL	4th Year	DEC - 5	DEC	Probability theory, Information theory
2	Optical sensors	NPTEL	4th Year	DEC - 5	DEC	Optical Communication
3	Strategy: An Introduction to Game Theory	NPTEL	4th Year	DEC - 5	DEC	Probability theory
4	Optical Wireless Communications for Beyond 5G Network	NPTEL	4th Year	DEC - 5	DEC	Optical Communication, Wireless Communication
5	Millimeter Wave Technology	NPTEL	4th Year	DEC - 5	DEC	Electromagnetic waves
List of Open Elective courses in Electronics & Communication Engineering						
1	Probability and Statistics for Engineers	E&TC	3rd Year	DEC - 1	DEC	Probability theory
2	Data Communication	E&TC	3rd Year	DEC - 1	DEC	Digital Communication
3	Information Theory and Coding	E&TC	3rd Year	DEC - 1	DEC	Analog and Digital Communication
4	Random Signals and Stochastic Processes	E&TC	3rd Year	DEC - 2	DEC	Probability Theory
5	Game theory in wireless communication	E&TC	3rd Year	DEC - 2	DEC	Probability Theory
6	Satellite and Raster Communication Systems	E&TC	3rd Year	DEC - 2	DEC	Analog and Digital Communication
7	Fundamentals of MIMO Wireless Communication	E&TC	4th Year	DEC - 3	DEC	Analog and Digital Communication
8	Introduction to cryptography	E&TC	4th Year	DEC - 3	DEC	Linear algebra, Number theory
9	RF and Microwave Networks	E&TC	4th Year	DEC - 4	DEC	Electromagnetic waves
10	Software Defined Networks	E&TC	4th Year	DEC - 5	DEC	Analog and Digital Communication, Computer networks
11	Optical Networks	E&TC	4th Year	DEC - 5	DEC	Optical Communication

Shri G.S. Institute of Technology & Science
Scheme of Examination
Bachelor of Technology in Electronics and Telecommunication Engineering

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Semester: V

S. No.	Subject Code	Category	Subject Name	Hours /Week					Maximum Marks allotted					Total Marks	Credits			Total Credits	
				L		T		P		Theory		Practical			T	P	P		
										Th.	CW	SW	Pr.						
1	EC35008	PCC	Microprocessors and Microcontrollers	3	-	2	70	30	40	60	200	3	1	4					
2	EC35009	PCC	Antenna and Wave Propagation	3	-	2	70	30	40	60	200	3	1	4					
3	EC35010	PCC	VLSI Design	3	-	2	70	30	40	60	200	3	1	4					
4	EC35011	PCC	Data communication	3	-	-	70	30	0	0	100	3	-	3					
5	EC/CO-----	PEC-1	Program Elective (PEC-1)	3	-	2	70	30	40	60	200	3	1	4					
6	EC35481		Evaluation of Internship-1	-	-	0	0	0	100	0	100	-	2	2					
7	HU35	MC	Essence of Indian Knowledge Tradition	2	0	0	0	50	0	0	50	0	0	0					
Total				17	0	8	350	200	260	240	1050	15	6	21					

Semester:VI

S. No.	Subject Code	Category	Subject Name	Hours /Week					Maximum Marks allotted					Total Marks	Credits			Total Credits	
				L		T		P		Theory		Practical			T	P	P		
										Th.	CW	SW	Pr.						
1	EE35510	PCC	Control Systems	3	-	-	70	30	0	0	100	3	-	3					
2	EC35511	PCC	Mobile Communication	3	-	-	70	30	0	0	100	3	-	3					
3	EC35513	PCC	Computer Networks	3	-	2	70	30	40	60	200	3	1	4					
4	EC35514	PCC	Applied Digital Signal Processing	3	-	2	70	30	40	60	200	3	1	4					
5		PEC-2	Program Elective (PEC-2)	3	-	2	70	30	40	60	200	3	1	4					
6	EC35881	ESC	Electronics design & Simulation Workshop	-	-	2	0	0	40	60	100	-	1	1					
Total				15	0	8	350	150	160	240	900	15	4	19					

Internship 2	2-4 Weeks
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S. No.	Subject Code	PEC 1
1	CO35251	Data Structure & Operating system
2	EC35252	Electronics Measurement

PEC -> Can be replaced by Moocs/Swayam Course in consultation with Mentor/Faculty Advisor

S. No.	Subject Code	PEC 2
1	EC35661	Embedded Systems
2	IT35662	Intelligent systems