

Faculty of Engineering and Technology

Program Name: -Bachelor of Technology (Artificial Intelligence and Data Science)

Program Code: ET108

Semester :- I

With Effect from: 2023-24

Course code	Course Name	Course Type	Credit	Hours per Week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	SEE		CCA		SEE		CCA		
								Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
2ET1000101T	Engineering Mathematics-I with Computing Tools	BSC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1000101P	Engineering Mathematics-I with Computing Tools Practical	BSC	1	0	-	2	2	-	-	-	-	10	25	10	25	50
2ET1000103T	Applied Physics	BSC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1000103P	Applied Physics Practical	BSC	1	0	-	2	2	-	-	-	-	10	25	10	25	50
2ET1000106T	Elements of Civil and Mechanical Engineering	ESC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1000106P	Elements of Civil and Mechanical Engineering Practical	ESC	1	0	-	2	2	-	-	-	-	10	25	10	25	50
2ET1000107T	Problem Solving with Computational Thinking	ESC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1000107P	Problem Solving with Computational Thinking Practical	ESC	1	0	-	2	2	-	-	-	-	10	25	10	25	50
2ET1000108T	Engineering Graphics and Design	ESC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1000108P	Engineering Graphics and Design Practical	ESC	1	0	-	2	2	-	-	-	-	10	25	10	25	50
2ET1000112P	IT workshop	PCC/ESC	1	0	-	2	2	-	-	-	-	10	25	10	25	50
2ET1000116P	Yoga and Spirituality*		-	-	-	2	2	-	-	-	-	-	-	-	-	-
	Total		21	15	0	14	29	120	300	80	200	60	150	60	150	800

L=Lecture, T=Tutorial, P=Practical

Note (if any):- * Subject is Non-Credit

Faculty of Engineering and Technology

Program Name: - Bachelor of Technology (Artificial Intelligence and Data Science)

Program Code: ET108

Semester:- II

With Effect from : 2023-24

Course code	Course Name	Course Type	Credit	Hours per Week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	SEE		CCA		SEE		CCA		
								Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
2ET1000102T	Engineering Mathematics-II with Computing Tools	BSC	3	3	-		3	24	60	16	40	-	-	-	-	100
2ET1000102P	Engineering Mathematics-II with Computing Tools Practical	BSC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1000105T	Communication Skill	HSMC	2	2	-		2	24	60	16	40	-	-	-	-	100
2ET1000105P	Communication Skill Practical	HSMC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1000109T	Elements of Electrical and Electronics Engineering	ESC	3	3	-		3	24	60	16	40	-	-	-	-	100
2ET1000109P	Elements of Electrical and Electronics Engineering Practical	ESC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1000110T	Python Programming	PCC	3	3	0		3	24	60	16	40	-	-	-	-	100
2ET1000110P	Python Programming Practical	PCC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1000111T	Universal Human Value - II : Understanding Harmony and Ethical Human Conduct	HSMC	3	3	0	-	3	24	60	16	40	-	-	-	-	100
2ET1000115P	Manufacturing Practice Workshop	ESC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1000117T	Environmental Studies*		-	2	-	-	2	-	-	-	-	-	-	-	-	
Total			19	16	0	10	26	120	300	80	200	50	125	50	125	750

L=Lecture, T=Tutorial, P=Practical

Note (if any):- * Subject is Non-Credit

BSC = Basic Science Course

PCC = Professional Core Course

SEE = Semester End Evaluation

ESC = Engineering Science Course

HSMC= Humanities & Social Science including Mangament Course

CCA = Continuous & Comprehensive Assessment

Faculty of Engineering and Technology

Program Name: - Bachelor of Technology (Artificial Intelligence and Data Science)

Program Code: ET108

Semester :- III

With Effect from: 2023-24

Course code	Course Name	Course Type	Credit	Hours per week				Theory (Marks)				Practical(Marks)				Total (Marks)
				L	T	P	Total	SEE		CCA		SEE		CCA		
								Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
2ET1000301T	Discrete Mathematics	BSC	4	3	1	-	4	24	60	16	40	-	-	-	-	100
2ET1030301T	Digital Electronics	ESC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1030301P	Digital Electronics Practical	ESC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1030303T	Database Management Systems	PCC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1030303P	Database Management Systems Practical	PCC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1080301T	Data Structures and Algorithm with Python	PCC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1080301P	Data Structures and Algorithm with Python Practical	PCC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1080302T	Introduction to Artificial Intelligence and Machine Learning	ESC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1080302P	Introduction to Artificial Intelligence and Machine Learning Practical	ESC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1000302P	Design Thinking	HSMC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1000303T	Indian Constitution	MC	-	1	-	-	1	-	-	-	-	-	-	-	-	-
	Total		21	16	1	10	27									750

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Note (if any):- ESC: Engineering Science Course; PCC: Professional Core Course; HSSC: Humanities and Social Sciences; MC: Mandatory Course

Faculty of Engineering and Technology

Program Name: - Bachelor of Technology (Artificial Intelligence and Data Science)

Program Code: ET108

Semester:- IV

With Effect from: 2023-24

Course code	Course Name	Course Type	Credit	Hours per week				Theory (Marks)				Practical(Marks)				Total (Marks)
				L	T	P	Total	SEE		CCA		SEE		CCA		
								Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
2ET1030402T	Operating System	PCC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1030402P	Operating System Practical	PCC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1080401T	Data Science for Engineers	ESC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1080402T	Fundamentals of Internet of Things	PCC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1080402P	Fundamentals of Internet of Things Practical	PCC	1		-	2	2	-	-	-	-	10	25	10	25	50
2ET1080403T	Software Engineering & Project Management	ESC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1080404T	Advanced Machine Learning	PCC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1080404P	Advanced Machine Learning Practical	PCC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1080405T	Probability and Statistics	HSCC	4	3	1	-	4	24	60	16	40	-	-	-	-	100
2ET1000402T	Integrated Personality Development Course-I	MCC	-	2	-	-	2	-	-	-	-	-	-	-	-	-
	Total		22	20	1	6	27									750

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Faculty of Engineering and Technology

Program Name: - Bachelor of Technology (Artificial Intelligence and Data Science)

Program Code: ET108

Semester:- V

Effect from Academic Year: 2023-24

Course code	Course Name	Course Type	Credit	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	SEE		CCA		SEE		CCA		
								Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
2ET1080501T	Data Visualization and Modelling	PCC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1080501P	Data Visualization and Modelling Practical	PCC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1080502T	R Programming for Data Science	PCC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1080502P	R Programming for Data Science Practical	PCC	1		-	2	2	-	-	-	-	10	25	10	25	50
	Professional Elective - I	PEC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
	Professional Elective - II	PEC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
	Management Elective -I	HSSC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1070506T	Theory of Computation	PCC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1000503T	Integrated Personality Development Course-II	MCC	-	2	-	-	2	-	-	-	-	-	-	-	-	-
	Total		20	20	0	4	24									700

Professional Elective - I	
2ET1080503T	Design and Analysis of Algorithm
2ET1080504T	Data and Internet Security

Management Elective -I	
2ET1000501T	Industrial Psychology
2ET1000502T	Project Management

Professional Elective - II	
2ET1080505T	Optimization Algorithms
2ET1080506T	Blockchain and Its Applications

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Program Name:-Bachelor of Technology (Artificial Intelligence and Data Science)

Program Code: ET108

Semester:-VI

Effect from Academic Year: 2023-24

Course code	Course Name	Course Type	Credit	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	SEE		CCA		SEE		CCA		
								Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
2ET1080601T	Deep Learning with Neural Network	PCC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1080601P	Deep Learning with Neural Network Practical	PCC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1080602T	Computer Vision and Image Processing	PCC	3	3	-		3	24	60	16	40	-	-	-	-	100
2ET1080602P	Computer Vision and Image Processing Practical	PCC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
2ET1080603T	Information Retrieval	PCC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1080603P	Information Retrieval Practical	PCC	1	-	-	2	2	-	-	-	-	10	25	10	25	50
	Professional Elective-III	PEC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
	Open Elective-I	OEC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
2ET1000601P	Engineering Project-I	PROJ	2	-	-	4	4	-	-	-	-	10	25	10	25	50
	Management Elective-II	HSSC	3	3	-	-	3	24	60	16	40	-	-	-	-	100
	Total		23	18	-	10	28									800

Professional Elective-III

2ET1080604T	Computer Network and Internet Protocol
2ET1080605T	Cloud and Fog Computing

Management Elective-II

2ET1000602T	Operation Research
2ET1000603T	Finance and Accounting

Open Elective-I

Course Code	Course Name	Subject Offered By
2ET1010681T	Fundamentals of Robotics	Mechanical Engineering
2ET1060681T	Disaster Management	Civil Engineering
2ET1090681T	Electrical & Hybrid Vehicles	Electrical Engineering
2ET1030681T	Cryptography and Computer Security	Computer Engineering/Information Technology
2ET1080681T	Artificial Intelligence and Machine Learning	Artificial Intelligence and Data Science
2ET1070681T	Wireless Communication	Information Communication Technology

L=Lecture, T=Tutorial, P=Practical

Note (if any) :-PCC: Professional Core Course; PROJ-Project

SEE=Semester End Evaluation

CCA=Continuous & Comprehensive Assessment



Faculty of Engineering and Technology

Program Name: -Bachelor of Technology (Artificial Intelligence and Data Science)
Semester: - VII

Program Code: ET108
Effect from Academic Year: 2023-24

Course code	Course Name	Course Type	Credit	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	SEE		CCA		SEE		CCA		
								Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
2ET1080701T	NoSQL Database	PCC	3	3	-		3	24	60	16	40	-	-	-	-	100
2ET1080701P	NoSQL Database Practical	PCC	1			2	2	-	-	-	-	10	25	10	25	50
2ET1080702T	Distributed Computing and Big Data Analytics	PCC	3	3	-		3	24	60	16	40	-	-	-	-	100
2ET1080702P	Distributed Computing and Big Data Analytics Practical	PCC	1			2	2	-	-	-	-	10	25	10	25	50
	Professional Elective- IV	PEC	3	3	-		3	24	60	16	40	-	-	-	-	100
	Professional Elective-IV Practical	PEC	1			2	2	-	-	-	-	10	25	10	25	50
	Open Elective- II	OEC	3	3	-	0	3	24	60	16	40	-	-	-	-	100
2ET1000701P	Engineering Project-II	PROJ	6	-	-	12	12	-	-	-	-	30	75	30	75	150
	Total		21	12	0	18	30									700

Professional Elective-IV	
2ET1080703T	Natural Language Processing
2ET1080704T	Reinforcement Learning & It's Application

Professional Elective-IV Practical	
2ET1080703P	Natural Language Processing Practical
2ET1080704P	Reinforcement Learning & It's Application Practical

Open Elective-II

Course Code	Course Name	Subject Offered By
2ET1010781T	Quality Management	Mechanical Engineering
2ET1060781T	Waste Management	Civil Engineering
2ET1090781T	Wind and Solar Energy Systems	Electrical Engineering
2ET1030781T	Data Handling and Visualization	Computer Engineering/ Information Technology
2ET1080781T	Deep Learning	Artificial Intelligence and Data Science
2ET1070781T	Industrial IoT	Information Communication Technology
2ET1030782T	Startup and Innovation Management	Computer Engineering/ Information Technology

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Faculty of Engineering and Technology

Program Name: -Bachelor of Technology (Artificial Intelligence and Data Science)
Semester: -VIII

Program Code: ET108
Effect from Academic Year: 2023-24

Course code	Course Name	Course Type	Credit	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	SEE		CCA		SEE		CCA		
								Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
	Open Elective–III	OEC	3	3	-	-	3	24	60	16	40	-	-		-	100
2ET1000801P	Engineering Project-III: Internship/ Project	PROJ	14	-	-	28	28	-	-	-	-	70	175	70	175	350
	Total		17	3	-	28	31									450

Open Elective-III

Course Code	Course Name	Subject Offered By
2ET1010881T	Optimization Methods in Engineering	Mechanical Engineering
2ET1060881T	Smart Cities	Civil Engineering
2ET1090881T	Energy Conservation and Audit	Electrical Engineering
2ET1030881T	Blockchain Technology	Computer Engineering/ Information Technology
2ET1080881T	Speech Processing	Artificial Intelligence and Data Science
2ET1070881T	Cloud Computing	Information Communication Technology

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