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School of Ai and Future Technologies, Karjat, Mumbai

School of AI & Future Technologies

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Student Engagement Activities

- **Environment club**- 2 groups participated
- **Enactus** quiz-- Ms.Tanvi & Mr.Radhe
- **ELC** -2 groups participated
- **UIC**-Think a thon – 5 groups participated
- **Robotics club-** Hackathon -6 groups
- Engineers day- Poster /slogan/logo making competition
- Teachers day- B.tech students participated
- Professional Ethics – Industry sessions(4 hours)
- **Need for code 3.0**-organized by **Thadomal Shahani Eng.College**, **Mumbai**- External Hackathon event participated.
- Completed online course on AIML for Geodata analysis by **ISRO**

Student Engagement Activities

- Rush for Rush- Ms.Jiya &Mr.Radhey
- Olympics- Ms.Anuva
- Research Conference Paper presented–Mr.Radhey
- Gratitude Day –Mr.Ishaan &Radhey
- Speech of the year- Mr.Radhey
- SDG- Plogging Event-Enactus- Radhey,Amman,Ishaan
- Robotics club- Quiz/ Ai event
- Creating a catalyst- Anuva,Jiya,Rohit,Ishaan
- Marketing event- Ishaan,Radhey

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Student Engagement Activities

- Cyber Security workshop attended-Mukesh Patel University, (4 students)
- Participated in external Sports-5 students
- Case study Publication- ABDC journal (Sanjeev,Mrudula,Loukya,Soniya,Suryansh,Ratanadeep)
- Surya Teja- AR and VR Hackathon ,IIT Madras. External event won
- Hackathon Need for code 3.0 event,Tadomal Shahani Engineering college on 29th & 30th August participated- Arryan Jain.
- SMART project completed
- Parent teacher meeting conducted.

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Experiential Learning &Event participation

- **B.Tech Sem I & III Induction and Orientation completed (5 days)**
- **Mental Health and Well-being in Tech Workshop conducted by Dr.Rekha Wagani (2 hours)**
- **Industry Guest Lecture (Mr. Dev Bhattacharya, Group Executive President of the Aditya Birla Group)- Overcoming Challenges in Entrepreneurship: Strategies for Success in Life with Joy.**
- **USET Exam completed**
- **Internal Hackthon for Smart India Hackton -2024 conducted (3 hours)**

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Experiential Learning

- **Industrial Visit 2 Industries:Thane**
- **Statistical Discovery using JMP-Hands-on Workshop(4 hours)**
- **Architecture of the AMBERNATH SHIV TEMPLE (Indian knowledge system)-Experiential learning(1 day)**
- **National Science Day Celebration 2024 (4 hours)**
- **Sustainable Development Goals Workshop(2 :30 hours)**
- **Pre-Conference Workshop: AI Tools in Scientific Writing and Publication** (4 hours)
- **ScyllaDB-Community Learning(4 hours)**

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Experiential Learning

- Industrial Visit 2 Industries:Thane(1 day)
- SSNatu & PCP Chemicals Pvt Ltd.(51 students)
- Industrial Visit Industries: Pune(1 day)
- Kalyani Maxion Wheels Pvt Ltd. Chakan MIDC Pune (51 students)
- PCP Chemicals CEO Guest lecture Session in Industry.(Ai in Manufacturing)-1 hour session
- Prof.Kale from Bangalore, Presidency college- Guest lecture on IOT and its applications.
- Design thinking Guest lecture by Dr. Manoj Singh Pro Vice Chancellor,UAi.
- Constitution day lecture by Prof. Anand Ambdekar.4 hours
- IOCT & IT Workshop Course-Project models Exhibition done.
- Self learning-101 students completed 6 certifications.
- SMART project completed-Sem 1&3 learners-6 days
- HCL Tech Career Shaper - Mr. Pratapaditya Chakravarty (HCL's Global Director) & Mr. Devendra Jaiswar (HCL Tech- Manager)

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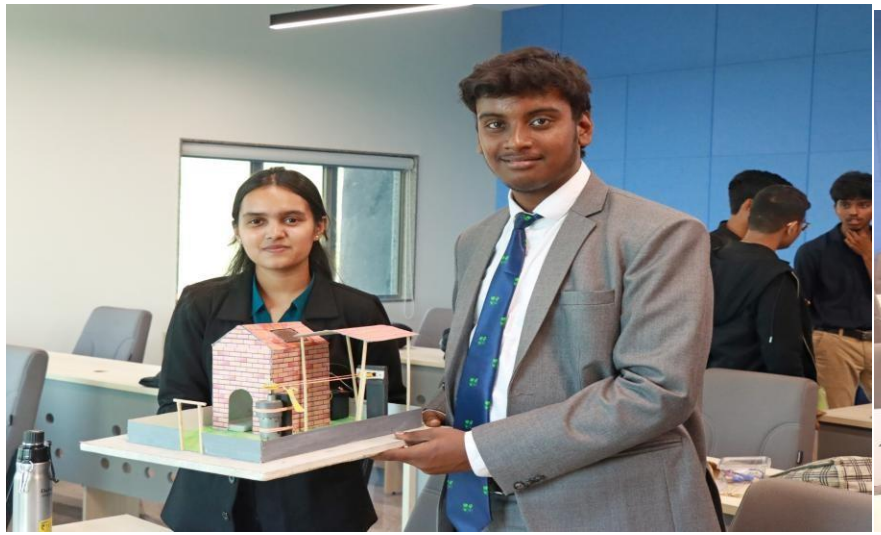
IOCT / IOT Workshop Experiential Learning



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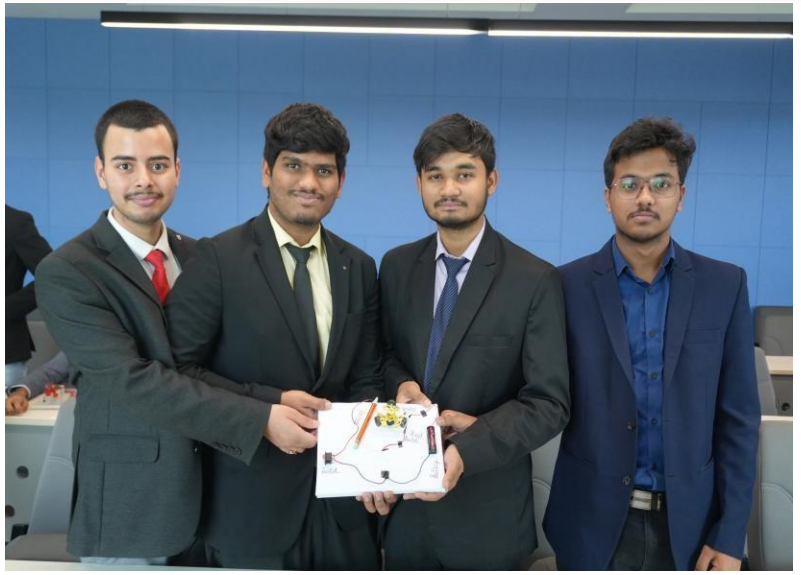
IOCT / IOT Workshop Experiential Learning – Project Titles

IOT Project Titles

1. Arduino-based obstacle avoiding robot.
2. Gas Leak Detection and alert system using MQ2 sensor and Arduino.
3. Alcohol Detector using Arduino and MQ3 sensor-based application.
4. Detects rain and triggers an alarm/notification.
5. Bluetooth controller appliances.
6. Fire & smoke Alarm System Using Arduino.
7. Line Follower using servo ISFD and ultrasonic sensor.
8. Automatic plant watering system.
9. Radar System.
10. Auto Braking System.
11. Parking gate system.
12. Arduino trash - BOT (auto-open/close trash bin).
13. Automatic Arduino trash box (waste segregation).

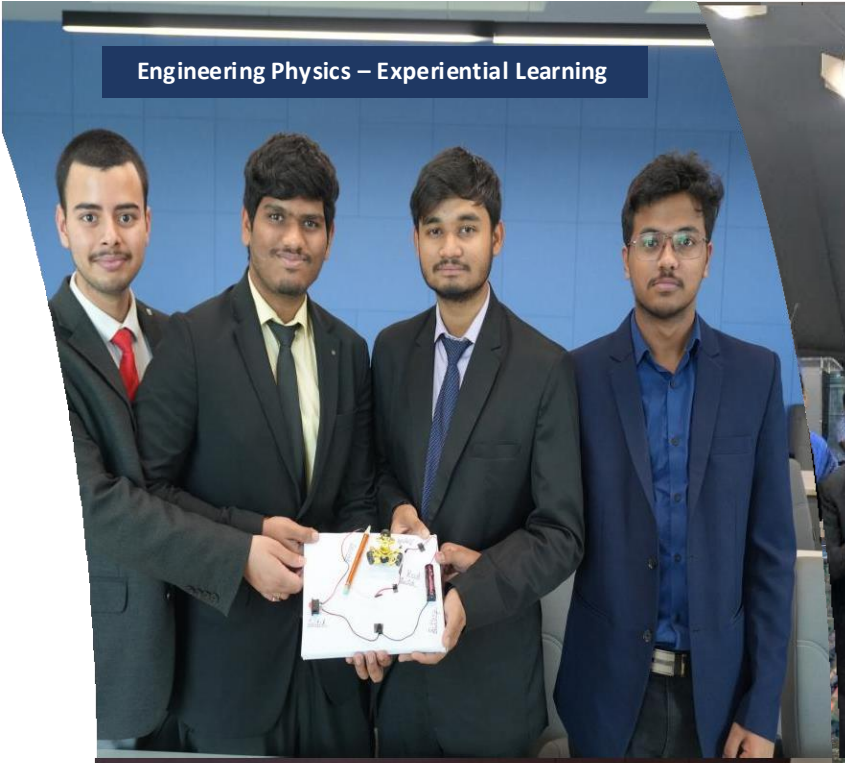
Engineering Physics – Experiential Learning



Engineering Physics, Experiential Learning – Project Topics

- Tesla Coil
- Soal Car
- Magnetic Levitation
- LIFI project
- Solar Tracking System
- Quantum Entanglement
- Foot step power generator
- Wireless power transmission with help of mutual induction

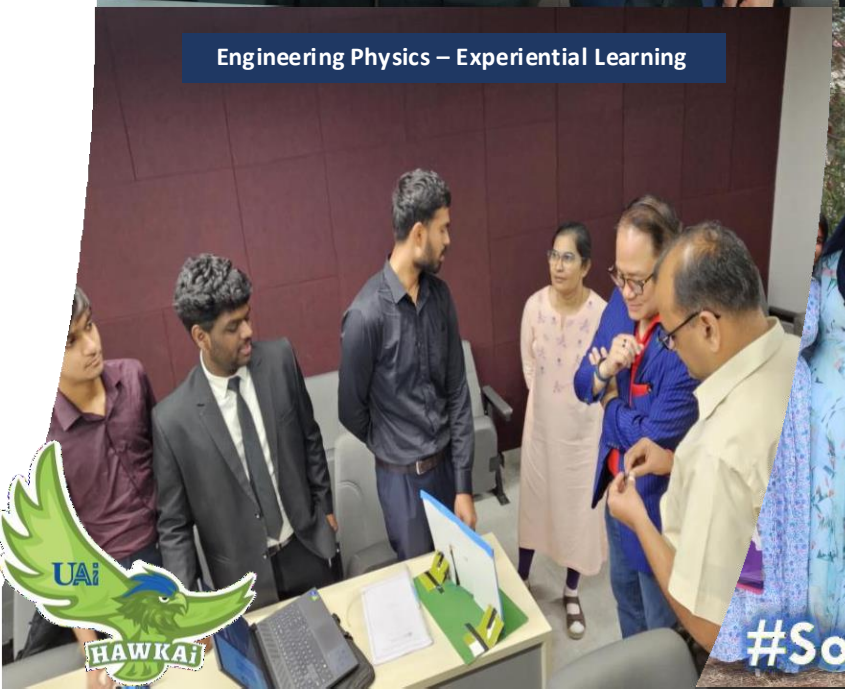
Engineering Physics – Experiential Learning



Hackathon

International Faculty Visit

Engineering Physics – Experiential Learning



Student Activities – Kite Flying

Student Activities – Olympics

UAi HAWKAi

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Workshops

- **MERN online workshop was conducted for a week.** MERN is an acronym for the four technologies that form the stack: **MongoDB, Express, React, and Node. js**. Developers recognize the MERN stack as a simplified development platform for building highly scalable and interactive web applications.
- **R programming two days workshops was conducted by Dr Puneet Kumar and Dr Kavita Venkatachari.**
- **A half day MongoDB workshop was conducted by Geust lecturer, Sumit Koli.** Classified as a NoSQL database product, MongoDB is a source-available, cross-platform, document-oriented database program.
- **A half day Flutter workshop was conducted by Geust lecturer, Prashant Dalai.**
  Flutter is an open-source UI software development kit created by Google.

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Students Activities - Hackathons

- Students participated in the LIVE AI Hackathon organised by Duke & Harvard University, from Saturday (22 Feb 2025, 6:30 A.M.) to Sunday (23 Feb 2025, 10:30 P.M.)
- Participation and Achievement in Startup Strategy Ideathon at K J Somaiya Engineering College - secured 4th position
- Students attended Mumbai Tech Festival. Mumbai tech fest is an annual event where the biggest names in the tech industry display the newest products that they are working on.
- A **Flutter workshop** was conducted on **4th March** by **Prashant Dalai**, a Flutter developer at a startup, followed by a **MongoDB workshop** on the same day, led by **Sumit Koli**, an employee at Wipro.
- An international guest speaker, **Mr. Luis Miguel Silva** from **Portugal**, who delivered a talk on the **"Global Impact of AI."**
- **Mr. Surya Teja** participated in the **XR Creator "Create in India" Challenge - Season 1**, organized by the **Ministry of Information & Broadcasting, Government of India**.
- Our **BTech first-year learners** achieved global recognition at the **Live AI Ivy Plus 2025** competition, organized by **Harvard College Open Data Project, Duke Applied Machine Learning, UAI, and Tech Tree Root**. The team secured **two medals—Silver and Bronze—on the global stage, with six learners emerging victorious**.
- On **7th March**, the **AI Odyssey 1.0** event, organized by the **School of AI & Future Technologies**, witnessed **nearly 100 participants**, including **over 85 external students** from various engineering colleges across **Mumbai and Navi Mumbai and our own university students too participated**. The event was evaluated by **two external judges** from engineering institutions. (Dr Divya and Dr Jyoti)

About Ai Odyssey Hackathon 1.0

School Universal Ai & Future Technologies, Universal Ai University, Karjat organized the flagship one day **National-Level Hackathon** on **7th March 2025 from 9:00 AM- 5:00 PM.** This thrilling event brought together young innovators and developers from across the country.

Dr. Divya Rohtagi and Dr. Jyoti Deshmukh were the Judges who evaluated each project. They were from Bharati Vidyapeeth college of engineering, Navi Mumbai.

Almost 90 students from external colleges whereas around 25 from UAi participated in the Hackathon. This event was very well organized by our 29 B.Tech students.

Winners were,

First Prize - SIES Graduate School of Technology, Nerul

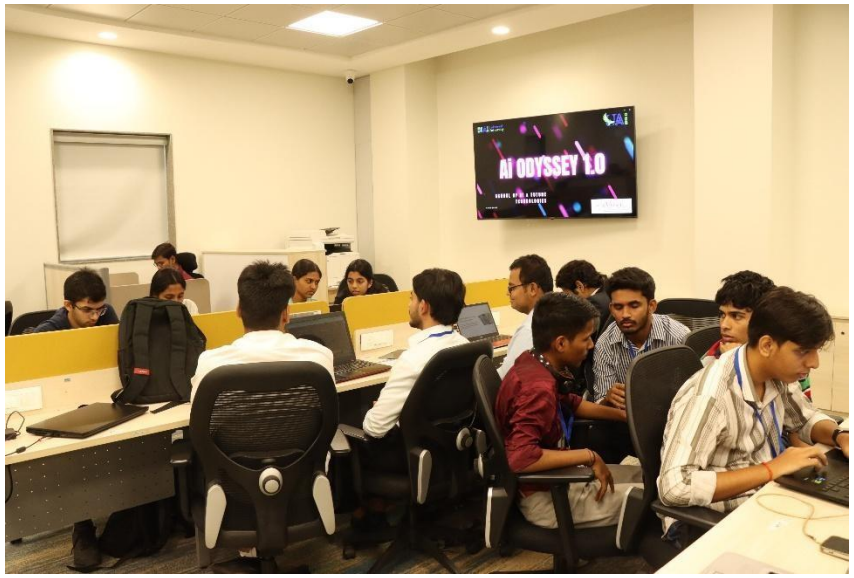
Second Prize - Saraswati College of Engineering, Kharghar

This event helped to foster creativity, teamwork, and problem-solving skills in a high-energy environment.

7th March 2025 Ai Odyssey Hackathon

Judge 1 - Dr. Jyoti Deshmukh

Winners



Judge 2 - Dr. Divya Rohtagi

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Guest Lectures:

- SDG lecture conducted by **Dr. Meena Sharma**
- SDG lecture conducted by **Prof. Ellora**
- Lecture conducted by **Prof. Pushkraj Deshpande** on effective communication.
- Prof. Prakash Pandit evaluated SDG presentations for End Term.
- JAVA programming full day sessions conducted on by Vikram R. Patalbansi on 15th March

- **Overcoming Challenges in Entrepreneurship: Strategies for Success in Life with Joy : Mr. Dev Bhattacharya, Group Executive President, Aditya Birla Group**

- **Design Thinking and Innovation** : Dr. Manoj Singh

- **HCLTech Career Shaper:** Mr. Pratapaditya Chakravarty, Global Director at HCLTech, and Mr. Devendra Jaiswar, Manager at HCLTech.

#SoarHigh #SoarFar #SoarFast #SoarStrong

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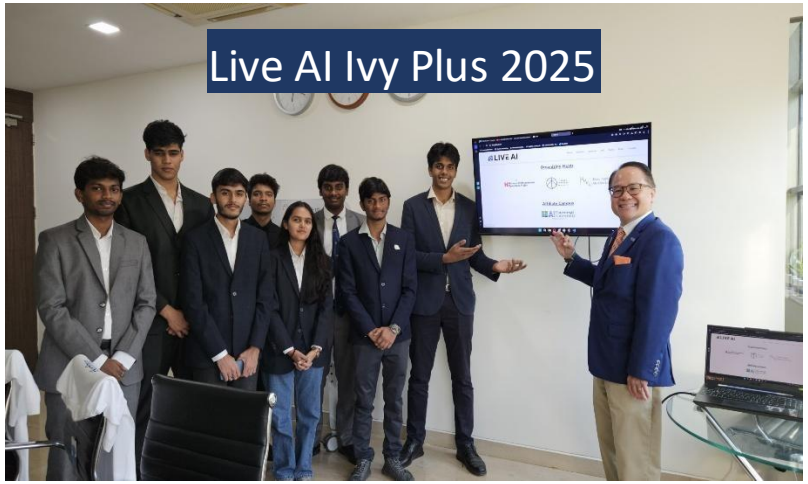
Hackathon & International Faculty Visit



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3 MONTH SUMMER INTERNSHIP (BATCH 1 2023-27)

Total Students: 18

- B.Tech AIML (First Year): 12
- B.Tech AIML (Direct Second Year): 06

Internship Status:

Placed: 18

Summar project:

- **PHP**: 13 sessions
- **R Programming**: 8 sessions

	Count	Company Names
International Internship	1	• SANSSION: 01
Domestic Internship	17	• HighPeak Software: 02 • Abans Group: 06 • Univitt: 02 • TechAvidus: 01 • SSS Patna: 01 • Consultancy project:02 • project:01 • encosym solutions:02

Course Curriculum- 2025-2029

Semester I										
Sr. No.	Name of Course	Type	AICTE Type	NEP Type	Total Hrs.			Contact Hrs.	Credits	Marks
					L	T	P			
1	Engineering chemistry	KL	BS	DSC(Minor)	2	0	0	2	2	100
2	Statistics & Probability (With R Programming)	KL	ES	DSC(Minor)	4	0	0	4	4	100
3	Engineering physics	KL	BS	DSC(Minor)	2	0	0	2	2	100
4	Applied Sciencs Lab	LW	BS	DSC(Minor)	0	0	2	2	1	100
5	Problem Solving and Programming	KL	ES	DSC(Major)	3	0	0	3	3	100
6	Problem Solving and Programming Lab	LW	ES	DSC(Major)	0	0	2	2	1	100
7	Fundamentals of Computer Science	KL	PC	DSC(Major)	3	0	0	3	3	100
8	Personality development & effective communication	SD	HS	SEC(Skill)	2	0	0	2	2	100
9	SMART Project + LDP	SD	AU	PROJ(Skill)	0	0	0	0	1	100
11	IOT Workshop	LW	ES	AEC(Ability)	0	0	2	2	1	100
12	Indian Constitution	SD	AU	MNG(ID)	(M)	(M)	(M)	0	0	0
	Total Credits:							22	**20**	1000

Semester II										
Sr. No.	Name of Course	Type	AICTE Type	NEP Type	Total Hrs.			Contact Hrs.	Credits	Marks
					L	T	P			
2	Introduction to SDG, Innovation & Entrepreneurship	GS	HS	AEC(Ability)	2	0	0	2	2	100
3	Statistics & Probability II (With R programming)	KL	ES	DSC(Major)	3	0	0	3	3	100
4	Database Management System with No SQL	KL	PC	DSC(Major)	3	0	0	3	3	100
5	Database Management System with No SQL Lab	LW	PC	DSC(Major)	0	0	2	2	1	100
6	Web Programming	KL	PC	DSC(Major)	1	0	4	5	3	100
7	Basic of python programming	LW	PC	DSC(Major)	0	0	4	4	2	100
9	Environmental Science	AT	AU	MNG(Value Added)	(M)	(M)	(M)	0	0	0
10	Computational Maths I	KL	BS	DSC(Minor)	3	0	0	3	3	100
11	Basics of Electrical & Electronics Engineering	KL	BS	DSC(Minor)	2	0	0	2	2	100
12	Basics of Electrical & Electronics Engineering Lab	LW	BS	DSC(Minor)	0	0	2	2	1	100
13	EDx Course / NPTEL	LW	Edx	MNG(Skill)	(M)	(M)	(M)	0	0	0
	Total Credits:							26	**20**	900

1	Basics of 3D printing	LW	PE	SEC(Skill)	3	0	2	5	4	100
2	Basics of Robotics and AI	LW	PE	SEC(Skill)	3	0	2	5	4	100

Course Curriculum- 2025-2029

Semester III										
Sr. No.	Name of Course	Type	AICTE Type	NEP Type	Total Hrs.			Contact Hrs.	Credits	Marks
					L	T	P			
1	Basics of Machine Learning	KL	PC	DSC(Major)	2	0	0	2	2	100
2	Basics of Machine Learning lab	LW	PC	DSC(Major)	0	0	2	2	1	100
3	Computational Maths II	KL	BS	DSC(Minor)	3	0	0	3	3	100
5	Discrete Mathematics	KL	PC	DSC(Major)	3	0	0	3	3	100
6	Design Thinking and Innovation idea lab	LW	HS	AEC(Ability)	0	0	2	2	1	50
7	Data Structures	KL	PC	DSC(Major)	3	0	0	3	3	100
8	Data Structures Lab	LW	PC	DSC(Major)	0	0	2	2	1	100
9	Universal Human Values & Soft skill development	SD	HS	VAC(Value Added)	1	0	0	1	1	50
10	Advanced Python Programming	LW	PC	DSC(Major)	2	0	2	4	3	100
11	Summer Project - 1	LW	PC	DSC(Major)	0	0	0	0	2	100
	Total Credits:							**22**	**20**	**900**

Semester IV										
Sr. No.	Name of Course	Type	AICTE Type	NEP Type	Total Hrs.			Contact Hrs.	Credits	Marks
					L	T	P			
1	Advance Data Science, AI & ML	KL	PC	DSC(Major)	2	0	0	2	2	100
2	Advance Data Science, AI & ML Lab	LW	PC	DSC(Major)	0	0	2	2	1	100
3	Data Integration and Processing	LW	PC	DSC(Major)	2	0	2	4	3	100
4	Elective - I	KL	PCE	DSE(Major)	2	0	0	2	2	100
5	Analysis of Algorithm	KL	PC	DSC(Major)	2	0	0	2	2	100
6	Computer Networks	KL	PC	DSC(Major)	3	0	0	3	3	100
7	Computer Networks Lab	LW	PC	DSC(Major)	0	0	2	2	1	100
8	Java Programming	LW	PC	DSC(Major)	2	0	0	2	2	100
9	Mini Project I	LW	EEC	PROJ(Ability)	0	0	2	2	1	100
10	AI for Sustainability & Ethics	SD	Edx	MNG(Skill)	3	0	0	3	3	0
	Total Credits:							**24**	**20**	**900**

Elective I (Sem IV)										
1	Theory of Computation	LW	PCE	DSE(Major)	2	0	0	2	2	100
2	Data Visualization	LW	PCE	DSE(Major)	2	0	0	2	2	100
3	Cloud computing for Ai/Ml	LW	PCE	DSE(Major)	2	0	0	2	2	100

Exit Option to Qualify Diploma: Skill Based Courses										
1	Advanced Web Technology	LW	PE	SEC(Skill)	3	0	2	5	4	100
2	Insights of IoT	LW	PE	SEC(Skill)	3	0	2	5	4	100

Course Curriculum- 2025-2029

Semester V										
Sr. No.	Name of Course	Type	AICTE Type	NEP Type	Total Hrs.			Contact Hrs.	Credits	Marks
					L	T	P			
1	Natural Language Processing	LW	PC	DSC(Major)	2	0	0	2	2	100
2	Natural Language Processing Lab	LW	PC	DSC(Major)	0	0	2	2	1	100
3	Advanced web Technology	KL	PC	DSC(Major)	2	0	0	2	2	100
4	Summer project II	LW	PC	DSC(Major)	0	0	2	2	1	100
5	Time Series Modelling and Forecasting	KL	PC	DSC(Major)	2	0	2	4	3	100
6	Deep Learning (Neural Network)	KL	PC	DSC(Major)	3	0	0	3	3	100
7	Software Engineering & Project Management	LW	PC	DSC(Major)	3	0	0	3	3	100
8	Mini Project-II	LW	EEC	AEC(Ability)	0	0	2	2	2	100
9	Fundamendals of cyber security	GS	PC	VAC(Value Added)	3	0	0	3	3	100
10	EDx Course / NPTEL	AT	Edx	MNG(Ability)	(M)	(M)	(M)	0	0	0
	Total Credits:							**23**	**20**	**900**

Semester VI										
Sr. No.	Name of Course	Type	AICTE Type	NEP Type	Total Hrs.			Contact Hrs.	Credits	Marks
					L	T	P			
1	OJT (Internship)	LW	EEC	PROJ(Skill)	0	0	20	20	10	200
2	Advanced Deep Learning and pattern recognition	KL	PC	DSC(Major)	3	0	0	3	3	100
3	Advanced Deep Learning and pattern recognition lab	LW	PC	DSC(Major)	0	0	2	2	1	100
4	Generative Ai and its applications	KL	PC	DSC(Major)	2	0	0	2	2	100
5	Generative Ai and its applications lab	LW	PC	DSC(Major)	0	0	2	2	1	100
6	Graph datascience &knowledge graphs	KL	PC	DSC(Major)	2	0	0	2	2	100
7	Graph datascience &knowledge graphs lab	LW	PC	DSC(Major)	0	0	2	2	1	100
	Total Credits:							**33**	**20**	**800**

Exit Option to Qualify B.Voc : Skill Based Courses										
1	Water Management in AI	LW	PE	SEC(Skill)	3	0	2	5	4	100
2	Ethical Hacking	LW	PE	SEC(Skill)	3	0	2	5	4	100

Course Curriculum- 2025-2029

Semester VII										
Sr. No.	Name of Course	Type	AICTE Type	NEP Type	Total Hrs.			Contact Hrs.	Credits	Marks
					L	T	P			
1	Congnitive computing	KL	PC	DSC(Major)	3	0	0	3	3	100
2	Soft Computing	KL	PC	DSC(Major)	3	0	0	3	3	100
3	Soft Computing Lab	LW	PC	DSC(Major)	0	0	2	2	1	100
4	Bio Informatics	GS	PC	DSC(Major)	3	0	0	3	3	100
5	Ai based Business Mgnt system	LW	PC	DSC(Major)	3	0	0	3	3	100
6	Project - Phase 1	LW	EEC	PROJ(Skill)	3	0	0	3	5	100
7	Elective - II	KL	PCE	DSE(Major)	2	0	2	4	3	100
	Total Credits:							**21**	**21**	**700**

Elective II (Sem VII)										
1	Ai in Finance and algorithmic trading	LW	PCE	DSE(Major)	2	0	2	4	3	100
2	Blockchain technology	LW	PCE	DSE(Major)	2	0	2	4	3	100
3	Multi-Agent Systems with AI: Collaborative Robotics	LW	PCE	DSE(Major)	2	0	2	4	3	100
4	Quantum Computing	LW	PCE	DSE(Major)	2	0	2	4	3	100

Semester VIII										
Sr. No.	Name of Course	Type	AICTE Type	NEP Type	Total Hrs.			Contact Hrs.	Credits	Marks
					L	T	P			
1	OJT	LW	EEC	PROJ(Ability)	0	0	16	16	10	200
2	Project - Phase 2	LW	EEC	PROJ(Skill)	4	0	0	4	2	200
3	Elective-III with lab	LW	OEC	UOE(Ability)	3	0	2	5	4	200
4	Big data analytics -compulsory with lab	KW	PC	DSC(Major)	3	0	2	5	4	100
	Total Credits:							**30**	**20**	**700**

Elective III (Sem VIII)										
1	Digital Forensic	LW	OEC	UOE(Ability)	3	0	2	5	4	100
2	Optimization Techniques	LW	OEC	UOE(Ability)	3	0	2	5	4	100
3	Mobile Computing	LW	OEC	UOE(Ability)	3	0	2	5	4	100