SCHEME OF INSTRUCTION M.TECH (COMPUTER SCIENCE AND ENGINEERING) Proposed from the Academic year 2019-20

SEMESTER - I

	Course Code	Course Title	Schem Instruc		Contact		me of ination	Credits
S.No	Course Code	Course Thie	L/T	P	Hrs/Wk	CIE	SEE	
1.	PC 101 CS	Program Core I- Mathematical foundations of Computer Science	3		3	30	70	3
2.	PC 102 CS	Program Core II-Advanced Data Structures	3		3	30	70	3
3.	PE 121 CS	Program Elective I- Cloud Computing	3		3	30	70	3
4.	PE 125 CS	Program Elective II- Image Processing	3		3	30	70	3
5.	MC 101 CS	Research Methodology in Computer Science	3		3	30	70	3
6.	AC 101 HS	Audit Course I	2		2	30	70	0
7.	PC 151 CS	Laboratory I (Advanced Data Structures Lab)		3	3	50	-	1.5
8.	PC 152 CS	Laboratory II (Cloud Computing Lab)		3	3	50	_	1.5
	Total			6	23	280	420	18

SEMESTER - II

S.No	Course Code	Course Title	Schem Instruc		Contact	Scheme of Examination		Credits
5.100			L/T	Р	Hrs/Wk	CIE	SEE	
1.	PC 103 CS	Program Core III- Advanced Algorithms	3		3	30	70	3
2.	PC 104 CS	Program Core IV- Artificial Intelligence	3		3	30	70	3
3.	Elective III	Elective III	3		3	30	70	3
4.	Elective IV	Elective IV	3		3	30	70	3
5.	AC 102 HS	Audit Course II	2		2	30	70	0
6.	PW 101 CS	Mini Project with Seminar		6	6	50 *	-	3
7.	PC 153 CS	Laboratory III - Advanced Algorithms Lab		3	3	50	-	1.5
8.	PC 154 CS	Laboratory IV		3	3	50	-	1.5
	Total		14	12	26	300	350	18

**Mini Project with Seminar Evaluation:* 25 marks to be awarded by Supervisor and 25 marks to be awarded by Viva-Voce committee comprising Head, Supervisor and an Examiner.

SCHEME OF INSTRUCTION M.TECH (COMPUTER SCIENCE AND ENGINEERING) Proposed from the Academic year 2019-20

SEMESTER III

S No	s No Course Code	Course Title	Scheme of Instruction		Contact	Scheme of Examination		Credits
S.No Course Code		L/T	Р	Hrs/Wk	CIE	SEE		
1.	Elective V	Elective V	3	-	3	30	70	3
2.	Open Elective	Open Elective	3	-	3	30	70	3
3.	PW 102 CS	Major Project Phase I		20	20	100 **		10
		Total	6	20	26	160	140	16

** *Major Project Phase I Evaluation:* 50 marks to be awarded by Supervisor and 50 marks to be awarded by Viva-Voce committee comprising Head, Supervisor and an Examiner.

SEMESTER – IV

S.No	Course Code	Course Title	Schem Instruc L/T		Contact Hrs/Wk	me of ination SEE	Credits
1.	PW 103 CS	Major Project Phase II		32	32	 200	16
		Total		32	32	 200	16

Audit course 1 & 2

- 1. English for Research Paper Writing
- 2. Disaster Management
- 3. Sanskrit for Technical Knowledge
- 4. Value Education
- 5. Constitution of India
- 6. Pedagogy Studies
- 7. Stress Management by Yoga
- 8. Personality Development through Life Enlightenment Skills.

Open Elective

- 1. Business Analytics
- 2. Industrial Safety
- 3. Operations Research
- 4. Cost Management of Engineering Projects
- 5. Composite Materials
- 6. Waste to Energy

List of Core Subjects:

S.No	Course Code	Course Title
1	PC 101 CS	Mathematical Foundation of Computer Science
2	PC 102 CS	Advanced Data Structures
3	PC 103 CS	Advanced Algorithms
4	PC 104 CS	Artificial Intelligence

Mandatory Course :

S.No	Course Code	Course Title
1	MC 101 CS	Research Methodology in Computer Science

List of Labs:

S.No	Course Code	Course Title
1	PC 151 CS	Advanced Data Structures Lab
2	PC 152 CS	Cloud Computing Lab
3	PC 153 CS	Advanced Algorithms Lab
4	PC 154 CS	Laboratory IV

List of Elective Subjects:

S.No	Course Code	Course Title
1	PE 111 CS	Mobile Computing
2	PE 112 CS	Real Time Systems
3	PE 113 CS	Web Engineering
4	PE 114 CS	Multimedia Technologies
5	PE 115 CS	Data Mining
6	PE 116 CS	Network Security
7	PE 117 CS	Machine Learning
8	PE 118 CS	Information Retrieval System
9	PE 119 CS	Natural Language processing
10	PE 120 CS	Software Quality and Testing
11	PE 121 CS	Cloud Computing
12	PE 122 CS	Soft Computing
13	PE 123 CS	Artificial Neural Networks
14	PE 124 CS	Software Project Management
15	PE 125 CS	Image Processing
16	PE 126 CS	Software Reuse Techniques
17	PE 127 CS	Reliability and Fault Tolerance
18	PE 128 CS	Web Mining
19	PE 129 CS	Human Computer Interaction
20	PE 130 CS	Advanced Computer Graphics
21	PE 131 CS	Software Engineering for RTS
22	PE 132 CS	Simulation and Modelling
23	PE 133 CS	Advanced Operating Systems
24	PE 134 CS	Object Oriented Software Engineering
25	PE 135 CS	Distributed Computing
26	PE 136 CS	Advanced Databases
		1

27	PE 111 PD	Parallel Algorithms
28	PE 112 PD	Grid Computing
29	PE 113 PD	Real Time Operating Systems
30	PE 114 PD	Scripting Languages For Design Automation
31	PE 115 PD	Storage Management
32	PE 116 PD	Performance Evaluation of Computing
33	PE 117 PD	Parallel and Distributed Databases
34	PC 101 PD	Parallel Computer Architecture
35	PC 102 PD	Parallel Programming
36	PC 101 ES	Embedded System Design
37	PC 102 ES	Hardware and Software Co-design

SCHEME OF INSTRUCTION M.TECH (PARALLEL AND DISTRIBUTED SYSTEMS) Proposed from the Academic year 2019-20

SEMESTER - I

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				eme of	Contact		heme of	
S.No	Course Code	Course Title	Instr	uction	Hrs/Wk	E.X.	amination	Credits
5.110			L/T	Р		CIE	SEE	
1.	PC 101 CS	Program Core I- Mathematical foundations of Computer Science	3		3	30	70	3
2.	PC 102 CS	Program Core II-Advanced Data Structures	3		3	30	70	3
3.	PC 101 PD	Program Core III- Parallel Computer Architecture	3		3	30	70	3
4.	PE 114 PD	Program Elective I- Scripting Languages for Design Automation	3		3	30	70	3
5.	MC 101 CS	Research Methodology in Computer Science	3		3	30	70	3
6.	AC 101 HS	Audit Course I	2		2	30	70	0
		Lab – I Advanced Data						
7.	PC 151 CS	Structures Lab		3	3	50	-	1.5
8.	PC 151 PD	Lab – II Scripting Languages for Design Automation Lab		3	3	50	-	1.5
	Tot	al	17	6	23	280	420	18
		SEMI	ESTER ·	· II				
			Schem		Contact		me of	
S.No	Course Code	Course Title			Hrs/Wk		ination	Credits
5.10			L/T	Р	П15/ W К	CIE	SEE	
1.	PC 102 PD	Core IV- Parallel Programming	3		3	30	70	3
2.	Elective II	Elective II	3		3	30	70	3
3.	Elective III	Elective III	3		3	30	70	3
4.	Elective IV	Elective IV	3		3	30	70	3
5.	AC 102 HS	Audit Course II	2		2	30	70	0
6.	6.PW 101 PDMini Project with Seminar			6	6	50*	-	3
	-						1	1
7.	PC 152 PD	Laboratory III – Parallel Programming Lab		3	3	50	-	1.5
8.	Laboratory IV	Laboratory IV		3	3	50	-	1.5
		~				-		

*Mini Project with Seminar Evaluation: 25 marks to be awarded by Supervisor and 25 marks to be awarded by Viva-Voce committee comprising Head, Supervisor and an Examiner

14

12

26

300

350

18

Total

SCHEME OF INSTRUCTION M.TECH (COMPUTER SCIENCE AND ENGINEERING) Proposed from the Academic year 2019-20

SEMESTER III

S No	S No Course Code	Course Title	Scheme of Instruction		Contact	Scheme of Examination		Credits
S.No Course Code		L/T	Р	Hrs/Wk	CIE	SEE		
1.	Elective V	Elective V	3	-	3	30	70	3
2.	Open Elective	Open Elective	3	-	3	30	70	3
3.	PW 102 PD	Major Project Phase I		20	20	100**		10
		Total	6	20	26	160	140	16

** Major Project Phase I Evaluation: 50 marks to be awarded by Supervisor and 50 marks to be awarded by Viva-Voce committee comprising Head, Supervisor and an Examiner.

SEMESTER – IV

S.No	Course Code	Course Title	Schem Instruc L/T		Contact Hrs/Wk	me of nation SEE	Credits
1.	PW 103 PD	Major Project Phase II		32	32	 200	16
		Total		32	32	 200	16

Audit course 1 & 2

- 1. English for Research Paper Writing
- 2. Disaster Management
- 3. Sanskrit for Technical Knowledge
- 4. Value Education
- 5. Constitution of India
- 6. Pedagogy Studies
- 7. Stress Management by Yoga
- 8. Personality Development through Life Enlightenment Skills.

Open Elective

- 1. Business Analytics
- 2. Industrial Safety
- 3. Operations Research
- 4. Cost Management of Engineering Projects
- 5. Composite Materials
- 6. Waste to Energy

List of Core Subjects:

S.No	Course Code	Course Title
1	PC 101 CS	Mathematical Foundation of Computer Science
2	PC 102 CS	Advanced Data Structures
3	PC 101 PD	Parallel Computer Architecture
4	PC 102 PD	Parallel Programming

Mandatory Course :

S.No	Course Code	Course Title
1	MC 101 CS	Research Methodology in Computer Science

List of Labs:

S.No	Course Code	Course Title
1	PC 151 CS	Advanced Data Structures Lab
2	PC 151 PD	Scripting Languages for Design Automation Lab
3	PC 152 PD	Parallel Programming Lab
4	Laboratory IV	Laboratory IV

List of Elective Subjects:

S.No	Course Code	Course Title
1	PE 111 PD	Parallel Algorithms
2	PE 112 PD	Grid Computing
3	PE 113 PD	Real Time Operating Systems
4	PE 114 PD	Scripting Languages For Design Automation
5	PE 115 PD	Storage Management
6	PE 116 PD	Performance Evaluation of Computing
7	PE 117 PD	Parallel and Distributed Databases
8	PE 111 CS	Mobile Computing
9	PE 112 CS	Real Time Systems
10	PE 113 CS	Web Engineering
11	PE 114 CS	Multimedia Technologies
12	PE 115 CS	Data Mining
13	PE 116 CS	Network Security
14	PE 117 CS	Machine Learning
15	PE 118 CS	Information Retrieval System
16	PE 119 CS	Natural Language processing
17	PE 120 CS	Software Quality and Testing
18	PE 121 CS	Cloud Computing
19	PE 122 CS	Soft Computing
20	PE 123 CS	Artificial Neural Networks
21	PE 124 CS	Software Project Management
22	PE 125 CS	Image Processing
23	PE 126 CS	Software Reuse Techniques
24	PE 127 CS	Reliability and Fault Tolerance
25	PE 128 CS	Web Mining
26	PE 129 CS	Human Computer Interaction
27	PE 130 CS	Advanced Computer Graphics

28	PE 131 CS	Software Engineering for RTS
29	PE 132 CS	Simulation and Modelling
30	PE 133 CS	Advanced Operating Systems
31	PE 134 CS	Object Oriented Software Engineering
32	PE 135 CS	Distributed Computing
33	PE 136 CS	Advanced Databases
34	PC 101 ES	Embedded System Design
35	PC 102 ES	Hardware and Software Co-design
36	PC 103 CS	Advance Algorithms
37	PC 104 CS	Artificial Intelligence

SCHEME OF INSTRUCTION M.TECH (EMBEDDED SYSTEMS AND COMPUTING) Proposed from the Academic year 2019-20

SEMESTER - I

S.No Course Code Course Title Scheme of Instruction Contact Irs/Wk Scheme of Examination Scheme of Examination Scheme of Examination Credit 1. PC 101 CS Mathematical foundations of Computer Science 3 3 30 70 3 2. PC 102 CS Advanced Data Structures 3 3 30 70 3 3. PC 101 ES Program Core II- Design 3 3 30 70 3 4. PE 114 PD Scripting Languages for design automation 3 3 30 70 3 5. MC 101 CS Laboratory - I Advanced Data Structures Lab 3 30 70 3 6. AC 101 HS Audit Course I 2 2 30 70 0 Total Total Total 3 3 50 - 1.5 8. PC 151 PD Laboratory - I Lab 3 3				SIEK - I		1			
S.No Course Code Course Filte Instruction Hrs/Wk Examination Credit 1. PC 101 CS Program Core I- Mathematical foundations of Computer Science 3 3 30 70 3 2. PC 102 CS Affanced Data Structures 3 3 30 70 3 3. PC 101 ES Program Core II- Advanced Data Structures 3 3 30 70 3 4. PE 114 PD Scripting Languages for design automation 3 3 30 70 3 5. MC 101 CS Research Methodology in Computer Science 3 3 30 70 3 6. AC 101 HS Audit Course I 2 2 30 70 3 7. PC 151 CS Laboratory - I Advanced Data Structures Lab 3 3 50 - 1.5 8. PC 151 PD Laboratory - I Lab 3 30 70<				Schem	e of		Sche	me of	
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2. PC 102 CS Advanced Data Structures 3 3 30 70 3 3. PC 101 ES Program Core III- Embedded System 3 3 30 70 3 4. PE 114 PD Scripting Languages for design automation 3 3 30 70 3 5. MC 101 CS Research Methodology in Computer Science 3 3 30 70 3 6. AC 101 HS Audit Course I 2 2 30 70 0 7. PC 151 CS Laboratory – I Advanced Data Structures Lab 3 3 50 - 1.5 8. PC 151 PD Laboratory – I Scripting Languages for Design Automation Lab 3 3 50 - 1.5 5.No Course Code Course Title Scheme of Instruction Credits Scheme of Examination Credits 1. PC 102 ES Program Core IV- Hardware and Software 3 - 3	ł					-			
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3. PC 101 ES Embedded System Design 3 3 30 70 3 4. PE 114 PD Scripting Languages for design automation 3 3 30 70 3 5. MC 101 CS Research Computer Science 3 3 30 70 3 6. AC 101 HS Audit Course I 2 2 30 70 0 7. PC 151 CS Laboratory - I Advanced Data Structures Lab 3 3 50 - 1.5 8. PC 151 PD Laboratory - I Advanced Data Structures Lab 3 3 50 - 1.5 8. PC 151 PD Laboratory - I Scripting Languages for Design Automation Lab 3 3 50 - 1.5 1. PC 102 ES Program Core IV- Hardware and Software Co-design 3 3 30 70 3 2. Elective II 3 3 30									
Laboratory – I A. Design Program Elective I- Scripting Languages for design automation 3 30 70 3 5. MC 101 CS Research Methodology in Computer Science 3 3 30 70 3 6. AC 101 HS Audit Course I 2 2 30 70 0 7. PC 151 CS Laboratory – I Advanced Data Structures Lab 3 3 50 - 1.5 8. PC 151 PD Laboratory – I Scripting Languages for Design Automation Lab 3 3 50 - 1.5 5.No Course Code Course Title IT 6 23 280 420 18 SEMESTER - II 1. PC 102 ES Program Core IV- Hardware and Software Co-design 3 3 30 70 3 2. Elective II 3 3 30 70 3 3. Elective IV Elective II 3	3	PC 101 ES	Embedded System	3		3	30	70	3
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4. PE 114 PD Scripting Languages for design automation 3 3 30 70 3 5. MC 101 CS Research Methodology in Computer Science 3 3 30 70 3 6. AC 101 HS Audit Course I 2 2 30 70 0 7. PC 151 CS Laboratory - I Advanced Data Structures Lab 3 3 50 - 1.5 8. PC 151 PD Laboratory - II Scripting Languages for Design Automation Lab 3 3 50 - 1.5 SEMESTER - II Contact Markavare and Software Co-design 3 3 30 70 3 2. Elective II Elective II 3 3 30 70 3 3. Elective IV Elective II 3 3 30 70 3 4. Program Core IV- Hardware and Software Co-design 3 3 30 70 3 3. Elective IV Ele									
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5. MC 101 CS Methodology in Computer Science 3 3 30 70 3 6. AC 101 HS Audit Course I 2 2 30 70 0 7. PC 151 CS Laboratory – I Advanced Data Structures Lab 3 3 50 1.5 8. PC 151 PD Laboratory – II Scripting Languages for Design Automation Lab 3 3 50 1.5 8. PC 151 PD Laboratory – II Scripting Languages for Design Automation Lab 3 3 50 1.5 9 Course Code Course Title Scheme of Instruction Contact Hrs/Wk Scheme of Examination Credits 1. PC 102 ES Program Core IV- Hardware and Software Co-design 3 3 30 70 3 2. Elective II Elective II 3 3 30 70 3 3. Elective II Elective II 3 3 30 70 3 2. Elective II <			for design automation						
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6. AC 101 HS Audit Course I 2 2 30 70 0 7. PC 151 CS Laboratory – I Advanced Data Structures Lab 3 3 50 - 1.5 8. PC 151 PD Laboratory – II Scripting Languages for Design Automation Lab 3 3 50 - 1.5 Course Total 3 3 50 - 1.5 Scripting Languages for Design Automation Lab 3 3 50 - 1.5 Course Code Course Title Scheme of Lab Contact Hrs/Wk Scheme of Examination Credits 1. PC 102 ES Program Core IV- Hardware and Software Co-design 3 3 30 70 3 2. Elective II Elective II 3 3 30 70 3 3. Elective III Elective II 3 3 30 70 3 4. Elective IV Elective II 2 2 30 70	5.	MC 101 CS	Methodology in	3		3	30	70	3
7.PC 151 CSLaboratory - I Advanced Data Structures Lab33501.58.PC 151 PDLaboratory - II Scripting Languages for Design Automation Lab3350-1.58.PC 151 PDScripting Design Automation Lab3350-1.5Total1762328042018SEMESTER - IIScheme of InstructionCourse CodeCourse TitleContact InstructionContact Hardware and Software Co-designContact Scheme of InstructionScheme of ExaminationCredits1.PC 102 ESProgram Core IV- Hardware and Software Co-design33307032.Elective IIElective II33307033.Elective IIElective II33307034.Elective IVElective IV32307005.AC 102 HSAudit Course II22307006.PW 101 ESMini Project with Seminar6650*-3								=0	-
7.PC 151 CSAdvanced Data Structures Lab33501.58.PC 151 PDLaboratory - II Scripting Languages for Design Automation Lab33501.58.PC 151 PDScripting Languages for Design Automation Lab33501.5Total1762328042018SEMESTER - IISeme of InstructionContact Hrs/WkScheme of ExaminationCredits1.PC 102 ESProgram Core IV- Hardware and Software Co-design33307032.Elective IIElective II333070333.Elective IIIElective II33307034.Elective IVElective IV33307035.AC 102 HSAudit Course II22307006.PW 101 ESMini Project with Seminar6650*-3	6.	AC 101 HS	Audit Course I	2		2	30	70	0
7.PC 151 CSAdvanced Data Structures Lab3350-1.58.PC 151 PDLaboratory - II Scripting Languages for Design Automation Lab3350-1.58.PC 151 PDScripting Languages for Design Automation Lab3350-1.5Total1762328042018SEMESTER - IIScheme of InstructionCourse CodeCourse TitleContact InstructionScheme of ExaminationCredits1.PC 102 ESProgram Core IV- Hardware and Software Co-design33307032.Elective IIElective II33307033.Elective IIIElective II33307033.Elective IVElective II33307035.AC 102 HSAudit Course II22307006.PW 101 ESMini Project with Seminar6650*-3									
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8.PC 151 PDLaboratory – II Scripting Languages for Design Automation Lab33501.5SEMESTER - IISEMESTER - IIScheme of InstructionCourse CodeCourse TitleInstruction InstructionContact Hrs/WkScheme of ExaminationCredits1.PC 102 ESProgram Core IV- Hardware and Software Co-design33307032.Elective IIElective II33307033.Elective IIElective II33307034.Elective IVElective II22307035.AC 102 HSAudit Course II22307006.PW 101 ESMini Project with Seminar6650*-3	7.	PC 151 CS			3	3	50	-	1.5
8.PC 151 PDScripting Languages for Design Automation Lab33501.5Total1762328042018SEMESTER - IISemester Course CodeCourse TitleScheme of InstructionContact Hrs/WkScheme of ExaminationContact Colspan="4">Contact K1.PC 102 ESProgram Core IV- Hardware and Software Co-design33307032.Elective IIElective II33307033.Elective IIElective II33307034.Elective IVElective IV33307035.AC 102 HSAudit Course II22307006.PW 101 ESMini Project with Seminar6650*-3									
8.PC 151 PDLanguages for Design Automation Lab33501.5Total1762328042018SEMESTER - IISemestrer - IISolutionCourse CodeCourse TitleScheme of InstructionContact Hrs/WkScheme of ExaminationCoredits1.PC 102 ESProgram Core IV- Hardware and Software Co-design33307032.Elective IIElective II33307033.Elective IIIElective II33307034.Elective IVElective IV33307035.AC 102 HSAudit Course II22307006.PW 101 ESMini Project with Seminar6650*-3									
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Total1762328042018SEMESTER - IIS.NoCourse CodeCourse TitleScheme of InstructionContact Hrs/WkScheme of ExaminationCredits1.PC 102 ESProgram Core IV- Hardware and Software Co-design33307032.Elective IIElective II33307033.Elective IIElective III33307034.Elective IVElective III33307035.AC 102 HSAudit Course II22307006.PW 101 ESMini Project with Seminar6650*-3			Lab						
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S.NoCourse CodeCourse TitleScheme of InstructionContact Hrs/WkScheme of ExaminationCredits1.PC 102 ESProgram Core IV- Hardware and Software Co-design33307032.Elective IIElective II33307033.Elective IIIElective III33307034.Elective IVElective IV33307035.AC 102 HSAudit Course II22307006.PW 101 ESMini Project with Seminar6650*-3		_ • • • • •	SEME				-00		10
S.NoCourse CodeCourse TitleInstructionContact Hrs/WkExaminationCredits1.PC 102 ESProgram Core IV- Hardware and Software Co-design33307032.Elective IIElective II33307033.Elective IIIElective III33307034.Elective IVElective IV33307035.AC 102 HSAudit Course II22307006.PW 101 ESMini Project with Seminar6650*-3			SEATE				Saha	maaf	
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Image:	S.No	Course Code	Course The			Hrs/Wk	Елапп	nation Credits	
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	0.		Seminar		0	0	50		5
and Software Co-design	7.	PC 151 ES			3	3	50	-	1.5
	8.	8. Laboratory IV Laboratory IV						-	
Total14122630035018*Mini Project with Seminar Evaluation: 25 marks to be awarded by Supervisor and 25 marks									

**Mini Project with Seminar Evaluation:* 25 marks to be awarded by Supervisor and 25 marks to be awarded by Viva-Voce committee comprising Head, Supervisor and an Examiner.

SCHEME OF INSTRUCTION M.TECH (EMBEDDED SYSTEMS AND COMPUTING) Proposed from the Academic year 2019-20

SEMESTER III

S No	Course Code	Course Title	Scheme of Instruction		Contact	Scheme of Examination		Credits
5.110	S.No Course Code		L/T	Р	Hrs/Wk	CIE	SEE	
1.	Elective V	Elective V	3	-	3	30	70	3
2.	Open Elective	Open Elective	3	-	3	30	70	3
3.	PW 102 ES	Major Project Phase I		20	20	100**		10
	Total			20	26	160	140	16

** *Major Project Phase I Evaluation:* 50 marks to be awarded by Supervisor and 50 marks to be awarded by Viva-Voce committee comprising Head, Supervisor and an Examiner.

SEMESTER – IV

S.No	Course Code	Course Title	Schem Instruc L/T		Contact Hrs/Wk	me of ination SEE	Credits
1.	PW 103 ES	Major Project Phase II		32	32	 200	16
		Total		32	32	 200	16

L: Lecture CIE: Continuous Internal Evaluation T: Tutorial

P: Practical SEE: Semester End Examination

Audit course 1 & 2

- 1. English for Research Paper Writing
- 2. Disaster Management
- 3. Sanskrit for Technical Knowledge
- 4. Value Education
- 5. Constitution of India
- 6. Pedagogy Studies
- 7. Stress Management by Yoga
- 8. Personality Development through Life Enlightenment Skills.

Open Elective

- 1. Business Analytics
- 2. Industrial Safety
- 3. Operations Research
- 4. Cost Management of Engineering Projects
- 5. Composite Materials
- 6. Waste to Energy

List of Core Subjects:

S.No	Course Code	Course Title
1	PC 101 CS	Mathematical Foundation of Computer Science
2	PC 102 CS	Advanced Data Structures
3	PC 101 ES	Embedded System Design
4	PC 102 ES	Hardware and Software Co-design

Mandatory Course :

S.No	Course Code	Course Title
1	MC 101 CS	Research Methodology in Computer Science

List of Labs:

S.No	Course Code	Course Title
1	PC 151 CS	Advanced Data Structures Lab
2	PC 151 PD	Scripting Languages for Design Automation Lab
3	PC 151 ES	Hardware and Software Co-design Lab
4	Laboratory IV	Laboratory IV

List of Elective Subjects:

S.No	Course Code	Course Title			
1	PE 111 ES	Digital System Design			
2	PE 112 ES	Microcontrollers for Embedded Systems			
3	PE 113 ES	Advanced Computer Architecture			
4	PE 114 ES	Embedded Programming			
5	PE 115 ES	Field Programmable Gate Arrays			
6	PE 116 ES	System On Chip Architecture			
7	PE 117 ES	Optimization Techniques			
8	PE 118 ES	Product Design and Quality Management			
9	PE 119 ES	Design for Testability			
10	PE 120 ES	DSP Architecture			
11	PE 121 ES	Graph Theory and its Applications			
12	PE 111 CS	Mobile Computing			
13	PE 112 CS	Real Time Systems			
14	PE 114 CS	Multimedia Technologies			
15	PE 115 CS	Data Mining			
16	PE 116 CS	Network Security			
17	PE 117 CS	Machine Learning			
18	PE 121 CS	Cloud Computing			
19	PE 122 CS	Soft Computing			
20	PE 123 CS	Artificial Neural Networks			
21	PE 124 CS	Software Project Management			
22	PE 127 CS	Reliability and Fault Tolerance			
23	PE 131 CS	Software Engineering for RTS			
24	PE 132 CS	Simulation and Modelling			
25	PE 133 CS	Advanced Operating Systems			
26	PE 134 CS	Object Oriented Software Engineering			

27	PE 135 CS	Distributed Computing
28	PE 136 CS	Advanced Databases
29	PE 111 PD	Parallel Algorithms
30	PE 112 PD	Grid Computing
31	PE 113 PD	Real Time Operating Systems
32	PE 114 PD	Scripting Languages For Design Automation
33	PC 101 PD	Parallel Computer Architecture
34	PC 102 PD	Parallel Programming
35	PC 103 CS	Advance Algorithms
36	PC 104 CS	Artificial Intelligence