

		Name of the Faculty: FACULTY OF ENGINEERING & TECHNOLOGY											Date of SOE Submission: 06/04/2023																			
		Name of the Program (As to be printed on the Degree Certificate) : BACHELORS OF TECHNOLOGY (COMPUTER SCIENCE & ENGINEERING)																														
		Session: 2022-26 onwards																														
S. No.	Semester/Year/Prof	Council Code (If any)	Subject Code (If already existing)	Nomenclature	Theory/ Practical/	Core/ DSE/ AECC/ SEC/ VAC/ GE/ MDGE/Sub sidary	Theory/Practical (Result Combined or Separate)	L	T	P	Credits	Max	Pass	Attendance Marks	Theory			Theory (Internal)			Practical			Practical (Internal)			Overall Pass Marks	End Term Examination Overall Passing Criteria: Theory: [External+Intern allor Practical: [External+Internal]	If Combined: Theory+ Practical			
															Mid Term Weightage	Assignment	Professional Activities	Max	Pass	Demonstration/Presentation	Viva-voce	Max	Pass	Attendance	Mid Term	Project/Lab Work				Conduct/Demonstration	Max	Pass
1		-	13020117	Engineering Mathematics-I	Theory	Core	Separate	3	1	-	4	60	24		20	10	10	40	16	--	--	--	--	--	--	40	External+Internal					
2		-	13020118	Web Development	Theory	Core	Separate	3	-	-	3	60	24		20	10	10	40	16	--	--	--	--	--	--	40	External+Internal					
3		-	13020119	Basics of Electrical & Electronics Engineering	Theory	Core	Separate	3	-	-	3	60	24		20	10	10	40	16	--	--	--	--	--	--	40	External+Internal					
4		-	13020120	Programming for Problem Solving	Theory	Core	Separate	3	-	-	3	60	24		20	10	10	40	16	--	--	--	--	--	--	40	External+Internal					
5		-	13020121	Programming for Problem Solving Lab	Practical	Core	Separate	-	-	4	2	--	--		--	--	--	--	--	20	20	40	16	10	10	10	30	60	24	40	External+Internal	
6		-	13020122	Web Development Lab	Practical	Core	Separate	-	-	2	1	--	--		--	--	--	--	--	20	20	40	16	10	10	10	30	60	24	40	External+Internal	
7		-	13020123	Python Programming Lab	Practical	Core	Separate	-	-	2	1	--	--		--	--	--	--	--	20	20	40	16	10	10	10	30	60	24	40	External+Internal	
8		-	13020124	Basics of Electrical & Electronics Engineering Lab	Practical	Core	Separate	-	-	2	1	--	--		--	--	--	--	--	20	20	40	16	10	10	10	30	60	24	40	External+Internal	
9	MI	-	University Umbrella	AECC - 1	Theory	AECC	Separate	2	--	--	2	30	12		10	5	5	20	8	--	--	--	--	--	--	20	External+Internal					
10		-	University Umbrella	VAC -1	Theory	VAC	Separate	2	--	--	2	30	12		10	5	5	20	8	--	--	--	--	--	--	20	External+Internal					
								Specialization 1 (Artificial Intelligence and Machine Learning)																								
								Total Credits for the Semester																								
11		-	13020125	Introduction to AI, Machine Learning, Data Science, Cybersecurity, Blockchain	Theory	SEC	Separate	3	-	-	3	60	24		20	10	10	40	16											40	External+Internal	
12		-	13020126	Introduction to AI, Machine Learning, Data Science, Cybersecurity, Blockchain Lab	Practical	SEC	Separate	-	-	2	1									20	20	40	16	10	10	10	30	60	24	40	External+Internal	
								Specialization 2 (IOS and Mobile Applications)																								
								Total Credits for the Semester																								
13		-	13020127	Basic Architecture of Mac OS X with UID Fundamentals	Theory	SEC	Separate	3	-	-	3	60	24		20	10	10	40	16											40	External+Internal	
14		-	13020128	Basic Architecture of Mac OS X with UID Fundamentals Lab	Practical	SEC	Separate	-	-	2	1									20	20	40	16	10	10	10	30	60	24	40	External+Internal	
								Total Credits for the Semester																								
15		-	13020224	Engineering Mathematics-II	Theory	Core	Separate	3	1	0	4	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal	

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16	-	13020225	Web Programming with Python and Java Script	Theory	Core	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
17	-	13020226	Engineering Workshop	Theory	Core	Separate	1	0	0	1	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
18	-	13020227	Web Programming with Python and Java Script Lab	Practical	Core	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal					
19	-	13020228	Engineering Workshop Lab	Practical	Core	Separate	0	0	4	2	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal					
20	-	University Umbrella	AECC - 2	Theory	AECC	Separate	2	0	0	2	30	12		10	5	5	20	8	-	-	-	-	-	-	-	-	-	-	20	External+Internal					
21	-	University Umbrella	VAC - 2	Theory	VAC	Separate	2	0	0	2	30	12		10	5	5	20	8	-	-	-	-	-	-	-	-	-	-	20	External+Internal					
Total Credits of the Semester								11	1	6	15																								
Specialization 1 (Artificial Intelligence and Machine Learning)																																			
22	-	13020212	Data Analysis using Python	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
23	-	13020219	Data Analysis using Python Lab	Practical	SEC	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal					
Total Credits of the Semester								14	1	8	19																								
Specialization 2 (iOS and Mobile Applications)																																			
24	-	13020229	Full Stack Web Development & DevOps	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
25	-	13020230	Full Stack Web Development & DevOps Lab	Practical	SEC	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal					
Total Credits of the Semester								14	1	8	19																								
Semester-III																																			
26	-	13020336	Matlab Programming	Theory	Core	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
27	-	13020337	Data Structure and Algorithms	Theory	Core	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
28	-	13020301	Operating Systems	Theory	Core	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
29	-	13020338	Digital Electronics	Theory	Core	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
30	-	13020339	Matlab Programming Lab	Practical	Core	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal					
31	-	13020340	Data Structure and Algorithms Lab	Practical	Core	Separate	0	0	4	2	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal					
32	-	13020313	Operating Systems Lab	Practical	Core	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal					

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								0	0	0	1	-	-	-	-	-	20	20	40	16	10	10	30	60	24	40	External+Internal								
33	-	13020341	Summer Internship-I	Practical	Core	Separate		0	0	0	1	-	-	-	-	-	-	-	-	20	20	40	16	10	10	30	60	24	40	External+Internal					
34	-	University Umbrella	MGE -1	Theory	MDGE	Separate		4	0	0	4	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal					
35	-	University Umbrella	VAC - 3	Theory	VAC	Separate		2	0	0	2	30	12	10	5	5	20	8	-	-	-	-	-	-	-	-	-	-	20	External+Internal					
Total Credits of the Semester								18	0	8	23																								
Specialization 1 (Artificial Intelligence and Machine Learning)																																			
36	III/II	-	13020322	Probabilistic Modelling and Reasoning with Python	Theory	SEC	Separate	3	0	0	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
37	-	13020330	Probabilistic Modelling and Reasoning with Python Lab	Practical	SEC	Separate		0	0	2	1	-	-	-	-	-	-	-	-	20	20	40	16	10	10	30	60	24	40	External+Internal					
Total Credits of the Semester								21	0	10	27																								
Specialization 2 (iOS and Mobile Applications)																																			
38	-	13020342	iOS Fundamentals & Swift Programming Language	Theory	SEC	Separate		3	0	0	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
39	-	13020343	iOS Fundamentals & Swift Programming Language Lab	Practical	SEC	Separate		0	0	2	1	-	-	-	-	-	-	-	-	20	20	40	16	10	10	30	60	24	40	External+Internal					
Total Credits of the Semester								21	0	10	27																								
Specialization 3 (Blockchain)																																			
40	-	13020344	Fundamentals of Blockchain	Theory	SEC	Separate		3	0	0	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
Total Credits of the Semester								21	0	8	26																								
Specialization 4 (Data Science)																																			
41	-	13020345	Introduction to Data Science	Theory	SEC	Separate		3	0	0	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
42	-	13020346	Introduction to Data Science Lab	Practical	SEC	Separate		0	0	2	1	-	-	-	-	-	-	-	-	20	20	40	16	10	10	30	60	24	40	External+Internal					
Total Credits of the Semester								21	0	10	27																								
Specialization 5 (Cyber Security)																																			
43	-	13020347	Information Theory for Cyber Security	Theory	SEC	Separate		3	0	0	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
44	-	13020348	Information Theory for Cyber Security Lab	Practical	SEC	Separate		0	0	2	1	-	-	-	-	-	-	-	-	20	20	40	16	10	10	30	60	24	40	External+Internal					
Total Credits of the Semester								21	0	10	27																								
Semester-IV																																			
45	-	13020440	Discrete Mathematics	Theory	Core	Separate		3	1	0	4	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				

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																																	External+Internal		
46	-	13020401	Design and Analysis of Algorithms	Theory	Core	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
47	-	13020441	Database Management Systems	Theory	Core	Separate	3	1	0	4	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
48	-	13020442	Computer Organization and Architecture	Theory	Core	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
49	-	13020416	Design and Analysis of Algorithms Lab	Practical	Core	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal					
50	-	13020443	Database Management Systems Lab	Practical	Core	Separate	0	0	4	2	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal					
51	-	University Umbrella	MGE - 2	Theory	MDGE	Separate	4	0	0	4	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal					
52	-	University Umbrella	VAC - 4	Theory	VAC	Separate	2	0	0	2	30	12		10	5	5	20	8	-	-	-	-	-	-	-	-	-	-	20	External+Internal					
Total Credits of the Semester								18	2	6	23																								
Specialization 1 (Artificial Intelligence and Machine Learning)																																			
53	-	13020444	R programming	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal				
54	-	13020445	R programming Lab	Practical	SEC	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal					
Total Credits of the Semester								21	2	8	27																								
Specialization 2 (IOS and Mobile Applications)																																			
55	-	13020446	Backend Web Development	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal					
56	-	13020447	Backend Web Development Lab	Practical	SEC	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal					
Total Credits of the Semester								21	2	8	27																								
Specialization 3 (Blockchain)																																			
57	-	13020448	Smart Contracts and Solidity	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal					
58	-	13020449	Smart Contracts and Solidity Lab	Practical	SEC	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal					
Total Credits of the Semester								21	2	8	27																								
Specialization 4 (Data Science)																																			
59	-	13020450	Introduction to AI and ML	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal					
60	-	13020451	Introduction to AI and ML Lab	Practical	SEC	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal					
Total Credits of the Semester								21	2	8	27																								
Specialization 5 (Cyber Security)																																			

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																																	3	0
61	-	13020452	Data Encryption	Data Encryption	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal			
62	-	13020453	Data Encryption Lab	Data Encryption Lab	Practical	SEC	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	30	60	24	40	External+Internal				
Total Credits of the Semester								21	2	8	27																							
Semester-V																																		
63	-	13020501	Formal Language and Automata Theory	Formal Language and Automata Theory	Theory	Core	Separate	3	1	0	4	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal			
64	-	13020542	Object Oriented Programming	Object Oriented Programming	Theory	Core	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal			
65	-	13020502	Computer Networks	Computer Networks	Theory	Core	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal			
66	-	13020543	Software Engineering	Software Engineering	Theory	Core	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal			
67	-	13020544	Object Oriented Programming Lab	Object Oriented Programming Lab	Practical	Core	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	30	60	24	40	External+Internal				
68	-	13020516	Computer Networks Lab	Computer Networks Lab	Practical	Core	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	30	60	24	40	External+Internal				
69	-	13020523	Summer Internship-II	Summer Internship-II	Practical	Core	Separate	0	0	0	1	-	-		-	-	-	-	-	20	20	40	16	10	10	30	60	24	40	External+Internal				
70	-	University Umbrella	MGE -3	MGE -3	Theory	MDGE	Separate	4	0	0	4	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal			
71	-	University Umbrella	AECC - 3	AECC - 3	Theory	AECC	Separate	2	0	0	2	30	12		10	5	5	20	8	-	-	-	-	-	-	-	-	-	-	20	External+Internal			
Total Credits of the Semester								18	1	4	22																							
Specialization 1 (Artificial Intelligence and Machine Learning)																																		
72	-	13020545	Machine Learning and Pattern Recognition	Machine Learning and Pattern Recognition	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal			
73	-	13020546	Machine Learning and Pattern Recognition Lab	Machine Learning and Pattern Recognition Lab	Practical	SEC	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	30	60	24	40	External+Internal				
Total Credits of the Semester								21	1	6	26																							
Specialization 2 (iOS and Mobile Applications)																																		
74	-	13020524	Mobile Application Development (iOS Basic)	Mobile Application Development (iOS Basic)	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal			
75	-	13020533	Mobile Application Development (iOS Basic) Lab	Mobile Application Development (iOS Basic) Lab	Practical	SEC	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	30	60	24	40	External+Internal				
Total Credits of the Semester								21	1	6	26																							
Specialization 3 (Blockchain)																																		
76	-	13020547	Blockchain Platforms and Use cases	Blockchain Platforms and Use cases	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal			

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																																	Max	Pass	Max	Pass	Max	Pass	Max
93	VIII I	-	13020637	Data Mining	Practical	DSE-II	Separate																										External+Internal						
94		-	13020640	Image Processing Lab			Separate																												External+Internal				
95		-	13020641	Cyber Security Lab			Separate	0	0	4	2	-	-	-	-	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40		External+Internal				
96		-	13020642	Data Mining Lab			Separate																												External+Internal				
Total Credits of the Semester								15	2	10	22																												
Specialization 1 (Artificial Intelligence and Machine Learning)																																							
97	-	13020644	Neural Networks and Deep Learning	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal					
98	-	13020645	Neural Networks and Deep Learning Lab	Practical	SEC	Separate	0	0	2	1	-	-		-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40		External+Internal							
Total Credits of the Semester								18	2	12	26																												
Specialization 2 (iOS and Mobile Applications)																																							
99	-	13020646	Mobile Application Development (iOS Advance)	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal					
100	-	13020647	Mobile Application Development (iOS Advance) Lab	Practical	SEC	Separate	0	0	2	1	-	-		-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40		External+Internal							
Total Credits of the Semester								18	2	12	26																												
Specialization 3 (Blockchain)																																							
101	-	13020648	Blockchain Security and Performance	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal					
102	-	13020649	Blockchain Security and Performance Lab	Practical	SEC	Separate	0	0	2	1	-	-		-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40		External+Internal							
Total Credits of the Semester								18	2	12	26																												
Specialization 4 (Data Science)																																							
103	-	13020650	Web Data Mining	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal					
Total Credits of the Semester								18	2	10	25																												
Specialization 5 (Cyber Security)																																							
104	-	13020651	Security Assessment and Risk Analysis	Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal					
Total Credits of the Semester								18	2	10	25																												
Semester-VII																																							
105	-	13020722	Project	Practical	Core	Separate	0	0	12	6	-	-		-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40		External+Internal							
106	-	13020721	Summer Internship-III	Practical	Core	Separate	0	0	0	2	-	-		-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40		External+Internal							

S. No.	Semester/Year/Prof	Council Code (If any)	Subject Code (If already existing)	Nomenclature	Theory/ Practical/	Core/ DSE/ AECC/ SEC/ VAC/ GE/ MDGE/Sub sidary	Theory/Practical (Result Combined or Separate)	L	T	P	Credits	Max	Pass	Attendance Marks	Mid Term Weightage	Assignment	Professional Activities	Max	Pass	Demonstration/Presentation	Viva-voce	Max	Pass	Attendance	Mid Term	Project/Lab Work	Conduct/Demonstration	Max	Pass	Overall Pass Marks	End Term Examination Overall Passing Criteria: Theory: [External+Intern al]or Practical:[External+Internal]	If Combined: Theory+ Practical	
Choose one of the following (Theory+Corresponding Practical)																																	
107	-	13020740	Data Analytics		Theory	DSE- III	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal		
108	-	13020741	Internet of Things				Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal	
109	-	13020743	Virtual Reality				Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal	
110	-	13020746	Data Analytics Lab		Practical	DSE- III	Separate	0	0	4	2	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal		
111	VIII	13020747	Internet of Things Lab				Separate	0	0	4	2	-	-		-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal	
112	V	13020748	Virtual Reality Lab				Separate	0	0	4	2	-	-		-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal
Choose one of the following (Theory+Corresponding Practical)																																	
113	-	13020729	Blockchains		Theory	DSE- IV	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal		
114	-	13020744	Natural Language Processing				Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal	
115	-	13020745	Soft Computing				Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	40	External+Internal	
116	-	13020738	Blockchains Lab		Practical	DSE- IV	Separate	0	0	4	2	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal		
117	-	13020749	Natural Language Processing Lab				Separate	0	0	4	2	-	-		-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal	
118	-	13020750	Soft Computing Lab				Separate	0	0	4	2	-	-		-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal
Total Credits of the Semester								6	0	20	18																						
Specialization 1 (Artificial Intelligence and Machine Learning)																																	
119	-	13020724	Data Visualization		Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal			
120	-	13020732	Data Visualization Lab		Practical	SEC	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal		
Total Credits of the Semester								9	0	22	22																						
Specialization 2 (iOS and Mobile Applications)																																	
121	-	13020751	iOS Practical Implementation Techniques		Theory	SEC	Separate	3	0	0	3	60	24		20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal			
122	-	13020752	iOS Practical Implementation Techniques Lab		Practical	SEC	Separate	0	0	2	1	-	-		-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	External+Internal		
Total Credits of the Semester								9	0	22	22																						
Specialization 3 (Blockchain)																																	

