1.	OBJECTIVE	To generate competent manpower in the emengineering and research in the area of AI at											
2.	DURATION (IN MONTHS)	48 (Full Time)											
3.	INTAKE	30											
4.	RESERVATION	I.Within the sanctioned intake	a) SC (In Percentage)	b) ST (In Percentage	e)	c) Differently abled (In Percentage)							
			15	7	.5	3							
		I.Over and above the sanctioned intake a) Kashmiri Migrants (In Seats) b) International Students (In Percentage)											
			2 20										
5.	ELIGIBILITY	Passed 10+2 examination with Physics and Science/Electronics/ Information Technolog subject/Agriculture/Engineering Graphics/B candidates belonging to reserved category) in OR Passed D.Voc. Stream in the same or allied a Engineering drawing, etc., for the students of the programme). B.Tech.: Lateral Entry Passed Minimum Three-years/ Two-year (Lateral Entry)	cy/Biology/Informatics Practices Business Studies /Entrepreneursh in the above subjects taken toget sector. (The University will offer coming from diverse background	s/ Biotechnology nip. Obtained at l ther. er suitable bridge ds to prepare Lev	Technical Voca east 45% marks courses such as rel playing field	tional (40% marks in case of Mathematics, Physics, and desired learning outcomes							



		belonging to reserved category) in OR	ANY branch of Engineering and To	echnology.								
		Passed B.Sc. Degree from a recogn Scheduled Caste / Scheduled Tribe OR Passed B. Voc/3 year D.Voc. Stream	es) and passed 10+2 examination wi m in the same allied sector. (The Co	C, with atleast 45% marks (40% markith Mathematics as a subject. Onstituent will offer suitable bridge of the state of the suitable bridge of the state of the suitable bridge of the state of the stat	courses such as Mathematics,							
6.	SELECTION PROCEDURE	Selection would be based on joint	merit of entrance exam score and P	CM/PMV aggregate percentage.								
7.	MEDIUM OF INSTRUCTION	English										
I X	PROGRAMME PATTERN	Semester										
9.	COURSE & SPECIALIZATION	As per Annexure A										
10.	FEE		Academic Fee p.a	Institute Deposit	Total							
	1											



	Indian Students (Amount in INR)		330000	20000	350000							
	International Students	NRI/ PIO/ OCI Category (Amount in US\$)	6300	275	6575							
	International Students	Foreign National Category (Amount in US\$)	1300	275	1575							
11.	ASSESSMENT	The courses will have 40% Conting 30% of the total programme credit	er, some courses (not more than									
12.	STANDARD OF PASSING	The assessment of the student for each examination is done, based on relative performance. Maximum Grade Point (GP) is 10 corresponding to O (Outstanding). For all courses, a student is required to pass both internal and external examination separately with a minimum Grade Point of 4 corresponding to Grade P. Students securing less than 40% absolute marks in each head of passing will be declared FAIL. The University awards a degree to the student who has achieved a minimum CGPA of 4 out of maximum of 10 CGPA for the programme.										
13.	AWARD OF DEGREE	Bachelor of Technology (Artificial Intelligence and Machine Learning) will be awarded at the end of the semester 8 examination by ta into consideration the performance of all semester examinations after obtaining a minimum 4.00 CGPA out of 10 CGPA.										



14. CLASSIFICATION OF CREDITS

Semester	Generic Core	Generic Elective	Specialization Core	Specialization Elective	Open Elective	Mandatory Non-Credit Course/s	Non-Letter Grade Audit Course/s	Total
				Common	1			
1	18	0	0	0	0	0		18
2	19	0	0	0	0	1		19
3	20	1	0	0	0	1		21
4	23	2	0	0	0	1	As per the student's choice	25
5	23	0	0	0	3	0	1	26
6	12	10	0	0	3	0		25
7	12	10	0	0	0	0]	22
8	14	0	0	0	0	0] [14
Total	141	23	0	0	6	0		170

This Programme Structure is aligned with the norms laid down by the University and is approved by the Academic Council and Board of Management.

Hereafter changes (if any) which conform to the policy on "Curriculum Development and Review" would be permissible, subject to revision of the Programme Structure, following the specified processes.

Director - Academics

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Annexure A

Catalog	Course			Specialization/ Area/	Sc	Teaching Scheme (Hours Per		heme urs Per		E	Examination Schem (Marks)			- Total	
Course Code	Code	Course Title	Nature	Department	,	eek)		Prac	ctical	The	ory	Credits	Total		
Code					L	т	La b	СА	ESE	CA	ESE				
			,	Semester : 1											
		Generic Core Courses										_			
TE7697		Linear Algebra	BS		2	1	0	0	0	30	45	3	75		
TE7545	0707220102	Chemistry	BS		2	0	0	0	0	20	30	2	50		
TE7695	0707220103	Chemistry Lab	BS		0	0	2	10	15	0	0	1	25		
T7540	0707220104	Basic Electrical and Electronics Engineering	ES		3	0	0	0	0	30	45	3	75		
T7593	0707220105	Basic Electrical and Electronics Engineering Lab	ES		0	0	2	10	15	0	0	1	25		
TEE7093	0707220106	Introduction to Artificial Intelligence and Python Programming	ES		3	0	0	0	0	30	45	3	75		
TEE7092	0707220107	Introduction to Artificial Intelligence and Python Programming Lab	ES		0	0	2	10	15	0	0	1	25		
T6732	0707220108	Critical Thinking	HS		1	0	0	0	0	25	0	1	25		
T2646	0707220109	Entrepreneurship Venture	HS		1	0	0	0	0	25	0	1	25		
TE7300	0707220110	Tinker Lab	ES		0	0	4	50	0	0	0	2	50		
				Total	12	1	10	80	45	160	165	18	450		
			,	Semester : 2											
			Gene	ric Core Courses											
TE7543	0707220201	Calculus	BS		2	1	0	0	0	30	45	3	75		
TE7540	0707220202	Physics	BS		2	0	0	0	0	20	30	2	50		



Annexure A

Catalog	Course			Specialization/ Area/	Teaching Scheme (Hours Per		Scheme (Hours Per		E	Examination Scheme (Marks)			- Total	
Course Code	Code	Course Title	Nature	Specialization/ Area/ Department		/eek		Prac	tical	The	ory	Credits	Total	
Code				-	L	Т	La b	СА	ESE	CA	ESE			
TE7687	0707220203	Physics Lab	BS		0	0	2	10	15	0	0	1	25	
TE7288	0707220204	Programming in C	ES		3	0	0	0	0	30	45	3	75	
TE7289	0707220205	Programming in C Lab	ES		0	0	2	10	15	0	0	1	25	
T7383	0707220206	Communication Skills	HS		2	0	0	0	0	20	30	2	50	
T7384	0707220207	Communication skills lab	HS		0	0	2	10	15	0	0	1	25	
T6873	0707220208	Creative Thinking	HS		1	0	0	0	0	25	0	1	25	
TE7690	0707220209	Statistics for Data Science	BS		3	1	0	0	0	40	60	4	100	
TE7748	0707220210	Software Tools for Artificial Intelligence and Machine Learning	BS		0	0	2	25	0	0	0	1	25	
TE7188	0707220211	Environmental Science			0	0	0	0	0	0	0	Mandat ory Non-Cr edit Course	0	
				Total	13	2	8	55	45	165	210	19	475	
				Semester : 3										
				ric Core Courses										
TE7539	0707220301	Probability and random processes	BS		2	1	0	0	0	30	45	3	75	
TE7544	0707220302	Data Structures and Algorithms	PC		3	0	0	0	0	30	45	3	75	
TE7546	0707220303	Data Structures and Algorithms Lab	PC		0	0	4	20	30	0	0	2	50	



Annexure A

Catalog	Course			Specialization/ Area/		nchir hem urs F	e	E		nation Sc (Marks)	heme	- Total	
Course Code	Code	Course Title	Nature	Department		eek)		Prac	tical	The	ory	Credits	Total
Code					L	Т	La b	CA	ESE	CA	ESE		
TEE7034	0707220304	Data Preprocessing and EDA Lab	PC		0	0	4	20	30	0	0	2	50
TEE7029	0707220305	Database Concepts for Data Science	ES		2	0	0	0	0	20	30	2	50
TEE7030	0707220306	Database Concepts for Data Science Lab	ES		0	0	4	20	30	0	0	2	50
T6749	0707220307	Design Thinking	HS		2	0	0	0	0	50	0	2	50
F0003	0707220308	Flexi-Credit Course	PC		3	0	0	0	0	75	0	3	75
F0001	0707220309	Flexi-Credit Course	PC		0	0	2	25	0	0	0	1	25
TH4788	0707220310	Health and Wellness Module I	0		0	0	0	0	0	0	0	Mandat ory Non-Cr edit Course	0
				Total	12	1	14	85	90	205	120	20	500
		Generic Electiv	e Course	es Group (Choose Any One Co	urse)							
T6872	0707220311	Foundation of Ethics	GE		1	0	0	0	0	25	0	1	25
T6760	0707220312	Introduction to Indian Philosophy	GE		1	0	0	0	0	25	0	1	25
				Total Requir	ed Cr	edits	S	0	0	25	0	1	25
				Semester : 4									
			Gene	eric Core Courses		•							
T6774	0707220401	Principles of Economics	HS		2	0	0	0	0	50	0	2	50
F0003	0707220402	Flexi-Credit Course	PC		3	0	0	0	0	75	0	3	75



Annexure A

Catalog	Course	urse Course Title Na		Specialization/ Area/		chir hem urs F	e	E		nation Sc (Marks)	heme	- Total	
Course Code	Course	Course Title	Nature	Specialization/ Area/ Department		eek)		Prac	ctical	The	ory	Credits	Total
Code				·	L	Т	La b	CA	ESE	CA	ESE		
F0001	0707220403	Flexi-Credit Course	PC		0	0	2	25	0	0	0	1	25
TE7499	0707220404	Supervised Machine Learning	PC		4	0	0	0	0	40	60	4	100
TE7500	0707220405	Supervised Machine Learning Lab	PC		0	0	4	20	30	0	0	2	50
TE7760	0707220406	Unsupervised Learning	PC		3	0	0	0	0	30	45	3	75
TE7761	0707220407	Unsupervised Learning Lab	PC		0	0	2	10	15	0	0	1	25
TE7290	0707220408	Project Based Learning -I	PIS		0	0	4	50	0	0	0	2	50
TE7542	0707220409	Discrete Mathematics	BS		2	1	0	0	0	30	45	3	75
TEE7098	0707220410	Cyber Security	PC		2	0	0	0	0	50	0	2	50
TH4789	0707220411	Health and Wellness Module II	0		0	0	0	0	0	0	0	Mandat ory Non-Cr edit Course	0
				Total	16	1	12	105	45	275	150	23	575
		Generic Electiv	e Course	s Group (Choose Any One Co	ourse)							
T6184	0707220412	Basic German I	GS		2	0	0	0	0	50	0	2	50
T6186	0707220413	Basic French I	GE		2	0	0	0	0	50	0	2	50
T6188	0707220414	Basic Spanish I	GE		2	0	0	0	0	50	0	2	50
				Total Requir	ed Cr	edits	3	0	0	50	0	2	50
	Semester: 5												

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Catalog	Course	I COURSE LITIE INS		Specialization/ Area/	Sc	achir hem urs F	e	(Marks)				- Total	
Course Code	Code	Course Title	Nature	Department	•	eek)		Prac	ctical	The	ory	Credits	Total
Code					L	т	La b	CA	ESE	CA	ESE]	
			Gene	eric Core Courses									
T8000	0707220501	Service Learning	HS		0	0	8	100	0	0	0	4	100
F0003	0707220502	Flexi-Credit Course	PC		3	0	0	0	0	75	0	3	75
TE7753	0707220503	Deep Learning	PC		3	0	0	0	0	30	45	3	75
TE7754	0707220504	Deep Learning Lab	PC		3	0	0	10	15	0	0	1	25
TE7276	0707220505	Natural Language Processing	PC		3	0	0	0	0	30	45	3	75
TE7277	0707220506	Natural Language Processing Lab	PC		0	0	2	10	15	0	0	1	25
TE7663		Data Visualization Lab	PC		0	0	4	20	30	0	0	2	50
TE7483	0707220508	Applications and use cases of Machine Learning	PC		0	0	4	0	0	20	30	2	50
TEE7033	0707220509	Al Ethics	PC		1	0	0	0	0	25	0	1	25
TE7958	0707220510	Computer Networks	PC		3	0	0	0	0	30	45	3	75
				Total	16	0	18	140	60	210	165	23	575
		Open Elective	Courses	Group (Choose Any One Cou	ırse)								
TE7677	0707220511	Financial Mathematics	OE	Applied Science	3	0	0	0	0	30	45	3	75
TE7700	0707220512	Smart Materials	OE	Applied Science	3	0	0	0	0	30	45	3	75
TE7223	0707220513	Smart Urban Planning	OE	Civil Engineering	3	0	0	0	0	30	45	3	75
TE7240	0707220514	Water Resource Planning and Management	OE	Civil Engineering	3	0	0	0	0	30	45	3	75



Annexure A

Catalog	Course			Specialization/ Area/	Sc	achir hem urs F	e	E		nation Sc (Marks)	heme	- Total	
Course Code	Code	Course Title	Nature	Department	•	(eek)		Prac	ctical	The	ory	Credits	Total
Jour					L	Т	La b	CA	ESE	CA	ESE		
T7499	0707220515	Java	OE	Computer Science and Engineering	3	0	0	0	0	30	45	3	75
TE7750	0707220516	Web Application Development	OE	Computer Science and Engineering	3	0	0	0	0	30	45	3	75
TEE7018	0707220517	Engineering Simulation and Modeling Tools	OE	Electronics & Tele-communication Engineering	3	0	0	0	0	30	45	3	75
TE7428	0707220518	Introduction to Image Processing	OE	Electronics & Tele-communication Engineering	3	0	0	0	0	30	45	3	75
TE7810	10707770319	Industrial Revolution and Introduction of Industry 5.0	OE	Mechanical Engineering	3	0	0	0	0	30	45	3	75
T7650	0707220520	Six sigma	OE	Mechanical Engineering	3	0	0	0	0	30	45	3	75
				Total Requir	ed Cr	edits	3	0	0	30	45	3	75
				Semester : 6									
	,			eric Core Courses							1		,
TE7484		Computer Vision	PC		3	0	0	0	0	30	45	3	75
TE7485		Computer Vision Lab	PC		0	0	2	10	15	0	0	1	25
TE7565		Reinforcement Learning	PC		3	0	0	0	0	30	45	3	75
TE7496	0707220604	Reinforcement Learning Lab	PC		0	0	2	10	15	0	0	1	25
T7802	0707220605	Capstone Course	PC		2	0	0	0	0	50	0	2	50

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Annexure A

Catalog	Course	Course	Specialization/ A		Teaching Scheme (Hours Per			E		nation Sc (Marks)	heme	Total	
Course Code	Course	Course Title	Nature	Department		eek)		Prac	ctical	The	eory	Credits	Total
Code					L	Т	La b	CA	ESE	CA	ESE		
TE7291	0707220606	Project Based Learning-II	PIS		0	0	4	50	0	0	0	2	50
				Total	8	0	8	70	30	110	90	12	300
		Generic Electiv	e Courses	Group - I (Choose Any One C	ourse	·)							
TE7490	0707220607	Generative Adversarial Networks	PE		3	0	0	0	0	30	45	3	75
TE7261	0707220608	Internet of Things	PE		3	0	0	0	0	30	45	3	75
TEE7031	0707220609	Optimization Techniques for Machine Learning	PE		3	0	0	0	0	30	45	3	75
				Total Requir	ed Cr	edits	3	0	0	30	45	3	75
		Generic Elective	e Courses	Group - II (Choose Any One C	ourse)					•		
TE7491	0707220610	Generative Adversarial Networks Lab	PE		0	0	2	10	15	0	0	1	25
TE7262	0707220611	Internet of Things Lab	PE		0	0	2	10	15	0	0	1	25
TEE7032	0707220612	Optimization Techniques for Machine Learning Lab	PE		0	0	2	10	15	0	0	1	25
				Total Requir	ed Cr	edits	3	10	15	0	0	1	25
		Generic Elective	Courses	Group - III (Choose Any One (Cours	e)							
TE7562	0707220613	Speech Systems	PE		3	0	0	0	0	30	45	3	75
TE7943	0707220614	Full Stack Development	PE		3	0	0	0	0	30	45	3	75
TE7536	0707220615	Embedded Al	PE		3	0	0	0	0	30	45	3	75
				Total Requir	ed Cr	edits	3	0	0	30	45	3	75



Annexure A

Catalog	Course			Specialization/ Area/		ichin hem urs F	e	E		ation Sc (Marks)	heme	- Total	
Course Code	Code	Course Title	Nature	Department		eek)		Prac	ctical	The	ory	Credits	Total
Code					L	Т	La b	CA	ESE	CA	ESE		
		Generic Elective C	Courses	Group - IV (Choose Any One O	Cours	e)							
TE7563	0707220616	Speech Systems Lab	PE		0	0	2	10	15	0	0	1	25
TE7942	0707220617	Full Stack Development Lab	PE		0	0	2	10	15	0	0	1	25
TE7535	0707220618	Embedded Al Lab	PE		0	0	2	10	15	0	0	1	25
				Total Requir	ed Cr	edits	3	10	15	0	0	1	25
		Generic Elective (Courses	Group - V (Choose Any One C	Cours	e)							
T2585	0707220619	Organizational Behaviour	GE		0	0	2	0	0	50	0	2	50
TE7438	0707220620	History of Science and Technology	GE		2	0	0	0	0	50	0	2	50
				Total Requir	ed Cr	edits	3	0	0	50	0	2	50
		Open Elective	Courses	s Group (Choose Any One Cou	ırse)								
TE7698	0707220621	Nanotechnology	OE	Applied Science	2	0	0	0	0	30	45	3	75
TE7676	10/0/220022	Executive Corporate Communication For Impact	OE	Applied Science	3	0	0	0	0	30	45	3	75
TE7195	0707220623	GIS Applications	OE	Civil Engineering	3	0	0	0	0	30	45	3	75
TE7203	0707220624	Intelligent Transportation Management	OE	Civil Engineering	3	0	0	0	0	30	45	3	75
TE7297	0707220625	Software Testing Tools	OE	Computer Science and Engineering	3	0	0	0	0	30	45	3	75
TE7756	0707220626	Open Source Technologies	OE	Computer Science and Engineering	3	0	0	0	0	30	45	3	75



Annexure A

Catalog	Course			Specialization/ Area/		chir hem urs F	e	E		ation Sc (Marks)	heme	Total	
Course Code	Code	Course Title	Nature	Department		eek)		Prac	ctical	The	eory	Credits	75 75 75 75 75 75 25 75 25 300
Code					L	Т	La b	CA	ESE	CA	ESE		
T7584	0707220627	Printed Circuit Board (PCB) Design	OE	Electronics & Tele-communication Engineering	3	0	0	0	0	30	45	3	75
TE7334	0707220628	Introduction to Mechatronics	OE	Electronics & Tele-communication Engineering	3	0	0	0	0	30	45	3	75
TE7804	0707220629	Design Optimization Techniques	OE	Mechanical Engineering	3	0	0	0	0	30	45	3	75
TE7351	0707220630	3D Printing and Prototyping	OE	Mechanical Engineering	3	0	0	0	0	30	45	3	75
T6725	0707220631	Time Series Analysis	OE	Artificial Intelligence and Machine Learning	3	0	0	0	0	30	45	3	75
				Total Requi	ired Cr	edit	S	0	0	30	45	3	75
				Semester : 7									
			Gene	eric Core Courses									
T7804	0707220701	B.Tech Project	PIS		0	0	8	40	60	0	0	4	100
TE7493	0707220702	Multimodal Al	PC		3	0	0	0	0	30	45	3	75
TE7494	0707220703	Multimodal Al Lab	PC		0	0	2	10	15	0	0	1	25
TE7552	0707220704	Big Data Analytics	PC		3	0	0	0	0	30	45	3	75
TE7554		Big Data Analytics Lab	PC		0	0	2	10	15	0	0	1	25
				Total	6	0	12	60	90	60	90	12	300
		Generic Elec	tive Courses	s Group- I (Choose Any One (Course)						_	



Annexure A

Catalog	Course			Specialization/ Area/	Sc	chir hem urs F	e	E		ation Sc (Marks)	heme	- Total	
Course Code	Code	Course Title	Nature	Department		eek)		Prac	ctical	The	ory	Credits	Total
Code					L	Т	La b	СА	ESE	CA	ESE		
TE7534	0707220706	Healthcare informatics	PE		3	0	0	0	0	30	45	3	75
TEE7094	0707220707	Graph Neural Networks	PE		3	0	0	0	0	30	45	3	75
TE7551	0707220708	Block chain Technologies	PE		3	0	0	0	0	30	45	3	75
				Total Requir	ed Cr	edits	5	0	0	30	45	3	75
		Generic Elective	Courses	Group- II (Choose Any One C	ourse))							
TE7564	0707220709	AI in Wireless Communications	PE		3	0	0	0	0	30	45	3	75
TE7497	0707220710	Responsible Al	PE		3	0	0	0	0	30	45	3	75
TE7941	0707220711	MLOps	PE		3	0	0	0	0	30	45	3	75
				Total Requir	ed Cr	edits	3	0	0	30	45	3	75
		Generic Elective	Courses	Group- III (Choose Any One C	ours	e)						_	
TE7561	0707220712	AI in Wireless Communications Lab	PE		0	0	2	10	15	0	0	1	25
TE7498		Responsible AI Lab	PE		0	0	2	10	15	0	0	1	25
TE7940	0707220714	MLOps Lab	PE		0	0	2	10	15	0	0	1	25
Total Required Credits 10 15 0							0	1	25				
			Courses	Group- IV (Choose Any One C	Cours	e)						_	
TE7560		Robotic Process Automation	PE		3	0	0	0	0	30	45	3	75
TE7532	0707220716	Smart Society	PE		3	0	0	0	0	30	45	3	75
TE7533	0707220717	Al for Banking and Finance	PE		3	0	0	0	0	30	45	3	75



Annexure A

Catalog	Course			Specialization/ Area/	Teaching Scheme (Hours Per			Examination Scheme (Marks)			• =		- Total	
Course Code	Code	Course Title	Nature	Department		/eek)		Prac	ctical	The	ory	Credits	Total	
Jour					L	Т	La b	СА	ESE	CA	ESE]		
				Total Requir	ed Cr	edit	s	0	0	30	45	3	75	
				Semester : 8										
			Gene	eric Core Courses										
T7912	0707220801	Internship	PIS		0	0	24	120	180	0	0	12	300	
T7802	0707220802	Seminar	PIS		0	0	4	20	30	0	0	2	50	
				Total	0	0	28	140	210	0	0	14	350	

Abbreviations (Nature)

- BS Basic Sciences
- ES Engineering Sciences
- HS Humanities and Social Sciences
- OE Open Electives
- PC Professional Core
- PE Professional Elective
- PIS Project, Internship, Seminar
- PD Professional Development Course
- MC Mandatory Course
- L Lecture
- T TutorialCA Continuous Assessment
- ESE End Semester Examination
- GE Generic Elective



Semester	Continuous Assessment	Term End Examination	Total Credits	Total Marks
	1	Common		
Semester 1	4	14	18	450
Semester 2	2	17	19	475
Semester 3	7	14	21	525
Semester 4	12	13	25	625
Semester 5	8	18	26	650
Semester 6	6	19	25	625
Semester 7	0	22	22	550
Semester 8	0	14	14	350
Total	39	131	170	4250

