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	Project Title	Objective	OutCome	Skills	SuperVisor	Co-SuperVisor	T F
<input type="checkbox"/>	E Authentication System Using QR Code and OTP	In the Project, once the email id and password is authenticated, the user may proceed with next authentication section where he/she need to select the type of authentication as QR (Quick Response) Code or OTP (One Time Password). Once the user selects the authentication type as QR Code, then system will generate a QR Code and send it to user's mail id over internet. If user selects OTP, then SMS will be sent on his/her registered mobile number. If the user passes the authentication, then system	Research paper	Information Security and Cryptography	Pritpal Singh(E8067)	-	44
<input type="checkbox"/>	Rethinking Vehicular Communications: Merging VANET with cloud computing	In this project you can put forth the taxonomy of VANET based cloud computing. First, you can define VANET Cloud architecture.	Product	Cloud Computing / Fog Computing using Java using eclipse	Pritpal Singh(E8067)	-	0
<input type="checkbox"/>	AI-Based Smart Surveillance System (Edge AI)	To perform real-time surveillance, detect intrusions or suspicious activities, and reduce dependency on cloud-based processing.	Service	Python, OpenCV, TensorFlow Lite / PyTorch, Linux OS	Jagmeet Kaur(E8387)	-	0
<input type="checkbox"/>	IoT-Based Smart Energy Monitoring and Optimization System	To monitor real-time energy consumption and optimize power usage using data analytics.	Product	Arduino IDE, Embedded C, ThingSpeak / Firebase	Jagmeet Kaur(E8387)	-	2
<input type="checkbox"/>	Smart Waste Management System	1. To monitor garbage levels automatically. 2 To reduce manual inspection. 3. To support smart city initiatives	Hackathon	Arduino, Sensors, IoT Basics, Embedded C, Networking	Damandeep(E18881)	-	1
<input type="checkbox"/>	Smart Irrigation System Using Soil Moisture Sensor	To conserve water, To automate irrigation, To increase agricultural efficiency	Competition	Arduino, Soil Moisture Sensor, Relay Module, Embedded C, Basics of Electronics	Damandeep(E18881)	-	0
<input type="checkbox"/>	Smart Home Automation System	o understand wireless communication in IoT systems, To develop skills in hardware-software integration, To gain experience in designing user-controlled systems	Product	Arduino/ESP8266, Relay Modules, IoT Platforms, Embedded C	Damandeep(E18881)	-	8



		<input type="checkbox"/> Smart Energy Meter with Mobile App Monitoring	To design a low-cost smart energy monitoring system, enable real-time energy tracking, reduce power wastage, and introduce students to IoT-based embedded solutions.	Research paper	C programming, Arduino, Sensors basics, IoT concepts, Circuit design	Navjyot Kaur(E8508)	-	0
Academics >		<input type="checkbox"/> IoT-Based Gas Leakage Detection and Alert System	To design a safety-oriented embedded system and raise awareness about IoT-based hazard monitoring.	Patent	Arduino, IoT basics, Sensors, Embedded C, Networking basics	SONAL 24BCS10195	Navjyot Kaur(E8508)	- 1
Administration >		<input type="checkbox"/> RFID-Based Smart Attendance System	To automate attendance management and improve accuracy using embedded technology.	Research paper	Sensors, Arduino, C programming, IoT basics, Electronics	Navjyot Kaur(E8508)	-	7
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> Student Performance Analysis System	To develop analytical thinking and apply data analysis to education systems.	Hackathon	Python, Data structures, SQL, Statistics basics, Visualization	Navjyot Kaur(E8508)	-	12
Apply for NOC (frmStudentNoc.aspx) >		<input type="checkbox"/> A Bibliometric Analysis of task scheduling in Fog computing.	The objective of a bibliometric analysis of task scheduling in fog computing is to quantitatively analyze existing scientific literature to identify research patterns, trends, and gaps in the field.	Research paper	open-source R package.	Kapil Kumar Dewan(E12748)	-	0
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Developing a Taxi Pooling App for Residents of the Same Campus (Gchchhamh))	Solving a real world problem using computer science engineering and mobile technology.	Product	Problem solving skills, Programming language, UI/UX design, testing, debugging	Puja Shrivastava(E17060)	-	5
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq) >		<input type="checkbox"/> Automated Event Management website	The objective of an automated event management website is to streamline the entire event lifecycle—from initial planning and registration to post-event analysis—by leveraging technology to automate repetitive tasks, improve efficiency, and enhance the attendee experience.	Patent	HTML, CSS, JAVASCRIPT, php	Kapil Kumar Dewan(E12748)	-	7
DCPD >		<input type="checkbox"/> Smart Lighting System using IOT	This project involves creating a smart lighting system that can be controlled by a smartphone app. The project uses IoT devices such as smart bulbs and sensors to automatically turn on and off lights, and to adjust the brightness and color of the lights based on the user's preferences.	Product	Programming language, IOT device knowledge, Architecture sensor software knowledge	Puja Shrivastava(E17060)	-	1
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >		<input type="checkbox"/> Fog Computing and the Internet of Things: A Review	Low Latency & Real-Time Processing.	Research paper	Cloud Computing	Kapil Kumar Dewan(E12748)	-	4
E Library >		<input type="checkbox"/> Smart Temperature Monitoring System	Smart Temperature Monitoring System	Product	Sensor interfacing, ADC, Threshold logic	Sneh Garg(E17633)	-	4
Examination >		<input type="checkbox"/> Automatic Street Light Control System	Automatic Street Light Control System	Product	Sensor interfacing, ADC, Threshold logic, Arduino, LDR sensor	Sneh Garg(E17633)	-	5
Hostel >		<input type="checkbox"/> Door Lock System Using Keypad	Door Lock System Using Keypad	Product	arduino, programming skill, embedded system knowledge, Motor control	Sneh Garg(E17633)	-	6
International Study Opportunities		<input type="checkbox"/> AI-Driven Solar Microgrid with Predictive Maintenance	Optimize solar energy output, predict and prevent system failures, integrate storage efficiently	Research paper	IoT, Embedded Systems, Python, AI/ML, Solar PV fundamentals, Edge Computing	Kiranjeet Kaur(E12851)	-	0



		<input type="checkbox"/> Network Intrusion Detection System Using Packet Sniffing	To detect suspicious network activities using packet analysis.	Product	PC / Laptop, Network Interface Card, Python, Wireshark, Scapy, Linux OS	Jagmeet Kaur(E8387)	-	3
Academics	>	<input type="checkbox"/> Smart Door Lock System Using RFID and Password	To provide secure and controlled access to rooms or labs.	Service	Arduino / ESP32, RFID Reader, Keypad, Servo Motor, LCD, Arduino IDE, Embedded C	Jagmeet Kaur(E8387)	(StudentHome.aspx)	6
Accounts	>	<input type="checkbox"/> IoT-Based Health Monitoring System	To monitor basic health parameters and send alerts in emergencies.	Service	ESP32 / Arduino, Heart Rate Sensor, Temperature Sensor, SpO2 Sensor, Arduino IDE, Embedded C, IoT das	Sonal 24BCS10195	Jagmeet Kaur(E8387)	0
Administration	>							
Apply for Loan Documents (frmLoanLetterApplication.aspx)		<input type="checkbox"/> Swarm Drone Defense System for Real-Time Threat Surveillance	Enhance real-time surveillance, coordinate multi-drone operations	Research paper	Robotics, AI/ML, Computer Vision, Embedded Systems, Drone Programming, Networking	Kiranjeet Kaur(E12851)	-	5
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Precision Agriculture with Digital Twin & UAV Analytics	Early crop disease detection, optimized resource usage, predictive yield modeling	Research paper	Drones, Computer Vision, Python, AI/ML, IoT, Agriculture Knowledge	Kiranjeet Kaur(E12851)	-	9
Centre For Student Wellbeing (CSW)	>	<input type="checkbox"/> Solar-Powered Smart Disaster Relief Communication Network	Provide real-time communication in disaster zones, optimize energy usage	Product	IoT, Embedded Systems, Renewable Energy, Communication Protocols, Edge Computing	Kiranjeet Kaur(E12851)	-	4
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)		<input type="checkbox"/> IoT & AI-Driven Smart Greenhouse for Agriculture	Optimize greenhouse environment in real time, detect anomalies, maximize crop yield	Research paper	IoT, Sensors, Python, AI/ML, Embedded Systems, Agriculture Knowledge	Kiranjeet Kaur(E12851)	-	3
DCPD	>	<input type="checkbox"/> Comparative Study of Classification Algorithms on Student Performance Data	To study student performance prediction using ML, compare different classifiers, analyze evaluation metrics, identify the best-performing algorithm, and understand the impact of data imbalance on prediction accuracy.	Research paper	Python, Classification, Pandas, Statistics, Model evaluation	Navjot Kumari(E14599)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Sentiment Analysis Using Traditional Machine Learning Models	To preprocess text data, apply multiple ML classifiers, compare feature extraction techniques, evaluate sentiment accuracy, and identify optimal combinations for text classification tasks. Domain: Natural Language Processing	Research paper	Python, NLP basics, Text preprocessing, ML models, Scikit-learn	Navjot Kumari(E14599)	-	4
E Library	>	<input type="checkbox"/> Regression Model Comparison for House Price Prediction	To analyze regression techniques, study feature impact on price prediction, compare error metrics, and identify the most accurate regression model for real estate data.	Research paper	Python, Regression, Data preprocessing, Statistics, Visualization	Navjot Kumari(E14599)	-	0
Examination	>	<input type="checkbox"/> Fake News Detection Using Machine Learning Classifiers	To preprocess news text, build ML models, compare classifier performance, evaluate misinformation detection accuracy, and study challenges in fake news identification.	Research paper	Python	Navjot Kumari(E14599)	-	8
Hostel	>	<input type="checkbox"/> Handwritten Digit Recognition: ML Models vs CNN	To implement digit recognition models, compare ML and CNN performance, analyze accuracy and training time, and study model complexity in image classification.	Research paper	Python, Image processing	Navjot Kumari(E14599)	-	0
International Study Opportunities								



		<input type="checkbox"/> Disease Prediction Using Symptom-Based Classification	To preprocess medical datasets, apply classification models, compare prediction accuracy, analyze healthcare data challenges, and support early disease detection.	Research paper	Python, Classification, Data preprocessing, Statistics, Pandas	Navjot Kumar(E14599)	-	9
Academics >								
Accounts >		<input type="checkbox"/> DECENTRALIZED VOTING APPLICATION USING BLOCKCHAIN	TO IMPLEMENT BLOCK CHAIN TECHNOLOGY WITH TOKEN BASED SYSTEMS	Product	BLOCK CHAIN	SONAL 24BCS10195 	Pritpal Singh(E8067)	-
Administration >								4
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> Bird Species Identification from an image using Keras.	1.Identification of bird Species based on feature extraction.2.To understand the intricacies of different machine learning algorithms and to learn which algorithms gives good result for which use case.	Product	Machine Learning/ Deep Learning /Python	Pritpal Singh(E8067)	-	3
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Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Facial Expression Detection Using PCA/Feature Extraction	To develop the algorithm for face recognition, feature extraction and emotion classification using Skin Color Segmentation, Knowledge-Based Approach and PCA respectively.	Product	Image Processing using Asp.Net	Pritpal Singh(E8067)	-	1
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq) >								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >		<input type="checkbox"/> AI-Driven Road Condition Monitoring and Predictive Maintenance using IoT and Edge Analytics	• To design an IoT-based system for real-time road condition data acquisition • To apply AI/ML techniques for detecting and classifying road anomalies • To develop predictive models for road maintenance planning • To improve road safety and reduce vehicle damage • To support smart city transportation initiatives	Research paper	Python, Machine Learning, IoT Sensors, Data Analytics, Cloud/Edge Computing	Aleem Ali(E12948)	-	0
E Library >								
Examination >								
Hostel >								
International Study Opportunities >		<input type="checkbox"/> AI-Enabled Collaborative Drone Network for Real-Time Traffic Optimization and Incident Management	• To develop an AI-driven drone collaboration framework for traffic monitoring • To detect congestion and incidents using computer vision techniques • To optimize traffic flow through intelligent route recommendations • To improve emergency response time • To promote eco-friendly and smart urban transportation	Research paper	Python, Computer Vision, Machine Learning, Drone Simulation, Network Communication	Aleem Ali(E12948)	-	0
		<input type="checkbox"/> AI-Enabled IoT-Based Smart Waste Management and Route Optimization System	• To design an IoT-based system for real-time waste monitoring • To apply AI techniques for optimized waste collection routing • To track recycling patterns and sustainability metrics • To reduce operational and fuel costs • To promote eco-friendly and smart waste disposal practices	Research paper	Python, Machine Learning, IoT Sensors, Data Analytics, Optimization Algorithms	Aleem Ali(E12948)	-	4



		<input type="checkbox"/> Aviation Safety Incident Prediction Using Machine Learning on SMS and ADREP Data	<ul style="list-style-type: none"> <li>• To analyze aviation safety data from SMS and ADREP sources</li> <li>• To preprocess and engineer features for incident prediction</li> <li>• To develop ML models for classifying safety risks</li> <li>• To identify key contributing factors to aviation incidents</li> <li>• To support proactive safety management and risk reduction</li> </ul>	Research paper	Python, Machine Learning, Data Preprocessing, Statistical Analysis, Data Visualization	Aleem Ali(E12948)	-	0
Academics >								
Accounts >								
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)		<input type="checkbox"/> Blockchain-Enabled Cybersecurity Framework for Airline Ticketing and E-Gate Access Systems	<ul style="list-style-type: none"> <li>• To design a blockchain-based secure airline ticketing system</li> <li>• To implement smart contracts for passenger authentication</li> <li>• To prevent fraud and unauthorized e-gate access</li> <li>• To enhance data integrity and transparency</li> <li>• To strengthen cybersecurity in aviation IT infrastructure</li> </ul>	Research paper	Blockchain Basics, Cryptography, Cybersecurity, Smart Contracts, Python/Solidity	Aleem Ali(E12948)	-	0
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Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
DCPD >		<input type="checkbox"/> Automated Gate Assignment and Dynamic Allocation for Airport Using Machine Learning and Optimization	<ul style="list-style-type: none"> <li>• To analyze airport flight and gate allocation data</li> <li>• To predict delays and congestion using ML models</li> <li>• To design optimization-based gate assignment strategies</li> <li>• To dynamically reassigned gates during disruptions</li> <li>• To improve passenger experience and airport efficiency</li> </ul>	Research paper	Python, Machine Learning, Optimization Algorithms, Data Analytics, Operations Research	Aleem Ali(E12948)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >								
International Study Opportunities		<input type="checkbox"/> AI-Based Pilot Fatigue Detection Using Real-Time Facial Landmarks and Wearable Data	<ul style="list-style-type: none"> <li>• To analyze facial landmarks for fatigue-related indicators</li> <li>• To integrate wearable sensor data for physiological monitoring</li> <li>• To develop multimodal ML models for fatigue detection</li> <li>• To generate real-time alerts for potential fatigue conditions</li> <li>• To enhance aviation safety and risk mitigation</li> </ul>	Research paper	Python, Computer Vision, Machine Learning, Signal Processing, Data Analytics	Aleem Ali(E12948)	-	0
		<input type="checkbox"/> Heart Attack Risk Prediction Using Retinal Fundus Images and Deep Learning	<ul style="list-style-type: none"> <li>• To analyze retinal fundus images for cardiovascular indicators</li> <li>• To apply deep learning models for feature extraction and risk prediction</li> <li>• To identify patterns linking retinal health to heart attack risk</li> <li>• To improve early detection and preventive healthcare support</li> <li>• To assist clinicians with AI-driven risk assessment</li> </ul>	Research paper	Python, Deep Learning, Medical Image Processing, CNNs, Data Analytics	Aleem Ali(E12948)	-	1
		<input type="checkbox"/> AI-Based Multi-Disease Detection System Using Machine Learning and Deep Learning	<ul style="list-style-type: none"> <li>• To design a unified AI framework for multi-disease detection</li> <li>• To preprocess and analyze heterogeneous medical datasets</li> <li>• To apply ML and deep learning models for disease prediction</li> <li>• To improve early diagnosis and healthcare decision support</li> <li>• To evaluate model performance across multiple diseases</li> </ul>	Research paper	Python, Machine Learning, Deep Learning, Data Preprocessing, Healthcare Analytics	Aleem Ali(E12948)	-	4



		<input type="checkbox"/> Blockchain-Based Secure Electronic Health Record Management System	<ul style="list-style-type: none"> <li>• To design a secure blockchain-based EHR management framework</li> <li>• To implement access control using smart contracts</li> <li>• To ensure data integrity and tamper-proof medical records</li> <li>• To enhance patient data privacy and ownership</li> </ul>	Research paper	Blockchain Basics, Cryptography, Cybersecurity, Smart Contracts, Python/Solidity	Aleem Ali(E12948)	-	2
Academics >			To reduce healthcare data breaches and unauthorized access					
Accounts >		<input type="checkbox"/> A Multimodal Machine Learning Framework for Integrated Detection of ENT Diseases	To design a unified system combining ear, nose, and throat data To improve diagnostic accuracy using multimodal learning To compare unimodal and multimodal diagnostic approaches	Research paper	Hardware: PC/Laptop with GPU Software: Python, TensorFlow/PyTorch, Scikit-learn, NLP libraries Datas	Jagmeet Kaur(E8387)	-	0
Administration >		<input type="checkbox"/> Field Analysis of E-Governance Service Accessibility	To study the adoption of e-governance services among citizens To identify usability and accessibility challenges To analyze citizen feedback using field data To evaluate the effectiveness of digital governance services To recommend improvements based on field findings	Book Chapter	Field Survey Techniques, Data Analysis, Communication Skills, Documentation, IT Awareness	Bhavneet Kaur(E14414)	-	0
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> NLP-Based Automated Detection of Throat Diseases from Clinical Text Reports	To analyze unstructured throat-related clinical text To predict throat diseases using NLP techniques To compare traditional NLP and deep learning models	Research paper	Hardware: PC/Laptop Software: Python, NLTK/SpaCy, TensorFlow/PyTorch Dataset: ENT clinical text data	Jagmeet Kaur(E8387)	-	3
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Machine Learning-Based Classification of Nasal Disorders Using Clinical Symptom Data	To classify nasal diseases using symptom-based clinical data To evaluate traditional machine learning algorithms To develop a low-cost nasal disease diagnostic support system	Research paper	Hardware: Standard PC/Laptop Software: Python, Scikit-learn, Pandas, NumPy Dataset: Clinical nasal s	Jagmeet Kaur(E8387)	-	2
DCPD >		<input type="checkbox"/> Deep Learning-Based Automated Detection of Ear Diseases Using Otoscopic Images	To detect and classify common ear diseases using otoscopic images To compare CNN architectures for ear disease classification To support early and accurate diagnosis in primary healthcare	Research paper	Hardware: PC/Laptop (GPU recommended) Software: Python, TensorFlow/Keras or PyTorch, OpenCV Dataset:	Jagmeet Kaur(E8387)	-	0
E Library >		<input type="checkbox"/> Image Processing Based Field Study on Usage Patterns of Digital Payment Interfaces	To collect field images of digital payment interfaces To preprocess and enhance images for analysis To apply image processing techniques for layout and clarity assessment To use ML/DL models for usability issue detection To recommend design improvements based on visual analysis	Case Study	Image Processing, Python, OpenCV, Machine Learning/Deep Learning Basics, Field Data Collection	Bhavneet Kaur(E14414)	-	0
Examination >								
Hostel >								
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		<input type="checkbox"/> Remote Sensing Based Analysis of Land Use and Urban Accessibility Patterns	To acquire and preprocess satellite remote sensing imagery To extract land use features using image processing To apply ML/DL techniques for land cover classification To validate results using field-based ground truth	Research paper	Remote Sensing, Image Processing, GIS, Machine Learning, Research Methodology	Bhavneet Kaur(E14414)	-	0
Academics >						(StudentHome.aspx)		
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Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> Design and Development of Software for Snow Cover Mapping Using Satellite Images	To design a software architecture for snow cover analysis To implement image preprocessing and enhancement modules To integrate snow classification algorithms To visualize and export snow cover maps To improve efficiency of snow monitoring through software	Product	Python, Image Processing, Remote Sensing Basics, GIS, Software Design	Bhavneet Kaur(E14414)	-	0
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DCPD >		<input type="checkbox"/> IoT Air Quality & Pollution Monitoring System	To design a real-time system for monitoring air pollutants such as PM2.5, PM10, CO, and NO2. To provide instant alerts when pollution exceeds safe thresholds. To enable data visualization via mobile or web dashboard. To support data-driven decisions for environmental management and public health awareness.	Patent	ESP32 / Raspberry Pi Gas Sensors (MQ-135, MQ-7) PM2.5 / PM10 Sensor Temperature & Humidity Sensor	Bhavneet Kaur(E14414)	-	0
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International Study Opportunities >		<input type="checkbox"/> SmartH2O – Intelligent water management system.	Detect pipeline leakages or bursts in real-time. Minimize water wastage and reduce utility costs. Provide real-time alerts via mobile app or web dashboard. Enable automated control of valves to prevent flooding or damage. Collect historical data for predictive maintenance and efficient water management.	Patent	ESP32 / Arduino Water Flow Sensor / Pressure Sensor Ultrasonic Sensor (optional for tanks) Wi-Fi	Bhavneet Kaur(E14414)	-	0
		<input type="checkbox"/> Agentic AI Framework for Automated Medical Report Summarization and Risk Flagging	• To design a multi-agent AI architecture for healthcare text analysis • To apply transformer models for medical report summarization • To detect abnormal clinical findings from unstructured text • To flag high-risk patients for early intervention • To support clinicians with AI-driven decision assistance	Research paper	Python, NLP, Transformer Models, Machine Learning, Healthcare Data Analytics	Aleem Ali(E12948)	-	0
		<input type="checkbox"/> FPGA Traffic Light Controller with Dynamic Timing	Implement real-time traffic signal control.	Research paper	AI,IOT	Komal Sharma(E14735)	-	7
		<input type="checkbox"/> Blockchain-Based Secure Voting System	Provide tamper-resistant online voting.	Research paper	Blockchain / Distributed Systems	Komal Sharma(E14735)	-	1
		<input type="checkbox"/> Health Analytics Portal with Predictive Insights	Analyze patient records to support medical decisions.	Research paper	Data Analytics / Web Application	Komal Sharma(E14735)	-	1



		<input type="checkbox"/> Smart Irrigation System	To optimize water usage in agriculture by automating irrigation based on soil conditions, reducing wastage, and supporting sustainable farming practices.	Patent	Arduino, Sensors, C programming, IoT basics, Circuit design	Surinder Kaur(E1033)	-	0
Academics >		<input type="checkbox"/> Energy Efficient Smart Street Light System	To reduce electricity consumption and promote smart city infrastructure using automation.	Patent	Arduino, Sensors, Embedded C, IoT basics	SONAL SURINDER KAUR(E1033)	-	5
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> Accident Detection and Emergency Alert System	To reduce response time during accidents and improve road safety through automation.	Research paper	Arduino, Sensors, GPS/GSM basics, Embedded C, IoT	Surinder Kaur(E1033)	-	1
Apply for NOC (frmStudentNoc.aspx) >		<input type="checkbox"/> (Field vs Non-Field Classification using Satellite Images)	1)To classify agricultural fields and non-fields using satellite images. 2)To compare two segmentation models based on performance metrics. 3)To improve accuracy in agricultural land identification.	Research paper	Python, Machine Learning, Deep Learning, Image Processing, CNN	Yogita(E19584)	-	0
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Student Performance Prediction Using Machine Learning	To collect and preprocess student academic data for analysis. To develop machine learning models to predict student performance. To identify key factors affecting students' academic outcomes. To evaluate model performance using accuracy and other metrics. To support early identification of students who need academic assistance.	Research paper	Python, Data Analysis, Machine Learning, Pandas, Scikit-learn	Yogita(E19584)	-	9
E Library >		<input type="checkbox"/> Handwritten Digit Recognition	To collect and preprocess handwritten digit image data. To design and train a machine learning / deep learning model for digit recognition. To accurately classify handwritten digits from 0 to 9. To evaluate model performance using accuracy and confusion matrix. To demonstrate the application of digit recognition in real-world systems.	Research paper	Python, Neural Networks, CNN, Image Processing	Yogita(E19584)	-	1
Examination >		<input type="checkbox"/> Smart Classroom Automation using IoT	Reduce energy consumption Automate classroom operations Improve learning comfort	Research paper	IoT basics, Sensors, Embedded Systems, Networking, Python	Jasmeet Kaur(E17596)	-	3
Hostel >		<input type="checkbox"/> Lie Detector Machine (Polygraph)	To design and build an integrated system capable of real-time, non-invasive stress detection. The project will use microcontrollers (Arduino) to interface with GSR and Pulse sensors, employ Python for data acquisition, apply signal processing for noise reduction, and utilize a classification algorithm (or ML model) to analyze physiological metrics and identify signs of potential deception or high arousal.	Product	C/C++ Programming, Python & Libraries Sensor Interfacing Signal Processing Real-time Visualization	Puja Shrivastava(E17060)	-	0
International Study Opportunities >								



		<input type="checkbox"/> NGO Networking Platform (LokaSamyoga)	To develop LokaSamyoga, a specialized social networking platform connecting NGOs, volunteers, and do	Product	Full-Stack Web Development Database Management UI/UX Design Cloud Deployment Security	Puja Shrivastava(E17060)	-	7
Academics >		<input type="checkbox"/> Smart Traffic Light System Using Sensors	To develop an intelligent traffic control system using sensors. To detect vehicle density at traffic junctions. To dynamically control traffic lights based on real-time traffic. To reduce traffic congestion and waiting time.	Product	Arduino programming, sensor interfacing, microcontroller basics, traffic management logic, C/C++ or	Yogita(E19584)	-	0
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Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Smart Traffic Signal Control System	Design a system that uses camera input to monitor traffic and adjust signal timing. This reduces wait time at junctions and improves road safety.	Product	Real-time data processing, automation	Gyan Chand Yadav(E12247)	-	6
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Career Chatbot for Students	Build a chatbot that gives students career advice based on their interests and subjects. The chatbot guides users by asking questions	Product	AI interaction, decision logic	Gyan Chand Yadav(E12247)	-	2
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> Campus Guide App for New Students	Create a mobile app that helps students find departments, classrooms, and labs inside the campus. Use QR codes or simple map navigation.	Product	App development, location services	Gyan Chand Yadav(E12247)	-	0
DCPD >		<input type="checkbox"/> AI-Powered Smart Surveillance System	1. Build a real-time surveillance system using AI. 2. Integrate anomaly detection for security enhancement. Enable live video analysis using TensorFlow and OpenCV.	Book Chapter	Python, OpenCV, TensorFlow, Raspberry Pi, Image Processing.	Shaurya Vir Singh Pathania(E14642)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Home Energy Monitoring App	Build a system that tracks energy usage from household appliances. Users can view reports through a mobile or web app and receive alerts	Product	IoT, energy efficiency, app development	Gyan Chand Yadav(E12247)	-	0
E Library >		<input type="checkbox"/> AI-Based Wearable for Real-Time Health Monitoring and Risk Prediction	1. Develop a wearable device to monitor vitals. 2. Implement AI algorithms for health predictions. 3. Integrate IoT sensors for data collection and display.	Book Chapter	Arduino, IoT Sensors, Python, TensorFlow Lite, Data Analytics.	Shaurya Vir Singh Pathania(E14642)	-	0
Examination >		<input type="checkbox"/> Resume Builder with Smart Suggestions	Develop an online tool where users create resumes and receive smart tips to improve them. The tool can suggest better formats or missing	Product	Cloud development, user interface design	Gyan Chand Yadav(E12247)	-	1
Hostel >		<input type="checkbox"/> Autonomous Delivery Robot with AI Navigation	1. Build an autonomous robot for delivery purposes. 2. Implement AI for path planning and obstacle detection. Integrate ROS and sensors for real-time navigation	Book Chapter	ROS, Python, LiDAR, AI Path Planning, Robotics Programming.	Shaurya Vir Singh Pathania(E14642)	-	0
International Study Opportunities		<input type="checkbox"/> AI-Based Precision Agriculture System	1. Develop AI tools to monitor soil health and crops. 2. Use IoT sensors for real-time data collection. 3. Provide insights for optimized farming using machine learning.	Book Chapter	IoT Sensors, Python, Machine Learning, Data Analysis, AI Integration.	Shaurya Vir Singh Pathania(E14642)	-	0



		<input type="checkbox"/> AI-Powered Smart Home Automation System with Predictive Control	1. Implement AI for smart control of home appliances. 2. Integrate IoT devices for voice-based control. 3. Develop predictive models for energy-efficient scheduling.	Book Chapter	Arduino, Python, TensorFlow, IoT Integration, Voice Commands.	Shaurya Vir Singh Pathania(E14642)	-	1
Academics >		<input type="checkbox"/> AI-Based Spam Message Classifier	Data preprocessing Vectorization .ML algorithms (Naive Bayes, SVM)	Product	Python, Scikit-learn, and NLP,	Gyan Chand Yadav(E12247)	-	0
Administration >		<input type="checkbox"/> AI-Powered Resume Screening System for Recruitment	1. Build an automated resume screening tool using AI. 2. Integrate NLP for extracting relevant data from resumes. Develop scoring algorithms for candidate shortlisting.	Book Chapter	Python, NLP, Machine Learning, Flask/Django, Data Extraction	Shaurya Vir Singh Pathania(E14642)	-	4
Apply for Loan Documents (frmLoanLetterApplication.aspx)		<input type="checkbox"/> Face Recognition-Based Door Lock System	The objective of this project is to design a secure and intelligent door locking system that authenticates users based on facial recognition. The system aims to replace traditional key-based or password-based locks with a contactless, automated, and reliable security solution using computer vision and artificial intelligence.	Patent	IoT, programming in Arduino	Anu Kaushik(E12329)	-	6
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Real-Time Waste Bin Monitoring System for Smart Cities	The objective of this project is to develop an intelligent waste monitoring system that automatically detects the garbage fill level in waste bins and notifies the concerned authorities when the bins are full. This helps in timely waste collection, prevents overflow, improves cleanliness, and supports efficient waste management in smart cities.	Patent	IoT, programming in Arduino	Anu Kaushik(E12329)	-	0
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> IoT-Based Smart Home Automation System	To design and develop an IoT-enabled smart home automation system that allows remote monitoring, automated control, and efficient management of household appliances to enhance comfort, safety, and energy efficiency.	Product	C++. Microcontroller	Meena Pundir(E12841)	-	3
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> GreenGrow: Automated Irrigation System	to automatically control water supply to plants based on soil moisture levels, reducing water wastage and manual effort.	Patent	IoT, programming in Arduino	Anu Kaushik(E12329)	-	0
DCPD >		<input type="checkbox"/> Sleep targets highly connected global and local nodes to aid consolidation of learned graph networks	Shows how sleep influences memory consolidation through brain network activity – excellent for cognitive neuroscience emphasis.	Research paper	c++	Gurpreet Kaur(E12272)	-	3
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Graph Neural Networks in Network Neuroscience	: Reviews how modern graph-based AI tools help model brain connectivity. Great if you're interested in neuroimaging or computational neuroscience.	Research paper	c++	Gurpreet Kaur(E12272)	-	5
E Library >								
Examination >								
Hostel >								
International Study Opportunities								



		<input type="checkbox"/> Foundation and Large-Scale AI Models in Neuroscience: A Comprehensive Review	Connects large neural models and neuroscience research – ideal for cutting-edge interests.	Research paper	c++	Gurpreet Kaur(E12272)	-	0
Academics >		<input type="checkbox"/> Automatic Door Closer	To design and develop an Automatic Door Closer system that enables hands-free, safe, and efficient door operation using sensors, actuators, and control mechanisms.	Product	C++ / Python, Embedded Systems and basics of microcontrollers <b>SONAL</b> 24BCS10195	Meena Pundir(E12841) 	(StudentHome.aspx)	
Accounts >								
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)		<input type="checkbox"/> IoT-Enabled Fire Safety and Alert System	To develop an IoT-enabled fire detection and alert system that ensures real-time monitoring, early warning, and prompt emergency response to enhance safety in residential, commercial, and industrial environments.	Product	C++ / Python, Embedded Systems and basics of microcontrollers	Meena Pundir(E12841)	-	0
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> The Human Connectome Project: A data acquisition perspective	Landmark paper on large-scale mapping of human brain connectivity.	Research paper	c++	Gurpreet Kaur(E12272)	-	0
DCPD >		<input type="checkbox"/> Digital Peer Support Platforms and Mental Health Outcomes Among Young Adults"	Evaluate how app-based peer support affects anxiety and depression outcomes, using mixed methods (surveys, interviews, app usage data).	Product	Python DB C++	Gurpreet Kaur(E12272)	-	5
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >		<input type="checkbox"/> Neural Style Transfer Art Generator	A web interface that accepts two images. A progress bar showing the image slowly transforming (morphing) step-by-step.	Product	Python, Scikit-learn, NLTK.	Shweta Tiwari(E13352)	-	0
Examination >								
Hostel >								
International Study Opportunities		<input type="checkbox"/> AI-Powered Blogging Platform system	Analyzes content for keywords, suggests improvements for better search engine ranking (SERP), and aids in link building. To Tailor content recommendations and layouts for individual visitors, increasing engagement and loyalty.	Product	Python	Ishta(E12905)	-	1
		<input type="checkbox"/> Cloud Based Inventory Management System	To streamline inventory operations, reduce losses, and enable real-time decision-making for enterprises.	Research paper	Cloud Platforms, SQL/NoSQL	Jaspreet Singh(E7231)	-	7
		<input type="checkbox"/> Bitcoin/Stock Price Forecaster (Time-Series)	Standard networks assume inputs are independent. LSTMs have "memory" and are designed for sequences. You will have to prepare data using a "Sliding Window" technique. Software Component: An interactive graph (using Plotly or Altair) plotting the "Actual Price" vs. your "Predicted Price" to visualize how well your model follows the trend.	Product	Language: Python DL Framework: TensorFlow/Keras (easiest for beginners) or PyTorch. Dataset Librar	Shweta Tiwari(E13352)	-	4
		<input type="checkbox"/> REM Sleep Patterns, Memory, and Emotional Resilience in Young Adults	REM Sleep Patterns, Memory, and Emotional Resilience in Young Adults	Research paper	Python DB C++	Gurpreet Kaur(E12272)	-	1



		<input type="checkbox"/> Full-Stack AI Course Generator	Large Language Models (LLMs) for generating text, code, outlines, and explanations. To Create lessons, quizzes, code snippets, and project ideas from prompts.	Research paper	Python,C++	Ishta(E12905)	-	1
Academics >		<input type="checkbox"/> The "Geo-Adaptive" Recycling Sorter	Input: An image of a piece of trash (taken via phone camera) + The user's GPS Location. The Model: A MobileNetV2 (CNN) trained to recognize 50+ types of common waste (bottles, cartons, wrappers). The Logic: The app doesn't just output "Plastic Bottle." It queries a simple internal database of local municipal rules based on the GPS coordinates.	Patent	Python, Scikit-learn, TensorFlow	SONAL KAPOOR(E12905), Shweta Tiwari(E13352)	-	0
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> Responsive Portfolio Website with CMS	To enhance performance, scalability, and functionality while also enhancing design flexibility.	Product	HTML,Web Tools, CSS, FoxPro	Ishta(E12905)	-	10
DCPD >		<input type="checkbox"/> Traffic Monitoring & Prediction System	Cleans, normalizes, and analyzes raw data to identify patterns, anomalies, and vehicle types (cars, trucks).	Product	android, python	Ishta(E12905)	-	1
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Subscription-Based Presentation Software (SaaS)	The software and user data are centrally hosted on the provider's servers and accessed remotely through any internet-connected device, supporting a mobile and collaborative workforce.	Product	android, fullstack,CSS,HTML,XML	Ishta(E12905)	-	0
E Library >								
Examination >								
Hostel >								
International Study Opportunities		<input type="checkbox"/> CodeDiff: An Intuitive Web Platform for Efficient Code Comparison & Versioning	Develop a user-friendly web interface for code comparison with real-time diff visualization, syntax highlighting, and multi-language support. Integrate version control features for tracking changes and collaboration. Ensure responsive design for accessibility across devices. Promote understanding of code differences, enhance debugging efficiency, and foster collaborative coding by providing an intuitive platform suitable for developers, students, and educators.	Product	HTML, CSS, JavaScript, Basic Git, Familiarity with Code Editors	Mohit Singh Bisht(E16333)	-	5
		<input type="checkbox"/> LearnCode Hub: An Interactive Platform for Coding Tutorials and Quizzes	Create an engaging, user-friendly website with interactive tutorials, embedded code editors, and quizzes. Enable learners to practice coding in real-time, receive immediate feedback, and track their progress. Incorporate multimedia content to cater to different learning styles, and implement gamification elements to motivate users. The goal is to enhance coding literacy, boost confidence, and provide an accessible platform for self-paced learning.	Product	HTML, CSS, JavaScript, Basic Programming, UI/UX Design	Mohit Singh Bisht(E16333)	-	15



		<input type="checkbox"/> SnippetShare: A Collaborative Platform for Sharing and Managing Code Snippets	Develop an intuitive, collaborative web platform allowing users to share and manage code snippets. Implement user authentication, real-time editing, commenting, and categorization. Enable efficient searching and filtering by tags or keywords. Focus on responsive design, security, and scalability. The goal is to foster a community where developers can learn from each other, improve coding skills, and contribute to a shared knowledge base seamlessly.	Product	Full Stack Development, HTML, CSS, JavaScript, Backend APIs, Database Management	Mohit Singh Bisht(E16333)	-	4
Academics >								
Accounts >								
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Online Multi-language Compiler: An Interactive Web-Based Coding Platform	Create a responsive, multi-language online compiler that enables users to write and run code securely. Implement language-specific editors with syntax highlighting, code execution via backend APIs, and output display areas. Ensure cross-browser compatibility and user-friendly interface. Include features like code saving, history, and error messages. Aim to facilitate learning, testing, and quick code execution in a unified web platform.	Product	Full Stack Development, Web Technologies, JavaScript, Backend Integration, Data Handling	Mohit Singh Bisht(E16333)	-	6
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >								
International Study Opportunities		<input type="checkbox"/> CodeAnalyzer: Static Code Analysis and Feedback Tool	Develop an intuitive platform that accepts code input, performs static analysis, and delivers actionable feedback. Incorporate syntax highlighting, error detection, and suggestions for improvements. Ensure secure code handling and support multiple programming languages. Provide a user-friendly interface with clear visual cues and detailed reports. The goal is to enhance code quality, promote best practices, and serve as an educational aid for learners and professionals.	Product	Full Stack Development, Static Code Analysis, JavaScript, Backend APIs, Data Validation	Mohit Singh Bisht(E16333)	-	1
		<input type="checkbox"/> Programming Language Quiz Master: An Interactive Coding Language Knowledge Game	Develop a dynamic quiz application that presents language-related questions, evaluates answers, and displays scores. Implement timers, score counters, and feedback messages to motivate users. Ensure a responsive interface adaptable to different devices. Include features for question randomization and progress tracking. The goal is to promote learning through gamification, making programming language knowledge accessible and enjoyable.	Product	Web Development, JavaScript, UI Design, Data Structures & Algorithms, Interactive Content	Mohit Singh Bisht(E16333)	-	0



		<input type="checkbox"/> TechConnect: A Collaborative Platform for Students to Share, Learn, and Code Together  <p>Create an interactive community platform facilitating student collaboration on coding tasks. Include features such as project creation, shared code editors, discussion forums, and leaderboards for challenges. Ensure a responsive, user-friendly interface with secure authentication. Integrate code sharing with syntax highlighting and real-time updates. The goal is to promote practical learning, teamwork, and networking among aspiring developers.</p>	Product	Web Development, Collaboration Tools, Frontend & Backend, User Management, Version Control Integration	Mohit Singh Bisht(E16333)  <span style="font-size: small;">(StudentHome.aspx)</span>  	-	0
Academics >					SONAL 24BCS10195 		
Accounts >							
Administration >							
Apply for Loan Documents (frmLoanLetterApplication.aspx)							
Apply for NOC (frmStudentNoc.aspx)							
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Credit Card Fraud Detection  <p>To design and develop a machine learning-based fraud detection system that accurately identifies fraudulent credit card transactions and minimizes financial risk.</p>	Research paper	Python	Meena Pundir(E12841)	-	4
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)							
DCPD >		<input type="checkbox"/> Traffic Accident Severity Prediction  <p>To design and develop a machine learning-based system that accurately predicts the severity of traffic accidents and supports informed decision-making for road safety management.</p>	Research paper	Python	Meena Pundir(E12841)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)							
E Library >							
Examination >		<input type="checkbox"/> Stress detection from social media posts using machine learning  <p>Gathering the data, cleaning the data, Model building and Inference</p>	Research paper	Machine learning and python	Navjot Kaur(E17204)	-	2
Hostel >		<input type="checkbox"/> Anomaly detection system in IoT  <p>Gathering the data, cleaning the data, Model building and Inference</p>	Research paper	Machine learning and python	Navjot Kaur(E17204)	-	1
International Study Opportunities		<input type="checkbox"/> Online Internship and Project Allocation System using MERN Stack  <p>The objective of this project is to design a centralized platform for managing internship and project allocation in academic institutions. It aims to automate application submission, review, and approval processes, minimize administrative workload, and ensure transparent allocation. The system also helps students track application status and maintain structured academic records.</p>	Research paper	HTML, CSS, JavaScript, React.js, Node.js	Aniket Malik(E19687)	-	9
		<input type="checkbox"/> IoT-Based Smart Dustbin for Real-Time Waste Level Monitoring  <p>The objective of this project is to develop a smart waste monitoring system that automates garbage level detection and reporting. It aims to reduce manual inspection, improve waste collection efficiency, prevent overflow of bins, and promote cleanliness in public and institutional environments. The system also provides real-time data for better planning and resource management.</p>	Product	Arduino Programming, Basic Electronics, IoT Concepts, Sensors, Embedded C	Aniket Malik(E19687)	-	3



		<input type="checkbox"/> IoT-Based Smart Shoe Cleaning and Sanitization System  The objective of this project is to design an automated shoe cleaning and sanitization system that operates with minimal human intervention. It aims to improve hygiene standards, reduce contamination in public areas, and demonstrate the practical application of IoT in automation. The system also enables monitoring of usage patterns and operational status for better maintenance planning.	Product	Arduino Programming, Basic Electronics, IoT Concepts, Sensors, Embedded C	Aniket Malik(E19687)	-	0
Academics >					(StudentHome.aspx)	SONAL 24BCS10195	
Accounts >							
Administration >							
Apply for Loan Documents (frmLoanLetterApplication.aspx)							
Apply for NOC (frmStudentNoc.aspx)							
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> IoT-Based Smart Home Safety and Real-Time Alert System  The objective of this project is to design a smart safety system that continuously monitors home environments for potential hazards. It aims to provide instant alerts during emergency situations, minimize damage and risk to human life, and demonstrate the application of IoT in home automation and safety. The system also supports remote monitoring for improved reliability and awareness.	Product	Arduino Programming, Basic Electronics, IoT Concepts, Sensors, Embedded C	Aniket Malik(E19687)	-	3
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)							
DCPD >							
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)							
E Library >							
Examination >		<input type="checkbox"/> Smart IoT-Based Energy Monitoring and Optimization System  To monitor real-time energy usage, analyze consumption patterns, reduce wastage, and promote energy-efficient practices through data-driven insights and alerts.	Competition	Embedded C, IoT Protocols, Sensors & Actuators, Arduino/ESP32, Basic Networking	Jaspreet Singh (E1320)	-	0
Hostel >							
International Study Opportunities		<input type="checkbox"/> IoT-Enabled Intelligent Residential Safety and Alert Monitoring System  The objective of this project is to design a reliable and intelligent safety monitoring system for residential environments. It aims to detect hazardous conditions at an early stage, generate real-time alerts, and minimize risk to life and property. The project demonstrates practical IoT implementation for smart living and enhances awareness and preventive safety measures.	Patent	Arduino Programming, Basic Electronics, IoT Concepts, Sensors, Embedded C	Aniket Malik(E19687)	-	1
		<input type="checkbox"/> Smart Air Quality Monitoring and Alert System  The objective is to design an intelligent system that continuously monitors air pollution levels and provides timely alerts to users and authorities. The project aims to promote awareness of air quality, support preventive measures, and encourage data-driven environmental protection using affordable and scalable hardware solutions.	Product	Embedded Systems, IoT, Sensor Interfacing, Data Communication, Cloud Basics	Puja Shrivastava(E17060)	-	4





		<input type="checkbox"/> Cloud-Based Disaster Management and Emergency Response Platform	To enhance disaster preparedness and response efficiency using scalable cloud infrastructure and real-time data analytics.	Hackathon	Cloud Computing, Web Development	Jaspreet Singh (E1320)	-	1
Academics >		<input type="checkbox"/> Cloud-Managed Smart Energy Meter for Real-Time Power Analytics	To enable real-time energy monitoring and promote efficient electricity usage through cloud analytics.	Product	IoT, Cloud Platforms, Data Analytics, Networking	SONAL KUMAR(E1320)	Jaspreet Singh (E1320)	0
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> AI-Based Resume Screening System Using Machine Learning	To automate resume screening To reduce recruitment time To improve candidate shortlisting accuracy To minimize human bias To support data-driven hiring	Patent	Python, Machine Learning, NLP, Data Analysis, SQL	Amandeep Kaur(E11813)	-	14
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Quantum-Inspired Optimization Algorithms for Efficient Cloud Resource Management	Implement quantum-inspired metaheuristics for multi-objective cloud optimization. Simulate workload distribution and resource provisioning on cloud platforms. Compare performance against classical methods in utilization, latency, and energy.	Research paper	Python, Machine learning	Vaneet Kumar(E11321)	-	5
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >		<input type="checkbox"/> IoT-Enabled Audio-Based Attendance System Using Speaker Recognition	To capture voice samples using a microphone To identify individuals using speaker recognition To automatically mark attendance in a cloud database To provide real-time monitoring via a web/mobile interface	Product	Python, IoT	Vaneet Kumar(E11321)	-	5
E Library >								
Examination >								
Hostel >								
International Study Opportunities >		<input type="checkbox"/> Smart Automatic Street Light System	To reduce energy consumption by automatically controlling street lights based on ambient light and motion detection. To eliminate manual operation of street lights, ensuring efficient and reliable functioning. To improve public safety by providing adequate lighting only when vehicles or pedestrians are present. To increase the lifespan of street lights by minimizing unnecessary ON time. To support smart city development through intelligent and automated infrastructure. To reduce operational	Product	sensors	Parul Datta(E17144)	-	1
		<input type="checkbox"/> Automatic Plant Watering System	To automate the irrigation process based on real-time soil moisture levels. To conserve water by preventing overwatering and unnecessary water usage. To reduce manual effort required for plant watering. To ensure healthy plant growth by maintaining optimal soil moisture. To improve irrigation efficiency using sensor-based control.	Product	sensors	Parul Datta(E17144)	-	3



		<input type="checkbox"/> Temperature and Humidity Monitoring System  To measure temperature and humidity accurately using environmental sensors. To monitor environmental conditions in real time. To display measured values clearly for easy observation. To generate alerts when temperature or humidity exceeds set limits. To reduce manual monitoring of environmental conditions.	Product	sensors	Parul Datta(E17144)	-	4
Academics >							
Accounts >					SONAL 24BCS10195		
Administration >							
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> Online puzzle Quiz Application  o provide an automated platform for conducting quizzes online. To eliminate manual evaluation and reduce human errors. To save time and resources involved in traditional quiz methods. To enable instant result generation and feedback. To support remote assessments and online learning.	Research paper	python	Parul Datta(E17144)	-	12
Apply for NOC (frmStudentNoc.aspx) >							
Centre For Student Wellbeing (CSW) >							
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx) >							
DCPD >		<input type="checkbox"/> Disaster Preparedness and Response Education System for Schools and Colleges  A digital platform or app that offers interactive disaster education modules, region-specific alerts, and virtual drills. • Gamified learning experiences to improve engagement. • Emergency contact directories and real-time communication tools during disasters. • Dashboards for school administrators to track preparedness scores and drill participation.	Product	Basic web app development, backend, API integration	Sumit Kumar Rana(E18380)	-	6
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >							
E Library >							
Examination >							
Hostel >							
International Study Opportunities >		<input type="checkbox"/> Smart Crop Advisory System for Small and Marginal Farmers  A multilingual, AI-based mobile app or chatbot that provides real-time, location-specific crop advisory. • Soil health recommendations and fertilizer guidance. • Weather-based alerts and predictive insights. • Pest/disease detection via image uploads. • Market price tracking. • Voice support for low-literate users. • Feedback and usage data collection for continuous improvement.	Product	Basic web app development, backend, API integration	Sumit Kumar Rana(E18380)	-	4
		<input type="checkbox"/> Blockchain based Student Certificate Vault  Develop a tamper-proof digital vault using blockchain to store hashed student certificates, ensuring immutability and transparency across institutions and employers.? Enable instant, intermediary-free verification of academic credentials via QR codes or unique hashes linked to the blockchain ledger.? Reduce administrative overhead and costs associated with manual certificate checks and fraud investigations in higher education.?	Research paper	Blockchain fundamentals, web development	Sumit Kumar Rana(E18380)	-	2



		<input type="checkbox"/> Student Performance Prediction	Build an ML model to predict student performance (grades/pass-fail) using historical data for proactive academic support.? Enable educators to identify at-risk students early and implement tiered interventions.	Research paper	Machine learning	Sumit Kumar Rana(E18380)	-	7
Academics	>							
Accounts	>					SONAL 24BCS10195		
Administration	>							
Apply for Loan Documents (frmLoanLetterApplication.aspx)		<input type="checkbox"/> Charity Donation Transparency Tracker	Create a decentralized platform for real-time donation tracking to enhance donor confidence and NGO accountability.? Eliminate intermediaries and fraud risks via immutable blockchain records.	Research paper	Blockchain fundamentals, web development	Sumit Kumar Rana(E18380)	-	0
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Social Media Sentiment Analyzer for a Brand	Develop an automated tool to analyze brand sentiment from social media, providing actionable insights for marketing strategies.? Enable real-time monitoring to detect reputation risks and opportunities.	Research paper	NLP	Sumit Kumar Rana(E18380)	-	0
Centre For Student Wellbeing (CSW)	>	<input type="checkbox"/> Spam Mail Classifier	Build an ML classifier to automatically detect spam emails with >95% accuracy, reducing user exposure to threats.? Provide a deployable tool for email filtering in personal or organizational settings.	Research paper	Machine learning	Sumit Kumar Rana(E18380)	-	9
CDCPD	>							
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Mini Supply Chain for Canteen Items	Create blockchain-based tracking for canteen supplies, ensuring end-to-end transparency from vendor to consumption.? Prevent food fraud/wastage through verifiable quality and expiry records.	Research paper	Blockchain fundamentals, web development	Sumit Kumar Rana(E18380)	-	0
E Library	>	<input type="checkbox"/> Blockchain-Based Land Record Simulator for Secure and Transparent Property Transfers	The main objective of this project is to showcase how blockchain technology can improve the security and transparency of land record management. It aims to simulate property ownership transfers, prevent record tampering, and build trust through immutable transaction history. The project also helps users understand real-world applications of blockchain in governance and public record systems.	Research paper	Python, Basic Blockchain Concepts, Data Structures, CLI/Web Development	Deepak Kumar(E18313)	-	2
Examination	>							
Hostel	>							
International Study Opportunities								



		<input type="checkbox"/> Face Mask or Helmet Detection Using Pretrained CNN Models and Image Classification	<p>The objective of this project is to build an image classification system that can accurately detect the presence of a face mask or helmet. It aims to promote public safety by automating compliance checks, while also helping</p>	<p>Research paper</p>	<p>Python, Basic Deep Learning, Image Processing,</p>	<p>Deepak Kumar(E18313)</p>	-	2
Academics >						<p>SONAL 24BCS10195</p>	(StudentHome.aspx)	
Accounts >								
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx) >								
Apply for NOC (frmStudentNoc.aspx) >		<input type="checkbox"/> Fraudulent Transaction Alert System Using Blockchain Ledger and ML Anomaly Detection	<p>The objective of this project is to build a system that identifies suspicious transactions on a blockchain-based financial ledger. It aims to combine secure transaction recording with intelligent fraud detection, reduce manual monitoring efforts, and improve trust in digital financial systems. The project also helps learners understand the practical integration of blockchain and machine learning.</p>	<p>Research paper</p>	<p>Python, Blockchain Basics, Machine Learning,</p>	<p>Deepak Kumar(E18313)</p>	-	0
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx) >								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >								
E Library >		<input type="checkbox"/> Academic Credential Verification and Skill-Based Career Prediction Using Blockchain and ML	<p>The objective of this project is to create a trustworthy system for academic certificate verification while also providing intelligent skill-based recommendations. It aims to reduce credential fraud, simplify verification for employers and institutions, and support students in choosing appropriate career paths or study options based on their academic performance and skills.</p>	<p>Patent</p>	<p>Python, Basic Blockchain, Machine Learning, Data Analysis, Database Management</p>	<p>Deepak Kumar(E18313)</p>	-	0
Examination >								
Hostel >		<input type="checkbox"/> Automatic Hand Sanitizer Dispenser	<p>to contribute to contactless hand disinfection in public places and virus infection prevention. Additionally, it is economical and eco-friendly by decreasing waste emissions.</p>	<p>Product</p>	<p>C,C++</p>	<p>Ishta(E12905)</p>	-	5
International Study Opportunities >		<input type="checkbox"/> Multimodel attention transformer for IIOT intrusion detection	<p>objective to ensure real world feasibility by optimizing the model with less inference time and enabling efficient deployment</p>	<p>Research paper</p>	<p>python</p>	<p>Ankita Dhiman(E11431)</p>	-	5
		<input type="checkbox"/> Smart Attendance System Using Face Recognition	<p>To automate classroom attendance. To reduce proxy attendance. To understand basic image processing concepts.</p>	<p>Research paper</p>	<p>OpenCV and Python</p>	<p>Amit Kumar(E13989)</p>	-	1



		<input type="checkbox"/> "Implementation of Anomaly-Based Intrusion Detection System Using Machine Learning"	This project aims to design an anomaly-based Intrusion Detection System using machine learning techniques to detect suspicious network activities. The system learns normal network behavior from traffic data and identifies deviations as potential intrusions. Algorithms such as Isolation Forest, SVM, or Random Forest are applied to improve detection accuracy and reduce false positives, enhancing network security.	Research paper	Python, Machine Learning, Networking Basics, Cyber Security, Data Preprocessing	Narinder Kaur(E12264)	-	4
Academics >							(StudentHome.aspx)	
Accounts >							SONAL 24BCS10195	
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Student Performance Prediction System using python	To predict student academic performance. To apply basic data mining techniques. To support early intervention.	Research paper	Python	Amit Kumar(E13989)	-	9
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> Smart Waste Management System Using IoT and python	To monitor waste levels in bins. To improve waste collection efficiency. To learn IoT sensor integration.	Research paper	Python	Amit Kumar(E13989)	-	0
DCPD >		<input type="checkbox"/> Weather Prediction Using Machine Learning Techniques	To study basic weather parameters and datasets To collect and preprocess historical weather data To implement machine learning models for prediction To compare model performance using accuracy metrics To develop a simple weather prediction system	Product	Python, Machine Learning Basics, Data Analysis, Statistics, Visualization	Narinder Kaur(E12264)	-	14
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Early Detection of Wheat Diseases	Development of AI/ML-based image recognition tools integrated with drone/satellite data and mobile apps to provide real-time detection, mapping, and alerts to farmers.	Patent	Machine learning and python	Navjot Kaur(E17204)	-	0
E Library >		<input type="checkbox"/> Recovery and reuse of Fresh water resources	This problem statement proposes the design of a Smart Process System design for separation and cleaning at primary (solid removal), secondary (organic removal), and tertiary (nutrient and advanced contaminant removal) treatment stages, with the level of treatment determined by the intended reuse.	Patent	Machine learning and python	Navjot Kaur(E17204)	-	0
Examination >		<input type="checkbox"/> AI-Based Early Disease Prediction System	To design and validate predictive models that identify disease risks at an early stage, compare algorithms for performance and fairness, and assess ethical implications of AI-driven diagnostics in healthcare systems.	Research paper	Python, Machine Learning, Statistics, Data Preprocessing, Healthcare Data	Paramjot Kaur Sarao(E13257)	-	0
Hostel >		<input type="checkbox"/> Fake News Detection Using NLP Techniques	To evaluate NLP approaches for misinformation detection and assess their robustness across topics, languages, and platforms.	Book Chapter	Python, NLP, Machine Learning, Text Mining, Data Visualization	Paramjot Kaur Sarao(E13257)	-	4
International Study Opportunities								



		<input type="checkbox"/> Urban Traffic Congestion Prediction System	To identify congestion drivers, build accurate forecasting models, and evaluate policy-level interventions for traffic reduction.	Research paper	Time-Series Analysis, Python, GIS, Machine Learning, Statistics	Paramjot Kaur Sarao(E13257)	-	0
Academics >		<input type="checkbox"/> Mental Health Trend Analysis Using Social Media Data	To detect population-level mental health signals and assess ethical considerations in digital mental health research.	Research paper	NLP, Python, Ethics in AI, Data Mining, Statistics SONAL SINGH(E10195)	Paramjot Kaur Sarao(E13257)	-	0
Administration >		<input type="checkbox"/> Renewable Energy Generation Forecasting	To improve accuracy of renewable energy forecasts and assess grid integration benefits.	Research paper	Time-Series Forecasting, Python, Energy Systems, Statistics, ML	Paramjot Kaur Sarao(E13257)	-	0
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> Water Quality Prediction	1. To design and implement a predictive model that accurately estimates water quality or potability using measured water parameters. 2. To build a prototype software or web application that allows users to input water quality readings and receive an automatic prediction of water safety.	Research paper	Machine learning and python	Navjot Kaur(E17204)	-	2
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Student Dropout Risk Prediction in Higher Education	To identify predictors of dropout and evaluate fairness of predictive models.	Research paper	Data Analysis, Machine Learning, Python, Education Metrics, Statistics	Paramjot Kaur Sarao(E13257)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx) >		<input type="checkbox"/> Automatic Street Light System	The objective of the Smart Automatic Street Light System is to design and implement an energy-efficient lighting solution that automatically controls street lights based on ambient light intensity. The system aims to reduce power consumption by switching lights ON only during darkness and OFF during daylight. It eliminates manual operation, minimizes human error, supports sustainable energy usage, and provides a cost-effective and reliable solution suitable for smart city and public lighting app	Product	Arduino Basics	Neha (E10457)	-	0
DCPD >		<input type="checkbox"/> IoT-based smart medicine reminder box	1. To generate multi-mode reminders (light, sound, and/or text notifications) at scheduled times so that patients are alerted whenever a dose is due. 2. To detect and log each box opening (or pill retrieval) as a proxy for dose intake, and store this data on a backend or cloud database for later analysis.	Patent	Basic C programming for Arduino, Circuit design and sensor interfacing	Navjot Kaur(E17204)	-	2
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >		<input type="checkbox"/> Real-Time AloMT Vital Monitor for Remote Patient Tracking	To provide continuous remote monitoring for post-surgery patients; to reduce hospital readmission rates; to master real-time data streaming and alert systems.	Patent	Embedded C, IoT Protocols (MQTT), Sensor Interfacing, Firebase, Basic Healthcare Data.	Anuj Kumar Jain(E17635)	-	0
E Library >								
Examination >								
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International Study Opportunities								



		<input type="checkbox"/> IoT-Based Precision Agriculture with Real-time Soil and Weather Data	To optimize water usage in farming; to learn how to integrate web-based data (APIs) with physical hardware; to automate manual labor in agriculture.	Patent	Arduino Programming, API Integration (JSON), Hardware Prototyping, Basic Electronics, Logic Gates	Anuj Kumar Jain(E17635)	-	0
Academics >		<input type="checkbox"/> Machine Learning-Based Student Performance Prediction System	To predict student academic performance using ML techniques.	Research paper	SONAL Aggarwal, Python, ML Algorithms, Data Visualization, Statistics	Gurmeet Kaur(E6709)	-	0
Administration >		<input type="checkbox"/> Fake News Detection Using Natural Language Processing and Machine Learning	To automatically identify fake news articles using ML and NLP techniques.	Research paper	Python, NLP, Machine Learning, Text Preprocessing	Gurmeet Kaur(E6709)	-	6
Apply for Loan Documents (frmLoanLetterApplication.aspx)		<input type="checkbox"/> Credit Risk Assessment Using Machine Learning Models	To evaluate creditworthiness of loan applicants using ML.	Research paper	Python, Machine Learning, Data Analysis, Statistics	Gurmeet Kaur(E6709)	-	0
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Machine Learning-Based Crop Yield Prediction System	To predict crop yield using historical agricultural and environmental data.	Research paper	Python, Machine Learning, Data Preprocessing, Regression Models	Gurmeet Kaur(E6709)	-	0
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Predictive Maintenance System Using IoT Sensors	To predict equipment failure using vibration and temperature data	Research paper	sensors, Python, ML	Kiranjeet Kaur Sandhu(E12258)	-	20
DCPD >		<input type="checkbox"/> Design and Development of an IoT-Based Smart Energy Monitoring and Optimization System for Education	To design a real-time energy monitoring system, analyze power usage patterns, reduce energy wastage, and promote energy-efficient practices using data-driven insights.	Product	Embedded C, Arduino/Raspberry Pi, IoT Protocols, Sensors & Actuators, Basic Networking	Zahid Hussain Wani(E18378)	-	0
E Library >		<input type="checkbox"/> Sentiment Analysis of Social Media Data Using Machine Learning	To analyze public sentiment from social media posts.	Research paper	Python, NLP, Machine Learning, Text Analytics	Gurmeet Kaur(E6709)	-	0
Examination >		<input type="checkbox"/> Intelligent Traffic Signal Control System Using Edge AI and Embedded Vision	To reduce traffic congestion, improve signal efficiency, and demonstrate real-time decision-making using edge-based AI models.	Patent	Python, OpenCV, Embedded Systems, Machine Learning Basics, Linux	Zahid Hussain Wani(E18378)	-	0
Hostel >		<input type="checkbox"/> IoT-Based Real-Time Water Quality Monitoring System for Rural and Urban Areas	To ensure safe water quality monitoring, enable early warning mechanisms, and support sustainable water management practices.	Service	IoT Sensors, Microcontrollers, Cloud Platforms, Data Visualization, Basic Electronics	Zahid Hussain Wani(E18378)	-	0
International Study Opportunities >		<input type="checkbox"/> Automated Smart Waste Segregation System Using Sensors and Embedded Intelligence	To automate waste segregation, improve recycling rates, and reduce environmental pollution.	Product	Embedded C, Sensors, Actuators, Mechanical Integration, IoT	Zahid Hussain Wani(E18378)	-	0
		<input type="checkbox"/> Intelligent Resume Screening and Ranking System Using Natural Language Processing	To automate resume screening, improve hiring efficiency, and ensure unbiased candidate selection.	Internship	Python, NLP Basics, Machine Learning, Text Processing, Databases	Zahid Hussain Wani(E18378)	-	0
		<input type="checkbox"/> Machine Learning-Based Prediction of Student Academic Performance	To identify at-risk students early and improve academic outcomes using predictive analytics.	Research paper	Python, Machine Learning, Data Analysis, Statistics, Visualization	Zahid Hussain Wani(E18378)	-	0
		<input type="checkbox"/> AI-Based Disaster Alert and Response System Using Real-Time Data Analytics	To provide early disaster warnings, reduce loss of life, and improve emergency response planning.	Research paper	Python, Data Analytics, Machine Learning, APIs, Cloud Computing	Zahid Hussain Wani(E18378)	-	0
		<input type="checkbox"/> Smart Plant Watering System Using Soil Moisture Sensor	To build an automatic watering system, conserve water, and study sensor-based decision making in agriculture.	Product	Microcontrollers, Sensors, Embedded C, Relays, Basic IoT	Paramjot Kaur Sarao(E13257)	-	0



		<input type="checkbox"/> Smart Walking Stick for Visually Impaired	To design an affordable assistive device and evaluate obstacle detection accuracy.	Product	Embedded C, Ultrasonic Sensors, Microcontrollers, Actuators, Debugging	Paramjot Kaur Sarao(E13257)	-	0
Academics >		<input type="checkbox"/> AI-Enabled Wearable Device for Early Stroke Prediction	To design a wearable hardware system capable of real-time health monitoring and stroke risk prediction using deep learning. To reduce diagnosis delay through continuous data analysis and edge intelligence. To develop a patentable healthcare product that improves patient outcomes and enables preventive care.	Patent	Python, Embedded Systems, Deep Learning, Signal Processing, IoT <b>SONAL</b> 24BCS10195	Gitanjali(E16525)	(StudentHome.aspx)	
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> AI-Based Smart Helmet for Accident Detection and Rider Safety	To design an intelligent helmet that detects accidents instantly using AI-based sensor fusion. To minimize emergency response time through automated alert systems. To create a commercially viable and patentable smart safety product for two-wheeler riders.	Patent	Python, Deep Learning, Embedded C, Sensor Integration, IoT	Gitanjali(E16525)	-	4
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Intelligent Smart Bin for Automated Waste Segregation	To automate waste segregation using deep learning and embedded vision. To reduce human involvement and improve recycling efficiency. To design a scalable and patentable hardware solution supporting sustainable waste management systems.	Patent	Python, Computer Vision, Deep Learning, Embedded Systems, IoT	Gitanjali(E16525)	-	5
E Library >								
Examination >								
Hostel >								
International Study Opportunities		<input type="checkbox"/> Medical supply chain transparency	To design a blockchain-based model that records each transfer of drugs and vaccines from manufacturer to patient.? 2. To implement a prototype smart contract system for registering batches, transferring ownership, and verifying product authenticity using unique identifiers (e.g., QR/serial codes).? 3. To reduce the risk of counterfeit and substandard medicines by enabling stakeholders (distributors, hospitals, pharmacies, patients) to verify origin and full history on an immutable ledger.	Research paper	1. Basic programming fundamentals in at least one language C/C++/Java/Python and blockchain basics.	Navjot Kaur(E17204)	-	1
		<input type="checkbox"/> "AgriChain Green: Blockchain-Enabled Traceability of Soil & Farming for Sustainable Agriculture"	1. To design a blockchain-based model that records soil and farm management data for each field, creating a tamper-proof history of soil health and agricultural practices. 2. To implement a prototype smart contract system that associates plots with sustainability indicators and can issue simple rewards or certifications when predefined thresholds are satisfied.	Research paper	1. at least one language (C/C++/Java/Python) 2. Blockchain fundamentals.	Navjot Kaur(E17204)	-	1



		<input type="checkbox"/> EventNest : An Interest-Based College Event Recommendation System	To solve the problem of scattered college event information To provide personalized event recommendations to students To use Python and basic AI concepts in a real-world application To increase student participation in college activities To design a system that can be scaled in the future using advanced AI techniques	Product	frontend: vanilla backend: flask database : sqlite NLP / simple keyword matching , Python	Ankita Dhiman(E11431)	-	0
Academics >						(StudentHome.aspx)		
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Real-Time Stock/Crypto Trend Predictor using LSTM	To understand time-series data analysis; to learn about Recurrent Neural Networks (RNNs); to build a live data visualization dashboard.	Copyright	Python, Pandas, LSTM/RNN Models, Matplotlib, API Handling.	Anuj Kumar Jain(E17635)	-	0
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Secure Academic Certificate Verification using IPFS and Blockchain	To prevent the circulation of counterfeit academic documents; to learn about decentralized file storage (IPFS); to create a trustless verification system.	Research paper	Blockchain Basics, Python (Web3.py), IPFS API, Flask, Cryptography.	Anuj Kumar Jain(E17635)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> Low-Cost Portable IoT Device for Real-Time Urban Air Quality Mapping	To create hyper-local environmental data sets; to learn about sensor calibration and noise reduction; to visualize time-series data on a web dashboard.	Patent	Databases, Hardware Calibration, Python Data Visualization, GPS Interfacing.	Anuj Kumar Jain(E17635)	-	0
DCPD >		<input type="checkbox"/> IoT based Smart Electricity Meter with Remote Load Control	To provide transparency in energy billing; allow users to monitor daily consumption; implement remote load switching; reduce phantom power wastage.	Patent	Embedded C, Firebase, Electrical Safety, Mobile App Development.	Anuj Kumar Jain(E17635)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Solar-Powered WSN for Micro-Climate Precision Agriculture & Water Conservation	To optimize agricultural water usage; learn multi-node data aggregation; build a self-sustaining solar-powered node; implement automated zone-based irrigation.	Research paper	Arduino, Soil Sensors, Power Management, Logic Gates.	Anuj Kumar Jain(E17635)	-	0
E Library >		<input type="checkbox"/> Multi-Node WSN for Early Forest Fire Detection & Real-time Cloud Alerting	To design an energy-efficient wireless topology for remote areas; implement real-time hazard monitoring; minimize false alarms through multi-sensor logic; ensure long-range communication.	Research paper	Zigbee Protocols, NodeMCU, Sensor Calibration, Networking Basics.	Anuj Kumar Jain(E17635)	-	0
Examination >		<input type="checkbox"/> Urban Traffic Flow Predictor using Time-Series Analysis and Sensor Data	To reduce urban travel time; analyze complex time-series patterns; implement predictive maintenance for roads; help in smarter city planning.	Research paper	Python, LSTM Models, Data Visualization.	Anuj Kumar Jain(E17635)	-	0
Hostel >		<input type="checkbox"/> Crossword Puzzle Game	write a program to find a satisfying assignment: a different word (from a given vocabulary list) for each variable such that all of the unary and binary constraints are met.	Service	Python and Crossword Puzzle Game	Lipakshi(E19704)	-	4
International Study Opportunities								



		<input type="checkbox"/> Interactive Web App for Transliteration and Translation	To design a transliteration module for converting text between scripts. To integrate transliteration with a machine translation engine. To develop a user-friendly web interface for multilingual input. To evaluate usability and translation accuracy through user feedback.	Research paper	Flask/Django, React, REST APIs, transliteration libraries, Python	Rajneet Kaur(E12892)	-	0
Academics >								(StudentHome.aspx)
Accounts >					SONAL 24BCS10195			
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> Low-Resource Language Machine Translation Using Data Augmentation	To study challenges in low-resource machine translation. To generate synthetic parallel data using back-translation. To apply transfer learning from high-resource language pairs. To measure performance improvement using augmented datasets.	Product	Python, NLTK	Rajneet Kaur(E12892)	-	0
Apply for NOC (frmStudentNoc.aspx) >								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq) >		<input type="checkbox"/> Automatic Smart Irrigation System	To measure soil moisture using sensors. To automate water pumping based on threshold values. To minimize human intervention in irrigation. To improve water efficiency in agriculture.	Research paper	Arduino/ESP8266, soil moisture sensor, relay module, water pump	Rajneet Kaur(E12892)	-	0
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >		<input type="checkbox"/> Federated Learning-Based Privacy-Preserving Healthcare System	Build AI models collaboratively without centralizing sensitive patient data. Predict disease risks and recommend preventive measures. Ensure compliance with privacy regulations like HIPAA or GDPR.	Research paper	Python, TensorFlow Federated or PySyft	Kirandeep Kaur(E12851)	-	3
E Library >								
Examination >								
Hostel >								
International Study Opportunities >		<input type="checkbox"/> Blockchain-Enabled Supply Chain Management with Smart Contracts	Ensure transparent and tamper-proof supply chain data. Automate contractual obligations and payments via smart contracts. Track and authenticate products using IoT sensors.	Research paper	Solidity or Hyperledger programming	Kirandeep Kaur(E12851)	-	0
		<input type="checkbox"/> AI-Powered Digital Twin for Smart Cities	Build a virtual replica of a city that reacts in real-time to IoT sensor data. Predict traffic jams, energy spikes, and pollution levels using AI. Enable planners to test policies virtually before implementing in the real world.	Research paper	Python or C++ programming	Kirandeep Kaur(E12851)	-	2
		<input type="checkbox"/> Smart IoT-Based Energy Monitoring System	To reduce energy wastage by providing real-time consumption data and analytics to users for informed decision-making.	Product	Arduino, Sensors, IoT Protocols, Embedded C	Shikha Atwal(E11186)	-	4
		<input type="checkbox"/> Smart Dustbin	To promote cleanliness by ensuring timely trash collection and reducing overflow using a smart monitoring system.	Product	Arduino, Sensors, IoT basics, Basic coding, Circuit Design	Shikha Atwal(E11186)	-	0
		<input type="checkbox"/> Smart Agriculture Irrigation System	To design an irrigation system that optimizes water usage based on environmental data, reducing wastage and improving productivity.	Product	IoT basics, Arduino, Sensors, C Programming, Data Analysis	Shikha Atwal(E11186)	-	0



		<input type="checkbox"/> Intelligent Traffic Signal Control System	To optimize traffic flow and reduce congestion and waiting time at intersections.	Product	Embedded C, Sensors, Microcontrollers, Signal Logic, Electronics	Shikha Atwal(E11186)	-	4
Academics >		<input type="checkbox"/> Intelligent Question Paper Blueprint Generator	To assist faculty in creating standardized, outcome-aligned assessments efficiently.	Product	Python, Rule-Based Logic, OBE Concepts, Basic UI Design	Shikha Atwal(E11186)	(StudentHome.aspx)	5
Accounts >		<input type="checkbox"/> Predictive Student Performance Early-Warning System	To improve student success rates by enabling timely academic support.	Product	Python, Machine Learning, Data Preprocessing, Statistics	Shikha Atwal(E11186)	-	4
Administration >		<input type="checkbox"/> AI-Based Academic Timetable Conflict Detection System	To minimize scheduling conflicts, improve resource utilization, and reduce manual planning effort in academic institutions.	Product	Python, Constraint Logic, Data Structures, Basic AI Concepts	Shikha Atwal(E11186)	-	1
Apply for Loan Documents (frmLoanLetterApplication.aspx)		<input type="checkbox"/> Smart Irrigation and Crop Advisory System	Design low-cost sensor network for field conditions. Implement automated irrigation control logic with thresholds. Build farmer dashboard (local language support) for insights. Analyze water savings and yield improvement over baseline.	Product	IoT, Data Analytics, Agriculture Technology	Sandeep Singh(E14163)	-	1
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Energy-Efficient Smart Classroom Management	Deploy sensor network for occupancy and ambient conditions. Implement control logic and actuator interface for devices. Store and analyze energy-usage data with visual dashboards. Quantify potential cost and carbon-emission savings.	Product	IoT Platforms, Microcontrollers, Basic Electrical Concepts, Database, Web Dashboards	Sandeep Singh(E14163)	-	0
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Cloud-Ready Inventory & Invoice Management System	Implement core modules: product catalog, stock update, sales invoice. Maintain transactional records and low-stock alerts. Containerize the app (Docker) and deploy on a free-tier cloud. Expose simple REST APIs for future integration with POS/mobile apps.	Hackathon	Any Backend Framework, HTML/CSS/Javascript, SQL/NoSQL Basics, Docker/Cloud Basics, REST APIs	Sandeep Singh(E14163)	-	2
CDCP >		<input type="checkbox"/> Smart Queue Management for Service Counters	Implement token generation and live queue view. Estimate wait times using simple analytics on past data. Provide display screen and user app / web view. Present cost-benefit analysis for adopters.	Hackathon	Web/Mobile Dev, Basic Analytics, APIs, Realtime DB/Socket, UX	Sandeep Singh(E14163)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> AI Helpdesk Bot for University Freshers	Prepare FAQ knowledge base from existing IT policies. Implement intent detection and FAQ retrieval. Integrate simple ticket form and status tracking. Showcase reduction in support load via sample scenarios.	Hackathon	Python/Node, NLP/FAQ APIs, Webhooks, DB, Chat UI	Sandeep Singh(E14163)	-	1
E Library >		<input type="checkbox"/> OCR-Based Invoice Data Extraction Tool for Small Businesses	Collect sample invoices of different layouts from a partner firm. Use OCR libraries and post-processing to extract fields. Provide simple validation and export to Excel/CSV. Measure time saved vs manual data entry.	Product	Python, OCR (Tesseract/Cloud API), Regex, DB/Excel, Basic UX	Sandeep Singh(E14163)	-	0
Examination >								
Hostel >								
International Study Opportunities								



		<input type="checkbox"/> Lightweight Proctoring Support Tool for Online Assessments	Define event logs for tab-switching, copy-paste, idle time. Implement secure data storage and access controls. Study usability vs privacy concerns among students.	Service	Web APIs/JS, Security basics, Database, Ethics & privacy awareness	Sandeep Singh(E14163)	-	0
Academics	>							
Accounts	>	<input type="checkbox"/> Students Complaint Management Web Application	Design forms for complaint submission and status updates. Implement role-based login (student, warden, staff). Generate simple reports on complaint categories and resolution time.	Product	HTML/CSS/JS, Backend, SQL, Basic role-based access	SONAL 24BCS10195 	Sandeep Singh(E14163)	- 4
Administration	>							
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW)	>	<input type="checkbox"/> Career Compass – A Personalized Career Guidance Platform	The objective of Career Compass is to guide students in identifying suitable career paths based on their interests, aptitude, and academic profile. It aims to provide clear career roadmaps, relevant learning resources, and skill-based recommendations to reduce confusion after 10th or 12th. The platform focuses on enabling informed decision-making, improving career awareness, and minimizing misaligned career choices.	Service	• Basic programming knowledge (Java preferred) • Fundamentals of Object-Oriented Programming (OOP)	Neeraj Sharma(E19761)	-	9
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
DCPD	>							
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library	>							
Examination	>							
Hostel	>	<input type="checkbox"/> AI-Based Bone Mineral Density (BMD) Estimation from X-ray Images	AI-Based Bone Mineral Density (BMD) Estimation from X-ray Images uses deep learning models to automatically predict BMD values directly from bone X-ray images.	Research paper	Python	Deepika (E2851)	-	0
International Study Opportunities		<input type="checkbox"/> Multimodal AI System for Breast Cancer Risk Prediction	To develop a multimodal AI system that integrates mammogram images and clinical data to accurately predict breast cancer risk and support early clinical decision-making.	Research paper	Python	Deepika (E2851)	-	2
		<input type="checkbox"/> Women Health Monitoring & Wellness Alert System (IoT-Based)	The objective is to provide an affordable and accessible health monitoring solution for women. The system aims to track vital health parameters, detect abnormal conditions, and generate alerts for timely action. It supports preventive healthcare by combining sensor data with simple analytics, promoting awareness, safety, and proactive health management.	Patent	• Basics of embedded programming • Sensor interfacing • IoT communication (HTTP/MQTT – basic) •	Neeraj Sharma(E19761)	-	0



		<input type="checkbox"/> Smart Classroom Engagement & Feedback System (IoT-Based)	The objective is to enhance classroom quality using real-time hardware data. The system aims to automate attendance, measure engagement indicators, and enable instant anonymous feedback. It helps teachers	Product	<ul style="list-style-type: none"> <li>Basics of C/C++ or Python • Fundamentals of IoT &amp; embedded systems • Basic electronics &amp; sensor</li> </ul>	Neeraj Sharma(E19761)  <b>SONAL</b> 24BCS10195	-	3
Academics >								
Accounts >								
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Basic Chat Program	Set up a server program that listens for incoming connections. Build a client program that connects to the server and sends text messages. Exchange messages by sending short strings through sockets. Display incoming messages instantly so the chat feels responsive. Add a small UI if you want to move beyond the console. Test the setup by running the server and client on the same system or on two devices.	Product	Python Socket programming Simple console or Tkinter UI	Neha Kapur(E13446) 	-	10
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >		<input type="checkbox"/> Web-based Application for Automatic Timetable Generation	The difficulty of making timetables for classrooms is a scheduling algorithm with tremendous curiosity and association in the fields of artificial intelligence and operational research. This problem is being dealt in many organizations manually, i.e. timetables are set using a trial and error procedure. The process of preparing a timetable involves beneficial employment of resources which needs to be confronted each year by every educational institute	Product	AI	Neha Kapur(E13446) 	-	0
International Study Opportunities		<input type="checkbox"/> DIY Examination Grading System	It has been observed that the computation, compilation and most importantly grading of student's results with the use of manual and some general purpose software (off shell packages) is time consuming, creates fatigue and prone to errors. These have also been factors contributing to students' failure and delay is sometimes inevitable. This project sought to encourage the use of customized computer packages and software applications which will improve accuracy in students' results grading and aca	Product	PYTHON,C,C++	Neha Kapur(E13446) 	-	8



		<input type="checkbox"/> <b>Image Steganography - Hiding Information in Images</b> <p>Steganography is the art of hiding the fact that communication is taking place, by hiding information in other information. This project is developed for hiding information in any image file. The scope of the project is implementation of steganography tools for hiding information includes any type of information file and image files and the path where the user wants to save Image and extruded file. .</p>	Research paper	Python or Java SQLite or CSV Simple UI (Tkinter optional)	Neha Kapur(E13446)	-	0
Academics >							
Accounts >							
Administration >							
Apply for Loan Documents (frmLoanLetterApplication.aspx)							
Apply for NOC (frmStudentNoc.aspx)							
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> <b>Facial Expression Recognition System</b> <p>This is called the "Simulative Emotional Expression System," and many companies making robots are trying to do the same thing. It's important because it blurs the line between humans and machines, especially for robots that are supposed to be companions for people. However, SEER's technology can cost a lot of money. I want to create a basic, low-cost, and open-source version of this technology so that new engineers in robotics can use it and make their own systems. This is a big project, so I'll</p>	Product	PYTHON,C	Neha Kapur(E13446)	-	12
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)							
DCPD >							
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)							
E Library >							
Examination >							
Hostel >							
International Study Opportunities		<input type="checkbox"/> <b>Machine Learning-based Multiple Disease Prediction</b> <p>Due to the increasing global diabetes prevalence, Diabetic Retinopathy (DR) detection is still an outstanding medical challenge. Manual inspection methods in traditional environments are time consuming, accompanied with human error and inconsistent. Important but yet unsolved gaps such as class imbalance handling, redundant feature extraction, overfitting due to high dimensionality, and lacking the combination of global and local retinal patterns in previous machine learning and deep learning</p>	Research paper	PYTHON	Neha Kapur(E13446)	-	0



		<input type="checkbox"/> DIABETIC RETINOPATHY	Due to the increasing global diabetes prevalence, Diabetic Retinopathy (DR) detection is still an outstanding medical challenge. Manual inspection methods in traditional environments are time consuming, accompanied with human error and inconsistent. Important but yet unsolved gaps such as class imbalance handling, redundant feature extraction, overfitting due to high dimensionality, and lacking the combination of global and local retinal patterns in previous machine learning and deep learning	Research paper	PYTHON	Neha Kapur(E13446)	-	1
Academics >								
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)		<input type="checkbox"/> Performance Evaluation for Classifying Type 2 Diabetic Retinopathy using Deep Neural Network	EARLY DETECTION OF DR	Research paper	Python or Java SQLite or CSV Simple UI (Tkinter optional)	Neha Kapur(E13446)	-	0
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> DIABETIC RETINOPATHY DETECTION AND CATEGORIZING USING A LIGHTWEIGHT DEEP LEARNING APPROAC	Diabetic retinopathy is an ocular disorder that has the potential to result in visual impairment and complete loss of vision in those diagnosed with diabetes. This illness affects the retinal blood vessels inside the light-sensitive tissue layer at the posterior of the eye, known as the retina. This paper presents a complete approach to diagnosing and categorizing diabetic retinopathy using deep learning models. A lightweight Convolutional Neural Network (CNN) is used to detect diabetic retinopa	Research paper	Python or Java SQLite or CSV Simple UI (Tkinter optional)	Neha Kapur(E13446)	-	0
E Library >								
Examination >								
Hostel >								
International Study Opportunities		<input type="checkbox"/> Machine Learning-Based Prediction of Household Energy Consumption for Sustainable Living	Understand Core Machine Learning Theory Students will be able to explain fundamental machine learning concepts such as supervised and unsupervised learning, loss functions, optimization methods, bias-variance trade-off, and model generalization. Identify Research Gaps through Literature Analysis Students will be able to critically review and compare existing machine learning research papers to identify limitations, open problems, and potential areas for fundamental theoretical or methodological	Research paper	Python programming fundamentals,Machine Learning Fundamentals,Data Handling & Analysis,Mathematics	G Venkatesh(E19762)	-	0



		<input type="checkbox"/> Predicting Solar Power Generation Using Machine Learning Techniques	<p>o analyze the impact of weather and environmental factors on solar power generation. To develop machine learning models for solar power prediction. To evaluate and compare the performance of different</p>	Research paper	Basic Python Programming,Fundamentals of Machine Learning,Data Preprocessing & Analysis Skills	G Venkatesh(E19762)	-	0
Academics	>							
Accounts	>					SONAL 24BCS10195		
Administration	>							
Apply for Loan Documents (frmLoanLetterApplication.aspx)			ML models. To support efficient and sustainable utilization of solar energy resources					
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Machine Learning-Based Climate Change Trend Analysis	<p>o analyze the impact of weather and environmental factors on solar power generation. To develop machine learning models for solar power prediction. To evaluate and compare the performance of different</p>	Research paper	Basic Python Programming,Fundamentals of Machine Learning,Data Preprocessing & Analysis Skills	G Venkatesh(E19762)	-	2
Centre For Student Wellbeing (CSW)	>		ML models. To support efficient and sustainable utilization of solar energy resources					
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
DCPD	>							
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Cyber and Information Warfare as Hybrid Threats to National Security	The objectives of this project are to understand the concept of hybrid warfare, analyze cyber and information warfare techniques, study their impact on national security, identify vulnerabilities in digital infrastructure, and examine existing defense strategies. The project aims to propose effective countermeasures and policy recommendations to mitigate cyber and information-based threats.	Internship	Cyber Security Basics, Networking Fundamentals, Research Methodology, Critical Analysis, Report Writ	Satish Kumar Rajbhar(E19696)	-	0
E Library	>							
Examination	>							
Hostel	>							
International Study Opportunities		<input type="checkbox"/> Event Management Website	The objective of the Event Management Website is to design a user-friendly platform that allows users to view, create, and manage events efficiently. The website aims to provide features such as event listings, registration, schedules, and notifications. It helps organizers promote events effectively and enables participants to access event details easily, improving communication, organization, and overall event management experience.	Portfolio	HTML, CSS, JavaScript basics, UI design, DB basics	G Venkatesh(E19762)	-	10



		<input type="checkbox"/> AI-Based Phishing Website Detection as a Cyber Security Threat Mitigation Technique	<p>The main objectives of this project are to study phishing attacks and their impact on cyber security, extract relevant website features, implement machine learning models for phishing detection, compare model performance, and analyze accuracy and efficiency. The project also aims to propose a reliable approach to minimize phishing threats and improve online security awareness.</p>	Internship	Python Programming, Basic Machine Learning, Networking Basics, Cyber Security Fundamentals, Research Writing	Satish Kumar Rajbhar(E19696)	-	0
Academics >							(StudentHome.aspx)	
Accounts >							SONAL 24BCS10195	
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Fake News Detection Using Natural Language Processing Techniques	<p>To study fake news propagation, preprocess textual data, implement NLP-based classification models, compare accuracy of algorithms, and analyze the social impact of misinformation.</p>	Internship	Python Programming, NLP Basics, Machine Learning, Data Preprocessing, Research Writing	Satish Kumar Rajbhar(E19696)	-	0
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Smart Health Monitoring System Using IoT Technology	<p>To design a health monitoring system, integrate biomedical sensors, analyze real-time health data, and evaluate the usefulness of IoT-based healthcare solutions.</p>	Internship	Embedded Systems, IoT Basics, Sensors, Basic Electronics, Research Writing	Satish Kumar Rajbhar(E19696)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> Intelligent Traffic Control System Using Sensors and Automation	<p>To design a traffic monitoring system, analyze vehicle density data, implement automated signal control logic, and evaluate its effectiveness in reducing congestion.</p>	Internship	Embedded Programming, Sensors, Basic Electronics, Logic Design, Research Skills	Satish Kumar Rajbhar(E19696)	-	0
DCPD >		<input type="checkbox"/> Machine Learning Based Credit Card Fraud Detection System	<p>To study financial fraud techniques, analyze transaction datasets, implement ML-based fraud detection models, compare algorithm performance, and understand the role of data-driven security solutions in preventing financial fraud.</p>	Internship	Python Programming, Machine Learning Basics, Data Analysis, Statistics Basics, Research Writing	Satish Kumar Rajbhar(E19696)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Secure Online Voting System Using Encryption Techniques	<p>To study electronic voting challenges, design a secure voting architecture, implement encryption-based security measures, analyze system vulnerabilities, and evaluate the effectiveness of secure online voting solutions.</p>	Internship	Web Development Basics, Cryptography Basics, Database Management, Cyber Security Concepts, Research	Satish Kumar Rajbhar(E19696)	-	0
E Library >		<input type="checkbox"/> IoT Smart Water Level and Usage Monitoring System	<p>The objective of the IoT Smart Water Level and Usage Monitoring System is to design a low-cost, real-time monitoring solution that tracks water levels and consumption using sensors and a microcontroller. The system aims to send alerts for low or full tanks, prevent wastage, enable data-driven water management, and promote sustainable usage practices</p>	Competition	Basic Programming: Knowledge of Arduino, Sensor Interfacing, Electronics Fundamentals,	G Venkatesh(E19762)	-	0
Examination >								
Hostel >								
International Study Opportunities								



		<input type="checkbox"/> IoT-Based Smart Street Lighting System	The objective of the IoT-Based Smart Street Lighting System is to design a low-cost, automated solution that adjusts streetlight brightness based on ambient light and motion. The system aims to enhance urban safety, reduce energy consumption, lower maintenance costs, and enable real-time monitoring. It promotes sustainable, resilient, and smart city infrastructure, supporting SDG 11: Sustainable Cities and Communities.	Competition	Basic Programming: Knowledge of Arduino, Sensor Interfacing, Electronics Fundamentals	G Venkatesh(E19762)	-	0
Academics >							(StudentHome.aspx)	
Accounts >							SONAL 24BCS10195	
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> IoT Crowd Monitoring and Management System	The objective of the IoT Crowd Monitoring and Management System is to design a low-cost solution that monitors crowd density in public areas using ultrasonic or IR sensors. The system aims to alert authorities in real-time when overcrowding occurs, prevent accidents, enhance public safety, and support organized gatherings. It promotes safer, inclusive, and well-managed public spaces, contributing to SDG 16: Peace, Justice, and Strong Institutions.	Competition	Basic Programming: Knowledge of Arduino, Electronics Fundamentals, Data Visualization	G Venkatesh(E19762)	-	0
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >								
International Study Opportunities		<input type="checkbox"/> Automatic Touchless Waste Bin Using Arduino	To design and implement an Arduino-based smart dustbin that automatically opens its lid using an ultrasonic sensor, promoting touchless and hygienic waste disposal.	Patent	Arduino programming basics, ultrasonic sensor interfacing, servo motor control, basic electronics, s	Deepika (E2851)	-	0
		<input type="checkbox"/> Automated Irrigation System Using IoT	To optimize water usage in agriculture using smart sensing and automation.	Product	IoT, Arduino, Sensors, Embedded Systems, Cloud Platforms	Amandeep Kaur(E11813)	-	15
		<input type="checkbox"/> Smart Campus Safety & Emergency Alert System	The objective is to enhance campus safety through fast, reliable emergency communication. The system aims to minimize response time, improve situational awareness, and provide real-time location tracking to authorities during emergencies.	Product	Arduino	Vaneet Kumar(E11321)	-	0
		<input type="checkbox"/> Automated Detection of Plant Leaf Diseases Using Image Processing Techniques	To perform image preprocessing and segmentation for disease detection	Research paper	Python, Image Processing, Machine Learning, OpenCV, Basic Statistics	Shikha Kamal(E12552)	-	3
		<input type="checkbox"/> Face Mask Detection System Using Image Processing and Deep Learning	To design an automated system for detecting face mask usage from images To apply image preprocessing and face detection techniques	Research paper	Python, Digital Image Processing, OpenCV, Machine Learning, Basic Statistics	Shikha Kamal(E12552)	-	4
		<input type="checkbox"/> Medical Image Analysis for Early Detection of Brain Tumors	To study medical image processing techniques for brain MRI analysis To preprocess and enhance MRI images for better tumor visibility	Research paper	Python, Digital Image Processing, OpenCV, Machine Learning, Basic Statistics	Shikha Kamal(E12552)	-	0



		<input type="checkbox"/> Explainable Machine Learning Models for High-Risk Decisions	Compare black-box vs explainable models Evaluate interpretability vs accuracy trade-off	Research paper	Python	Rajneet Kaur(E12892)	-	0
Academics >		<input type="checkbox"/> Secure E-Healthcare Web Portal for Patient Data Management	To develop a secure web-based healthcare portal To implement role-based access control	Product	HTML, CSS, JavaScript, Backend Framework, Database Systems	SHIMNA Kamal(E12552)	(StudentHome.aspx)	21
Accounts >		<input type="checkbox"/> Smart Air Quality Monitoring System using IoT	To develop a real-time air quality monitoring system that collects, transmits, and visualizes environmental data using IoT technology to support pollution analysis.	Patent	C programming, IoT basics, Sensors, Embedded systems, Networking	Vetrihangam D(E11018)	-	1
Administration >		<input type="checkbox"/> Smart Irrigation System using IoT and Sensors	To reduce water wastage and improve crop yield by automating irrigation using sensor-driven decision-making.	Patent	Embedded C, IoT, Sensors, Microcontrollers, Basic electronics	Vetrihangam D(E11018)	-	1
Apply for Loan Documents (frmLoanLetterApplication.aspx)		<input type="checkbox"/> AI based Waste Management System	To improve waste collection efficiency and promote cleaner urban environments using smart monitoring.	Product	IoT, Embedded C, Networking, Sensors, Mobile/Web basics	Vetrihangam D(E11018)	-	1
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Accident Detection and Alert System using Sensors	To reduce emergency response time by automatically detecting accidents and sending alerts.	Patent	Embedded C, Sensors, IoT, GPS/GSM basics, Microcontrollers	Vetrihangam D(E11018)	-	0
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> E-Library System with AI Search Engine	Intelligent Search, Personalized Recommendations, AI-Powered Summaries, Text-to-Speech/Audio, Unified Access, Research Assistance, Admin Modules	Patent	Library System, AI	Soumya Ranjan Jena(E19677)	-	0
CDCP >		<input type="checkbox"/> Edge Computing Based Patient Monitoring in Rural Clinics	Reduced Latency, Improved Reliability and Offline Capability, Enhanced Data Security and Privacy, Optimized Bandwidth Use, Increased Accessibility to Specialized Care, Faster, AI-Powered Diagnostics	Patent	Edge Computing, Cloud Computing	Soumya Ranjan Jena(E19677)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Automatic Pesticide Sprayer Drone	Autonomous Flight Modes, Obstacle Avoidance, Precision Spraying, Safety Enhancements	Product	Drone Technology Applications	Soumya Ranjan Jena(E19677)	-	0
E Library >		<input type="checkbox"/> AI-Based Earthquake Impact Prediction Model	Prediction vs. Forecasting, Data Sources, Model Type, Early Warning System, Impact Zone Prediction, Resource Allocation and Damage Assessment	Research paper	AI, Machine Learning and Deep Learning	Soumya Ranjan Jena(E19677)	-	0
Examination >		<input type="checkbox"/> Low-Cost Energy Efficient Fan Using Arduino	Low Cost, Energy Efficient, Automatic Adjustment, PWM Control	Product	IoT, Arduino Uno/Nano	Soumya Ranjan Jena(E19677)	-	0
Hostel >		<input type="checkbox"/> Intelligent Traffic Signal Control Using Embedded Systems	To reduce traffic congestion and improve road safety through adaptive signal control.	Product	Embedded C, Sensors, Microcontrollers, IoT, Electronics	Anshu Mehta(E13356)	-	4
International Study Opportunities		<input type="checkbox"/> Smart Agriculture Monitoring System	To improve crop yield and optimize resource usage.	Product	IoT, Sensors, Embedded Systems, Data Analysis, Cloud	Anshu Mehta(E13356)	-	6
		<input type="checkbox"/> AI-Based Diabetic Retinopathy Detection System	To assist early diagnosis of diabetic retinopathy using AI.	Research paper	Python, Deep Learning, CNNs, Image Processing, ML	Anshu Mehta(E13356)	-	12



		<input type="checkbox"/> Personalized Disease Risk Prediction Using Secure Multi-Cloud AI Models in Healthcare	The primary objective of this project is to design and implement a secure, privacy-aware AI system for personalized disease risk prediction using a multi-cloud environment. The project aims to demonstrate how federated learning can	Product	Python, Scikit-learn, TensorFlow/PyTorch	Vaneet Kumar(E11321)	-	6			
Academics >										(StudentHome.aspx)	
Accounts >							SONAL 24BCS10195				
Administration >											
Apply for Loan Documents (frmLoanLetterApplication.aspx)											
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Multi-Sensor IoT System for Early Detection of Health Anomalies	To design and develop a multi-sensor IoT system that integrates wearable, ambient, and behavioral sensors for continuous health monitoring. To establish personalized health baselines for individuals using machine learning techniques instead of relying on population-based thresholds. To detect early deviations or anomalies from normal health patterns and generate timely alerts as decision-support information.	Product	IoT, Python, Understanding of sensor technologies	Vaneet Kumar(E11321)	-	5			
Centre For Student Wellbeing (CSW) >											
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)											
DCPD >											
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)											
E Library >											
Examination >		<input type="checkbox"/> Smart Tutor: IoT-Based Focus Monitoring and Study Assistant for Kids	The objective of the Smart Tutor project is to develop an IoT-based system that monitors a child's focus and posture during study sessions, providing real-time alerts whenever attention drops or the child leaves the study area. The system aims to promote sustained study habits by sending gentle reminders and tracking task completion. It integrates wearable and ambient sensors to offer personalized feedback on attention span, study duration, and behavioral patterns. Additionally, the project ensu	Hackathon	IoT, Python, Understanding of sensor technologies	Vaneet Kumar(E11321)	-	0			
Hostel >											
International Study Opportunities		<input type="checkbox"/> Artificial Intelligence Based Crime Prediction and Prevention System	Data Collection and Integration, Data Analysis, Predictive Analytics & Forecasting, Resource Allocation and Prevention,	Patent	AI, Data Analytics	Soumya Ranjan Jena(E19677)	-	1			
		<input type="checkbox"/> Disease Prediction Using Machine Learning	1. Collect relevant patient datasets containing symptoms, medical history, and test results for diabetes and heart disease. 2. Implement various machine learning algorithms (e.g., Logistic Regression, Random Forest, SVM, Decision Trees). 3. Train models to learn patterns distinguishing healthy individuals from those with early-stage diabetes or heart disease.	Research paper	ML ALGORITHMS,PYTHON	Pritika Goel(E13201)	-	5			



		<input type="checkbox"/> Machine Learning Model for Student Performance Prediction	To build and evaluate a machine learning model that forecasts student grades based on anonymized attendance records, homework submission history, and prior performance data. To compare the effectiveness of different	Research paper	ML ALGORITHMS,PYTHON	Pritika Goel(E13201)	-	5
Academics >								
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Rapid Steroid Detection in Food Products	Design a portable, user-friendly device to measure steroid content in milk and meat products. Establish a baseline for safe steroid levels based on animal weight or milk quantity.	Product	ML ALGORITHMS,PYTHON	Pritika Goel(E13201)	-	0
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> AI Based Smart Energy Meter using Theft Detection	Reduces NTLs: Significant reduction in financial losses from theft. Improves Accuracy: Ensures fair billing and grid management. Enhances Reliability: Improves power quality and supply stability. Automated Response: Reduces manual inspection needs.	Research paper	AI, ML	Soumya Ranjan Jena(E19677)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> AI-Based Fake News Detection System	Develop a machine learning model to identify potentially fraudulent news articles based on source credibility and content patterns. Utilize Natural Language Processing (NLP) to analyze sentiment and textual cues common in misinformation.	Research paper	ML ALGORITHMS,PYTHON	Pritika Goel(E13201)	-	1
DCPD >		<input type="checkbox"/> Air Quality Prediction Using Machine Learning Models	To forecast air pollution levels and evaluate prediction models.	Research paper	Python, Pandas, ML Models, Statistics, Data Visualization	Surinder Kaur(E1033)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Online Blood Donation Management System	To streamline blood donation processes, reduce response time during emergencies, and improve healthcare accessibility.	Product	HTML, CSS, JavaScript, PHP, MySQL	Parul Parihar(E12273)	-	4
E Library >		<input type="checkbox"/> Database & Backend: Student Attendance System via Face Recognition	Utilize OpenCV and Python to detect and recognize student faces in real-time from a camera feed. Automate the recording of attendance data directly into a SQL or NoSQL database.	Product	HTML,CSS,JAVASCRIPT	Pritika Goel(E13201)	-	3
Examination >		<input type="checkbox"/> AI-Powered Resume Screening Tool	To reduce manual effort in recruitment and improve fairness and efficiency in candidate shortlisting.	Product	Python, NLP Basics, Regex, Data Processing, Flask	Parul Parihar(E12273)	-	7
Hostel >		<input type="checkbox"/> Predictive Analysis of Stock Market Using Machine Learning	To develop a stock market prediction system using machine learning. To assist investors by providing trend analysis and predictive insights.	Research paper	Python, Machine Learning, Data Analysis, Statistics, Time Series	Manish Sharma(E5593)	-	0
International Study Opportunities								



		<input type="checkbox"/> Smart Traffic Management System Using Artificial Intelligence	To build an intelligent traffic monitoring system using AI. To reduce congestion and enhance urban transportation efficiency through data-driven decisions.	Research paper	Python, Deep Learning, Machine Learning, Data Analysis, AI	Manish Sharma(E5593)	-	0
Academics >		<input type="checkbox"/> AI-Based Plant Species Identification Using Deep Learning	To develop an AI-based system for automatic plant species identification. To improve classification accuracy and provide a fast, reliable tool for botanical research and education.	Research paper	SONAL Python, Deep Learning, Image Processing, Data Analysis	Manish Sharma(E5593)	-	0
Administration >		<input type="checkbox"/> AI Proctoring System for Exams	The objective of the AI Proctoring System for Exams is to ensure fairness and integrity in online examinations by using artificial intelligence techniques. The system aims to monitor candidates in real time, detect suspicious activities such as multiple faces, absence from screen, abnormal eye movements, and unauthorized objects, reduce human invigilation effort, prevent malpractice, and generate automated reports for efficient and secure online assessment management	Product	Python, Machine Learning, Computer Vision, OpenCV, Basic Web Development	Monika Anand(E12859)	-	4
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
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DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >								
International Study Opportunities		<input type="checkbox"/> Handwritten Digit Recognition Using Neural Networks	To design a handwritten digit recognition system using deep learning. To achieve high accuracy in digit classification and understand neural network-based learning models.	Research paper	Python, Neural Networks, Deep Learning, CNNs, Image Processing	Manish Sharma(E5593)	-	1
		<input type="checkbox"/> Real-Time Traffic Prediction & Optimization	To predict real-time traffic congestion and optimize traffic flow by analyzing live and historical traffic data using machine learning techniques, thereby reducing travel time, fuel consumption, and traffic congestion.	Product	Artificial Intelligence, Data Science & Smart Transportation	Monika Anand(E12859)	-	4
		<input type="checkbox"/> AI-Based Resume Screening System	To automate the resume screening process by analyzing resumes using AI techniques and matching candidate skills with job requirements to reduce recruitment time and improve hiring accuracy.	Product	Python, Machine Learning, NLP Basics, Data Analysis, Database Concepts	Monika Anand(E12859)	-	2
		<input type="checkbox"/> Deep Learning-Based Medical Diagnosis System	To enhance disease prediction accuracy using optimized deep learning models.	Research paper	Python, Machine Learning, NLP Libraries	Monika Anand(E12859)	-	0
		<input type="checkbox"/> Explainable AI for Student Performance Prediction	To develop an interpretable ML system that predicts student performance and explains influencing factors.	Research paper	Python programming, Machine Learning fundamentals, Data Analysis, Statistics	Monika Anand(E12859)	-	0
		<input type="checkbox"/> Content based Image Retrieval	To do content based image retrieval	Research paper	Python programming, machine learning	Rajani Misra(E8033)	-	0
		<input type="checkbox"/> Semantic image segmentation	To apply semantic segmentation using deep learning techniques	Research paper	Python programming, machine learning	Rajani Misra(E8033)	-	0



		<input type="checkbox"/> Drone for Crop Monitoring	To monitor crop health and soil conditions using aerial imaging.	Product	Drone Hardware, Raspberry Pi/Arduino, Camera/Sensor Integration, Basic AI/Image Processing	Monika Anand(E12859)	-	0
Academics >		<input type="checkbox"/> Smart Traffic Light Control System	To reduce traffic congestion and optimize signal timing using sensor data.	Product	Arduino/ESP32, IR Sensors/Camera, Traffic Light Circuitry, Embedded C/C++	Monika Anand(E12859)	(StudentHome.aspx)	
Accounts >		<input type="checkbox"/> Hybrid CBIR System Using Deep Features and Traditional Feature Matching	Extract deep and handcrafted image features Fuse multiple feature representations Improve semantic retrieval performance Evaluate using standard CBIR metrics Bridge the gap between low-level and high-level features	Research paper	Python, Deep Learning, OpenCV, CNNs, Feature Matching	Rajani Misra(E8033)	-	0
Administration >		<input type="checkbox"/> Scene Image Retrieval Using Bag of Visual Words Model	Extract SIFT descriptors Build visual vocabulary using k-means Represent images as feature histograms Perform similarity matching Evaluate retrieval performance	Research paper	Python, OpenCV, Machine Learning, Clustering	Rajani Misra(E8033)	-	0
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Online Examination Management System	To automate the examination process	Product	HTML & CSS, JavaScript	Shikha Kamal(E12552)	-	13
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)		<input type="checkbox"/> An AI-Based Image Recognition System Using Deep Learning.	To develop an AI-based image recognition system.	Research paper	OpenCV, Python, Jupyter Notebook	Shikha Kamal(E12552)	-	11
DCPD >		<input type="checkbox"/> Smart Attendance System (Face Recognition)	To automate the traditional attendance system To reduce proxy attendance To improve accuracy and save time To implement real-time face recognition using AI	Research paper	Uses OpenCV + CNN	Rajneet Kaur(E12892)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Traffic Sign Recognition System	To identify traffic signs accurately To enhance road safety To apply deep learning for image classification To support autonomous vehicle research	Product	Python	Rajneet Kaur(E12892)	-	5
E Library >		<input type="checkbox"/> AI-Based Sign Language Translator	To assist hearing-impaired communication To recognize hand gestures accurately To convert gestures into text/speech To promote inclusive technology	Research paper	Python, NLTK	Rajneet Kaur(E12892)	-	0
Examination >		<input type="checkbox"/> AI-Based Early Disease Prediction Using Multimodal Data	The objective of this project is to design a robust, explainable AI system capable of identifying early disease indicators before clinical symptoms become severe. By combining diverse health data sources, the system aims to provide personalized risk assessment and clinical decision support. Another goal is to reduce dependency on expensive diagnostic procedures by enabling AI-assisted pre-screening. The project also emphasizes interpretability, allowing healthcare professionals to understand model predictions	Research paper	Python & NumPy Machine Learning Algorithms Deep Learning (CNN, RNN) Medical Data Processing	Suraj Pal Singh(E13804)	-	0
Hostel >								
International Study Opportunities								



		<input type="checkbox"/> Industrial Defect Image Retrieval Using Feature Matching and Deep Learning	Develop a CBIR system for industrial defect images Extract texture, shape, and deep visual features Perform feature matching using similarity metrics Retrieve visually similar defect cases efficiently Reduce manual inspection time and human error	Research paper	Python, OpenCV, Image Processing, Deep Learning, Feature Extraction	Rajani Misra(E8033)	-	0
Academics >						(StudentHome.aspx)		
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)		<input type="checkbox"/> Smart Crop Disease Detection and Yield Optimization System	The objective is to empower farmers with an AI-driven decision-support system that improves crop productivity while minimizing resource wastage. The system aims to provide early warnings of disease outbreaks and actionable insights for preventive measures. Another objective is to reduce excessive pesticide usage by recommending targeted interventions. By enhancing food production efficiency, this project addresses food security challenges and promotes sustainable agricultural practices.	Research paper	Python Computer Vision Deep Learning (CNN) Remote Sensing Data ML Model Deployment	Suraj Pal Singh(E13804)	-	0
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)								
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E Library >								
Examination >		<input type="checkbox"/> AI-Based Climate Change Impact Prediction Model	The objective is to build a predictive framework that helps governments and organizations mitigate climate-related risks. The project aims to support early warning systems and climate-resilient infrastructure planning. Another objective is to create explainable climate predictions that policymakers can trust and use effectively. The system can be extended globally and adapted to different climate zones.	Research paper	Time-Series Analysis Python & Pandas Deep Learning (LSTM) Geospatial Data Analysis Statistics	Suraj Pal Singh(E13804)	-	0
Hostel >								
International Study Opportunities		<input type="checkbox"/> Intelligent Traffic Management Using Reinforcement Learning	The objective is to reduce urban traffic congestion and emissions by enabling adaptive traffic signal control. The system learns from traffic patterns and improves continuously without human intervention. It also aims to support emergency vehicle prioritization and public transport optimization.	Patent	Reinforcement Learning Python Simulation Tools (SUMO) Data Analytics Optimization Techniques	Suraj Pal Singh(E13804)	-	0
		<input type="checkbox"/> Emotion-Aware AI for Mental Health Monitoring	The objective is to provide a non-intrusive, AI-based mental health monitoring solution. The project aims to support early intervention and reduce stigma by enabling continuous, passive mental health assessment.	Research paper	NLP Computer Vision Deep Learning Signal Processing Ethics & AI Privacy	Suraj Pal Singh(E13804)	-	0



		<input type="checkbox"/> AI-Based Smart Waste Segregation System	The objective is to reduce landfill waste and promote circular economy practices. The system aims to minimize human error in waste sorting and increase recycling rates.	Research paper	Computer Vision Python CNN Models IoT Integration Dataset Labeling	Suraj Pal Singh(E13804)	-	0
Academics >		<input type="checkbox"/> Personalized AI Tutor Using Learning Analytics	The objective is to reduce learning inequality by providing personalized education at scale. The system adapts teaching strategies dynamically to individual learner needs.	Product	Machine Learning Data Analytics Python Recommendation Systems Educational Data Mining	SONAL 24BCS10195	Suraj Pal Singh(E13804)	- 5
Administration >		<input type="checkbox"/> AI-Powered Smart Wearable for Early Health Risk Detection	The objective is to design an intelligent, low-power wearable system capable of detecting early health risks before critical conditions arise. The project aims to shift healthcare from reactive treatment to proactive prevention by enabling continuous health assessment. Another objective is to perform AI inference at the edge to ensure low latency, privacy preservation, and reduced communication costs. The system also aims to provide explainable alerts to users and caregivers, improving trust and	Product	Embedded Systems & Microcontrollers Python / Embedded C Machine Learning Fundamentals Sensor Inte	Suraj Pal Singh(E13804)	-	5
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> AI-Driven Autonomous Waste Segregation and Collection Robot	The objective is to design an intelligent robotic system that automates waste collection and segregation with minimal human intervention. The project aims to address inefficient waste management practices by combining AI-driven perception with autonomous navigation. Another objective is to reduce human exposure to hazardous waste and improve recycling efficiency. The system is designed to be modular and scalable, allowing deployment in smart cities, campuses, and industrial areas. This project e	Product	Robotics & Embedded Systems Computer Vision (OpenCV, CNNs) Python / ROS Motor Control & Sensors	Suraj Pal Singh(E13804)	-	0
Apply for NOC (frmStudentNoc.aspx) >		<input type="checkbox"/> AI-Based Cyberbullying Severity Detection System	To design an AI-based system that automatically detects cyberbullying content and classifies its severity levels using natural language processing and machine learning techniques. The project aims to support safer online environments by enabling early identification of harmful interactions while providing interpretable insights into linguistic patterns associated with varying severity levels.	Product	Python, NLP basics, Machine learning concepts, Data preprocessing, Text analysis	Komalpreet Saini(E14279)	-	6
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx) >								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >								
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International Study Opportunities								



		<input type="checkbox"/> AI-Enabled Smart Waste Segregation Bin	To develop a sustainable solution that automates waste segregation using AI. The project focuses on reducing human effort, improving recycling efficiency, and encouraging smart city practices through intelligent hardware integration.	Patent	Python, ML, IoT basics, Sensors, Arduino	Dilshad Kaur(E13682)	-	0
Academics >								
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> Machine Learning-Based Learning Style Adaptation System	To design a machine learning-based system that identifies students' preferred learning styles—such as visual, textual, or practice-oriented—by analyzing interaction and engagement data. The project aims to improve personalized learning experiences through behavior modeling, model comparison, and feature importance analysis while supporting adaptive educational platforms.	Research paper	Python, Machine learning basics, Data analysis, Feature engineering, Statistics	Komalpreet Saini(E14279)	-	1
Apply for NOC (frmStudentNoc.aspx) >								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx) >								
DCPD >		<input type="checkbox"/> Human-in-the-Loop Machine Learning for Adaptive AI Systems	To design a human-in-the-loop machine learning system where human feedback is continuously used to improve model performance. The project aims to study how user corrections, confidence ratings, or validation inputs can guide model retraining, reduce prediction errors, and enhance trust, transparency, and adaptability in AI systems.	Research paper	Python, Machine learning basics, Data preprocessing, Model evaluation, User interface basics	Komalpreet Saini(E14279)	-	7
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >								
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Hostel >								
International Study Opportunities >								
		<input type="checkbox"/> Smart Plagiarism Detection System	To detect duplicate or copied content efficiently	Product	Python	Rajan Sachdeva(E12441)	-	6
		<input type="checkbox"/> YouTube Video Download Manager	To provide offline access to educational and informational videos.	Product	Python	Rajan Sachdeva(E12441)	-	18
		<input type="checkbox"/> Guess the Character Game	To improve logical reasoning and decision-making	Hackathon	Python	Rajan Sachdeva(E12441)	-	1
		<input type="checkbox"/> IoT-Enabled Automated Irrigation System	To conserve water and improve crop yield through automated irrigation control.	Product	Arduino, Sensors, Embedded C, IoT Basics, Circuit Design	Parul Parihar(E12273)	-	1
		<input type="checkbox"/> Page Rank	Complete the following functions : transition model , sample_pagerank, iterative page_rank	Service	Python , How Search Engines operate , Random Surfer Model , HTML	Lipakshi(E19704)	-	1
		<input type="checkbox"/> Build your own Linux / Dos commands	Build your own Linux / Dos command using Linux and scripting knowledge in Bash.	Product	Linux , Bash Scripting	Lipakshi(E19704)	-	1



		<input type="checkbox"/> Smart Attendance With Face Recognition	You build a system that marks attendance when a face is detected and matched. Start by collecting a small set of face images for each person. Use face detection to locate the face in each frame from the camera. Apply a	Product	Python , OpenCV, Face Recognition Libraries , Computer Vision (fundamental)	Lipakshi(E19704)	-	5
Academics >								(StudentHome.aspx)
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> X (twitter) Sentiment Analysis using Python	Classification Report drawing comparison between different classification models	Product	Python , Knowledge of Data Science	Lipakshi(E19704)	-	5
DCPD >		<input type="checkbox"/> Comparative Study of ML Models for Retinopathy Detection	To analyze model performance and recommend optimal techniques for retinopathy diagnosis.	Product	Machine Learning, Deep Learning, Python, Data Analytics, Research Methods	Simranjeet Kour(E13963)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Vision-Based Deep Learning Accelerator for Real-Time Physical Intrusion Detection in Secure Hardware	Security intelligence embedded at device hardware level No reliance on cloud or network connectivity Immediate hardware response (device lockdown, data wipe)	Patent	Hardware: Camera / depth sensor embedded into device enclosure Dedicated CNN accelerator (edge AI)	Shweta Tiwari(E13352)	-	0
E Library >		<input type="checkbox"/> Secure Web-Based Student Data Management System Using Role-Based Access Control	To design and develop a secure web-based student data management system To implement Role-Based Access Control (RBAC) for different users (Admin, Faculty, Student) To ensure data security using authentication and authorization mechanisms	Research paper	java PHP	Gurpreet Singh(E7759)	-	0
Examination >		<input type="checkbox"/> AI-Smart Air Quality Monitoring System Using IoT	To design a real-time air quality monitoring system, analyze pollution levels, provide alerts when thresholds are exceeded, and support environmental awareness and decision-making.	Product	IoT, Sensors, Embedded C, Microcontrollers, Cloud Platforms	Simranjeet Kour(E13963)	-	4
Hostel >		<input type="checkbox"/> Fake News Detection System	To detect misinformation automatically, enhance digital content reliability, and support informed decision-making using AI-driven text analysis.	Product	Python, Machine Learning, NLP, Data Analysis, Statistics	Simranjeet Kour(E13963)	-	4
International Study Opportunities		<input type="checkbox"/> A Hybrid Automata and Machine Learning Framework for Behavioral Analysis of Anxiety and Depression	To model behavioral and emotional states using automata theory To identify state transitions linked to anxiety and depression To integrate machine learning for accurate prediction To enhance interpretability of mental health prediction models To support early detection and intervention strategies	Research paper	Machine Learning, Automata Theory, Python, Data Analysis, Statistics	Hari Gobind Pathak(E12888)	-	2



		<input type="checkbox"/> Automata-Driven State Transition Modeling for Machine Learning-Based Detection of Anxiety and Depression	<p>To represent anxiety and depression as behavioral state transitions To design automata models capturing temporal mental health patterns To apply machine learning for state-based classification To enhance model explainability and reliability To support early mental health risk identification</p>	Research paper	Machine Learning, Automata Concepts, Python, Data Processing, Statistics	Hari Gobind Pathak(E12888)	-	0
Academics >						(StudentHome.aspx)		
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> Explainable Automata-Inspired Machine Learning Model for Progression Analysis of Anxiety and Depression	<p>To model mental health progression using automata-inspired state sequences To analyze temporal behavioral patterns of anxiety and depression To integrate explainable machine learning techniques To improve transparency of mental health prediction models To support early intervention through progression analysis</p>	Research paper	Machine Learning, Automata Theory, Python, Explainable AI, Statistical Analysis	Hari Gobind Pathak(E12888)	-	5
Apply for NOC (frmStudentNoc.aspx) >								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Automata-Guided Early Warning System for Risk Stratification of Anxiety and Depression Using Machine	<p>To design automata-based risk state models To identify early behavioral indicators of anxiety and depression To apply machine learning for risk stratification To develop an early warning mechanism for mental health risks To support preventive mental health care strategies</p>	Research paper	Machine Learning, Automata Modeling, Python, Risk Analysis, Data Science	Hari Gobind Pathak(E12888)	-	0
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >		<input type="checkbox"/> Temporal Automata-Based Modeling of Anxiety and Depression Using Sequential Machine Learning	<p>To represent anxiety and depression as temporal behavioral states To model state transitions using automata theory To apply sequential machine learning for temporal pattern learning To analyze progression and fluctuation of mental health conditions To improve early and reliable prediction of anxiety and depression</p>	Research paper	Machine Learning, Automata Theory, Python, Time-Series Analysis, Statistics	Hari Gobind Pathak(E12888)	-	5
E Library >								
Examination >		<input type="checkbox"/> IoT-Based Automata-Guided Wearable System for Real-Time Anxiety Detection	<p>To collect physiological data related to anxiety and depression To model mental state transitions using automata To apply machine learning for real-time mental health prediction To develop a wearable IoT monitoring system To support early intervention and continuous assessment</p>	Product	Embedded Systems, IoT, Machine Learning, Python, Sensor Data Processing	Hari Gobind Pathak(E12888)	-	9
Hostel >								
International Study Opportunities >		<input type="checkbox"/> Automata-Based Biofeedback Device for Stress and Anxiety Regulation Using Machine Learning	<p>To design a biofeedback system for anxiety regulation To monitor physiological stress indicators in real time To classify anxiety states using machine learning To control feedback actions using automata-based state logic To support self-regulation and anxiety management</p>	Product	Embedded Systems, Machine Learning, Automata Concepts, Python, Signal Processing	Hari Gobind Pathak(E12888)	-	8



		<input type="checkbox"/> A Cellular Automata-Agent Based Model for High Density Crowd Evacuation using Artificial Intelligence	To conduct a comprehensive review of existing evacuation models to identify critical research gaps. b) To design and build a hybrid CA-ABM model integrating a CA grid with an ABM for human behaviors and AI for	Research paper	Simulation Setup	Gaurav Bathla(E2593)	-	0
Academics >								
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Intelligent Traffic Signal Optimization Using Machine Learning	Reduce traffic congestion, Optimize signal timings, Improve fuel efficiency, Analyze real-time traffic data	Research paper	Python, Data Analysis, ML Algorithms, Statistics, Simulation Tools	Suchi Sharma(E19776)	-	4
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> Plagiarism Detection System Using NLP Techniques	Detect copied content, Improve originality verification and Compare large documents efficiently	Research paper	Python, NLP basics, Text Processing, Machine Learning, Algorithms	Suchi Sharma(E19776)	-	0
DCPD >		<input type="checkbox"/> AI-Driven Crop Recommendation System	Improve crop yield, Assist farmers with data-driven decisions and Analyze environmental factors	Research paper	Python, ML, Data Analysis, APIs, SQL	Suchi Sharma(E19776)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> AI-Enabled IoT-Based Smart Waste Monitoring and Collection Optimization System	Monitor waste fill levels in real time, Detect harmful gases from waste bins, Optimize waste collection schedules, Reduce operational cost and fuel usage and Support smart city waste management initiatives	Research paper	Arduino, Sensors, IoT Platforms, C Programming, Networking	Suchi Sharma(E19776)	-	0
E Library >		<input type="checkbox"/> Smart Irrigation System Using IoT Sensors	Automate irrigation, Save water and Improve efficiency	Research paper	Arduino, Sensors, Embedded C, IoT, Cloud	Suchi Sharma(E19776)	-	0
Examination >		<input type="checkbox"/> Smart Home Automation Using IoT	Remote control of devices, Reduce energy consumption and Improve user comfort	Research paper	Arduino, IoT, Sensors, App Development, Networking	Suchi Sharma(E19776)	-	0
Hostel >		<input type="checkbox"/> SAPS-Student Academic Performance Prediction System	Predict student performance using demographic, attendance, and assessment data.	Research paper	Python, Pandas, Scikit-learn, Matplotlib Jupyter Notebook, Google Colab	Amit Kumar Goyal(E16996)	-	4
International Study Opportunities		<input type="checkbox"/> Sentiment Analysis of Social Media Data	Analyze public sentiment from tweets or reviews to get polarity trends visualization Social media analytics exposure	Research paper	Python, Tweepy, NLTK TensorFlow, Power BI / Tableau	Amit Kumar Goyal(E16996)	-	0
		<input type="checkbox"/> Automated Answer Evaluation System	Automatically evaluate descriptive answers using NLP similarity measures.	Research paper	Python, SpaCy, Hugging Face Scikit-learn, Flask	Amit Kumar Goyal(E16996)	-	0
		<input type="checkbox"/> Early Warning System for Student Dropout Prediction	Predict likelihood of student dropout using academic and behavioral data	Research paper	Python, Pandas, Scikit-learn Power BI / Tableau	Amit Kumar Goyal(E16996)	-	0
		<input type="checkbox"/> AI-Based Chatbot for College Administration	Build an intelligent chatbot to answer student administrative queries.	Research paper	Python, Rasa Dialogflow, FastAPI	Amit Kumar Goyal(E16996)	-	0
		<input type="checkbox"/> Vehicle Accident Severity Prediction	Predict accident severity using traffic and environmental data.	Research paper	Python, Pandas Scikit-learn, GIS data	Amit Kumar Goyal(E16996)	-	0
		<input type="checkbox"/> Smart Energy Consumption Forecasting	Predict electricity consumption to optimize energy usage.	Research paper	Python, TensorFlow Pandas, Matplotlib	Amit Kumar Goyal(E16996)	-	0



		<input type="checkbox"/> Automated Detection of Diabetic Foot Ulcers Using Deep Learning	To design an automated system for detecting diabetic foot ulcers from digital foot images using deep learning techniques.	Research paper	PYTHON DEEP LEARNING MODELS	Deepika (E2851)	-	0
Academics >		<input type="checkbox"/> Smart Diabetic Foot Ulcer Monitoring Insole with Temperature and Pressure Sensing	Smart Diabetic Foot Ulcer Monitoring Insole with Temperature and Pressure Sensing	Patent	PYTHON DEEP LEARNING MODELS SONAL 24BCS10195	Deepika (E2851) 	-	0
Administration >		<input type="checkbox"/> IoT-Based Farm Equipment Availability & Tracking System	1.Track real-time equipment usage 2.Avoid misuse or overuse of shared equipment 3. Improve transparency among farmer groups 4. Enable data-driven equipment allocation	Product	IoT: ESP32/Arduino,GPS module:Backend: Firebase/Flask+Database:Cloud Firestore and HTTP APIs	Vikas Jindal(E9636)	-	0
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> AI-Based Equipment Demand Prediction System for Farmers	1.Predict peak demand periods for equipment 2.Optimize equipment allocation in advance3.Reduce delays during critical farming seasons 4.Support cooperative decision-making	Service	Python, ML libraries, Flask, Postgres SQL	Vikas Jindal(E9636)	-	3
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)								
DCPD >		<input type="checkbox"/> Blockchain-Based Transparent Farm Equipment Sharing Platform	1.Eliminate disputes in equipment usage 2.Ensure secure and tamper-proof records 3.Automate equipment rental agreements 4.Increase trust within farmer clusters	Service	Blockchain: Ethereum/Hyperledger, Smart Contract:Solidity, React, Note.js, MongoDB	Vikas Jindal(E9636)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >		<input type="checkbox"/> Mobile App for Cooperative Farm Equipment Management	1.Simplify access to shared equipment 2.Manage maintenance and service schedules 3.Digitize cooperative equipment records 4.Provide multilingual support for farmers	Product	Android Studio, Firebase Realtime DB	Vikas Jindal(E9636)	-	0
Hostel >								
International Study Opportunities		<input type="checkbox"/> Flappy Bird Game Clone	To understand game development fundamentals	Competition	Python or JAVA	Rajan Sachdeva(E12441)	-	12
		<input type="checkbox"/> GIS-Based Equipment Allocation System for Farmer Clusters	1.Reduce travel time for equipment transport 2.Allocate nearest available equipment 3.Improve resource utilization 4.Support regional farm planning	Service	Google Maps API, Python, Node.js, MongoDB	Vikas Jindal(E9636)	-	0
		<input type="checkbox"/> Cloud-Based Farm Equipment Utilization Analytics Platform	1.Identify underutilized equipment2.Improve maintenance planning 3.Support investment decisions for cooperatives 4. Provide visual analytics dashboards	Service	AWS, FLASK, Power BI, chart.js, SQL, NOSQL	Vikas Jindal(E9636)	-	0
		<input type="checkbox"/> Student Performance Management System	The system helps in calculating total marks, percentage, grades, and pass/fail status automatically. It reduces manual record keeping and improves accuracy.	Research paper	Basic programming (Python / Java) Understanding of variables, loops, and conditions File handling	Bharti(E16329)	-	0
		<input type="checkbox"/> Online Examination System	This web-based system allows instructors to create online exams and students to attempt them securely. The system automatically evaluates answers and displays results instantly.	Research paper	HTML, CSS, JavaScript basics Server-side scripting (Python / PHP) Basic database management Under	Bharti(E16329)	-	0



		<input type="checkbox"/> Chatbot for College Enquiry (Rule-Based)	This chatbot answers frequently asked college-related queries using predefined rules and keyword matching, providing 24/7 assistance.	Research paper	Basic programming (Python / Java) Understanding of variables, loops, and conditions File handling	Bharti(E16329)	-	0
Academics >		<input type="checkbox"/> Intelligent Medical Prescription Error Detection System using Machine Learning	To detect and prevent prescription-related errors automatically To enhance patient safety using predictive ML models To assist doctors and pharmacists with real-time decision support To reduce human dependency and manual verification errors	Patent	SONAL Python programming Machine Learning (Classification models) Natural Language Processing (NLP) Hea	Darshan Kaur(E15992)	-	0
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Smart Traffic Congestion Prediction and Adaptive Signal Control System	To predict traffic congestion in advance To dynamically control traffic signals using ML predictions To reduce travel time and fuel consumption To support smart city infrastructure	Patent	Python / R Machine Learning (Regression & Time-Series Models) Data analytics and visualization lo	Darshan Kaur(E15992)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> Machine Learning-Based Automated Student Mental Health Risk Assessment System	To identify students at mental health risk at an early stage To assist academic institutions in preventive intervention To analyze behavioral patterns using ML To reduce dependency on manual counseling processes	Patent	Python Machine Learning (Classification & Clustering) Natural Language Processing (Sentiment Analy	Darshan Kaur(E15992)	-	0
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >		<input type="checkbox"/> AI-Driven Crop Disease Prediction and Automated Treatment Recommendation System	To detect crop diseases at an early stage To recommend optimized treatment solutions To improve agricultural productivity To reduce environmental damage due to overuse of chemicals	Patent	Python Machine Learning & Deep Learning (CNNs) Image processing Agricultural data analysis Model	Darshan Kaur(E15992)	-	0
International Study Opportunities		<input type="checkbox"/> Weather Forecasting System (API-Based)	The system fetches real-time weather data from public APIs and displays weather conditions such as temperature and humidity.	Research paper	Python programming API integration Data visualization basics	Bharti(E16329)	-	0
		<input type="checkbox"/> Fake News Detection System (Introductory ML)	This project uses basic machine learning techniques to classify news articles as real or fake using text analysis.	Research paper	Python basics Basic machine learning concepts Text preprocessing techniques Familiarity with scik	Bharti(E16329)	-	0
		<input type="checkbox"/> Machine Learning-Based Fake Job Posting Detection and Employer Credibility Scoring System	To identify and filter fake or misleading job postings To assign real-time credibility scores to employers To protect job seekers from financial and identity fraud To enhance trust in online recruitment platforms	Research paper	Python Machine Learning (Classification & Anomaly Detection) Natural Language Processing (Text cla	Darshan Kaur(E15992)	-	0
		<input type="checkbox"/> Intelligent Energy Consumption Forecasting and Appliance-Level Optimization System	To forecast short-term and long-term energy consumption To identify high-energy-consuming appliances To optimize usage schedules using ML predictions To support sustainable and energy-efficient living	Research paper	Python Machine Learning (Regression & Time-Series Models) Data analytics IoT sensor data handling	Darshan Kaur(E15992)	-	0



		<input type="checkbox"/> AI-Based Personalized Learning Difficulty Diagnosis and Adaptive Content Recommendation System	To identify hidden learning difficulties at an early stage To personalize learning paths automatically To improve student performance and engagement To reduce dependency on one-size-fits-all teaching	Research paper	Python Machine Learning (Classification & Recommendation Systems) Learning analytics Data preproc	Darshan Kaur(E15992)	-	0
Academics	>				SONAL 24BCS10195		(StudentHome.aspx)	
Accounts	>							
Administration	>							
Apply for Loan Documents (frmLoanLetterApplication.aspx)		<input type="checkbox"/> Smart Waste Management System using IoT	Automated waste level detection Timely waste collection alerts Improved cleanliness and efficiency	Research paper	HTML, CSS, JavaScript basics Server-side scripting (Python / PHP) Basic database management Under	Bharti(E16329)	-	0
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Machine Learning-Driven Smart Waste Segregation and Recycling Recommendation System	To automate waste segregation To improve recycling efficiency To reduce landfill waste To support sustainable urban development	Research paper	Python Machine Learning & Computer Vision Image classification (CNNs) IoT data integration Envir	Darshan Kaur(E15992)	-	0
Centre For Student Wellbeing (CSW)	>	<input type="checkbox"/> AI-Based Sentiment Analysis System	Analyzes user reviews or feedback and classifies them as positive, negative, or neutral.	Research paper	Python programming API integration Data visualization basics	Bharti(E16329)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> Smart Street Light System	Uses LDR and motion sensors to automatically control street lights based on ambient light and movement.	Research paper	Python programming API integration Data visualization basics	Bharti(E16329)	-	1
DCPD	>	<input type="checkbox"/> Disaster Response UAV System for Remote Areas	To develop a simple drone-based system capable of delivering essential medical supplies and communication devices to remote areas during disasters like floods and earthquakes. The drone will use AI-driven real-time navigation for stable and autonomous flight. The goal is to ensure quick, safe, and reliable delivery of critical items when traditional routes are blocked or inaccessible.	Product	Drone basics, AI/ML fundamentals, GPS navigation, Python	Hari Gobind Pathak(E12888)	-	3
E Library	>	<input type="checkbox"/> Smart Energy Optimization System for Factories	Predict machine failure before occurrence Reduce unplanned downtime Optimize maintenance schedules	Service	Python, Pandas, Scikit-learn TensorFlow (LSTM), AWS IoT	Amit Kumar Goyal(E16996)	-	0
Examination	>	<input type="checkbox"/> Smart Industrial Waste Segregation & Recycling System	Classify waste materials Improve recycling rates Reduce landfill waste	Product	.Image classification CNN fundamentals Sustainability basics, TensorFlow, MobileNet OpenCV, Edge AI	Amit Kumar Goyal(E16996)	-	0
Hostel	>	<input type="checkbox"/> AI-Driven Carbon Emission Monitoring Platform	Estimate emission levels Support ESG compliance Enable emission reduction planning	Service	Regression analysis Data visualization Environmental basics, Python, Scikit-learn SHAP, Cloud dash	Amit Kumar Goyal(E16996)	-	0
International Study Opportunities		<input type="checkbox"/> Smart Water Usage Optimization System	Predict water consumption Detect leaks/anomalies Promote sustainable water use	Service	Time-series forecasting Anomaly detection IoT fundamentals, Tools & Technologies: Python, IoT flow	Amit Kumar Goyal(E16996)	-	0



		<input type="checkbox"/> Disease Prediction in Potato Plant Using Deep Learning <p>The main objective of this project is to design an efficient deep learning model for accurate potato plant disease prediction. The project aims to preprocess leaf images, extract meaningful features using CNN architectures, and classify diseases with high accuracy. Another objective is to compare different deep learning models and evaluate their performance using standard metrics, thereby contributing a reliable and scalable solution for precision agriculture.</p>	Research paper	Python Programming Machine Learning Basics Deep Learning & CNN Image Processing Data Analysis	Amit Kumar Jaiswal(E14521)	-	0
Academics >						(StudentHome.aspx)	
Accounts >						SONAL 24BCS10195	
Administration >							
Apply for Loan Documents (frmLoanLetterApplication.aspx)							
Apply for NOC (frmStudentNoc.aspx)							
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Multi-Modal Deep Learning for Disease Prediction Using Leaf Images and Soil Data <p>To design a multi-modal disease prediction system, enhance robustness, and recommend soil-specific nutrients. Validate the benefit of combining image and soil data.</p>	Research paper	Python, CNN, Neural Networks, Data Fusion, Machine Learning	Amit Kumar Jaiswal(E14521)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)							
DCPD >		<input type="checkbox"/> Transformer-Based Multi-Crop Disease Classification with Smart Fertilizer Advisory <p>To enhance multi-crop disease classification accuracy, reduce model bias, and provide crop-specific fertilizer recommendations. Evaluate transformer performance against CNN architectures for agricultural datasets.</p>	Research paper	Python, Deep Learning, Transformers, Data Analysis, Computer Vision	Amit Kumar Jaiswal(E14521)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)							
E Library >							
Examination >							
Hostel >							
International Study Opportunities		<input type="checkbox"/> Wearable Health Monitoring System with On-Device ML <p>To design a compact wearable device capable of real-time health monitoring and anomaly detection. To implement lightweight ML models on microcontrollers. To evaluate system accuracy, power efficiency, and reliability compared to cloud-based healthcare solutions.</p>	Research paper	Embedded C, Sensors, Machine Learning, Signal Processing, IoT	Amit Kumar Jaiswal(E14521)	-	0
		<input type="checkbox"/> Smart Diabetes Prediction and Insulin Recommendation System <p>To build a smart system for early diabetes detection and optimized insulin/medicine recommendation. The objective includes improving accuracy using ensemble models and ensuring safety by aligning recommendations with standard diabetes treatment protocols.</p>	Research paper	Machine Learning, Python, IoT Sensors, Medical Data Analysis, Statistics	Amit Kumar Jaiswal(E14521)	-	0
		<input type="checkbox"/> CNN-LSTM Based Early Potato Disease Prediction System <p>To design a robust hybrid deep learning model for early-stage potato disease detection; to analyze temporal disease progression using LSTM; to improve classification accuracy under real-field conditions; to compare performance with traditional CNN models; and to create a scalable software system that supports future integration with IoT-based farm monitoring systems.</p>	Research paper	Python, CNN, LSTM, Image Processing, TensorFlow	Amit Kumar Jaiswal(E14521)	-	0



		<input type="checkbox"/> Review and Analysis of Blockchain Technology in Secure Data Sharing	Study blockchain architecture Analyze security benefits Compare existing models Identify research gaps	Research paper	Blockchain Basics, Cryptography, Cyber Security, Technical Writing, Literature Review	Monika Devi(E15988)	-	0
Academics >		<input type="checkbox"/> Message Encode-Decode using Tkinter Library	To construct a GUI for the Message Encode and Decode using Tkinter library in Python	Book Chapter	Python know about Tkinter <b>SONAL</b> 24BCS10195	Lipakshi(E19704) 	-	1
Administration >		<input type="checkbox"/> Smart Irrigation System Using IoT and Edge Computing	To optimize water usage in agriculture by enabling real-time, automated irrigation decisions based on environmental data while minimizing water wastage and improving crop productivity.	Service	Embedded C, IoT Sensors, Microcontrollers, Basic Networking, Edge Computing	Parvesh Kumar(E14417)	-	0
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> Wearable Health Monitoring System Using IoMT	To provide continuous and remote health monitoring, enabling early detection of abnormalities and improving patient care accessibility.	Hackathon	Arduino, Biomedical Sensors, IoT Communication, Signal Processing, Mobile Apps	Parvesh Kumar(E14417)	-	0
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Smart Helmet for Accident Detection and Alert	To reduce accident response time and improve rider safety.	Hackathon	Sensors, GPS, GSM, Embedded C, Microcontrollers	Parvesh Kumar(E14417)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq) >		<input type="checkbox"/> Automated Waste Segregation System Using Sensors	To automate waste segregation and reduce manual intervention.	Competition	Sensors, Embedded Systems, Control Systems, IoT, Mechanical Design	Parvesh Kumar(E14417)	-	0
DCPD >		<input type="checkbox"/> AI-Based Intelligent System for Early Detection of Diseases Using Machine Learning	To study existing machine learning techniques used in disease prediction To design an AI-based predictive model for early disease detection To preprocess and analyze medical datasets To evaluate the performance of different ML algorithms	Research paper	java PHp	Gurpreet Singh(E7759)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >		<input type="checkbox"/> Develop an AI model that generates captions for images using deep learning techniques	An efficient ML-based disease prediction model Comparative analysis of different ML algorithms Improved accuracy over traditional methods	Research paper	java PHp	Gurpreet Singh(E7759)	-	0
E Library >		<input type="checkbox"/> Create a dashboard that visualizes key business data such as sales, user engagement, and more using	To study data visualization techniques and dashboard design principles To collect and process business-related datasets To develop an interactive dashboard for visualizing key metrics	Research paper	HTML, CSS, JavaScript	Gurpreet Singh(E7759)	-	6
Examination >		<input type="checkbox"/> Design and Development of an Immersive Virtual Reality Game	Single-player VR game prototype First-person immersive experience Motion-based interaction using VR controllers	Research paper	HTML, CSS, JavaScript	Gurpreet Singh(E7759)	-	0
Hostel >		<input type="checkbox"/> Spam Email Classifier	To understand text preprocessing and feature extraction To implement a machine learning model for email classification To detect spam emails automatically To improve email security and user productivity To evaluate model performance using standard metrics	Product	Python, Basic ML, NLP basics, Data Preprocessing, Scikit-learn	Nisha Sharma(R315)	-	4
International Study Opportunities >								



		<input type="checkbox"/> Face Recognition Door Lock	To design a secure door locking system using face recognition To detect and recognize authorized users using a camera To automate door access without keys or cards To improve security using AI-based authentication To reduce human intervention in access control systems	Product	Python programming Basic Machine Learning Computer Vision (OpenCV) Embedded Systems basics Raspb	Nisha Sharma(R315)	-	2
Academics >						(StudentHome.aspx)		
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)		<input type="checkbox"/> Multimodal Vision-Language Question Answering on Traffic Scenes	repare a dataset of traffic images with diverse questions and answers. Fine-tune a vision-language model for this specialized domain. Evaluate accuracy on counting, attribute and reasoning questions.	Research paper	Vision-Language / Intelligent Transport	Nimratveer Kaur Bahia(E14586)	-	0
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Robust and Explainable Pedestrian Detection Under Adverse Weather	Assemble a dataset with varied weather conditions (real or augmented). Train and adapt detectors for robust performance across conditions. Apply XAI tools to inspect model attention in difficult scenes.	Research paper	Object detection (YOLO/RetinaNet) Image augmentation/restoration Explainable AI (Grad-CAM) Experi	Nimratveer Kaur Bahia(E14586)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)								
DCPD >		<input type="checkbox"/> Text-to-Image Generation for Indian Street Scenes Using Diffusion Models	Collect or adapt a dataset of Indian street images with captions. Fine-tune or condition a diffusion model for scene generation. Evaluate realism using FID and user study feedback. Generate synthetic datasets to augment detection/segmentation models.	Research paper	Python & PyTorch Basics of diffusion/GANs Image preprocessing GPU model training	Nimratveer Kaur Bahia(E14586)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >		<input type="checkbox"/> Program to remotely Power On a PC over the internet using the Wake-on-LAN protocol	The console output as mentioned in image.	Book Chapter	C++ and basics of Computer Networking	Lipakshi(E19704)	-	0
Examination >								
Hostel >		<input type="checkbox"/> House Price Prediction Using Machine Learning Techniques	To develop an AI-based system that detects human faces in images or live video To apply computer vision techniques for real-time face detection To understand image processing and object detection concepts To improve safety and monitoring using AI To gain practical experience with OpenCV and AI tools	Research paper	Python programming Basic Artificial Intelligence concepts Computer Vision fundamentals OpenCV lib	Nisha Sharma(R315)	-	0
International Study Opportunities		<input type="checkbox"/> Artificial Super Intelligence based Neuromorphic Drone	Neuromorphic Computing, Energy Efficiency, Real-time Adaptability and Speed,	Patent	AI, Neuromorphic, Drone Technology	Soumya Ranjan Jena(E19677)	-	0
		<input type="checkbox"/> Disposable Situational-Awareness Micro-Drone to Give Soldiers Instant Live Video	The primary objectives of a disposable situational awareness micro-drone are to provide soldiers with immediate, real-time intelligence from high-risk or inaccessible areas, thereby enhancing battlefield awareness and reducing the risk to human life.	Patent	IoT, Autonomous Flight Modes, Navigation and Positioning Systems, Real-time Video Analytics and AI	Soumya Ranjan Jena(E19677)	-	0
		<input type="checkbox"/> Diabetic Retinopathy Detection Using Image Processing and Machine Learning	To detect diabetic retinopathy using basic ML techniques To reduce manual effort	Research paper	Python Basic ML algorithms Image processing basics	Nisha Sharma(R315)	-	0



		<input type="checkbox"/> Handwritten Digit Recognition Using CNN	To develop a system that can automatically recognize handwritten digits (0–9) To apply deep learning (CNN) for image classification To reduce errors in manual digit recognition To understand the practical use of CNN in computer vision	Research paper	Python programming Basic Machine Learning concepts Fundamentals of CNN Image processing basics T	Nisha Sharma(R315)	-	0
Academics >								
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> AI Driven Traffic Signal Optimization using CCTV feeds	<ul style="list-style-type: none"> <li>• Develop CPS-based Traffic Optimization System – Integrate IoT devices and AI algorithms for adaptive and real-time traffic control.</li> <li>• Minimize Traffic Congestion – Apply optimization models to reduce average waiting times and travel delays.</li> <li>• Support Sustainable Urban Mobility – Reduce emissions and fuel consumption by optimizing traffic flow.</li> <li>• Enable Data-Driven Insights – Apply predictive analytics for traffic demand forecasting and planning.</li> <li>• Ensure Scalability &amp; Reliability – Build robust</li> </ul>	Research paper	Python	Sapna Aggarwal(E19088)	-	0
Apply for NOC (frmStudentNoc.aspx) >								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx) >								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >								
E Library >								
Examination >		<input type="checkbox"/> AI based urban green space recommendation using satellite image	<ul style="list-style-type: none"> <li>- Develop AI models to classify urban land cover and detect underutilized or vacant areas using satellite imagery.</li> <li>- Integrate environmental and demographic datasets to prioritize potential green space locations.</li> <li>- Build an interactive recommendation dashboard for urban planners and policymakers.</li> <li>- Evaluate model accuracy and recommendation quality using ground-truth and stakeholder feedback.</li> <li>- Ensure scalability and adaptability for different cities and satellite data sources.</li> </ul>	Research paper	Python	Sapna Aggarwal(E19088)	-	0
Hostel >								
International Study Opportunities >		<input type="checkbox"/> AI and satellite image based urban planning tool for slum identification	<ul style="list-style-type: none"> <li>- Develop deep learning models to classify satellite images and identify slum areas with high accuracy.</li> <li>- Integrate socio-economic and demographic datasets to enhance prediction reliability.</li> <li>- Build an interactive mapping platform for planners to visualize and analyze identified slum regions.</li> <li>- Validate model outputs with ground-truth data and stakeholder input.</li> <li>- Ensure adaptability and scalability of the tool for different cities and satellite data sources.</li> </ul>	Research paper	Python	Sapna Aggarwal(E19088)	-	0



		<input type="checkbox"/> AI model for public transit table recommendation based on weather	<ul style="list-style-type: none"> <li>- Develop an AI model to predict public transit demand fluctuations under different weather conditions.</li> <li>- Integrate historical transit schedules, passenger counts, and weather data for model training.</li> <li>- Design a recommendation engine to suggest timetable adjustments for buses, trains, or trams.</li> <li>- Build a dashboard for transit authorities to visualize forecasts and recommended changes.</li> <li>- Ensure scalability and adaptability for different cities and transit modes.</li> </ul>	Patent	Python	Sapna Aggarwal(E19088)	-	0
Academics >								
Accounts >								(StudentHome.aspx)
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> IOT enabled AI model for monitoring and improving urban cycling infrastructure	<ul style="list-style-type: none"> <li>- Deploy IoT sensors to monitor cycling infrastructure usage, safety, and conditions in real-time.</li> <li>- Develop AI models to analyze usage patterns and identify infrastructure gaps and maintenance needs.</li> <li>- Create a dashboard for city planners to visualize data, receive alerts, and view improvement recommendations.</li> <li>- Integrate predictive analytics to forecast future demand and prioritize infrastructure investments.</li> <li>- Ensure data privacy, security, and scalability of the system for different urban co</li> </ul>	Patent	Python	Sapna Aggarwal(E19088)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >								
International Study Opportunities		<input type="checkbox"/> Decentralized crop insurance with smart contracts and IOT data	<ul style="list-style-type: none"> <li>- Deploy IoT devices to capture real-time environmental and crop parameters relevant for insurance claims.</li> <li>- Implement smart contracts to automate insurance claim processing and payouts.</li> <li>- Develop a decentralized blockchain-based platform for transparent and tamper-proof insurance transactions.</li> <li>- Integrate dashboards for insurers and farmers to view policy status, claims, and payouts.</li> <li>- Ensure data security, privacy, and compliance with insurance regulations.</li> </ul>	Research paper	Python	Sapna Aggarwal(E19088)	-	0



		<input type="checkbox"/> Decentralized smart healthcare system, IoT, AI for remote patient monitoring and secure data management	- Deploy IoT devices for continuous remote monitoring of patient health parameters. - Develop AI models for anomaly detection, predictive health analytics, and personalized recommendations.	Research paper	Python	Sapna Aggarwal(E19088)	-	0
Academics >								
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >			Implement decentralized and secure data management mechanisms for patient privacy. - Provide dashboards and alerts for healthcare professionals to enable timely interventions. - Ensure compliance with healthcare data security and privacy standards.					
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> Smart Wearable System for Early Disease Detection	To continuously monitor vital signs using wearable IoT devices To analyze health data using AI/ML models for early disease detection To generate real-time alerts for patients and doctors To maintain secure and private health data storage To reduce hospital visits and healthcare costs	Research paper	Python	Sapna Aggarwal(E19088)	-	0
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >		<input type="checkbox"/> Trust-Aware Federated Reinforcement Learning for Secure Edge–Cloud Offloading	Design an RL-based computation offloading model • Integrate federated learning for privacy preservation • Develop a trust-aware node selection mechanism • Reduce execution latency and device energy consumption • Compare performance with centralized RL models	Research paper	Python, Reinforcement Learning, Federated Learning, Edge Computing, Networking	Navdeep Singh(E7551)	-	0
Hostel >								
International Study Opportunities		<input type="checkbox"/> Green and Carbon-Aware Task Scheduling for 6G Edge–Cloud Systems	Design a green-aware scheduling algorithm • Incorporate renewable energy availability • Reduce carbon cost without QoS degradation • Evaluate latency–energy–carbon trade-offs • Compare with non-green scheduling models	Research paper	Python, Cloud Computing, Optimization, Energy-Aware Systems, Simulation	Navdeep Singh(E7551)	-	0
		<input type="checkbox"/> Chatbot for College Enquiry (Rule-Based)	To reduce the workload of administrative staff by handling routine inquiries. To ensure quick, consistent, and accurate information delivery. To improve user experience by offering instant responses through a conversational interface. To make college information easily accessible at any time and from any location.	Research paper	Traditional attendance systems are inefficient and vulnerable to manipulation.	Bharti(E16329)	-	0



		<input type="checkbox"/> Smart Street Light System	To reduce energy consumption by automatically controlling street lights based on real-time conditions. To minimize manual intervention and maintenance costs. To improve public safety by ensuring proper lighting when needed. To enable remote monitoring and control of street lights. To detect faults or failures in street lights automatically. To promote the use of sustainable and eco-friendly energy solutions.	Research paper	Basic programming (Python / Java) Understanding of variables, loops, and conditions File handling	Bharti(E16329)	-	2
Academics >					(StudentHome.aspx)	SONAL 24BCS10195		
Accounts >								
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Smart Waste Management System using IoT	A Smart Waste Management System using IoT is an intelligent solution that uses Internet of Things (IoT) technology to monitor, manage, and optimize waste collection processes. Sensors are installed in waste bins to measure parameters such as fill level, weight, and sometimes gas or temperature. This data is transmitted in real time to a central monitoring system through wireless networks. Municipal authorities can use this information to plan efficient collection routes, prevent overflow, reduce	Research paper	HTML, CSS, JavaScript basics Server-side scripting (Python / PHP) Basic database management Under	Bharti(E16329)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >								
International Study Opportunities		<input type="checkbox"/> Fake News Detection System (Introductory ML)	To classify news articles as fake or real using supervised learning algorithms. To preprocess and transform textual data into meaningful features. To evaluate model performance using accuracy and other basic metrics. To provide a simple and user-friendly system for fake news identification. To raise awareness about misinformation and promote responsible information sharing.	Research paper	AI-Based Sentiment Analysis System	Bharti(E16329)	-	0
		<input type="checkbox"/> AI-Based Diabetic Retinopathy Detection	AI-Based Diabetic Retinopathy Detection is an application of artificial intelligence that automatically analyzes retinal images to identify diabetic retinopathy early and accurately. It supports faster, scalable screening, improves access to care, and enhances detection – but must be implemented carefully with attention to data quality, clinical validation, and workflow integration.	Research paper	Image processing, machine learning	Parul Datta(E17144)	-	0



		<input type="checkbox"/> Cancer Prediction Using Machine Learning	Early Detection of Cancer To identify cancer at an early stage using machine learning techniques, improving the chances of successful treatment. Improve Diagnostic Accuracy To reduce misdiagnosis by leveraging data-driven prediction models with higher accuracy than traditional methods.	Research paper	machine learning	Parul Datta(E17144)	-	1
Academics	>					(StudentHome.aspx)		
Accounts	>					SONAL 24BCS10195		
Administration	>							
Apply for Loan Documents (frmLoanLetterApplication.aspx)		<input type="checkbox"/> AI-Assisted Medical Diagnostics Chatbot	Provide Preliminary Medical Assistance To offer initial health insights and possible diagnoses based on user-reported symptoms. Improve Healthcare Accessibility To deliver medical guidance to users anytime and anywhere through a conversational interface.	Research paper	machine learning	Parul Datta(E17144)	-	0
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW)	>	<input type="checkbox"/> Open-Source Model Monitoring Tool	Continuous Model Performance Monitoring To track real-time and historical performance metrics of deployed machine learning models. Detect Data and Concept Drift To identify changes in data distribution or model behavior that can negatively impact predictions.	Research paper	machine learning	Parul Datta(E17144)	-	0
DCPD	>							
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Federated Learning for Medical Image Classification	Preserve Patient Data Privacy To enable collaborative model training without transferring or exposing sensitive medical images. Improve Medical Image Classification Accuracy To build robust and generalized classification models using data from multiple healthcare institutions.	Research paper	Image processing, machine learning	Parul Datta(E17144)	-	0
E Library	>							
Examination	>	<input type="checkbox"/> Smart Traffic Signal Optimization System	Optimize Traffic Flow To dynamically adjust traffic signal timings based on real-time vehicle density and movement. Reduce Traffic Congestion To minimize vehicle waiting time at intersections and improve overall road efficiency.	Research paper	machine learning	Parul Datta(E17144)	-	0
Hostel	>	<input type="checkbox"/> Real-Time Vehicle Speed and Violation Detection System	To develop a real-time system that detects vehicles from video streams, estimates their speed, and identifies traffic violations such as overspeeding and lane misuse. The system aims to support automated traffic monitoring, reduce human intervention, and improve road safety through data-driven enforcement.	Product	Embedded Systems, Sensors, Image Processing Basics, Microcontrollers	Shikha Atwal(E11186)	-	0
International Study Opportunities								



		<input type="checkbox"/> IoT-Based Smart Grid Fault Detection and Alert System	To design a real-time fault detection system for power lines using sensors and microcontrollers that identifies abnormalities, reduces downtime, and improves grid reliability through timely alerts and analytics.	Product	Embedded C, Sensors & Actuators, Basic Power Systems, IoT Basics, Circuit Design	Shikha Atwal(E11186)	-	0
Academics	>					(StudentHome.aspx)		
Accounts	>					SONAL 24BCST0195		
Administration	>	<input type="checkbox"/> Embedded Face Recognition System for Secure Access	To implement face recognition on edge devices for secure access control, focusing on low-latency processing, privacy preservation, and efficient resource utilization.	Product	Python/C++, Computer Vision Basics, Embedded Systems, Image Processing, Linux Basics	Shikha Atwal(E11186)	-	4
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW)	>	<input type="checkbox"/> Smart Waste Segregation System	To design a system that identifies and segregates waste automatically, reducing landfill load and promoting sustainable waste management practices.	Product	Embedded Systems, Sensors, Actuators, Logic Design, Basic Electronics	Shikha Atwal(E11186)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
DCPD	>	<input type="checkbox"/> Secure and Transparent E-Voting System Using Blockchain	To design a tamper-resistant voting system that ensures transparency, integrity, and voter privacy using blockchain technologies.	Product	Blockchain Fundamentals, Cryptography Basics, Python/JavaScript, Web Development, Security Concepts	Shikha Atwal(E11186)	-	7
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library	>	<input type="checkbox"/> Fake News Detection System Using NLP and Machine Learning	To detect fake news automatically To analyze textual data To reduce misinformation spread To apply NLP techniques To improve information credibility	Research paper	Python, NLP, Machine Learning, Text Mining, Pandas	Gagandeep Kaur(E19839)	-	0
Examination	>							
Hostel	>							
International Study Opportunities		<input type="checkbox"/> Personalized Course Recommendation System for E-Learning	To personalize learning experiences To analyze learner behavior To improve engagement To apply recommendation algorithms To enhance learning efficiency	Research paper	Python, Machine Learning, Data Analysis, SQL	Gagandeep Kaur(E19839)	-	5
		<input type="checkbox"/> Smart Traffic Monitoring and Signal Control Using IoT	To monitor real-time traffic To optimize traffic signal timing To reduce congestion To improve road safety To support smart city initiatives	Research paper	IoT Sensors, Arduino/Raspberry Pi, Python, Data Analysis	Gagandeep Kaur(E19839)	-	3
		<input type="checkbox"/> AI-Powered Chatbot for Academic and Administrative Student Support	To automate student query handling To provide 24/7 assistance To reduce administrative workload To enhance user interaction	Research paper	Python, NLP, Chatbot Frameworks, APIs, Machine Learning	Gagandeep Kaur(E19839)	-	0
		<input type="checkbox"/> Secure and Transparent Online Voting System Using Blockchain	To ensure secure online voting To prevent vote manipulation To maintain transparency To protect voter anonymity To improve trust in digital elections	Research paper	Blockchain Basics, Solidity, Ethereum, Cryptography, Web Development	Gagandeep Kaur(E19839)	-	4
		<input type="checkbox"/> Automated Attendance System Using Face Recognition Technology	To automate attendance management To apply face detection algorithms To prevent proxy attendance To maintain digital records To improve accuracy and efficiency	Research paper	Python, OpenCV, Face Recognition, Image Processing, MySQL	Gagandeep Kaur(E19839)	-	0
		<input type="checkbox"/> AI-Powered Attendance System Based on Face Detection	To automate attendance management To apply face detection algorithms To prevent proxy attendance To maintain digital records To improve accuracy and efficiency	Research paper	Python, OpenCV, Face Recognition, Image Processing, MySQL	Gagandeep Kaur(E19839)	-	0



		<input type="checkbox"/> Intelligent Resume Screening System Using Machine Learning	To automate resume shortlisting To extract structured data from resumes To match candidates with job roles To reduce hiring time and bias To improve recruitment accuracy	Research paper	Python, Machine Learning, NLP, Data Preprocessing, Scikit-learn, SQL	Gagandeep Kaur(E19839)	-	0
Academics >						(StudentHome.aspx)		
Accounts >		<input type="checkbox"/> Explainable Multi-Modal Cardiovascular Risk Prediction Using Machine Learning	To design a multi-modal cardiovascular risk prediction framework integrating clinical, physiological, and lifestyle data. To enhance model transparency using explainable AI techniques for feature-level and signal-level interpretation. To assist healthcare professionals in understanding risk factors, improving trust, and supporting early diagnosis and preventive intervention strategies.	Research paper	Machine Learning, Deep Learning (CNN), Python & Data Analysis, Medical Data Understanding , XAI	SONAL 24BCS10195	Rohit Kumar(E19799)	- 0
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)		<input type="checkbox"/> NLP-Based Mental Health Risk Assessment Using Machine Learning	To design an NLP-based framework for mental health risk detection using textual data. To analyze linguistic patterns and emotional indicators associated with mental health conditions. To support clinicians and counselors by providing data-driven insights that assist in early intervention and mental health awareness.	Research paper	Natural Language Processing Machine Learning Deep Learning (BERT/LSTM) Data Preprocessing	Rohit Kumar(E19799)	-	0
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >								
International Study Opportunities		<input type="checkbox"/> Rule-Based Health Risk Assessment System	Build an interpretable healthcare decision-support system for preliminary assessment.	Book Chapter	Python basics	Anuj Kumar Jain(E17635)	-	0
		<input type="checkbox"/> Explainable Machine Learning Based Intrusion Detection System	To design a machine learning-based intrusion detection framework capable of detecting diverse cyberattacks. To incorporate explainable AI techniques that reveal key features influencing detection decisions. To improve system reliability, interpretability, and usability for cybersecurity analysts and enable informed response strategies.	Research paper	Machine Learning Cybersecurity Fundamentals Network Traffic Analysis, XAI(SHAP, LIME)	Rohit Kumar(E19799)	-	0
		<input type="checkbox"/> Climate Trend Visualization Dashboard	Promote climate awareness using visualization.	Patent	Pandas, Matplotlib	Anuj Kumar Jain(E17635)	-	0
		<input type="checkbox"/> Carbon Footprint Calculator	Increase sustainability awareness.	Patent	Python	Anuj Kumar Jain(E17635)	-	0
		<input type="checkbox"/> ML-Based Intrusion Detection with Blockchain-Based Log Storage	To design an effective machine learning-based intrusion detection system for network security. To integrate blockchain technology for secure and immutable storage of intrusion detection logs. To improve data integrity, auditability, and trust in security monitoring systems while maintaining low computational complexity.	Research paper	Machine Learning Cybersecurity Basics Network Traffic Analysis Blockchain Fundamentals	Rohit Kumar(E19799)	-	0



		<input type="checkbox"/> Intrusion Detection with Blockchain Based Log Storage using ML	To design an effective machine learning-based intrusion detection system for network security. To integrate blockchain technology for secure and immutable storage of intrusion detection logs. To improve data integrity, auditability, and trust in security monitoring systems while maintaining low computational complexity.	Research paper	Machine Learning Cybersecurity Basics Network Traffic Analysis Blockchain Fundamentals	Rohit Kumar(E19799)	-	0
Academics >							(StudentHome.aspx)	
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Blockchain Medical Record Index	Understand blockchain in healthcare.	Research paper	Blockchain basics	Anuj Kumar Jain(E17635)	-	0
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Smart Crop Disease Detection Using Deep Learning	Classify healthy vs diseased crops Train CNN-based models Improve agricultural productivity	Research paper	Python, Deep Learning, CNNs, Image Processing, TensorFlow/PyTorch	Pragya Rajput(E16175)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> AI-Based Air Quality Prediction and Health Risk Assessment System	To design a predictive model for AQI forecasting, analyze pollution-health correlations, develop a real-time monitoring dashboard, and enhance awareness of environmental health risks using data-driven insights.	Research paper	Python, Machine Learning, Data Analysis, APIs, Data Visualization	Siddharth Arora(E18271)	-	1
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >		<input type="checkbox"/> Blockchain-Based Secure Academic Credential Verification System	To design a decentralized credential system, implement secure verification using blockchain, reduce fraud risks, and evaluate system performance against traditional centralized methods.	Research paper	Blockchain Basics, Smart Contracts, Cryptography, Web Development, SQL	Siddharth Arora(E18271)	-	0
Hostel >								
International Study Opportunities		<input type="checkbox"/> Diabetes Prediction Using Basic Machine Learning Algorithms	Build a simple health prediction system Compare accuracy of ML models	Research paper	Python basics Pandas, NumPy Basic ML algorithms	Prabhdeep Singh(E8559)	-	0
		<input type="checkbox"/> Deep Learning-Based Early Detection of Diabetic Retinopathy	To develop an accurate image classification model, analyze medical image datasets, improve early disease detection, and assess model performance using standard evaluation metrics.	Research paper	Deep Learning, CNNs, Python, Image Processing, Data Preprocessing	Siddharth Arora(E18271)	-	1
		<input type="checkbox"/> Fake News Detection Using Machine Learning Algo. and NLP	Detect misinformation Learn text feature extraction	Research paper	Python NLP basics Scikit-learn	Prabhdeep Singh(E8559)	-	0
		<input type="checkbox"/> AI-Based Resume Screening and Skill Matching System	To automate resume analysis, improve recruitment efficiency, reduce bias in screening, and evaluate system accuracy against traditional hiring approaches.	Research paper	NLP, Python, Machine Learning, Text Mining, Web Development	Siddharth Arora(E18271)	-	0
		<input type="checkbox"/> Machine Learning-Based Network Intrusion Detection System	To build a robust intrusion detection model, analyze network datasets, reduce false positives, and compare multiple ML algorithms for security performance.	Research paper	Cyber Security Basics, ML Algorithms, Python, Networking, Data Analysis	Siddharth Arora(E18271)	-	4



		<input type="checkbox"/> AI-Powered Energy Consumption Forecasting for Smart Buildings	To predict energy demand accurately, identify consumption patterns, support energy-efficient planning, and evaluate sustainability benefits of AI-driven forecasting.	Research paper	Machine Learning, Data Analytics, Python, IoT Basics, Statistics	Siddharth Arora(E18271)	-	0
Academics >		<input type="checkbox"/> Crop Disease Prediction Using Machine Learning	Assist farmers Improve crop yield	Research paper	Python Basic image processing ML classifiers	SONAL 24BCS10195	-	0
Administration >		<input type="checkbox"/> ZENO: Intelligence Medical Triage & Specialist Routing System	The primary objective of Project ZENO is to design and develop an intelligent, privacy-first medical triage and routing ecosystem. The system aims to solve the critical problem of medical misdirection by utilizing AI-driven Natural Language Processing (NLP) to analyze patient symptoms in real-time. By accurately predicting urgency levels and mapping conditions to the correct medical specialist .	Product	React.js , Tailwind CSS , Lucide React , JavaScript , Json, Sql	Narinder Kaur(E12264)	-	4
Apply for Loan Documents (frmLoanLetterApplication.aspx)		<input type="checkbox"/> Traffic Accident Severity Prediction Using Machine Learning	Improve road safety Assist traffic authorities	Research paper	Python Data analysis Classification algorithms	Prabhdeep Singh(E8559)	-	3
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Movie Recommendation System Using Machine Learning	Personalize content recommendations Learn recommendation algorithms	Research paper	Python Matrix operations ML basics	Prabhdeep Singh(E8559)	-	0
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Smart Home Automation Systems Using IoT	Improve energy efficiency Enhance user comfort	Research paper	Hardware Components: ESP32 / Arduino Relay modules PIR sensor Temperature sensor Software Compo	Prabhdeep Singh(E8559)	-	0
DCPD >		<input type="checkbox"/> IoT-Based Health Monitoring Systems	Enable remote health monitoring Provide emergency alerts	Research paper	Hardware Components: Pulse sensor Temperature sensor ESP32 Software Components: Arduino IDE Cl	Prabhdeep Singh(E8559)	-	4
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> AI-Based Diabetic Retinopathy Detection System Using Deep Learning	Early detection, reduce diagnosis time, assist doctors	Product	Python, ML basics, Deep Learning, Image Processing, Research basics	Simranjeet Kour(E13963)	-	1
E Library >		<input type="checkbox"/> Deep Learning Framework for Early Cancer Diagnosis	Improve early diagnosis accuracy	Product	Python, CNNs, Data preprocessing, ML, Research writing	Simranjeet Kour(E13963)	-	0
Examination >		<input type="checkbox"/> Smart Helmet for Rider Safety Using IoT	Reduce road accidents Enforce safety rules	Research paper	Hardware Components: Alcohol sensor IR sensor Accelerometer ESP8266 Software Components: Ardui	Prabhdeep Singh(E8559)	-	0
Hostel >		<input type="checkbox"/> Smart Flood Monitoring and Alert System Using IoT	Minimize flood damage Provide early alerts	Patent	Hardware Components: Water level sensor Rain sensor ESP8266 Buzzer Software Components: Arduin	Prabhdeep Singh(E8559)	-	0
International Study Opportunities		<input type="checkbox"/> Emotion-Aware Desk Light Using Heart Rate	Improve focus and reduce stress without screens	Product	Arduino, Sensors, Embedded C, LEDs, Basics of electronics	Navdeep Singh(E7551)	-	0
		<input type="checkbox"/> Posture Alert Wearable Using Flex Sensor	Improve posture habits	Product	Sensors, Arduino, Embedded programming, Wearable design, Testing	Navdeep Singh(E7551)	-	0
		<input type="checkbox"/> Intelligent Medical Diagnostics Using Multimodal AI	Improve diagnostic decision-making	Product	Python, NLP basics, ML, Data handling, Statistics	Simranjeet Kour(E13963)	-	0
		<input type="checkbox"/> Climate Change Impact Analytics Using Satellite Data	Identify climate trends	Product	Python, Data analysis, Remote sensing basics, Visualization, ML	Simranjeet Kour(E13963)	-	1
		<input type="checkbox"/> Carbon Emission Prediction Using Machine Learning	Support emission reduction planning	Product	Python, ML regression, Data analysis, Visualization, Statistics	Simranjeet Kour(E13963)	-	0



		<input type="checkbox"/> Open-Source Developer Productivity Toolkit	Improve coding efficiency	Product	Python/JS, Git, Data analysis, APIs, UI basics	Simranjeet Kour(E13963)	-	0
Academics	>	<input type="checkbox"/> Privacy-Preserving Federated Learning Framework	Enhance data privacy	Product	ML, Federated learning basics, Python, Security concepts, Research	Simranjeet Kour(E13963)	-	0
Accounts	>	<input type="checkbox"/> Edge AI-Based Smart Surveillance System	Real-time surveillance	Product	OpenCV, Python, Edge AI basics, ML, Embedded concepts SONAL 24BCST0195	Simranjeet Kour(E13963)	-	0
Administration	>	<input type="checkbox"/> IoT-Based Predictive Maintenance Using Edge AI	Reduce downtime	Product	IoT basics, ML, Sensors, Python, Data analysis	Simranjeet Kour(E13963)	-	0
Apply for Loan Documents (frmLoanLetterApplication.aspx)		<input type="checkbox"/> Blockchain-Based Secure Healthcare Record System	Secure data sharing	Product	Blockchain basics, Smart contracts, Security, DBMS, Web basics	Simranjeet Kour(E13963)	-	0
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Assistive Vision System for Visually Impaired	Improve mobility	Product	Python, OpenCV, ML, Audio processing, UI basics	Simranjeet Kour(E13963)	-	0
Centre For Student Wellbeing (CSW)	>	<input type="checkbox"/> Legal Compliance Automation Using NLP	Reduce manual legal effort	Product	Python, NLP, Text mining, ML, Research writing	Simranjeet Kour(E13963)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> Noise Level Indicator for Study Zones	Maintain quiet environments	Product	Sound sensors, Arduino, Signal basics, Embedded C, LEDs	Navdeep Singh(E7551)	-	5
DCPD	>	<input type="checkbox"/> Evolution of Air Pollution Levels in Cities	To identify long term trends, seasonal patterns, and key turning points affecting air quality.	Book Chapter	Python, System Analysis, SQL, Data Analytics, Visualization	Anshu Mehta(E13356)	-	5
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> Smart Dustbin Fill-Level Indicator	Improve waste management	Product	Ultrasonic sensor, Arduino, Embedded C, Hardware wiring, Testing	Navdeep Singh(E7551)	-	0
E Library	>	<input type="checkbox"/> Smart Attendance Counter Using IR Sensors	Automate attendance tracking	Product	IR sensors, Arduino, LCD interfacing, Logic building, Testing	Navdeep Singh(E7551)	-	0
Examination	>	<input type="checkbox"/> Fairdeal-Marketplace	We aim for designing a vehicle marketplace where users can buy and sell new and used bikes and cars, featuring smart price recommendations, verified listings, showroom inventory, and location-based discovery for a trustworthy and convenient vehicle purchasing experience.	Product	HTML, CSS, JAVASCRIPT ,Database ,API	Anu Kaushik(E12329)	-	4
Hostel	>	<input type="checkbox"/> Text extraction from the image using deep learning	The main objective is to design an efficient deep learning model for accurate text extraction from images. The project aims to analyze existing OCR techniques, implement CNN-based feature extraction, enhance recognition accuracy for complex backgrounds, and evaluate performance using standard datasets. It also seeks to reduce manual data entry and improve automated document processing.	Research paper	Python, Machine Learning Basics, Deep Learning, Image Processing, Neural Networks	Parvesh Kumar(E14417)	-	0
International Study Opportunities		<input type="checkbox"/> Gym Management System	To automate gym operations by replacing manual record-keeping with a centralized digital system. To manage member information efficiently, including registration, attendance, and membership status.	Product	HTML, CSS, PHP	Kirandeep Kaur Sandhu(E12258)	-	6



		<input type="checkbox"/> Prostate Cancer Detection(PCD) Using Deep Learning on Medical Images  To preprocess prostate medical images for quality enhancement, To segment prostate regions using image processing techniques , To extract texture and shape features from medical images, To classify prostate cancer based on extracted features , To improve diagnostic accuracy and reduce manual analysis	Research paper	Image Processing, Python/MATLAB, Medical Imaging Basics, Feature Extraction, Pattern Recognition	Parvesh Kumar(E14417)	-	0
Academics >						(StudentHome.aspx)	
Accounts >						SONAL 24BCS10195	
Administration >							
Apply for Loan Documents (frmLoanLetterApplication.aspx)							
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Food Waste Management System in College Hostel  To reduce food wastage in college hostels through systematic monitoring and data analysis. To automate the tracking of food preparation, consumption, and waste on a daily basis. To improve meal planning and portion control based on student attendance and consumption patterns.	Product	HTML, CSS, PHP	Kiranjeet Kaur Sandhu(E12258)	-	5
Centre For Student Wellbeing (CSW) >							
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)							
DCPD >		<input type="checkbox"/> Climate-Tech Analytics Platform for Carbon Emission Monitoring and Sustainability Insights  To design a scalable climate-tech analytics product that enables accurate tracking of carbon emissions and sustainability metrics. To apply data analytics and ML models for trend analysis and prediction. To support decision-making for climate action. To bridge the gap between raw environmental data and practical sustainability insights through a user-centric analytical platform.	Research paper	Python, Data Analytics, Machine Learning, SQL, Basic Climate Science	Shikha Kamal(E12552)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)							
E Library >							
Examination >							
Hostel >							
International Study Opportunities							
		<input type="checkbox"/> Edge AI and IoT Based Smart Environmental Monitoring and Real-Time Decision System  To design a smart monitoring product integrating IoT sensors with Edge AI models. To enable real-time analytics and anomaly detection at the edge. To minimize cloud dependency and latency. To improve system scalability, energy efficiency, and data privacy. To demonstrate practical applications of Edge AI in smart environments and sustainability-driven use cases.	Product	Python, IoT Sensors, Embedded Systems, Machine Learning, Edge Computing	Shikha Kamal(E12552)	-	0
		<input type="checkbox"/> Cybersecurity Framework for Secure Transactions and Fraud Detection in FinTech Systems  To design a secure FinTech cybersecurity framework. To implement encryption and secure authentication mechanisms. To detect fraud and anomalies using analytics and AI techniques. To enhance data privacy, system resilience, and compliance with financial security standards. To provide a scalable and reliable security product for modern FinTech applications.	Research paper	Cybersecurity Basics, Cryptography, Python, Network Security, Databases	Shikha Kamal(E12552)	-	4



		<input type="checkbox"/> Blockchain Based Secure and Interoperable Healthcare Record Management System.	To design a secure blockchain framework for healthcare records. To ensure data integrity, transparency, and patient-controlled access. To enable interoperable data sharing across healthcare institutions. To reduce data breaches and unauthorized modifications. To demonstrate the practical adoption of blockchain technology in healthcare information systems.	Research paper	Blockchain Basics, Smart Contracts, Cryptography, Databases, Healthcare IT	Shikha Kamal(E12552)	-	0
Academics >							(StudentHome.aspx)	
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> AI Based Smart Mobility and Traffic Optimization System for Intelligent Transportation	To design an intelligent traffic optimization platform. To analyze real-time and historical traffic data. To apply AI models for congestion prediction and route optimization. To reduce traffic congestion, emissions, and travel delays. To support smart city initiatives through efficient and sustainable mobility solutions.	Research paper	Python, Data Analytics, Machine Learning, IoT Sensors, Traffic Systems	Shikha Kamal(E12552)	-	4
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> End to End Data Analytics and Digital Utility Web Portal	The project focuses on building a web-based all-in-one data analytics platform that allows users to upload datasets and perform automated exploratory data analysis, data cleaning, visualization, and basic predictive modeling. The system will generate interactive dashboards, summary statistics, and reports useful for business and industrial decision-making. This solution aims to simplify data-driven insights for non-technical users and organizations.	Product	Python, Pandas, SQL, Data Visualization, Basic Machine Learning	Simranjeet Kour(E13963)	-	3
E Library >								
Examination >								
Hostel >								
International Study Opportunities		<input type="checkbox"/> AI and Machine Learning Synergies for MSME Efficiency and Smart City Urban Planning	To study the role of Artificial Intelligence (AI) and Machine Learning (ML) in improving the operational efficiency of MSMEs.	Research paper	Basic AI concepts, Machine Learning, Data Analysis, Statistics, Research Writing	Siddharth Arora(E18271)	-	0
		<input type="checkbox"/> An AI-Based Framework for Early Cancer Detection Using Medical Imaging	This project focuses on designing an AI-based framework for early cancer detection using medical imaging data such as CT, MRI, or X-ray images. Convolutional Neural Networks (CNNs) will be used to extract features and classify images into cancerous and non-cancerous categories. The system aims to assist medical professionals by improving early diagnosis accuracy and reducing manual analysis time.	Research paper	Python, CNNs, Deep Learning, Image Processing, TensorFlow	Santosh Kumar(E11120)	-	0



		<input type="checkbox"/> IoT-Enabled Food Nutrient Detector for Personalized Dietary Management	<p>The objective of this project is to design and develop a portable, affordable food nutrient detector that provides real-time nutritional analysis. It aims to measure key nutrients such as sugar, proteins, fats, carbohydrates, vitamins, and minerals using sensor technology. The device seeks to support informed dietary decisions, assist patients with health conditions, promote balanced nutrition for infants and adults, and encourage healthier eating habits through an easy-to-use digital interface.</p>	Patent	Embedded systems basics, Sensor technology, IoT fundamentals, Basic nutrition knowledge, Data analysis	Vaneet Kumar(E11321)	-	0
Academics >								
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx) >								
Apply for NOC (frmStudentNoc.aspx) >								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq) >		<input type="checkbox"/> Age and Gender Prediction Using Deep Learning and CNN Architectures.	<p>To design and develop a deep learning-based system capable of performing real-time age and gender prediction from facial images captured via webcam input. To implement and evaluate pretrained convolutional neural network (CNN) architectures including VGG16, ResNet50V2, and Xception for feature extraction and prediction tasks. To apply ensemble learning techniques to combine multiple CNN</p>	Research paper	Python, Deep Learning, CNNs, Computer Vision, OpenCV.	Vaneet Kumar(E11321)	-	0
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >								
E Library >								
Examination >								
Hostel >								
International Study Opportunities >		<input type="checkbox"/> SOURCEGUARD: Proactive Prevention Platform Against AI-Facilitated Sexual Abuse	<p>To develop the first specialized threat intelligence system that identifies, categorizes, and blacklists websites and applications specifically designed for creating non-consensual intimate imagery (NCII).</p>	Product	Understanding of data ethics, privacy, and responsible AI practices	Vaneet Kumar(E11321)	-	3
		<input type="checkbox"/> Federated Learning Based Privacy Preserving Framework for Early Disease Detection	<p>The objective of this research is to study federated learning techniques for privacy-preserving disease prediction. It aims to analyze how decentralized learning improves data security, compare federated and centralized models, and evaluate early disease detection accuracy while maintaining patient confidentiality across multiple healthcare centers.</p>	Research paper	Machine Learning Basics, Python, Data Analysis, Healthcare Data Concepts, Research Writing	Monika Devi(E15988)	-	0
		<input type="checkbox"/> AI-Powered Resume Screening and Job Recommendation System	<p>The objective of this project is to design an intelligent recruitment support system using AI. It aims to automate resume screening, improve accuracy in job matching, reduce recruiter workload, and provide faster and unbiased hiring decisions while offering students practical exposure to AI product development.</p>	Product	Python, Machine Learning, NLP Basics, Web Development, Database Management	Monika Devi(E15988)	-	3



		<input type="checkbox"/> Multi-Disease Risk Prediction for Women in Rural and Low-Income Communities	Multi-Disease Risk Prediction for Women in Rural and Low-Income Communities	Research paper	Python, Machine Learning, Data Analysis, Statistics, Healthcare Data	Sonam Juneja(E11002)	-	1
Academics >		<input type="checkbox"/> Intelligent Viva and Feedback System with Evaluation and Fairness Analysis	To design and develop an intelligent viva examination system that automates question generation, response capture, and evaluation using artificial intelligence techniques.	Product	Python, JavaScript, Node.js, MySQL, AI/ML	Komal Sharma(E14735)	(StudentHome.aspx)	5
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		<input type="checkbox"/> Intelligent Resilience Framework for Climate-Affected Agricultural Zones	To design and implement an Intelligent Resilience Framework that leverages AI, IoT, and predictive analytics to monitor, assess, and enhance the resilience of climate-affected agricultural zones. The framework aims to support data-driven decision-making for sustainable farming, optimize resource utilization, and mitigate the adverse impacts of climate variability on crop productivity and rural livelihoods	Research paper	Basics of AI/ML (supervised learning, regression, classification), IoT, Python programming, data ana	Deepak Kumar(E18313)	-	2
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >		<input type="checkbox"/> "CyberShield: A Universal AI-Powered Security Firewall for Smart and IoT Devices"	Basic knowledge of computer networks and internet technologiesFundamental understanding of cybersecurity concepts and threatsBasic programming knowledge in Python and C languageUnderstanding of operating systems and system Architecture problem-solving and logical thinking skills	Product	Basic knowledge of computer networks and internet technologiesFundamental understanding of cybersecurity concepts and threatsBasic programming knowledge in Python and C languageUnderstanding of operating systems and system architectureProblem-solving and logical thinking skills	Kapil Kumar Dewan(E12748)	-	0
E Library >								
Examination >								
Hostel >								
International Study Opportunities >		<input type="checkbox"/> Age and Gender Prediction Using Deep Learning and CNN.	This project presents a deep learning based system for real-time age and gender prediction from facial images. It uses pretrained CNN models such as VGG16, ResNet50V2, and Xception with ensemble learning on the UTKFACE dataset. The system performs face detection, preprocessing, and prediction using webcam input, achieving high accuracy and efficient real-time performance for practical applications.	Research paper	Python, Deep Learning, CNNs, Computer Vision, OpenCV.	Jasmeet Kaur(E17596)	-	5
		<input type="checkbox"/> UniConnect – A Student-First Platform Uniting Hackathon Team Discovery, Idea Collaboration	Create a unified digital space where university students can discover like-minded innovators, form interdisciplinary teams, and collaborate beyond departmental and campus boundaries.	Product	Teamwork, communication, problem-solving, basic coding, curiosity	Navjyot Kaur(E8508)	-	4



		<input type="checkbox"/> Stock market prediction	To analyze historical stock market data and identify significant trends and patterns. To develop a predictive model using machine learning algorithms for stock price forecasting. To compare the performance of different prediction techniques based on accuracy and error metrics. To minimize investment risk by providing data-driven insights. To improve the reliability of stock market prediction using advanced analytical methods.	Research paper	Python Programming Machine Learning Algorithms Data Analysis and Visualization Time Series Analysis	Rajni Devi(E15439)	-	1
Academics >								
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Autonomous AI based fitness coach	Autonomous AI based Fitness Coach to track calorie intake, workout progress, and health metrics.	Product	HTML, CSS, JS, React, Node.js, MongoDB, APIs, Git, UI/UX, JSON	Navjot Kaur(E8508)	-	4
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)		<input type="checkbox"/> EduVerse AI – Learn, Visualize	To develop an AI-powered learning platform that provides instant, subject-specific answers and interactive quizzes to enhance student understanding. To enable visual learning through interactive 3D models, helping students clearly grasp complex concepts. To facilitate effective teacher-student interaction by allowing group creation, online sessions, and learning management within a single platform.	Research paper	HTML, CSS, JavaScript, React.js, Python, Backend	Zahid Hussain Wani(E18378)	-	0
DCPD >		<input type="checkbox"/> E-learning coding platform	to get newE-learning coding platform	Service	1. JavaScript / TypeScript2. React.js3. Next.js4. PostgreSQL / SQL5. HTML	Parveen Tyagi(E1142)	-	0
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		<input type="checkbox"/> AI-Based Driver Drowsiness & Distraction Detection System Using Machine Learning Improve road safety	To design and develop an AI-based system for detecting driver drowsiness in real time. To identify driver distraction such as mobile phone usage and lack of attention using computer vision techniques. To analyze facial features like eye closure and blinking patterns to determine fatigue levels. To generate real-time alerts to warn the driver and prevent possible accidents. To improve road safety by reducing accidents caused by driver fatigue and distraction.	Research paper	Python OpenCV CNN Machine Learning Computer Vision	Prabhdeep Singh(E8559)	-	0
E Library >								
Examination >								
Hostel >								
International Study Opportunities								



		<input type="checkbox"/> IoT-Based Smart Women Healthcare Monitoring and Support System  The project proposes an IoT-enabled women healthcare system that analyzes blood or urine samples using smart sensors. The device provides real-time health insights, precautionary guidance, and periodic monitoring. It connects users to nearby doctors for consultation and dispenses essential hygiene items such as sanitary pads or supplements based on detected conditions, enabling immediate care and improved access to women-centric healthcare.	Product	IoT Basics, Sensor Integration, Embedded Systems, Data Analytics, App Development	Shikha Atwal(E11186)	-	0
Academics >					(StudentHome.aspx)		
Accounts >					SONAL 24BCS10195		
Administration >							
Apply for Loan Documents (frmLoanLetterApplication.aspx)							
Apply for NOC (frmStudentNoc.aspx)							
Centre For Student Wellbeing (CSW) >		<input type="checkbox"/> Smart Urban Complaint Management System  Smart Urban Complaint Management System Rapid urbanization has increased the complexity of managing city infrastructure and public services. Citizens often face problems related to roads, street lighting, water supply, waste management, sanitation, traffic signals, and public safety. Traditional complaint systems are mostly manual, slow, and lack transparency, resulting in delayed responses and low citizen satisfaction. To address these challenges, the Smart Urban Complaint Management System is	Patent	Python, Flask, Machine Learning, SQL, Web Development	Dinesh Singh (E18128)	-	0
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)							
DCPD >							
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)							
E Library >							
Examination >							
Hostel >							
International Study Opportunities		<input type="checkbox"/> Farm Easy  this will help farmers get better prices for their products without paying commission	Product	python,javascript,html,css	Manpreet Kaur(E12698)	-	2
		<input type="checkbox"/> smart fog assistance and collision avoidance system  To design and develop an intelligent vehicle safety assistance system that enhances driver awareness and reduces accident risk during foggy and low-visibility conditions by integrating Ultrasonic, Radar, and LiDAR sensors for accurate detection of front obstacles, rear approaching vehicles, and dangerous road edges or cliffs. The system provides real-time audio-visual alerts through a buzzer, LED indicators, and an LCD display to support timely and informed driver decisions. Additionally, the pr	Product	embedded system, sensor interfacing, iot and cloud data monitoring	Manpreet Kaur(E12698)	-	5



		<input type="checkbox"/> AI-Based Student Performance Prediction and Analysis System  The main objective of this project is to design an intelligent system that predicts student performance accurately using machine learning techniques. The project aims to assist institutions in identifying at-risk students, enhancing academic planning, improving teaching strategies, and supporting data-driven decision making in education systems.	Product	Python Programming, Machine Learning Basics, Data Analysis, Statistics, Database Fundamentals	Manpreet Kaur(E12698)	-	5
Academics >				(StudentHome.aspx)		SONAL 24BCS10195	
Accounts >							
Administration >							
Apply for Loan Documents (frmLoanLetterApplication.aspx)							
Apply for NOC (frmStudentNoc.aspx)		<input type="checkbox"/> Stock Portfolio Evaluation tool  There is no simple and beginner-friendly platform that allows users to add their stock holdings and easily view both the current and predicted value of their portfolio in one place.	Research paper	Python, Financial APIs, Data Handling & Analysis	Amit Kumar Jaiswal(E14521)	-	3
Centre For Student Wellbeing (CSW) >							
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		<input type="checkbox"/> Contrastive Representation Learning in Spiking Neural Networks Using Temporal Similarity  This research focuses on learning efficient representations in Spiking Neural Networks (SNNs) using contrastive learning driven by temporal similarity. The project explores biologically inspired learning mechanisms where spike timing and temporal correlations are used to learn meaningful representations without labeled data. The approach aims to improve unsupervised learning performance and energy efficiency in neuromorphic systems.	Research paper	Python, Neural Networks, Machine Learning, Linear Algebra, Signal Processing	Inderdeep Kaur(E12922)	-	0
DCPD >							
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)							
E Library >							
Examination >							
Hostel >							
International Study Opportunities							
		<input type="checkbox"/> Energy-Efficient Cluster Head Selection in WSN for IoT Applications Using Metaheuristic Optimization Polling Closed	Research paper	MATLAB/Python programming Optimization algorithms	Kanwaldeep Kaur(E8852)	-	5
		"HGNN-Care: Heterogeneous Graph Neural Networks for Predicting Multi-Disease Interactions in Women's Health" Polling Closed	Research paper	python	Sonam Juneja(E11002)	-	4
		"Deep-TriFusion: A Multimodal Hybrid CNN-Transformer System for Triple-Disease Screening in Women" Polling Closed	Research paper	python	Sonam Juneja(E11002)	-	4
		"AgriFormer: A Transformer-Based Architecture for Precision Crop Health Monitoring" Polling Closed	Research paper	python	Sonam Juneja(E11002)	-	6
		"ID-FusionNet: Multimodal Integration for High-Accuracy Infectious disease Polling Closed	Research paper	python	Sonam Juneja(E11002)	-	4



		"InfectScan-ViT: Vision Transformers for Imaging-Based Diagnosis of Respiratory Infectious Diseases" Polling Closed	"InfectScan-ViT: Vision Transformers for Imaging-Based Diagnosis of Respiratory Infectious Diseases"	Research paper	python	Sonam Juneja(E11002)	-	5
Academics >		Weater prediction and climate change studies Polling Closed	To forecast weather, which is one of the greatest challenges in meteorological department. Weather prediction is necessary so as to inform people and prepare them in advance about the current and upcoming weather condition. This helps in reduction in loss of human life and loss of resources and minimizing the mitigation steps that are expected to be taken after a natural disaster occurs. Methods/Statistical analysis: This study makes a mention of various techniques and algorithms that are likely	Research paper	SONAL Knowledge of 24000+ topics	Pritpal Singh(E8067)	-	2
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		Web Traffic Analyzer Polling Closed	The main idea for implementing this application is to provide a plug-in for website owners to analyze their website traffic as per day, weekly, monthly and analyze unique visitors for their site..Using this plug-in website owner can analyze his website and improve their site based on the stats displayed by this application.	Product	Web Development using Asp.Net	Pritpal Singh(E8067)	-	5
E Library >								
Examination >								
Hostel >								
International Study Opportunities								
		Student Performance Prediction System Polling Closed	The objective of this project is to develop a machine learning-based system that analyzes academic, attendance, and behavioral data to predict student performance at an early stage. The system aims to identify patterns influencing learning outcomes, assist educators in recognizing slow and advanced learners, and support data-driven academic planning. This project also seeks to improve institutional decision-making by providing predictive insights that can enhance teaching strategies and student	Research paper	Basics of Python Statistics (mean, variance, correlation) Machine Learning fundamentals Data prep	Supreet Saini(E17786)	-	5



Academics >		Student Feedback Collection System Polling Closed	The objective of this project is to develop a structured online feedback system that collects, stores, and summarizes student feedback. The system aims to improve transparency, support academic quality enhancement, and replace paper-based feedback methods. This project introduces students to form handling, data storage, and basic data analysis in web applications.	Product	HTML, CSS, JavaScript, basic backend, database concepts	Supreet Saini(E17786)	-	10
Accounts >								
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		Railway Reservation System Polling Closed	The objective of this project is to develop a railway reservation system that simulates real-world ticket booking operations. The system aims to strengthen understanding of data structures, file management, and algorithmic logic. This project helps students apply programming concepts to practical, real-life scenarios.	Research paper	C/Java, arrays, structures, file handling	Supreet Saini(E17786)	-	6
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >		Smart Water Level Indicator Polling Closed	The objective of this project is to design a smart water level indicator that helps prevent water overflow and wastage. The system aims to provide timely alerts based on water level status. This project introduces students to embedded system applications and practical electronics.	Research paper	Basic electronics, Arduino, sensors, breadboard usage	Supreet Saini(E17786)	-	6
Examination >								
Hostel >								
International Study Opportunities								
		File Compression Tool Using Huffman Coding Polling Closed	The objective of this project is to develop a file compression tool using Huffman coding to efficiently reduce file size. The system aims to demonstrate the practical application of data structures and algorithms. This project strengthens students' understanding of trees, encoding techniques, and file processing.	Research paper	C/Java, trees, priority queues, file handling	Supreet Saini(E17786)	-	5
		Student Result Analysis System Polling Closed	The objective of this project is to develop a student result analysis system that organizes and summarizes academic performance data. The system aims to support academic decision-making and performance tracking. This project introduces students to data organization and report generation techniques.	Research paper	SQL, basic programming, data handling	Supreet Saini(E17786)	-	5



		Accident Detection and Alert System Polling Closed	To understand real-time event detection using sensors 2. To gain experience with GSM communication for alerts. 3. To understand system reliability and emergency response mechanisms	Competition	Arduino, Accelerometer, GPS, GSM Module, Embedded Programming	Damandeep(E18881)	-	5
Academics	>				(StudentHome.aspx)	SONAL 24BCS10195		
Accounts	>	Smartly designed Irrigation System Using Soil Moisture Sensor Polling Closed	To develop an efficient irrigation mechanism and introduce technology-driven farming solutions.	Research paper	Sensors, Arduino, C programming, IoT basics, Electronics	Navjyot Kaur(E8508)	-	5
Administration	>							
Apply for Loan Documents (frmLoanLetterApplication.aspx)		Women Safety SOS Alert and Emergency Notification System Polling Closed	To design safety-oriented software applications To understand emergency alert workflows To learn user input handling and notification logic To develop secure and reliable systems To apply software concepts to social issues	Product	Programming Basics, UI Design, Database Basics, Logical Thinking, Software Design	Damandeep(E18881)	-	5
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW)	>							
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)		Safe Route Finder Application for Women Safety Polling Closed	To understand route selection logic To design safety-focused applications To learn data analysis for decision making To develop user-friendly interfaces To apply algorithms to real-life problems	Product	Programming Logic, Basic Algorithms, UI Design, Data Handling, Problem Solving	Damandeep(E18881)	-	4
DCPD	>							
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		Online Complaint Management System Polling Closed	To build a basic full-stack application and understand real-world web workflows.	Hackathon	HTML, CSS, JavaScript, PHP/Java, Database concepts	Navjyot Kaur(E8508)	-	6
E Library	>							
Examination	>							
Hostel	>							
International Study Opportunities		Disease Detection Using Symptoms Analysis Polling Closed	To understand healthcare data representation To design rule-based decision systems To apply logical conditions for disease detection To improve problem-solving skills To develop user-friendly software interfaces	Product	Python/Java, Basic Data Structures, Logical Reasoning, UI Design, File Handling	Damandeep(E18881)	-	5
		Smart Resume Analyzer for Fresh Graduates Polling Closed	To introduce text analysis techniques and help students understand real-world applications of data analytics.	Hackathon	Python, Text processing, Data analytics basics, File handling, UI design	Navjyot Kaur(E8508)	-	7
		Smart Campus Event Management and Notification System Polling Closed	To design a campus-level automation system, improve information dissemination, reduce manual communication, and give students hands-on experience in developing real-world web applications.	Hackathon	HTML & CSS, JavaScript, Backend programming, Database concepts, UI design	Navjyot Kaur(E8508)	-	10
		Smart Dustbin Using Ultrasonic Sensor Polling Closed	The objective of this project is to design a smart dustbin that promotes hygiene by minimizing physical contact. The system aims to automatically detect nearby objects and open the lid accordingly. This project introduces students to sensor integration and automation for smart city applications.	Product	Arduino, ultrasonic sensor, servo motor, electronics	Supreet Saini(E17786)	-	6
		IoT-Based Smart Dustbin Polling Closed	IoT-Based Smart Dustbin	Product	IoT basics, Sensor integration, Data visualization, embedded programming	Sneha Garg(E17633)	-	5



		Deep Reinforcement +DQN+SMOTE Learning-Based Intrusion Detection System Polling Closed	Detect new and evolving cyber threats in real time, reduce false positives	Research paper	Cybersecurity, Networking, Python, Reinforcement Learning, Deep Learning, Data Analytics 	Kiranjeet Kaur(E12851)	-	3
Academics >		Voice controlled PC Polling Closed	To develop fully voice controlled PC to perform different task, To make fully voice controlled personal computer which can perform different task	Product	Machine Learning/ Deep Learning /Python <b>SONAL</b> 24BCS10195 	Pritpal Singh(E8067)	-	5
Accounts >								
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx) >		AI-Based Predictive Maintenance of Aircraft Components Using PHM and Telemetry Data Polling Closed	<ul style="list-style-type: none"> <li>• To analyze PHM and aircraft telemetry datasets</li> <li>• To develop ML models for failure prediction and RUL estimation</li> <li>• To identify early indicators of component degradation</li> <li>• To reduce unplanned maintenance and downtime</li> <li>• To enhance aircraft safety through predictive insights</li> </ul>	Research paper	Python, Machine Learning, Time-Series Analysis, Data Analytics, Aviation Systems Basics	Aleem Ali(E12948)	-	5
Apply for NOC (frmStudentNoc.aspx) >								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx) >								
DCPD >		Smart Attendance Management System using Web Technologies Polling Closed	To design a digital attendance system To reduce manual record keeping To ensure accurate attendance tracking To provide secure role-based access To generate automated attendance reports	Product	HTML, CSS, JavaScript, Database Design, Python/Java	Bhavneet Kaur(E14414)	-	4
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx) >								
E Library >								
Examination >		Online Examination and Automated Evaluation System Polling Closed	To design a secure online examination system To automate evaluation and result processing To improve examination efficiency To support remote learning assessments To reduce manual intervention	Product	JavaScript, Backend Development, SQL, Authentication, System Design	Bhavneet Kaur(E14414)	-	4
Hostel >								
International Study Opportunities >		PulseChat – A Real-Time WebSocket-Based Communication System Polling Closed	To design real-time communication architecture To implement secure messaging To support group and private chats To ensure scalability and performance To demonstrate WebSocket usage	Product	JavaScript, Node.js, WebSockets, Database Management, Networking Basics	Bhavneet Kaur(E14414)	-	5
		Smart Agriculture Monitoring & Irrigation System Polling Closed	Automate irrigation based on real-time soil conditions.	Research paper	IoT, Arduino/ESP32	Komal Sharma(E14735)	-	6
		Gesture-Controlled Robot Polling Closed	Build a robot that moves based on human gestures.	Competition	ML, Python, AI, IOT	Komal Sharma(E14735)	-	4
		Raspberry Pi Home Security System with Alerts Polling Closed	Detect motion and notify the user instantly.	Research paper	AI, IOT	Komal Sharma(E14735)	-	5



		Plant Disease Detection System Using Deep Learning and TensorFlow Polling Closed	The primary objective of this project is to design and implement a deep learning-based system for accurate plant disease detection. The project aims to automate disease identification from leaf images, reduce dependency on manual inspection, improve early diagnosis, and enhance crop productivity. Additionally, it seeks to apply TensorFlow-based CNN models to achieve reliable classification performance suitable for real-world agricultural environments.	Research paper	Python Programming	Ankita Dhiman(E11431)	-	2
Academics >						(StudentHome.aspx)		
Accounts >						<b>SONAL</b> 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		Real-Time Cyber security Threat Detector Polling Closed	Detect abnormal network activity effectively.	Book Chapter	Security Analytics / Machine Learning	Komal Sharma(E14735)	-	4
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)		Sound Pollution Monitoring System using IOT Polling Closed	Objectives of project is to make student understand that how real world problems can be solved using Computer science and IOT. To design and develop system with hardware and software.	Product	Programming language, IOT device knowledge, Architecture sensor software knowledge	Puja Shrivastava(E17060)	-	5
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >		Chat Bot for Career Guidance Polling Closed	The objective of the Career Guidance Chatbot project is to design and develop an intelligent conversational system that assists students in selecting suitable career paths based on their interests, skills, and academic background. The system aims to provide accurate information on careers, higher education options, certifications, and entrance examinations using basic NLP and rule-based logic, ensuring accessibility, ease of use, and practical learning of AI and web technologies.	Product	Programming Skills,Basic Natural Language Processing (NLP), Web Development, Database Management, Pr	Puja Shrivastava(E17060)	-	4
Examination >								
Hostel >								
International Study Opportunities								
		AI-Based Coronary Artery Disease Risk Prediction Using Machine Learning Polling Closed	Study Coronary Artery Disease risk factors Apply machine learning for early risk prediction Compare performance of different ML algorithms Improve accuracy of CAD diagnosis support ,Support preventive healthcare decision-making	Research paper	Python, Machine Learning, Data Analysis, Statistics, Healthcare datasets	Jasmeet Kaur(E17596)	-	5
		Credit Card Fraud Detection using Machine Learning Techniques Polling Closed	Study patterns of credit card fraud Build ML models for fraud detection Handle imbalanced transaction datasets Compare model performance and accuracy Reduce false positive fraud alerts	Product	Python, Machine Learning, Data Analysis, Statistics, Data Visualization	Jasmeet Kaur(E17596)	-	6
		Student Attendance Management System Polling Closed	Student Attendance Management System	Product	Python / Java, SQL, Basic Web Development (HTML, CSS), DBMS concepts	Sneh Garg(E17633)	-	5



		Crop Recommendation System Using Machine Learning Polling Closed	To recommend suitable crops using machine learning techniques. To analyze environmental factors affecting crop selection. To support data-driven decision making in agriculture.	Research paper	Python, Machine Learning, Data Analysis, Agriculture Data	Yogita(E19584)	-	4
Academics	>					(StudentHome.aspx)		
Accounts	>					<b>SONAL</b> 24BCS10195		
Administration	>	AI Chatbot-Integrated College Helpdesk Website Polling Closed	Provide 24x7 automated student support Reduce manual helpdesk workload Improve response time and accuracy Centralize college information Enhance user experience through AI chatbot	Product	HTML, CSS, JavaScript, Python, Natural Language Processing	Jasmeet Kaur(E17596)	-	5
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW)	>	Online Quiz and Evaluation System Polling Closed	Online Quiz and Evaluation System	Product	Java / Python, HTML, CSS, JavaScript, Database Management	Sneh Garg(E17633)	-	9
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		AI-Based Disease Risk Prediction System using Machine Learning Polling Closed	Analyze medical and lifestyle datasets Build ML models for disease risk prediction Compare accuracy of multiple algorithms Support early disease detection Improve preventive healthcare outcomes	Research paper	Python, Machine Learning, Data Analysis, Statistics, Healthcare Data	Jasmeet Kaur(E17596)	-	4
DCPD	>	Library Management System Polling Closed	Library Management System	Product	Java / Python, SQL, OOP concepts, GUI or Web framework	Sneh Garg(E17633)	-	5
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		Smart Irrigation System Using IoT Polling Closed	To design an automated irrigation system using soil moisture sensors. To monitor real-time soil conditions using IoT technology. To reduce water wastage through automatic water control. To improve crop productivity using smart farming techniques.	Product	Electronics, Arduino, Sensors	Yogita(E19584)	-	6
E Library	>	College Event Management System Polling Closed	College Event Management System	Product	HTML, CSS, JS, MySQL	Sneh Garg(E17633)	-	7
Examination	>	Blockchain-Based Voting System Polling Closed	Create a simple and secure voting system for college elections using blockchain. Voters cast their votes online, and the data is protected from tampering	Product	Solidity, Ethereum, web3 tools	Gyan Chand Yadav(E12247)	-	3
Hostel	>	Weather Monitoring System Polling Closed	To develop an IoT-enabled system for real-time monitoring and analysis of weather parameters using sensor networks and cloud technologies.	Product	C++ / Python, Embedded Systems and basics of microcontrollers	Meena Pundir(E12841)	-	5
International Study Opportunities		Smart Parking System Polling Closed	To design and develop an IoT-based Smart Parking System that enables real-time monitoring, efficient management, and optimized utilization of parking spaces using sensor networks and intelligent software applications.	Product	C++, Embedded System and Microcontroller	Meena Pundir(E12841)	-	5
		AI Chatbot for Personalized Education Polling Closed	1. Create a chatbot using NLP and AI. 2. Analyze learning patterns to provide personalized feedback. 3. Assist students with queries and resource suggestions.	Book Chapter	Python, NLP, AI Algorithms, Chatbot Design, GPT Models.	Shaurya Vir Singh Pathania(E14642)	-	5



		Expense Tracker App Polling Closed	Expense Tracker App	Product	c python	Gyan Chand Yadav(E12247)	-	5
Academics	>	AI-Powered Fake News Detection System Polling Closed	1. Use machine learning to detect and classify fake news. 2. Integrate NLP techniques for text analysis. 3. Develop a user-friendly interface for users to check news reliability.	Book Chapter	Python, Scikit-learn, NLP, Data Preprocessing, Machine Learning.	Shaurya Vir Singh Pathania(E14642)	-	9
Accounts	>					SONAL 24BCS10195		
Administration	>							
Apply for Loan Documents (frmLoanLetterApplication.aspx)		AI-Powered Virtual Personal Fitness Trainer Polling Closed	1. Use AI to suggest personalized workout plans. 2. Track user progress and fitness metrics. 3. Integrate feedback mechanisms for performance improvement.	Book Chapter	TensorFlow/Keras, Data Analysis, Fitness APIs, GUI Development.	Shaurya Vir Singh Pathania(E14642)	-	5
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW)	>	Flower Classification Polling Closed	Build a model to classify flowers accurately	Research paper	Python, Scikit-learn Jupyter Notebook	Ankita Dhiman(E11431)	-	3
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		Stock Price Prediction System Polling Closed	To develop a machine learning-based stock price prediction system that analyzes historical and real-time financial data to forecast future stock prices and assist investors in decision-making.	Research paper	Python	Meena Pundir(E12841)	-	5
DCPD	>							
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		The "Agri-Doctor": Plant Disease Detection Polling Closed	A mobile-friendly web app (Streamlit or Flask). Feature: Display the confidence score and perhaps a "Treatment Suggestion" based on the predicted disease.	Product	Language: Python DL Framework: TensorFlow/Keras (easiest for beginners) or PyTorch. Dataset Librar	Shweta Tiwari(E13352)	-	5
E Library	>							
Examination	>							
Hostel	>							
International Study Opportunities		Smart Attendance System using RFID Polling Closed	To eliminate manual attendance errors, ensure accuracy, and enhance administrative efficiency.	Product	RFID Technology, Microcontrollers, Databases	Jaspreet Singh(E7231)	-	5
		"Algorithms, Bias, and Inequality: Analyzing Social Media Recommendation Systems" Polling Closed	Investigate how algorithmic feeds contribute to reinforcement of social biases and unequal access to information, combining machine learning analysis with sociological theory.	Research paper	Python DB C++	Gurpreet Kaur(E12272)	-	5
		Smart Attendance Management System using MERN Stack Polling Closed	The objective of this project is to design and implement a web-based attendance system that simplifies attendance tracking for academic institutions. The system aims to automate attendance recording, reduce paperwork, ensure data accuracy, and provide easy access to attendance reports. It also helps students monitor their attendance status and supports faculty with efficient data management.	Product	HTML, CSS, JavaScript, React.js, Node.js	Aniket Malik(E19687)	-	5
		Healthy Learning in a Digital Age: Social Engagement, Brain Development, and Early Media Use Polling Closed	Healthy Learning in a Digital Age: Social Engagement, Brain Development, and Early Media Use	Research paper	Python DB C++	Gurpreet Kaur(E12272)	-	4
		DDoS Attack Detection and Mitigation System Polling Closed	To identify traffic anomalies, classify DDoS attacks, and improve network availability.	Research paper	Networking, Python	Jaspreet Singh(E7231)	-	4



		Music Genre Classifier (Audio Processing) Polling Closed	Deep Learning models don't "hear" sound well; they "see" it. You will use a library like Librosa to convert audio waves into Mel-Spectrograms (visual representations of sound frequencies). You then feed these "images" of sound into a CNN.	Product	Python, Scikit-learn, NLTK.	Shweta Tiwari(E13352)	-	4
Academics >						(StudentHome.aspx)		
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		Sales Forecasting Using Machine Learning Technique Polling Closed	To improve demand planning and inventory management through accurate forecasting.	Research paper	Python, ML Regression, Data Analysis	Jaspreet Singh(E7231)	-	5
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		Fashion Item Recommender (Fashion MNIST) Polling Closed	Challenge: Distinguishing between similar items (like a Shirt vs. a T-shirt or a Coat vs. a Pullover). Software Component: A simple script or app where you upload a low-res image of a clothing item. Bonus: If the model predicts "Sneaker," have the software print out a link to a shoe store (simulating a recommendation engine).	Product	Python, Scikit-learn, NLTK.	Shweta Tiwari(E13352)	-	5
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >		Phishing Website Detection Using Python Polling Closed	Detect phishing URLs Analyze suspicious patterns Improve user awareness Reduce online fraud risks	Product	Python, Data Analysis, Basic ML, Networking Basics, Logic Building	Manpreet Kaur(E12698)	-	5
International Study Opportunities		Sentiment Analysis of Social Media for Mental Health Awareness Polling Closed	Analyze sentiment from text data Identify mental health indicators Apply NLP techniques Generate meaningful insights	Research paper	Python, NLP, Machine Learning, Data Mining, Text Processing	Manpreet Kaur(E12698)	-	5
		Smart Waste Management System Using IoT Polling Closed	Monitor waste levels automatically Reduce overflow of garbage bins Optimize waste collection process Promote smart city solutions	Product	IoT Basics, Sensors, Embedded Systems, Python, Networking	Manpreet Kaur(E12698)	-	4
		Personal Expense Tracker Using C++ Polling Closed	Track personal expenses Improve financial awareness Practice OOP concepts Implement file handling	Product	C++, File Handling, OOP Basics, Logic Building, Data Structures	Manpreet Kaur(E12698)	-	6
		Machine Learning-Based Crop Recommendation System Polling Closed	To develop a machine learning-based system that provides accurate crop recommendations by analyzing soil characteristics and environmental conditions to support sustainable agriculture.	Research paper	Python	Meena Pundir(E12841)	-	6



Academics >		Online Complaint and Grievance Redressal System using MERN Stack Polling Closed	The main objective of this project is to design a digital grievance management platform that simplifies complaint registration and resolution. It aims to reduce paperwork, enhance transparency, ensure timely responses, and maintain proper records of grievances. The system also enables administrators to analyze complaint trends and improve institutional decision-making processes.	Product	HTML, CSS, JavaScript, React.js, Node.js	Aniket Malik(E19687)	-	5
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		College Event Management Portal using MERN Stack Polling Closed	The objective of this project is to build a centralized web-based platform for managing college events efficiently. It aims to automate event creation, registration, and participant tracking, reduce paperwork, and improve communication between organizers and students. The system also provides structured event data for future analysis and reporting.	Product	HTML, CSS, JavaScript, React.js, Node.js	Aniket Malik(E19687)	-	8
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >		Student Performance Tracking Android Application Polling Closed	Record student marks and attendance Analyze academic performance trends Visualize progress using charts Help teachers identify weak areas Support continuous student evaluation	Product	Java/Kotlin, Android Studio, SQLite/Firebase, UI Design, Basic Data Analysis	Jasmeet Kaur(E17596)	-	4
Examination >								
Hostel >								
International Study Opportunities								
		Smart Irrigation System Using IoT for Efficient Water Management Polling Closed	To automate irrigation using soil moisture sensing To reduce water wastage To monitor irrigation remotely using IoT	Product	Embedded Systems, IoT, Arduino, Sensors, Basic Networking	Amandeep Kaur(E11813)	-	4
		IoT Based Smart Energy Meter for Real-Time Power Monitoring Polling Closed	To monitor real-time energy consumption To enable remote power monitoring To reduce electricity wastage	Patent	IoT, Embedded Systems, Sensors, Arduino, Cloud Basics	Amandeep Kaur(E11813)	-	9
		Smart Dustbin System for Efficient Waste Management Using IoT Polling Closed	To monitor garbage levels automatically To improve waste collection efficiency To reduce overflow and pollution To support smart city initiatives To maintain cleanliness	Product	Arduino, IoT, Sensors, Embedded Systems, Basic Programming	Amandeep Kaur(E11813)	-	9
		Disease Prediction System Using ML Algorithms Polling Closed	To predict diseases based on symptoms and medical parameters To compare ML models for healthcare prediction accuracy To assist early diagnosis using data-driven techniques To analyze the importance of clinical features	Research paper	Python Machine Learning fundamentals Data handling (Pandas, NumPy) Visualization (Matplotlib) Ba	Rajni Devi(E15439)	-	5
		Automated Smart Waste Segregation System Using Sensors Polling Closed	To automate waste segregation To reduce human involvement in waste handling To improve recycling efficiency To support sustainable waste management	Research paper	Embedded systems programming Sensor interfacing (moisture, inductive) Motor and actuator control	Rajni Devi(E15439)	-	4



		Smart Home Automation System Using IoT Polling Closed	To automate household appliances To enable remote monitoring and control To improve energy efficiency To enhance user comfort and safety	Research paper	Embedded C / Arduino programming Relay and load control IoT platforms and mobile apps Basic elect	Rajni Devi(E15439)	-	5
Academics >		Northern Leaf Blight Detection in Corn using Deep Learning Polling Closed	Detection of Northern Leaf Blight in Corn using Image data. Training the dataset using deep Learning algorithms.	Research paper	Image classification and deep learning, Machine learning, Python, Analytical thinking	Sheikh Afaan Farooq(E14180)	-	4
Administration >		Apply for Loan Documents (frmLoanLetterApplication.aspx)	Image Classification of Bacterial Leaf Blight in Rice Plantation using Deep Learning Polling Closed	Research paper	Image classification and deep learning, Machine learning, Python, Analytical thinking	Sheikh Afaan Farooq(E14180)	-	4
Apply for NOC (frmStudentNoc.aspx)		Centre For Student Wellbeing (CSW) >	Post-traumatic stress disorder (PTSD) prediction using Machine Learning Polling Closed	Research paper	Image classification and deep learning, Machine learning, Python, Analytical thinking	Sheikh Afaan Farooq(E14180)	-	5
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		Depression Prediction using Machine Learning Polling Closed	Depression Prediction using Machine Learning	Research paper	Image classification and deep learning, Machine learning, Python, Analytical thinking	Sheikh Afaan Farooq(E14180)	-	5
DCPD >		DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)	Climate Change Impact Assessment on Agricultural Productivity Using Machine Learning Techniques Polling Closed	Research paper	Python programming Machine Learning fundamentals Data preprocessing and analysis Statistics and r	Rajni Devi(E15439)	-	5
E Library >		Examination >	Hostel >					
International Study Opportunities		IoT-Based Smart bin Polling Closed	To monitor garbage levels in real time using sensors and IoT technology. To prevent overflow of dustbins by sending timely alerts for waste collection. To improve waste collection efficiency by optimizing collection schedules and routes. To reduce manual monitoring of dustbins, saving time and labor. To promote cleanliness and hygiene in public places. To support smart city and digital infrastructure initiatives. To enable data-driven waste management through cloud-based monitoring.	Product	iot	Parul Datta(E17144)	-	6
		RFID-Based Attendance Marking System Polling Closed	To automate the attendance process using RFID technology. To reduce manual effort and paperwork involved in attendance management. To improve accuracy and reliability of attendance records. To prevent proxy attendance and unauthorized access. To save time during attendance collection.	Product	sensors	Parul Datta(E17144)	-	4



		Expense Tracker Application Polling Closed	To provide a simple and efficient platform for tracking daily expenses. To help users manage personal finances effectively. To categorize expenses for better analysis and understanding. To generate expense summaries and reports automatically. To support budgeting and financial planning.	Research paper	python	Parul Datta(E17144)	-	4
Academics	>					(StudentHome.aspx)		
Accounts	>					SONAL 24BCS10195		
Administration	>							
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)		AI-Powered Monitoring of Crop Health, Soil Condition, and Pest Risks Using Imaging and Sensors Polling Closed	The objective of this project is to develop an intelligent monitoring system that helps farmers understand the real-time condition of their crops and soil. It aims to detect crop stress, assess soil health, and predict pest risks at an early stage. The project supports precision farming practices, reduces crop losses, and promotes efficient use of agricultural resources.	Research paper	Python, Machine Learning, Data Analytics	Deepak Kumar(E18313)	-	5
Centre For Student Wellbeing (CSW)	>							
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
DCPD	>							
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library	>	Blockchain-Based KYC Store for Secure and Decentralized Mock Banking Onboarding Polling Closed	The objective of this project is to build a secure and transparent KYC storage and verification system using blockchain technology. It aims to reduce repeated KYC submissions, improve trust between banking branches, and protect sensitive customer information through hashing. The project helps demonstrate practical use of blockchain for digital identity management in financial services.	Research paper	Python, Basic Blockchain Concepts, Web Development, Database Basics	Deepak Kumar(E18313)	-	3
Examination	>							
Hostel	>							
International Study Opportunities								
		Credit Card Fraud Detection Using Machine Learning and Anomaly Detection Techniques Polling Closed	The objective of this project is to build an effective fraud detection model that can identify abnormal credit card transactions with high accuracy. It aims to address data imbalance issues, compare different detection techniques, and improve early fraud identification. The project also helps in understanding real-world financial risk management and decision-making using data-driven approaches.	Research paper	Python, Machine Learning, Data Preprocessing	Deepak Kumar(E18313)	-	6



Academics >		House Price Prediction for a Local City Using Regression-Based Machine Learning Models Polling Closed	The objective of this project is to build a reliable model that can estimate house prices based on key property features. It aims to help users understand how factors like location, size, and room count influence prices. The project also introduces practical use of regression models and data preprocessing techniques in real-world real estate scenarios.	Research paper	Python, Data Analysis, Machine Learning Basics,	Deepak Kumar(E18313)	-	4
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)		Academic Credential Verification with Blockchain and Skill-Based Role Prediction Polling Closed	The objective of this project is to create a secure and reliable system for academic credential verification while also supporting career guidance. It aims to prevent certificate fraud using blockchain technology and provide intelligent recommendations based on student performance and skills. The project demonstrates a practical blend of security, analytics, and decision support in education systems.	Research paper	Python, Basic Blockchain Concepts, Machine Learning, Data Analysis, Database Management	Deepak Kumar(E18313)	-	4
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >		IoT-Based Smart Irrigation System Polling Closed	To optimize water usage in agriculture. To learn sensor-based automation. To understand IoT communication.	Research paper	Python and R programming	Amit Kumar(E13989)	-	5
Hostel >								
International Study Opportunities		Online Examination System with Automatic Evaluation Polling Closed	To develop a web-based examination platform. To automate result generation. To learn basic web technologies.	Research paper	HTML, CSS, JavaScript, and PHP.	Amit Kumar(E13989)	-	5
		Early Detection of Alzheimer's Disease Using Multi-Modal Deep Learning with Explainable AI Polling Closed	To analyze MRI and clinical data for Alzheimer's diagnosis To design a multi-modal deep learning model for early detection To improve diagnostic accuracy compared to single-modal approaches To apply Explainable AI techniques for transparent decision making To support clinicians with interpretable AI-based predictions	Research paper	Python, Machine Learning, Deep Learning, Medical Imaging, Data Analysis	Narinder Kaur(E12264)	-	4
		Weather Forecasting Using Machine Learning Polling Closed	To analyze historical weather data. To apply basic machine learning algorithms. To predict temperature or rainfall.	Research paper	DL and ML	Amit Kumar(E13989)	-	5
		Chatbot for College Enquiry System Polling Closed	To automate student enquiry handling. To understand Natural Language Processing basics. To improve user interaction.	Research paper	Python	Amit Kumar(E13989)	-	4
		Road Accident Analysis Using Data Analytics Polling Closed	To analyze accident data. To identify accident-prone areas. To visualize statistical trends.	Research paper	Python	Amit Kumar(E13989)	-	3



		Password Strength Checker Using Python Polling Closed	To evaluate password security. To understand cybersecurity basics. To promote safe password practices.	Research paper	Python	Amit Kumar(E13989)	-	4
Academics	>	Smart Attendance System Using Face Recognition with Bias Analysis Polling Closed	Build a face-recognition-based attendance system and analyze bias across lighting conditions, pose, and gender.	Research paper	ML	Kiranjeet Kaur Sandhu(E12258)	-	5
Accounts	>	Fake News Detection Using Classical ML and NLP Techniques Polling Closed	Detect fake news using TF-IDF + ML models and analyze which features matter most.	Research paper	Naive Bayes, SVM, Random Forest	Kiranjeet Kaur Sandhu(E12258)	-	9
Administration	>	Smart Traffic Density Prediction Using Image Processing Polling Closed	Estimate traffic density using background subtraction and object counting	Research paper	Open CV	Kiranjeet Kaur Sandhu(E12258)	-	6
Apply for Loan Documents (frmLoanLetterApplication.aspx)		Phishing Website Detection Using Machine Learning Polling Closed	Detect phishing websites by analyzing URL-based and domain features using classical ML models.	Research paper	Logistic Regression, Random Forest, SVM	Kiranjeet Kaur Sandhu(E12258)	-	8
Apply for NOC (frmStudentNoc.aspx)		Smart Energy Consumption Prediction Using Machine Learning Polling Closed	Predict household energy consumption using historical usage data.	Research paper	Linear Regression, Random Forest	Kiranjeet Kaur Sandhu(E12258)	-	4
Centre For Student Wellbeing (CSW)	>	Password Manager Application Polling Closed	Securely store user credentials Implement encryption techniques Generate strong passwords Build a user-friendly interface Improve password security awareness	Product	C++/Qt or Python, Encryption basics, File handling, UI design	Neha (E10457)	-	10
DCPD	>	Online Discussion Forum Website Polling Closed	Enable user-generated content Implement CRUD operations Design a responsive UI Manage posts efficiently Encourage online discussions	Product	Node.js, Express, MongoDB, HTML, CSS, JavaScript	Neha (E10457)	-	5
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		Smart Online Voting System Polling Closed	Provide secure online voting Authenticate voters effectively Prevent multiple voting attempts Display election results transparently Reduce manual voting effort	Product	HTML, CSS, JavaScript, Node.js, Express, MongoDB	Neha (E10457)	-	5
E Library	>	Real-Time Chat Application Polling Closed	Enable real-time communication Implement user authentication Store chat history securely Show online/offline status Improve user interaction	Product	HTML, CSS, JavaScript, Node.js, Socket.IO, MongoDB	Neha (E10457)	-	5
Examination	>	Online Learning Management System (LMS) Polling Closed	Manage courses and users Enable student enrollment Track learning progress Provide role-based access Improve digital learning experience	Product	HTML, CSS, JavaScript, Node.js, Express, Database basics	Neha (E10457)	-	7
Hostel	>	Job Portal Web Application Polling Closed	Simplify job search process Enable job postings and applications Manage user profiles Improve recruitment efficiency Organize job listings effectively	Product	HTML, CSS, JavaScript, Node.js, Express, MongoDB	Neha (E10457)	-	4
International Study Opportunities		Event Management and Booking System Polling Closed	Display upcoming events Enable online ticket booking Manage event details Generate booking confirmations Reduce manual event handling	Product	HTML, CSS, JavaScript, Node.js, Express, Payment Gateway basics	Neha (E10457)	-	9



		Blockchain-Enabled IoT Data Integrity System Polling Closed	To ensure secure and tamper-proof IoT sensor data storage	Research paper	smart contracts, IoT gateways	Kirandeep Kaur Sandhu(E12258)	-	5
Academics >		Personal Finance Tracker Polling Closed	Track income and expenses Categorize financial data Visualize spending trends Improve financial planning Maintain secure user data	Product	HTML, CSS, JavaScript, Node.js, MongoDB, Chart libraries	Neha (E10457)  (StudentHome.aspx)	-	10
Accounts >						SONAL 24BCS10195 		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)		Attendance Management System using PHP Polling Closed	Automate attendance process Generate attendance reports Reduce errors and paperwork Improve data accuracy	Product	php, html, css, mysql, javascript	Ankita Dhiman(E11431)	-	4
Apply for NOC (frmStudentNoc.aspx)		Smart Traffic Signal Control Using IoT & Machine Learning Polling Closed	To optimize traffic signal timing based on real-time vehicle density	Research paper	sensors, Python, ML	Kirandeep Kaur Sandhu(E12258)	-	10
Centre For Student Wellbeing (CSW) >		Edge-AI Based Smart Surveillance System Polling Closed	To perform real-time object detection at the edge with reduced latency	Research paper	Raspberry Pi, Python	Kirandeep Kaur Sandhu(E12258)	-	10
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)								
DCPD >		IoT-Based Cold Storage Monitoring System Polling Closed	To prevent food spoilage by real-time temperature and humidity monitoring	Research paper	Sensors, IOT	Kirandeep Kaur Sandhu(E12258)	-	5
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		Secure Online Examination System with AI-Based Proctoring Polling Closed	To prevent malpractice, ensure exam integrity, and enable scalable online assessments.	Portfolio	Web Development, Cyber Security Basics, AI Basics, Databases, Networking	Zahid Hussain Wani(E18378)	-	4
E Library >		Gesture-Controlled Desk Lamp for Energy Saving Polling Closed	To design a touch-free lighting system, evaluate gesture detection reliability, and demonstrate energy-efficient human-centric design using low-cost hardware.	Product	Embedded C, Sensors, Microcontrollers, Signal Timing, Basic Electronics	Paramjeet Kaur Sarao(E13257)	-	5
Examination >								
Hostel >								
International Study Opportunities								
		AI-Powered Smart Irrigation Controller Using Edge Intelligence Polling Closed	To develop an AI-driven irrigation system that improves water efficiency. To integrate real-time sensor data with predictive models. To create a patent-worthy smart agriculture solution for sustainable farming.	Patent	Python, Machine Learning, Embedded Systems, IoT, Data Analytics	Gitanjali(E16525)	-	4
		Multi-Agent IoT Framework with Deep Learning for Predictive Diagnostics and Monitoring Polling Closed	To design an intelligent multi-agent healthcare framework that enables autonomous pre-consultation assessment, predictive diagnostics, and continuous patient monitoring. The system aims to integrate IoT-based real-time physiological data with transfer learning-enhanced deep learning models to improve diagnostic accuracy, enable early anomaly detection, reduce physician workload, and deliver scalable, personalized, and preventive healthcare solutions in resource-constrained environments.	Patent	Python, Deep Learning, IoT Basics, Healthcare Data Analysis, Multi-Agent Systems	Gitanjali(E16525)	-	4



Academics >		Student Performance Prediction Using Deep Learning Models Polling Closed	To predict student outcomes using deep learning. To support academic decision-making through predictive analytics. To publish findings in reputed education-focused research journals.	Research paper	Python, Machine Learning, Deep Learning, Statistics, Data Analysis	Gitanjali(E16525)	-	5
Accounts >					(StudentHome.aspx)	SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)		Disease Prediction Using Ensemble Machine Learning Models Polling Closed	To improve disease prediction accuracy. To analyze ensemble learning effectiveness. To contribute to healthcare analytics research literature.	Research paper	Machine Learning, Python, Data Analytics, Statistics, Healthcare Data	Gitanjali(E16525)	-	8
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		Credit Card Fraud Detection Using Deep Learning Polling Closed	To enhance fraud detection accuracy. To analyze deep learning models in finance. To publish research findings in fintech journals.	Research paper	Python, Deep Learning, Data Mining, Statistics, Financial Analytics	Gitanjali(E16525)	-	7
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		Sentiment Analysis of Social Media Using Deep Learning Polling Closed	To analyze sentiment trends using deep learning. To improve NLP model accuracy. To publish research outcomes in data science forums.	Research paper	Python, NLP, Deep Learning, Text Mining, Data Analysis	Gitanjali(E16525)	-	6
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		Mental Health Prediction Using Deep Learning Polling Closed	To identify mental health risks early. To apply deep learning in healthcare analytics. To publish research findings in medical AI journals.	Research paper	Deep Learning, Python, Data Analytics, Healthcare AI, Statistics	Gitanjali(E16525)	-	4
E Library >								
Examination >								
Hostel >								
International Study Opportunities		AI-Based Drug Repurposing for Depression Treatment Polling Closed	To design a predictive ML framework that identifies potential antidepressant drugs from existing databases. The objective is to support faster drug discovery, reduce trial failures, and enhance therapeutic strategies for depression.	Research paper	Python, Machine Learning, Bioinformatics, Data Analysis, Statistics	Gagandeep Kaur(E19500)	-	6
		Machine Learning-Based Early Detection of Depression Polling Closed	To build an early-warning system that assists healthcare professionals in timely diagnosis and prevention of depression.	Patent	Python, ML Algorithms, Data Preprocessing, Statistics, Visualization	Gagandeep Kaur(E19500)	-	5
		AI-Based Mental Health Awareness Platform Polling Closed	To increase mental health literacy and encourage early self-help actions.	Hackathon	Python, Web Development, ML Basics, UI/UX Design, APIs	Gagandeep Kaur(E19500)	-	5
		ML-Based Identification of Mental Health Risk Factors Polling Closed	To identify and rank key mental health risk factors for preventive healthcare planning.	Research paper	Python, Data Analysis, Machine Learning, Survey Design, Statistics	Gagandeep Kaur(E19500)	-	5
		Public Health Surveillance System for Depression Polling Closed	To support policymakers with data-driven insights for mental health interventions.	Research paper	Python, Data Analytics, Machine Learning, Field Survey Methods, GIS Basics	Gagandeep Kaur(E19500)	-	6
		Machine Learning Based Early Detection of Eye Glaucoma Using Retinal Images Polling Closed	To study glaucoma and its visual indicators in retinal images To preprocess and enhance retinal fundus images To extract meaningful features related to glaucoma To train and evaluate machine learning models for classification To build an efficient system for early glaucoma detection	Product	Python, Machine Learning basics, Image Processing, NumPy & OpenCV, Data Analysis	Narinder Kaur(E12264)	-	5



		CivicLens Polling Closed	To create a platform that not only simplifies reporting but also ensures that complaints are tracked, prioritized, and resolved efficiently – with complete transparency.	Product	HTML, CSS, JavaScript, ReactJS, MongoDB	Neeraj Sharma(E19761)	-	9
Academics >						(StudentHome.aspx)		
Accounts >		RecyConnect Polling Closed	RecyConnect addresses the challenges students face in securely exchanging or donating reusable items like books, electronics, and lab kits within campuses.	Product	ReactJS, HTML, CSS, JS, MySQL	Neeraj Sharma(E19761)	-	9
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)		Event Idea Marketplace for University Clubs Polling Closed	The objective of this platform is to create a collaborative space where university clubs crowdsource innovative event ideas from students. It aims to promote student participation, recognize creativity through voting mechanisms, and improve the quality of campus events. The system also helps students gain real-world experience in ideation, teamwork, and proposal development while supporting clubs with diverse, high-quality solutions.	Service	<ul style="list-style-type: none"> <li>• Programming fundamentals (Java / Python / JavaScript)</li> <li>• Object-Oriented Programming concepts</li> </ul>	Neeraj Sharma(E19761)	-	5
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >		CareerCampus – Personalized Learning & Placement Roadmap Platform Polling Closed	The objective of CareerCampus is to provide structured and goal-oriented guidance for CSE students preparing for internships and placements. It aims to eliminate unplanned learning by offering personalized roadmaps, progress tracking, and motivation through gamification. The platform also enables administrators to update and manage roadmaps dynamically, ensuring content stays relevant to current industry and placement trends.	Patent	<ul style="list-style-type: none"> <li>• Strong fundamentals of programming (Java preferred)</li> <li>• Object-Oriented Programming concepts</li> <li>• Ba</li> </ul>	Neeraj Sharma(E19761)	-	3
International Study Opportunities								
		Machine Learning Based Student Performance Prediction Polling Closed	To identify key factors affecting performance and improve early intervention strategies.	Research paper	Python, ML basics, Data preprocessing, Pandas, Statistics	Dinesh Singh (E18128)	-	4
		AI-Based Bone Fracture Detection from X-ray Images Using Deep Learning Polling Closed	To develop an AI-based deep learning system that accurately detects bone fractures from X-ray images to assist faster and more reliable medical diagnosis.	Research paper	Python	Deepika (E2851)	-	4



		Maitri – A Digital Companion for Women's Health and Well-Being Polling Closed	The objective of Maitri is to create an integrated digital ecosystem that addresses women's health holistically. It aims to provide accurate health guidance, encourage mental wellness through community support, and promote healthy lifestyles via personalized diet and wellness recommendations. The platform also focuses on accessibility, reliability, and performance to ensure women can confidently manage their health needs in one place.	Service	<ul style="list-style-type: none"> <li>• Fundamentals of programming (Java preferred)</li> <li>• Object-Oriented Programming concepts</li> <li>• Basics of</li> </ul>	Neeraj Sharma(E19761)	-	4
Academics >						(StudentHome.aspx)		
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		ClassPulse – A Web-Based College Feedback Management System Polling Closed	The objective of ClassPulse is to digitize and streamline the student feedback process in colleges. It aims to provide students with a safe and easy way to share honest feedback, help teachers understand their teaching effectiveness, and assist administrators in making data-driven academic decisions. The system focuses on transparency, efficient reporting, and reducing manual effort through automated analytics and reports.	Product	<ul style="list-style-type: none"> <li>• Programming fundamentals (Java preferred)</li> <li>• Object-Oriented Programming concepts</li> <li>• Basics of web development</li> </ul>	Neeraj Sharma(E19761)	-	3
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >								
International Study Opportunities		Comparative Analysis of Machine Learning Algorithms for Disease Prediction Polling Closed	To identify the most accurate algorithm for healthcare prediction tasks.	Research paper	ML algorithms, Python, Data analysis, Scikit-learn	Dinesh Singh (E18128)	-	4
		Virtual Classroom System Polling Closed	To create a platform that facilitates seamless remote learning, ensuring accessibility to quality education regardless of location.	Product	JavaScript, Python, HTML/CSS, Databases, APIs	Shikha Atwal(E11186)	-	8
		Explainable AI Model for PCOD Diagnosis Polling Closed	To develop an explainable AI model that accurately diagnoses PCOD using clinical and lifestyle data, providing interpretable insights to assist doctors in decision-making.	Research paper	Python	Deepika (E2851)	-	5
		Deep Learning Based Image Classification Using CNN Polling Closed	To analyze the impact of network depth on classification accuracy.	Research paper	Python, Deep Learning, CNN, TensorFlow/PyTorch	Dinesh Singh (E18128)	-	5
		Machine Learning Techniques for Perception and Planning in Autonomous Vehicles Polling Closed	To develop robust perception models using machine learning techniques for accurate object detection, localization, and tracking in autonomous driving environments and to evaluate system performance in terms of perception accuracy, planning efficiency, safety, and real-time computational feasibility.	Research paper	Machine learning with understanding of research papers	Anupriya (E10436)	-	4
		Spam Email Detection Using Machine Learning and NLP Polling Closed	To evaluate classification accuracy and feature extraction methods.	Research paper	NLP, Python, ML algorithms, Text processing	Dinesh Singh (E18128)	-	4



		Recommendation System Using Machine Learning Techniques Polling Closed	To enhance user experience through personalized recommendations.	Research paper	ML basics, Python, Data analysis, Matrix factorization	Dinesh Singh (E18128)	-	4
Academics >		Handwritten Digit Recognition Using Deep Learning Polling Closed	To analyze performance of different neural network architectures.	Research paper	Deep Learning, Python, Neural Networks	Dinesh Singh (E18128)	(StudentHome.aspx)	5
Accounts >		Machine Learning Techniques for Smart Traffic and Transportation Systems Polling Closed	To design adaptive traffic signal control mechanisms using reinforcement learning and optimization-based ML approaches.	Research paper	Machine learning with understanding of research papers	SONAL 24BCS10195		
Administration >		Portfolio Website Polling Closed	This project helps you learn how websites are structured. You create your own online space to display skills, education, and projects. It teaches layout design, styling, and simple interactions. It also builds a base for future frontend work.	Product	HTML CSS Java Script	Neha Kapur(E13446)	-	5
Apply for Loan Documents (frmLoanLetterApplication.aspx)		Prediction of House Prices Using Regression Models Polling Closed	To compare linear and non-linear regression techniques.	Research paper	Python, Regression, Data visualization, ML basics	Dinesh Singh (E18128)	-	4
Apply for NOC (frmStudentNoc.aspx)		Early Detection of Diabetes Using Machine Learning Techniques Polling Closed	Build early disease prediction model Improve healthcare decision support Compare classification algorithms Reduce misdiagnosis risk	Research paper	Deep Learning, Python, Neural Networks	Dinesh Singh (E18128)	-	3
Centre For Student Wellbeing (CSW) >		Crop Yield Prediction Using Machine Learning for Smart Agriculture Polling Closed	Predict crop yield efficiently Analyze environmental factors Support precision agriculture Improve food security	Research paper	Deep Learning, Python, Neural Networks	Dinesh Singh (E18128)	-	4
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)		Student Portfolio Website Design Polling Closed	The Student Portfolio Website aims to showcase a student's projects, skills, achievements, and personal information in a professional and organized manner. It provides a user-friendly, interactive platform with responsive design, enhancing personal branding. The website demonstrates technical skills in web development, allows easy updates, and serves as a valuable tool for academic recognition, internships, and career opportunities.	Portfolio	HTML, CSS, JavaScript basics, UI design, DB basics	G Venkatesh(E19762)	-	5
DCPD >		Automated Attendance Management Using Face Recognition Polling Closed	To eliminate manual attendance, improve accuracy, reduce time consumption, and implement a secure and automated attendance system using face recognition techniques.	Product	Python, Machine Learning, OpenCV, Deep Learning, Database Management	Amandeep Kaur(E11813)	-	4
E Library >		Multi-Class Brain Tumor Classification Using MRI Images Polling Closed	To design an accurate tumor classification model that assists doctors in early diagnosis and improves treatment planning.	Product	Python, Deep Learning, CNN, Image Processing, Medical Imaging	Amandeep Kaur(E11813)	-	6
Examination >								
Hostel >								
International Study Opportunities								



Academics >		AI-Based Personalized Nutrition Recommendation System for PCOD Polling Closed	To develop an AI-based system that analyzes nutritional and lifestyle data to provide personalized diet recommendations for effective PCOD management.	Research paper	Python	Deepika (E2851)	-	5
Accounts >		AI-Based Job Recommendation System Using Web Application Polling Closed	To design an interactive job recommendation web app	Product	HTML, CSS, JavaScript, Python, Basic Machine Learning	SONAL 24BCS10195	Shikha Kamai(E12552)	16
Administration >		Smart IoT-Based Water Quality Monitoring System Polling Closed	To develop a low-cost, real-time water quality monitoring solution for environmental sustainability and public health.	Product	IoT, Sensors, Embedded Systems, Arduino, Networking	Anshu Mehta(E13356)	-	7
Apply for Loan Documents (frmLoanLetterApplication.aspx)		Smart Energy Meter Using IoT Polling Closed	To promote efficient energy utilization and real-time monitoring	Product	IoT, Embedded Systems, Sensors, Cloud Platforms, Python	Anshu Mehta(E13356)	-	4
Centre For Student Wellbeing (CSW) >		Wearable Health Monitoring System Polling Closed	To enable early health anomaly detection through continuous monitoring.	Product	Sensors, Embedded Systems, IoT, Signal Processing, C/C++	Anshu Mehta(E13356)	-	6
DCPD >		An Intelligent Attendance System Based on Facial Recognition Techniques Polling Closed	To ensure accurate and secure attendance management.	Research paper	Python, OpenCV, Machine Learning, Databases, AI	Anshu Mehta(E13356)	-	7
E Library >		Cloud-Based Student Performance Analytics System Polling Closed	To analyze student performance data using cloud-based analytics and derive actionable insights through statistical and predictive models for academic improvement.	Research paper	Cloud Computing, Python, Data Analytics, SQL, Data Visualization	Anshu Mehta(E13356)	-	7
Examination >		AI-Powered Resume Screening System Polling Closed	To design and evaluate an AI-driven resume screening model that improves recruitment efficiency through automated skill matching and comparative performance analysis.	Research paper	Python, Machine Learning, Natural Language Processing, Data Analytics, SQL	Anshu Mehta(E13356)	-	8
Hostel >		Performance Analysis of Load Balancing Algorithms in Cloud Computing Polling Closed	To experimentally evaluate load balancing strategies for cloud systems.	Research paper	Cloud Basics, Networking, Linux, Simulation Tools, Data Analysis	Surinder Kaur(E1033)	-	5
International Study Opportunities		Intelligent Chatbot Using NLP and Deep Learning Polling Closed	To develop a smart conversational chatbot that understands and responds to user queries accurately. To enhance automation and improve human-computer interaction using AI-based NLP models.	Product	Python, NLP, Deep Learning, Neural Networks, Text Processing	Manish Sharma(E5593)	-	5
		Fake News Detection Using Machine Learning and NLP Polling Closed	To automatically detect fake news using machine learning techniques. To reduce misinformation by providing a reliable content verification system.	Research paper	Python, NLP, Machine Learning, Text Mining, Data Analysis	Manish Sharma(E5593)	-	4
		Emotion Detection from Facial Expressions Using Deep Learning Polling Closed	To build an automated emotion recognition system using facial images. To improve user experience and behavioral analysis using AI-driven emotion detection.	Research paper	Python, Deep Learning, CNNs, Image Processing, OpenCV	Manish Sharma(E5593)	-	5



		Healthcare Disease Prediction System Polling Closed	To predict diseases based on patient symptoms and medical data.	Product	Python, Machine Learning, Data Analysis, Statistics, Healthcare Data Handling	Monika Anand(E12859)	-	4
Academics >		Design and Implementation of a Decentralized Voting System Using Blockchain Technology Polling Closed	To design a secure and transparent voting system using blockchain technology. To eliminate vote tampering and duplication through immutable ledgers. To ensure voter privacy and anonymity during the election process. To automate vote validation and counting using smart contracts. To increase trust and reliability in digital voting systems. To provide real-time and verifiable election results.	Product	asic understanding of Blockchain concepts Smart Contract Development (Solidity) Web Development	Rajani Misra(E8033) 	(StudentHome.aspx)	4
Accounts >								
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)		Quantum-Inspired Decision Kill-Switch for Safe and Trustworthy Artificial Intelligence Systems Polling Closed	To develop a quantum-inspired decision kill-switch that enables AI systems to withhold decisions under high uncertainty or risk, instead of forcing potentially unsafe outputs. To introduce a decision-level safety framework that enhances trustworthiness and reliability of AI systems without aiming to improve model accuracy or computational performance. To demonstrate the effectiveness of the proposed mechanism in security-critical applications such as biometric authentication and fraud detection	Research paper	Python, OpenCV	Rajani Misra(E8033)	-	5
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >								
International Study Opportunities								
		AI-Based Early Academic Burnout Detection System Polling Closed	To design an AI-based system that identifies early signs of academic burnout in students by analyzing academic workload, engagement patterns, and self-reported indicators. The system aims to support timely intervention, improve student well-being, and provide explainable insights for educators using machine learning models.	Product	Python, Machine Learning basics, Data preprocessing, Statistics, Data visualization	Komalpreet Saini(E14279)	-	4
		Smart Emotion-Based Classroom Analytics System Polling Closed	To design an intelligent classroom monitoring system that captures facial cues of students and classifies emotions such as engagement, boredom, or confusion. The system aims to support data-driven teaching improvements and promote adaptive learning environments	Research paper	Python, ML basics, OpenCV, Face detection, Arduino	Dilshad Kaur(E13682)	-	3



Academics >		AI-Based Resume Skill Gap Analysis and Career Guidance System Polling Closed	To develop an AI-based system that analyzes resumes and job descriptions to identify missing skills and learning gaps. The project aims to support students and job seekers by providing data-driven insights into employability requirements, comparing traditional text-based methods with modern embedding techniques for accurate skill gap detection.	Product	Python, NLP basics, Machine learning concepts, Data preprocessing, Text similarity	Komalpreet Saini(E14279)	-	6
Accounts >						SONAL 24BCS10195		(StudentHome.aspx)
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		Driver Drowsiness Detection and Alert System Polling Closed	To enhance road safety by developing an intelligent system capable of detecting fatigue indicators in drivers. The project emphasizes real-time analysis and proactive accident prevention.	Research paper	Python, ML, OpenCV, Image processing, Hardware	Dilshad Kaur(E13682)	-	4
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)								
DCPD >		Intelligent Classroom Noise Pattern Analysis Using Machine Learning Polling Closed	To analyze classroom acoustic data and apply machine learning to classify learning environments. The project focuses on audio feature extraction, classification models, and low-cost sensing for academic analytics without using cameras.	Research paper	Python, ML basics, Audio features, Data analysis, Arduino	Dilshad Kaur(E13682)	-	7
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >		Fake News Detection System Using NLP Polling Closed	To address misinformation by designing a system that automatically detects fake news. The project promotes responsible media consumption and strengthens digital literacy.	Research paper	Python, NLP, ML, Text vectorization, Data prep	Dilshad Kaur(E13682)	-	6
International Study Opportunities								
		NLP-Based Sentiment Analysis of Student Feedback Polling Closed	To design an analytical tool that helps institutions understand student perceptions and improve academic quality through data-driven decision making.	Research paper	Python, NLP, ML basics, Pandas, Data analysis	Dilshad Kaur(E13682)	-	4
		Fake Job Posting Detection Using NLP Polling Closed	To reduce online employment scams using AI.	Research paper	Python, NLP, ML Algorithms, Data Cleaning	Gagandeep Kaur(E19500)	-	5
		Gesture-Based Presentation Controller Polling Closed	To create touch-free and intuitive presentation control systems.	Product	Python, OpenCV, Image Processing, ML Basics	Gagandeep Kaur(E19500)	-	5
		Personal Portfolio Website Polling Closed	To Build a Website to showcase their professional identity.	Portfolio	HTML , CSS , JS , Python , MongoDB	Lipakshi(E19704)	-	8
		Comparative Study of Machine Learning Algorithms for Student Performance Prediction Polling Closed	Study different ML algorithms Analyze performance metrics Identify best algorithm for prediction Improve understanding of educational data analytics	Research paper	Python, Machine Learning Basics, Statistics, Data Preprocessing, Research Writing	Monika Devi(E15988)	-	4
		IoT-Based Smart Energy Monitoring System Polling Closed	To design a low-cost smart energy monitoring system, acquire real-time energy data, transmit data securely to the cloud, visualize power usage trends, and promote energy-efficient practices.	Product	Embedded C, IoT Basics, Sensors, Microcontrollers, Cloud Platforms	Simranjeet Kour(E13963)	-	8



Academics	>	Smart Health Monitoring System Using Wearable Sensors Polling Closed	To build a real-time health monitoring system that ensures early detection of health issues, improves patient care, and supports remote medical supervision.	Product	IoT, Sensors, Embedded C, Signal Processing, Cloud Integration	Simranjeet Kour(E13963)	-	5
Accounts	>	Smart Irrigation System Using IoT and Soil Sensors Polling Closed	To optimize water usage, automate irrigation, and enhance sustainable agriculture practices.	Product	IoT, Sensors, Embedded C, Signal Processing, Cloud Platforms, Programming, Cloud Platforms, Automation	SONALI KOUR(E13963) 	Simranjeet Kour(E13963)	3
Administration	>							
Apply for Loan Documents (frmLoanLetterApplication.aspx)		AI-Based Student Performance Prediction System Polling Closed	To improve academic outcomes through predictive analytics.	Product	Python, Machine Learning, Data Analysis, SQL, Statistics	Simranjeet Kour(E13963)	-	5
Apply for NOC (frmStudentNoc.aspx)		Deep Learning-Based Diabetic Retinopathy Detection Polling Closed	To develop an automated and accurate retinopathy detection model for early diagnosis.	Research paper	Deep Learning, Python, CNN, Medical Imaging, Data Preprocessing	Simranjeet Kour(E13963)	-	4
Centre For Student Wellbeing (CSW)	>							
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)		AI-Based Resume Screening and Job Recommendation System Polling Closed	To automate resume screening, improve recruitment accuracy, reduce human bias, and enhance job-candidate matching using AI techniques.	Product	Python, Machine Learning, NLP, Data Analysis, Web Development	Simranjeet Kour(E13963)	-	5
DCPD	>							
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		Deep Learning-Driven Intelligent Hardware Fault Prediction and Self-Healing Architecture Polling Closed	Hardware faults (aging, thermal stress, intermittent failures) are usually detected after failure, causing downtime and data loss.	Patent	Hardware: Embedded sensors (temperature, voltage noise, timing slack) Reconfigurable logic (FPGA f	Shweta Tiwari(E13352)	-	4
E Library	>							
Examination	>							
Hostel	>							
International Study Opportunities		AWS-Based Smart File Storage System Polling Closed	1. To design and develop a secure, cloud-based file storage system that allows users to upload, store, and download files efficiently. 2. To implement user authentication and role-based access control ensuring that only authorized users can access stored files. 3. To ensure data security and reliability by using AWS S3 for scalable storage along with encryption and secure access mechanisms. 4. To gain practical experience in cloud computing by integrating Python applications with AWS services an	Research paper	Python Programming, AWS Basics	Rajani Misra(E8033)	-	5
		Kitchen gpt a virtual chef Polling Closed	The project aims to enhance everyday cooking experiences by providing quick, reliable, and interactive assistance, demonstrating the practical application of AI, speech recognition, and language generation technologies in real-world domestic environments.	Research paper	Python, NLP	Manish Sharma(E5593)	-	5
		Obstacle Avoiding Robot Using Sensors Polling Closed	Develop autonomous navigation, Learn sensor integration and Improve robotics fundamentals	Research paper	Robotics, Arduino, Sensors, Motor Control, C	Suchi Sharma(E19776)	-	5



		Smart Farm Equipment Sharing Platform Polling Closed	1. Enable farmers to share farm equipment efficiently 2. Reduce equipment ownership and rental costs 3. Prevent scheduling conflicts through smart booking 4. Improve overall farm productivity in rural clusters	Product	•HTML, CSS, JavaScript / React •Python (Django/Flask) or Node.js • MySQL/MongoDB	Vikas Jindal(E9636)	-	5
Academics >					(StudentHome.aspx)			
Accounts >					SONAL 24BCS10195			
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)		Community-Driven Safety Platform for Women Polling Closed	To develop a user-driven safety platform where women can share, access, and act upon safety information in real-time across various scenarios, including transport, public spaces, and daily activities. The platform aims to empower women with community insights, alerts, and tools to make safer decisions and respond effectively in emergencies.	Patent	Programming Language C++, Java and Python	Inderdeep Kaur(E12922)	-	3
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
DCPD >		Artificial Intelligence for Cybersecurity Threat Detection and Prevention Polling Closed	The primary objective of this research is to design and evaluate an AI-driven cybersecurity threat detection framework that leverages machine learning and deep learning techniques to accurately identify, classify, and mitigate cyber threats in real time.	Research paper	Programming Language C++, Java and Python	Inderdeep Kaur(E12922)	-	3
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >								
International Study Opportunities		CNN-LSTM Based Plant Disease Prediction System Polling Closed	To design a hybrid CNN-LSTM framework for accurate plant disease prediction, improve classification performance over traditional CNN models, analyze disease progression trends, and validate results on benchmark datasets. The project aims to support early disease detection and enable better agricultural decision-making.	Research paper	Python, Deep Learning, CNN, LSTM, Image Processing	Amit Kumar Jaiswal(E14521)	-	4
		Intelligent Traffic Management Using AI-Enabled IoT Nodes Polling Closed	To design a decentralized traffic control system using AI at the edge. To reduce congestion and waiting time at intersections. To compare performance with traditional fixed-time traffic systems and analyze scalability in smart city environments.	Research paper	Python, Computer Vision, IoT Networks, Deep Learning, Linux	Amit Kumar Jaiswal(E14521)	-	5
		Explainable AI for Disease Prediction and Drug Recommendation Polling Closed	To build transparent AI models that explain disease risk factors and recommended medicines, enabling ethical and interpretable healthcare decisions.	Research paper	Python, Deep Learning, XAI, Data Visualization, Healthcare Analytics	Amit Kumar Jaiswal(E14521)	-	5
		Online Quiz System Using Core Java Polling Closed	To build logic and improve problem-solving using Java.	Product	Core Java, Arrays, Loops, File Handling, Basic OOP	Parvesh Kumar(E14417)	-	5
		Inventory Management System Using Core Java Polling Closed	To automate inventory control and reduce stock-related errors.	Product	Core Java, JDBC, MySQL, Collections, Exception Handling	Parvesh Kumar(E14417)	-	5



		LLM Based Vulnerability Detection in Open Source Software Polling Closed	This topic explores the use of large language models to detect security vulnerability in open source code by learning common coding flaws and insecure patterns, aiming to enhance the automated and scalable software security analysis	Research paper	machine learning models	Anupriya (E10436)	-	4
Academics >						(StudentHome.aspx)		
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)		Artificial Intelligence for analysis and early cancer prediction Polling Closed	To analyze medical datasets such as imaging scans, To explore explainable and trustworthy AI models to ensure transparency and acceptance in healthcare	Research paper	ML	Anupriya (E10436)	-	4
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >		Face Detection System Polling Closed	To develop a system that detects human faces in images or live video To apply computer vision techniques for real-time face detection To understand image processing and object detection concepts To improve security and monitoring using AI To gain hands-on experience with OpenCV and AI tools	Product	Python programming Basics of Artificial Intelligence Computer Vision fundamentals OpenCV library	Nisha Sharma(R315)	-	6
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		Online Attendance Management System Polling Closed	To develop a web-based system for digital attendance recording To reduce manual paperwork and errors To provide easy access to attendance data for faculty and students To improve efficiency and accuracy in attendance management	Product	Basic programming knowledge HTML, CSS JavaScript (basic) PHP or Python (Flask/Django) MySQL / SQ	Nisha Sharma(R315)	-	4
E Library >								
Examination >								
Hostel >								
International Study Opportunities		Online Library Management System Using Web Technologies Polling Closed	To develop a web-based system for managing library resources digitally To automate book issue, return, and record keeping To reduce manual work, errors, and paperwork To provide easy access to library information for students and staff	Product	Basic programming knowledge HTML, CSS JavaScript (basic) PHP or Python (Flask/Django) MySQL / SQ	Nisha Sharma(R315)	-	5
		Weather Forecast Application Polling Closed	The main objective of the Weather Forecast Application is to provide users with accurate, real-time weather information for different locations. The application helps users check current weather conditions such as temperature, humidity, wind speed, and weather status (rainy, cloudy, sunny). It aims to improve daily planning for activities like travel, agriculture, outdoor events, and safety by delivering reliable and easy-to-understand weather updates.	Product	API integration, JSON handling	Rajni Devi(E15439)	-	5



		Climate Change Analytics & Visualization Platform Polling Closed	A Climate Change Analytics & Visualization Platform transforms complex climate datasets into meaningful insights through analytics and interactive visualizations. It empowers governments, researchers, and	Research paper	machine learning	Parul Datta(E17144)	-	5
Academics	>							
Accounts	>					SONAL 24BCS10195		
Administration	>							
Apply for Loan Documents (frmLoanLetterApplication.aspx)			communities to better understand climate change, assess risks, and design informed responses for a sustainable future.					
Apply for NOC (frmStudentNoc.aspx)		Autonomous Line-Following Delivery Robot Polling Closed	To develop an autonomous robot capable of navigating predefined paths using multiple sensors, improving efficiency in indoor material transport and introducing students to embedded control systems.	Product	Microcontrollers, Motor Control, Sensors, Embedded Programming, Basic Robotics	Shikha Atwal(E11186)	-	5
Centre For Student Wellbeing (CSW)	>							
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)								
DCPD	>	AI-Based Academic Timetable Conflict Detection and Optimization System Polling Closed	To design a decision-support system that identifies and resolves timetable conflicts efficiently, optimizes resource utilization, and assists academic planners in generating error-free and balanced schedules aligned with institutional constraints.	Product	Python, Data Structures, Constraint Logic, Basic AI Concepts, Problem Solving	Shikha Atwal(E11186)	-	4
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library	>							
Examination	>							
Hostel	>	AI-Based Early Detection of Cancer Using Medical Imaging Polling Closed	The primary objective of this research is to design, develop, and evaluate an artificial intelligence-based system capable of detecting early-stage cancer from medical imaging data with high accuracy, reliability, and clinical relevance. Early detection of cancer significantly improves patient survival rates, reduces treatment complexity, and lowers healthcare costs. However, manual interpretation of medical images such as X-rays, CT scans, MRI, and histopathology images is time-consuming, high-	Research paper	Python ,Deep Learning (CNNs) , Image Processing , TensorFlow / PyTorch ,Medical Imaging Knowledg	Kanwaldeep Kaur(E8852)	-	5
International Study Opportunities								
		The Deep Learning Based Prediction of Apple Scab Disease in Apple Plants Polling Closed	The Deep Learning Based Prediction of Apple Scab Disease in Apple Plants	Research paper	Image classification and deep learning, Machine learning, Python, Analytical thinking	Sheikh Afaan Farooq(E14180)	-	5
		Generative AI-Based interview preparation platform Polling Closed	To build confidence in graduates to appear for the interviews	Competition	GenAI, Java	Parvesh Kumar(E14417)	-	5
		Smart Civic Engagement Platform Polling Closed	To enable citizens to report civic issues digitally, track resolution status, and earn rewards while supporting Indian artisans and eco-innovators.	Hackathon	Python	Rajan Sachdeva(E12441)	-	5



		The Deep Learning Based Prediction of Apple Black Rot Disease through Apple Leaves Polling Closed	The Deep Learning Based Prediction of Apple Black Rot Disease through Apple Leaves	Research paper	Image classification and deep learning, Machine learning, Python, Analytical thinking	Sheikh Afaan Farooq(E14180)	-	4	
Academics >		The Deep Learning Based Analysis and Prediction of Juniper Apple Rust Disease in Apple Plants Polling Closed	The Deep Learning Based Analysis and Prediction of Juniper Apple Rust Disease in Apple Plants	Research paper	Image classification and deep learning, Machine learning, Python, Analytical thinking	Sheikh Afaan Farooq(E14180)	-	5	
Administration >		Apply for Loan Documents (frmLoanLetterApplication.aspx)							
Apply for NOC (frmStudentNoc.aspx)		IoT-Based Smart Health Monitoring Dashboard Polling Closed	The objective of the IoT-based smart health monitoring dashboard project is to enhance patient care and health management through the integration of Internet of Things (IoT) technologies. By deploying IoT sensors and devices, the system aims to enable real-time monitoring of vital signs, health metrics, and environmental conditions.	Product	AIML, Data Analysis, computer vision, Programming	Narinder Kaur(E12264)	-	4	
Centre For Student Wellbeing (CSW) >		Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)							
DCPD >		DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)	Robust Deepfake Detection Using Multimodal Machine Learning Polling Closed	The objective of this project is to develop a robust multimodal deepfake detection system by integrating visual, audio, and textual cues. It aims to identify inconsistencies in facial features, speech patterns, and lip synchronization using deep neural networks and fusion techniques. The system seeks to improve detection accuracy, enhance resilience against advanced deepfakes, and ensure scalability and reliability in real-world multimedia environments.	Research paper	ML basics, deep learning, python, computer vision, audio signal processing	Supreet Saini(E17786)	-	5
E Library >		Examination >	An Interactive Multimodal Platform for Digital Storytelling Polling Closed	The project aims to enhance user engagement and emotional connection by transforming traditional storytelling into an immersive, accessible, and expressive multimedia experience suitable for diverse audiences.	Service	Python programming Web application development Multimedia content integration User experience and	Anupriya (E10436)	-	4
Hostel >		International Study Opportunities							



Academics >		Embedded System for Women Safety Using SOS, GSM and GPS Modules Polling Closed	The objective of this project is to design and implement an IoT-based women safety alert system that provides immediate emergency assistance by enabling users to send SOS alerts with real-time GPS location through GSM	Research paper	Embedded C, Arduino IDE, HTML, CSS, JavaScript, PHP, Basic Electronics, IoT Concepts	Supreet Saini(E17786)	-	5	
Accounts >									
Administration >									
Apply for Loan Documents (frmLoanLetterApplication.aspx)									
Apply for NOC (frmStudentNoc.aspx)									
Centre For Student Wellbeing (CSW) >									
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)		A Study of Phishing Attack Detection Techniques Using Machine Learning Polling Closed	The objective of this research is to study phishing attack mechanisms and analyze machine learning-based detection techniques. It aims to compare different algorithms, evaluate their effectiveness, and identify the most reliable approach for phishing detection to enhance user security on the internet.	Research paper	Cyber Security Basics, Python, Machine Learning, Data Analysis, Research Writing	Monika Devi(E15988)	-	5	
DCPD >									
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)									
E Library >									
Examination >									
Hostel >		From Cloud to Edge: The Evolution of Smart Home Automation Through AI and IoT Convergence Polling Closed	From Cloud to Edge: The Evolution of Smart Home Automation Through AI and IoT Convergence	Research paper	IOT, EDGE COMPUTING	Sonam Juneja(E11002)	-	1	
International Study Opportunities									
		Coastal Intelligence Hub Polling Closed	To improve coastal hazard monitoring and disaster response using real time data and location intelligence.	Hackathon	Python	Rajan Sachdeva(E12441)	-	4	
		Smart Adaptive Learning Platform with AI-Assisted Engagement and Contextual Food Ordering Polling Closed	to develop a Java-based smart learning platform that adapts learning experiences based on student engagement and progress.	Service	Java Programming, Object Oriented Design, Data Structures, Database Management Systems, Basic Web Technologies	Siddharth Arora(E18271)	-	5	
		Smart Traffic Signal Optimization Using AI Polling Closed	Reduce congestion	Product	Python, ML, Simulation, Data analysis, Logic building	Simranjeet Kour(E13963)	-	4	
		AI-Powered Telemedicine Platform Polling Closed	Improve healthcare access	Product	Python, Web dev, ML, APIs, Databases	Simranjeet Kour(E13963)	-	4	
		Fraud Detection System for Fintech Applications Polling Closed	Reduce financial fraud	Product	Python, ML, Data preprocessing, Statistics, Security basics	Simranjeet Kour(E13963)	-	6	
		SecureChain: A Blockchain-Based Framework for Secure Medical Report Management Polling Closed	SecureChain: A Blockchain-Based Framework for Secure Medical Report Management and Distribution in Healthcare Systems	Research paper	Blockchain	Sheikh Afaan Farooq(E14180)	-	5	
		Transfer learning with ResNet-101 for accurate and efficient Wildfire detection using AI Polling Closed	it will detect wildfire from databases	Research paper	Research	Simranjeet Kour(E13963)	-	4	



		A Deep Learning Framework for Land Use Classification Using EuroSAT Sentinel-2 RGB and Multiband Imagery Polling Closed	A Deep Learning Framework for Land Use Classification Using EuroSAT Sentinel-2 RGB and Multiband Imagery	Research paper	A Deep Learning Framework for Land Use Classification Using EuroSAT Sentinel-2 RGB and Multiband Imagery	Narinder Kaur(E12414)	-	5
Academics >					(StudentHome.aspx)			
Accounts >		Early Detection of Liver Disease Using Machine Learning Techniques Polling Closed	To develop an accurate machine learning-based model for early detection of liver disease using patient health parameters, thereby supporting timely diagnosis and improving clinical decision-making.	Research paper	SONAL Python, Machine Learning Basics, Data Preprocessing, Pandas/Numpy, Model Evaluation	Kanwaldeep Kaur(E8852)	-	3
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)		The Common Rust Detection in Corn using Deep Learning Polling Closed	The Common Rust Detection in Corn using Deep Learning	Research paper	Deep learning, Machine Learning	Sheikh Afaan Farooq(E14180)	-	5
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		Project Title Spatio-Temporal Deep Learning Framework for Deepfake Video Detection Polling Closed	To design and implement a spatio-temporal deep learning model for detecting deepfake videos by analyzing both spatial facial features and temporal inconsistencies across video frames, thereby improving the accuracy and reliability of video forgery detection.	Research paper	python	Narinder Kaur(E12414)	-	4
DCPD >								
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)		Smart Healthcare Appointment and AI-Based Symptom Analysis System Polling Closed	This project proposes a smart healthcare web system that analyzes patient symptoms using AI and prioritizes medical appointments based on urgency. The system reduces patient waiting time and improves hospital efficiency by enabling automated symptom assessment, intelligent appointment scheduling, and doctor dashboards. It uses MERN stack with AI APIs for symptom interpretation while ensuring data security, role-based access, and ethical medical disclaimers.	Product	HTML, CSS, JavaScript, React.js, Node.js, mongo db and express.js	Monika Anand(E12859)	-	5
E Library >								
Examination >								
Hostel >								
International Study Opportunities								
		Online Electoral Management System Polling Closed	a secure web-based voting system that ensures strong voter authentication, prevents unauthorized and multiple voting, provides transparent result display, and reduces manual effort in traditional voting.	Product	html,css,js	Neha (E10457)	-	5
		Soil Nutrient Based Crop Recommendation System Using Machine Learning. Polling Closed	To analyze soil nutrient data using machine learning To recommend suitable crops based on soil properties To compare different ML algorithms for accuracy To improve decision making in agriculture To develop a simple and efficient prediction model.	Research paper	Python	Ankita Dhiman(E11431)	-	3



		Intelligent Automated Attendance Management System Using Face Recognition Polling Closed	To design an intelligent system for automated attendance using face recognition. To eliminate manual and time-consuming attendance methods. To improve accuracy and reduce proxy attendance. To store attendance records	Product	Programming	Bobbinpreet Kaur(E1311)	-	5
Academics >						(StudentHome.aspx)		
Accounts >						SONAL 24BCS10195		
Administration >								
Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)		Urban House Price Prediction Using Decision Forests Polling Closed	Urban House Price Prediction Using Decision Forests	Research paper	Data AnalysisMachine LearningPython ProgrammingFeature EngineeringHyperparameter Tuning	Sonam Juneja(E11002)	-	4
Centre For Student Wellbeing (CSW) >		A Deep Learning Framework for Automated Diagnosis of Respiratory Disease Polling Closed	Deep Learning Framework for Automated Diagnosis of Respiratory disease	Research paper	python	Sonam Juneja(E11002)	-	4
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)								
DCPD >		Fake News Detection Using Various Machine Learning Techniques and compare with NLP approach. Polling Closed	this project discuss about fake news detection	Research paper	Python programming and basic machine learning conceptsNatural Language Processing fundamentals and text preprocessingData analysis using pandas and NumPyUnderstanding of classification algorithms and model evaluationBasic knowledge of statistics and data visualization	Suraj Pal Singh(E13804)	-	5
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >		CinemaHub Polling Closed	CinemaHub is a full-stack movie ticket booking platform enabling users to browse movies, select showtimes, choose seats, and complete bookings. Built with Spring Boot/Express.js REST API backend and React frontend, featuring real-time seat availability and payment processing.	Product	1. Java	Jasmeet Kaur(E17596)	-	5
International Study Opportunities								
		ProConnect: A Web-Based Legal Consultation Platform for Verified Legal Assistance Polling Closed	This project aims to design and develop a web-based legal consultation platform that connects users with verified law students and advocates for online legal guidance. The system provides a free initial consultation to users and offers paid services for detailed legal advice. It includes role-based access, professional verification, secure communication, and a feedback mechanism to ensure reliability and trust.	Research paper	Web Development, System Design, Database Basics, Authentication Concepts, UI/UX Design	Gagandeep Kaur(E19500)	-	4



		Predictive Health Risk Assessment for Women in Underserved Communities Polling Closed	investigates the use of machine learning methods in risk prediction for multiple diseases in rural and low-income women, focusing on two common disorders: anemia and cervical cancer. Owing to structural barriers, these groups of people usually experience protracted diagnosis times and reduced access to good quality healthcare services. In order to overcome this issue, the study suggests a machine learning-based framework that utilizes demographic, clinical, and lifestyle characteristics.	Research paper	Python, Machine Learning, Data Analysis, Statistics, Healthcare Data	Kirandeep Kaur Sandhu(E12258)	-	5
Academics >						(StudentHome.aspx)	SONAL 24BCS10195	
Accounts >								
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Apply for Loan Documents (frmLoanLetterApplication.aspx)								
Apply for NOC (frmStudentNoc.aspx)								
Centre For Student Wellbeing (CSW) >								
Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq)		Online Donation Management System for Money, Clothes and Essentials Polling Closed	tranexamic acid sustained release tablet 500mg	Research paper	HTML, CSS, JavaScript, PHP, MySQL	Amandeep Kaur(E11813)	-	3
DCPD >		Intelligent Urban Service Complaint Portal Polling Closed	This project focuses on a smart urban complaint prioritization system for smart cities. Citizens can register civic issues, The system includes role-based access for citizens and government administrators, interactive maps, analytics dashboards, and complaint tracking. It improves response efficiency, transparency, and decision-making in urban governance.	Hackathon	Python, Flask, Machine Learning, SQL, Web Development	Amit Kumar Jaiswal(E14521)	-	5
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)								
E Library >								
Examination >								
Hostel >								
International Study Opportunities		Urban Road Network Carrying Capacity and Traffic Flow based on Deep Learning Polling Closed	The outcomes of this research demonstrate that deep learning-based approaches significantly outperform conventional statistical and rule-based models in terms of prediction accuracy, robustness, and adaptability to real-world traffic fluctuations. The proposed framework provides valuable decision support for urban planners and traffic management authorities by enabling optimized signal control, adaptive route guidance, and infrastructure planning.	Research paper	deep learning, programming	Anupriya (E10436)	-	5
		Integration model of blockchain technology and federated learning in vehicular networks Polling Closed	This research contributes a novel, secure, and scalable solution for intelligent vehicular networks, facilitating trustworthy data collaboration and advancing the deployment of privacy-aware machine learning in future smart transportation systems	Research paper	ML	Anupriya (E10436)	-	5



Academics >	
Accounts >	
Administration >	
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Apply for NOC (frmStudentNoc.aspx)	SUBMIT
Centre For Student Wellbeing >  Counseling Therapy Clinic Registration (frmAppCounsellingTherapyClinicReq.aspx)	<p><b>Note:</b></p> <ol style="list-style-type: none"> <li>1. Max 10% of the total project can be requested</li> <li>2. Selection can be made only once</li> </ol>
DCPD >	
DLL MOOC Coordinator List (frmDLLMOOCCoordinatorList.aspx)	
E Library >	
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Hostel >	
International Study Opportunities	

A Unified Framework for Multilingual Learning in Natural Language Processing Polling Closed	Multilingual learning in NLP focuses on building models that understand and process multiple languages using shared representations. It enables cross-lingual transfer, reduces data dependency for low-resource languages, and supports tasks like translation, sentiment analysis, and information retrieval across languages.	Research paper	NLP concepts, ML	Anupriya (E10436) -	5
				SONAL 24BCS10195	<span>🔔</span> <span>🖨️</span> <span>📄</span> (StudentHome.aspx) <span>⚙️</span>

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Report a Bug (bugreport.aspx)