Semester	Subjects
Ш	Applied Maths III
	Electronic Devices
	Digital Electronics
	Data Structures and Algorithms
	Automata Theory
	Lab course: Python programming
IV	Applied Maths IV
	Microprocessors and Microcontrollers
	Controls and Instrumentation
	Database Management Systems
	Computer Organization and Architecture
	Lab Course : Competitive Coding
V	Electronic Circuits
	Communication Engineering
	Operating Systems
	Software Engineering
	Business Communication and Ethics
	Electives: ASIC Verification
	Robotics
	Information Theory and Coding
	Mini Project I
VI	Embedded Systems
	Artificial Intelligence
	Computer Networks
	Analysis of Algorithms
	Electives: Machine Learning
	Industrial Automation
	Digital Signal Processing
	Mini Project II
VII	Data Warehousing and Mining
	Internet of Things
	Data Science
	Electives: Deep Learning
	Image Processing
	Mobile Communication
	Institute-Level Elective
	Project I
VIII	VLSI Design
	Cloud Computing
	Electives: Advanced Networking Technologies
	Information Security
	Natural language processing
	Institute-Level Elective
	Project II

Draft of Syllabus of B.E. (Electronics and Computer Science)

Semester III

Course Code	Course Name		ng Schem et Hours)	е	Credits Assigned				
		TH	PR	Tut	TH	TW/Prac	Tut	Total	
	Applied Maths III	4+1@	-	-	5	-	-	5	
	Electronic Devices	4	-	-	4	-	-	4	
	Digital Electronics	4	-	-	4	-	-	4	
	Data Structures and	4	-	-	4	-	-	4	
	Algorithms								
	Automata Theory	3+1@	-	-	4	-	-	4	
	Electronic Devices Lab	-	2	-	-	1	-	1	
	Digital Electronics Lab	-	2	-	-	1	-	1	
	Data Structures and Algorithms Lab	-	2	-	-	1	-	1	
	Lab course: Python programming	-	2+2*	-	-	2	-	2	
	Total	21	10	-	-	-	-	26	

^{@ 1} hour to be taken tutorial as class wise.

^{*2} hours shown as practicals to be taken class wise and other 2 hours to be taken as batch wise

Course Code	Course Name	Examination Scheme										
				The	ory							
		Interna Assess	ment	1	End Sem	Exam Duration	<u>TW</u>	<u>Oral</u>	Oral &Pract	<u>Total</u>		
		Test1	Test2	Av	Exam	(in Hrs)						
	Applied Maths	20	20	20	80	03	-	-	-	100		
	Electronic Devices	20	20	20	80	03	-	-	-	100		
	Digital Electronics	20	20	20	80	03	-	-	-	100		
	Data Structures and Algorithms	20	20	20	80	03	-	-	-	100		
	Automata Theory	20	20	20	80	03	-	-	-	100		
	Electronic Devices Lab	-	-	-	-	-	25	-	25	50		
	Digital Electronics Lab	-	-	-	-	-	25	-	25	50		
	Data Structures and Algorithms Lab	-	-		-	-	25	-	25	50		

programming Total	100	100	100	400		100		100	750
Lab course: Python	-	-	-	-	-	50	-	50	100

Semester IV

Course Code	Course Name		ng Schen ct Hours		Cred	Credits Assigned				
		TH	PR	Tut	TH	TW/Prac	Tut	Total		
	Applied Maths IV	4+1@	-	-	5	-	-	5		
	Microprocessors and Microcontrollers	4	-	-	4	-	-	4		
	Controls and Instrumentation	4	-	-	4	-	-	4		
	Database Management Systems	4	-	-	4	-	-	4		
	Computer Organization and Architecture	4	-	-	4	-	-	4		
	Microprocessors and Microcontrollers Lab	-	2	-	-	1	-	1		
	Controls and Instrumentation Lab	-	2	-	-	1	-	1		
	Database Management Systems Lab	-	2	-	-	1	-	1		
	Lab Course : Competitive Coding	-	2+2*	-	-	2	-	2		
	Total	21	10	-				26		

^{@ 1} hour to be taken tutorial as class wise.

^{*2} hours shown as practicals to be taken class wise and other 2 hours to be taken as batch wise

Course Code	Course Name		Examination Scheme								
				Thec	ory						
		Interna	Internal Assessment End Exam Sem Duration						<u>Oral</u>	<u>Total</u>	
		Test1	Test2	Av	Sem Exam	(in Hrs)			<u>&Pract</u>		
	Applied Maths IV	20	20	20	80	03	-	-	-	100	
	Microprocessors and Microcontrollers	20	20	20	80	03	-	-	-	100	
	Controls and Instrumentation	20	20	20	80	03	-	-	-	100	
	Database Management Systems	20	20	20	80	03	-	-	-	100	

Computer	20	20	20	80	03	-	-	-	100
Organization and									
Architecture									
Microprocessors	-	-	-	-	-	25	-	25	50
and									
Microcontrollers									
Lab									
Controls and	-	-	-		-	25	-	25	50
Instrumentation									
Lab									
Database	-	-		-	-	25	-	25	50
Management									
Systems Lab									
Lab Course :	-	-	-	-	-	50	-	50	100
Competitive									
Coding									
Total	100	100	100	400		100		100	750

Semester V

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned				
_		TH	PR	Tut	TH	TW/Prac	Tut	Total	
	Electronic Circuits	4	-	-	4	-	-	4	
	Communication Engineering	4	-	-	4	-	-	4	
	Operating Systems	4	-	-	4	-	-	4	
	Software Engineering	4	-	-	4	-	-	4	
	Department Level Elective	4	-	-	4	-	-	4	
	Electronic Circuits and	-	2	-	-	1	-	1	
	Communication Lab								
	Operating Systems Lab	-	2	-	-	1	-	1	
	Software Engineering Lab	-	2	-	-	1	-	1	
	Department Level Elective Lab	-	2	-	-	1	-	1	
	Business Communication and	-	2+2*	-	-	2	-	2	
	Ethics								
	Total	20	12	-	-			26	

^{*2} hours shown as practicals to be taken class wise and other 2 hours to be taken as batch wise

Course Code	Course Name				Exa	mination Scl	neme			
				The	ory					
		Interna	al Assess	ment	End Sem	Exam Duration	TW	<u>Oral</u>	Oral &Pract	<u>Total</u>
		Test1	Test2	Av	Exam	(in Hrs)			<u> </u>	
	Electronic Circuits	20	20	20	80	03	-	-	-	100
	Communication Engineering	20	20	20	80	03	-	-	-	100
	Operating Systems	20	20	20	80	03	-	-	-	100
	Software Engineering	20	20	20	80	03	-	-	-	100
	Department Level Elective	20	20	20	80	03	-	-	-	100
	Electronic Circuits and Communication Lab	-	-	-	-	-	25	-	25	50
	Operating Systems Lab	-	-	-	-	-	25	-	25	50
	Software Engineering Lab	-	-	-	-	-	25	-	25	50
	Department Level Elective Lab	-	-	-	-	-	25	-	25	50
	Business Communication and Ethics	-	-	-	-	-	50	-	-	50
	Total									750

Department Level Electives: ASIC Verification

Robotics

Information Theory and Coding

Semester VI

Course Code	Course Name		ng Schen		Credits Assigned				
		TH	PR	Tut	TH	TW/Prac	Tut	Total	
	Embedded Systems	4	-	-	4	-	-	4	
	Artificial Intelligence	4	-	-	4	-	-	4	
	Computer Networks	4	-	-	4	-	-	4	
	Analysis of Algorithms	4	-	-	4	-	-	4	
	Department-Level Elective	4	-	-	4	-	-	4	
	Embedded Systems Lab	-	2	-	-	1	-	1	
	Artificial Intelligence and	-	2	-	-	1	-	1	
	Computer Networks Lab								
	Analysis of Algorithms Lab	-	2	-	-	1	-	1	
	Department-Level Elective Lab	-	2	-	-	1	-	1	
	Mini Project	-	4	-	-	2	-	2	
•	Total	20	12					26	

Course Code	Course Name				Еха	mination Scl	heme			
				The	ory					
		Interna	al Assessi	ment	End Sem	Exam Duration	<u>TW</u>	<u>Oral</u>	Oral &Pract	<u>Total</u>
		Test1	Test2	Av	Exam	(in Hrs)			<u> </u>	
	Embedded Systems	20	20	20	80	03	-	-	-	100
	Artificial Intelligence	20	20	20	80	03	-	-	-	100
	Computer Networks	20	20	20	80	03	-	-	-	100
	Analysis of Algorithms	20	20	20	80	03	-	-	-	100
	Department- Level Elective	20	20	20	80	03	-	-	-	100
	Embedded Systems Lab	-	-	-	-	-	25		25	50
	Artificial Intelligence and Computer Networks Lab	-	-	-	-	-	25	-	25	50
	Analysis of Algorithms Lab	-	-	-	-	-	25	-	25	50
	Department- Level Elective Lab	-	-	-	-	-	25	-	25	25
	Mini Project II	-	-	-	-	-	25	-	25	50
	Total									750

Department Level Electives: Machine Learning

Industrial Automation

Digital Signal Processing

Semester VII

Course Code	Course Name		g Scheme t Hours)	е	Credits Assigned				
		TH	PR	Tut	TH	TW/Prac	Tut	Total	
	Data Warehousing and Mining	4	-	-	4	-	-	4	
	Internet of Things	4	-	-	4	-	-	4	
	Data Science	4	-	-	4	-	-	4	
	Department Level Elective	4	-	-	4	-	-	4	
	Institute-Level Elective	3	-	-	3	-	-	3	
	Data Warehousing and Mining	-	2	-	-	1	-	1	
	Lab								
	Internet of Things Lab	-	2	-	-	1	-	1	
	Data Science Lab	-	2	-	-	1	-	1	
	Department Level Elective lab	-	2	-	-	1	-	1	
	Project I	-	6	-	-	3	-	3	
	Total	19	14					26	

Course Code	Course Name	Examination Scheme											
				The	ory	ry							
		Interna	Internal Assessment			Exam Duration	<u>TW</u>	Oral	Oral &Pract	<u>Total</u>			
		Test1	Test2	Av	Sem Exam	(in Hrs)			<u> </u>				
	Data Warehousing and Mining	20	20	20	80	03	-	-	-	100			
	Internet of Things	20	20	20	80	03	-	-	-	100			
	Data Science	20	20	20	80	03	-	-	-	100			
	Department Level Elective	20	20	20	80	03	-	-	-	100			
	Institute-Level Elective	20	20	20	80	03	-	-	-	100			
	Data Warehousing and Mining Lab	-	-	-	-	-	25	-	25	50			
	Internet of Things Lab	-	-	-	-	-	25	-	25	50			
	Data Science Lab	-	-	-	-	-	25	-	25	50			

Department Level Elective lab	-	-	-	-	-	25	1	25	50
Project I	-	-	-	-	-	25	-	25	50
Total									750

Department Level Electives: Deep Learning

Image Processing

Mobile Communication

Semester VIII

Course Code	Course Name		ing Scher		Credits Assigned				
		TH	PR	Tut	TH	TW/Prac	Tut	Total	
	VLSI Design	4	-	-	4	-	-	4	
	Cloud Computing	4	-	-	4	-	-	4	
	Department Level Elective	4	-	-	4	-	-	4	
	Institute-Level Elective	3	-	-	3	-	-	3	
	VLSI Design Lab	-	2	-	-	1	-	1	
	Cloud Computing Lab	-	2	-	-	1	-	1	
	Department Level Elective Lab	-	2	-	-	1	-	1	
	Computational Lab	-	2	-	-	2	-	2	
	Project II	-	12	-	-		-	6	
	Total	15	18					26	

Course Code	Course Name	Examination Scheme										
			Theory									
		Interna	al Assessi	ment End Sem	Exam Duration	<u>TW</u>	<u>Oral</u>	Oral 2 Dract	<u>Total</u>			
		Test1	Test2	Av	Exam	(in Hrs)			<u>&Pract</u>			
	VLSI Design	20	20	20	80	03	-	-	-	100		
	Cloud Computing	20	20	20	80	03	-	-	-	100		
	Department Level Elective	20	20	20	80	03	-	-	-	100		
	Institute-Level Elective	20	20	20	80	03	-	-	-	100		
	VLSI Design Lab	-	-	-	-	-	25	-	25	50		
	Cloud Computing Lab	-	-	-	-	-	25	-	25	50		
	Department Level Elective Lab	-	-	-	-	-	25	-	25	50		
	Computational Laboratory		-	-	-	-	50	-	50	100		

	Project II	-	-	-	-	-	50	-	50	100
ĺ	Total									750

Department Level Electives: Advanced Networking Technologies

Information Security

Natural language processing

Distributed Computing