

Faculty of Engineering | School of Information, Security and Data Science Department of Data Science & Engineering

Annexure 5

Proposed Course Scheme M.Tech (DSE) Program Academic Session: 2024 – 2025

Number of Credits: 80, Duration: Two Years (Four Semesters)

Year		Semester 1	Semester II									
	Course#	Course Name	L	T	P	C	Course#	Course Name	L	T	P	C
	DSE6101	Mathematical Foundations of Data Science	4	0	0	4	DSE6202	Deep Learning	3	1	0	4
	DR6001	Research Methodologies	3	0	0	3	DSE6203	Data Visualization	3	1	0	4
	DSE6102	Advanced Data Structures and Algorithms	3	1	0	4	XXXXX	Program Elective-2 DSE6242 Image Processing and Pattern Recognition/ DSE6243 Recommender Systems	3	0	0	3
I	DSE6103	Machine Learning Techniques	3	1	0	4	XXXXX	Program Elective-3 DSE6245 Business Process Engineering/ DSE6244 Web Analytics and Development	3	0	0	3
	XXXXX	Program Elective- 1-DSE6141-Data Preparation and Analysis/ DSE6143 Knowledge Discovery	3	0	0	3	DSE6222	Flexi Core 2 Gen AI	3	0	0	3
	DSE6121	Industry-Oriented Course 1 /Value Added Course 1/ Flexi Core 1	3	0	0	3	DSE6223	Industry-Oriented Course 2 /Value Added Course 2 / Flexi Core 2 Deep Fake	3	0	0	3

		Machine Learning Application for										
		Music Data										
		Processing and										
		Retrieval.										
		Advanced Data	0	0	2	1			0	0	2	1
	DSE6130	Structures and					DSE6231	Deep Learning Lab				
		Algorithms Lab										
	DSE6131	Machine Learning	0	0	2	1		D.4. W1:	0	0	2	1
		Techniques Lab					DSE6203	Data Visualization Lab				
	DSE6170	Minor Project 1	0	0	0	2	DSE6271	Minor Project 2	0	0	0	3
		Total	19	2	4	25		Total	18	2	4	25
				Total Contact Hours (L+T+P): 24 Hours								
		Total Contact Hour	ʻs (L⊣	-1+1	'): 25	,		Total Contact Hours ($\Gamma + I$	FP): 2	24 H(ours
		Total Contact Hour Hours	s (L⊦	FT+P	'): 25	5		Total Contact Hours (L+T+	FP): 2	24 H	ours
			ʻs (L⊣	-1+1	'): 25	.		Total Contact Hours (I	L+T+	FP): 2	24 H	ours
			rs (L⊣	-1+1	'): 25	· · · · · · · · · · · · · · · · · · ·		Total Contact Hours (I	L+TH	FP): 2	24 H	ours
			's (L⊣		'): 25			Total Contact Hours (I	L+11H	FP): 2	24 H (ours
		Hours		F'I'+F	'): 25 	· · · · · · · · · · · · · · · · · · ·		, and the second	L+1]`H	FP): 2	24 H (ours
					'): 25 			Total Contact Hours (I	L+'I'+	FP): 2	24 H(ours
II		Hours Semester II	ſ					Semester IV				
II	Course#	Hours		T	P	- C	Course#	, and the second	L+TH	Т	Р	C
II	Course#	Hours Semester II	ſ				Course#	Semester IV				
II	Course#	Semester III Course Name	I L	Т	P	C	Course#	Semester IV Course Name	L	T	P	C
II	Course#	Semester III Course Name Dissertation/	I L	Т	P	C	Course#	Semester IV Course Name Dissertation/ Industry	L	T	P	C

- Credits requirements for the award of M.Tech degree: 80, Year: 2.
- Number of Course Credits for First and Second Semester 25 ± 2 .
- Up to 16 Course Credits (20% of Total Credits) of Can be Offered Through NPTEL Platform [Only in First Year]
- Students can do Major Project Either in Industry or under the supervision of Department Faculty as Dissertation.
- Credits for Minor Projects Courses Can be Adjusted to Incorporate/Accommodate some Lab Oriented Courses.
- Project Evaluation: Any PG M.Tech student shall carry out a Project Work/Dissertation of minimum of 10 months duration in second year. The Project Work can be carried out in the institution/industry/research laboratory or any other institution where facilities exist, with approval of parent Department. There will be a mid-term evaluation of the work done on the project at the end of the 3rd semester. This evaluation will be done by the department concerned for a maximum of 100 marks.