PSNA COLLEGE OF ENGINEERING AND TECHNOLOGY, DINDIGUL

(An Autonomous Institution affiliated to Anna University, Chennai)

Department of Computer Science and Engineering

1.1. Collaborative learning

Collaborative learning encourages students to work together, share knowledge, and solve problems as a team. Through case studies, peer learning with Padlet, student seminars, and Collaborative exercises with FigJam's.

1.1.1. Case Study based Learning

Faculty members assign course-specific case studies with varying difficulty levels, encouraging students to collaborate in teams to analyze problems, develop solutions under faculty guidance. In the CCS344 – Ethical Hacking course, Case studies are given to the team of students. The students' performance in assigned case studies is evaluated through detailed report submissions and presentations, enhancing their practical understanding of cybersecurity challenges.

Team.No	Register Number	Students Name	Section	Case Study Title
Team 1	92132213052	Gowshika S	A	*Real-World Examples Demonstrating Successfull Implementation Of Iot Security Protocols Across Various Industries*
	92132213060	Harini S	A	
	92142213245	Yuheswari V	D	
Team 2	92132213026	Aswin S	A	*Strategies For Ensuring The Safety Of Interconnected Iot Devices Amidst Growing Cybersecurity Concerns*
	92132213040	Dhayaa Nidhi A	A	
	92132213028	Balakrishnan M	A	
Team 3	92132213177	Sanju Jose J	C	*Study On Password Attack Against Security And Privacy*
	92132213160	Ramkumar B	C	
	92132213177	Santhosh Mani V	D	
	92312213320	Yuvaraja P	C	
Team 4	92132213126	Mugileash.P	B	*Impact Of Kismet Hacking Tools*
	92132213138	Pranav K R	C	
	92132213119	Narenprakash N D	B	
Team 5	92132213089	Kaviya K	B	*Study On Man-In-The-Middle Attacks In Online Banking*
	92132213076	Jeya Dharshni L	B	
	92132213113	Naga Nandhini P	B	
Team 6	92132213250	Vijaya Vivinya M	D	*Swiss Federal Data Breach*
	92132213118	Nandhitha M	B	
Team 7	92132213038	Dharshana Priya R	A	*Kinsing Malware On Kubernetes Clusters*
	92132213065	Harishma S	B	

	92232213110	Moniga P	B	
Team 8	92132213143	Premnath K	C	*Study On Critical Vulnearabilities In Major Corporations*
	92132213174	Sandharas B	C	
	92132213161	Rathin N	C	
	92132213134	Pragadeesh K	C	
Team 9	92132213195	Shifana D	D	*Health Data Breach Affects*
	92132212208	Soba S	D	
	92132213197	Shobika S	D	
Team10	92132213187	Shaheel Syed Abuthahir S	C	*Whale Phishing :Real Estate Cyber Fraudster In Pune*
	92132213185	Senthil A	C	
	92132213229	Tharun Chezhian M	D	
Team 11	92132213233	Vaibavalakshmi M	D	*Sql Injection Attacks In E-Commerce*
	92132213206	Sivayazhini P	D	
Team 12	92132213181	Sarathiraja M	C	*Data Breach On Capital One 2019*
	92132213132	Prabhakaran A K	C	
	92132213133	Pradeep M R	C	
	92132213194	Sharvesh R	C	
Team 13	92132213172	Samyuktha S K	C	*Strategies For Ensuring The Safety Of Interconnected Iot Devices Amidst Growing Cybersecurity Concerns*
	92132213147	Priyanka M	C	
Team14	92132213006	Achan Ka A	A	*The Colonial Pipeline Ransomware Attack*
	92132213007	Achuthan M S	A	
	92132213023	Arulkumaar K	A	
	92132213303	Hariharan S	A	
Team 15	92132213210	Sowdeeshwari V S	D	*Trojans*
	92132213215	Sri Varshini K M	D	
Team 16	92132213301	Ajay Prasath B	A	*Data Breach On Aadhaar Data 2023*
	92132213302	Athish Aravind S	A	
	92132213054	Gurudayal U	A	
Team 17	92132213115	Nandha Kumar S	B	*Viasat Attack Based On Ransomeware*
	92132213064	Harish Kumar R	B	
	92132213117	Nandhakumar P I	B	
	92132213308	Lingaraj P	B	
Team 18	92132213239	Vishal R	D	*Iot Device Security In Smart Agriculture*
	92132213212	Sri Danush A	D	
	92132213191	Shanmuga Pandian S	D	
Team 19	92132213098	Lokesh K	B	*Data Breach On Acer 2019*
	92132213088	Kavinprasanth M	B	
	92132213103	Manikandan A R	B	
Team 20	92132213075	Jerry Philip R S	B	*Cryptolocker Based On Ransomware Attack*
	92132213097	Loakesh Kumaran	B	

		V K		
	92132213122	Naveen Karthikeyan R	B	
Team 21	92132213029	Bharath Raj P	A	*Solarwind Supply Chain Cyberattack*
	92132213304	Jaya Ram J	A	

Table B.5.11 List of case studies given for CCS344 -Ethical Hacking Course

1.1.2. Peer learning with Padlet

The Padlet showcases a digital board where students have uploaded handwritten assignments as PDFs on "CS2C14Foundations of Data Science – Least Square Regression." Each submission appears as a card with the student's name, roll number, and a preview of their work, including mathematical equations, graphs, and explanations. The structured grid layout with color-coded labels ensures easy navigation and tracking. Faculty facilitates in-class discussions, promoting active learning, efficient assessment, and timely feedback.Padlet is an online collaborative tool that allows users to create digital boards for sharing ideas, notes, images, and multimedia content. It enhances peer learning through interactive discussions and collaborative knowledge building.
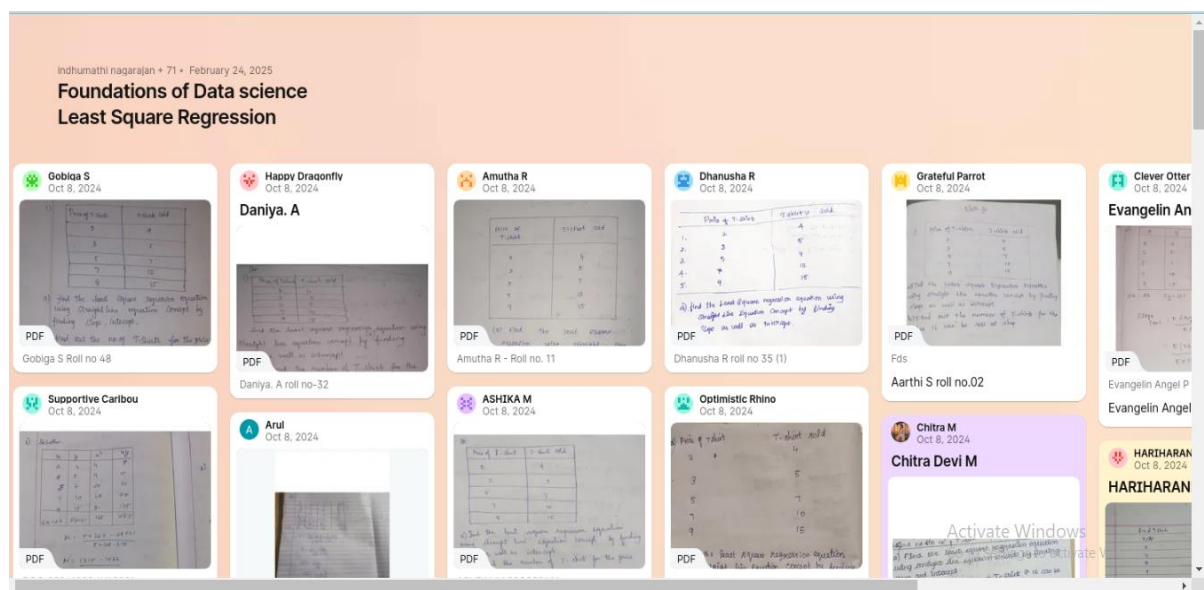
Figure B.5.5 CS2C14 Foundation of Data Science collaborative learning using Padlet

1.1.3. Student's seminar

A smart classroom enhances the teaching and learning experience by integrating technology, creating an interactive environment that supports both students and faculty. Students are being assigned course-related topics, guided in preparing presentations, and use smart classroom technology to present their ideas, engage in discussions, and answer questions.

Figure B.5.6 GE8076 Professional Ethics in engineering seminar

S.No	Reg. Number	Student Name	Seminar Topic
1.	921320104001	Abhishek S	Moral Leadership-Unit 5
2.	921320104004	Abirami G	Respect For Authority-Unit 4
3.	921320104005	Abitha V	Occupational Crime- Unit 4
4.	921320104006	Ajeeth Kumar P	Engineers as Managers- Unit 5
5.	921320104007	Ajith Kumar B	
6.	921320104014	Amala Monika S	Research ethics- Content Beyond Syllabus
7.	921320104015	Anushka Sakthi A	Confidentiality- Unit 4
8.	921320104017	Aravindarajan P	Multinational Corporations-Unit 5
9.	921320104028	Asmath Banu S	Consulting engineers-Unit 5
10.	921320104029	Athipan J	Code of conduct-Unit 5
11.	921320104030	Ayushi A	Professional Rights-Unit 5
12.	921320104032	Barathkumar S	Explore and Write Types of Integrity-Unit 1
13.	921320104055	Fariz F	
14.	921320104033	Birundha M	Types of Risks-Unit 4
15.	921320104034	Buvaneshwaran R	Engineers as expert Witnesess and Advisors-Unit 5
16.	921320104035	Chandru K	Globalization-Unit 5
17.	921320104036	Charumathi N	Environmental Ethics-Unit 5
18.	921320104043	Dharanika Km	Intellectual property Rights(IPR)-Unit 4
19.	921320104044	Dharshini K	Conflicts of Interest-Unit 4
20.	921320104045	Dharshini Rm	Discrimination- Unit 4
21.	921320104047	Dhivyaprakaash S M	Computer Ethics-Unit 5
22.	921320104058	Gokul B	Risk Benefit Analysis and Reducing Risk-Unit 4

Table B.5.11 List of seminar topics - GE8076 Professional Ethics in engineering

1.1.4. FigJam

A brainstorming session on Logistic Regression was conducted for the CS2C14 - Foundation of Data Science course using Figma's Fig Jam board. This collaborative exercise, guided by design thinking principles, provided an interactive platform to assess students' understanding. Students actively contributed their ideas using sticky notes, engaged in discussions, and explored key concepts through visual representation.
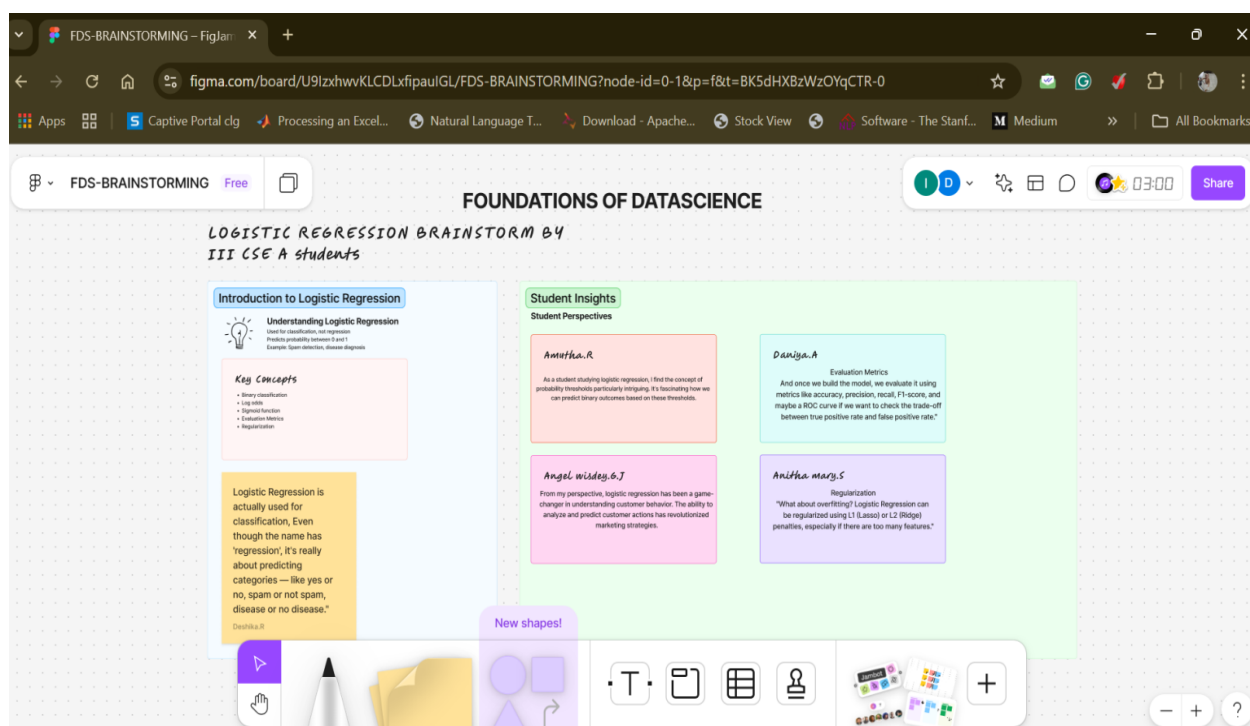
Figure B.5.7 Fig Jam board design for the course CS2c14 Foundations of Datascience

2022-2023

Sl. No	Course Code	Course Title	Faculty Name	Innovative Teaching Methodology	Topic
1.	GE2125	Problem Solving and Python Programming	Dr.S.Sheik Faritha Begum	*Collaborative Learning-Seminar*	Real Time Applications of Python
2.	CS2221	Programming in C	Mrs.S.Santhana Prabha	*Collaborative Learning-Seminar*	Storage Classes
3.	CS3301	Data Structures	Ms.S.T.Shenbagavalli	*Collaborative Learning-Seminar*	BiConnectivity

Sl. No	Course Code	Course Title	Faculty Name	Innovative Teaching Methodology	Topic
4.	CS3301	Data Structures	Mrs.S.Santhana Prabha	*Collaborative Learning-Seminar*	AVL Tree
5.	CS8591	Computer Networks	Mrs.G.Mariammal	*Collaborative Learning-Seminar*	Domain Name System
6.	CS8592	Object Oriented Analysis and Design	Ms.N.Indumathi	*Collaborative Learning - Padlet tool*	UML diagrams
7.	OBM752	Hospital management(OE II)	Dr.N.Uma Maheswari	*Collaborative Learning - Case Study*	Hospital Information System
8.	CS8079	Human Computer Interaction(PE III)	Dr.Y.Arockia Raj	*Collaborative Learning - Case Study*	Web Interface Design
9.	CS8079	Human Computer Interaction(PE III)	Ms.L.Dharshana Deepthi	*Collaborative Learning - Case Study*	Augmented and Virtual Reality
10.	CS8079	Human Computer Interaction(PE III)	Dr.N.Kalpana	*Collaborative Learning - Case Study*	Virtual Reality
11.	CS8603	Distributed Systems	Dr.N.Kalpana	*Collaborative learning - Interactive Quiz*	Flynn's classification, Algorithm
12.	IT8077	Software Testing	Mrs.G.Mariammal	*Collaborative Learning-Seminar*	Test Planning

2023-2024

Sl. No	Course Code	Course Title	Faculty Name	Innovative Teaching Methodology	Topic
1.	GE2125	Problem Solving and Python Programming	Mr.V.Karuppusamy, AP	*Collaborative Learning-Seminar*	prime numbers

2.	CS2221	Programming in C	Mr.V.Nanda Kumar, AP	*Collaborative Learning- Seminar*	Command line arguments
3.	CB3491	Cryptographyand Cyber Security	Mr.K.Suresh, AP	*Collaborative Learning - Case Study*	Cyber tools
4.	CS3553	Distributed Computing	Dr.N.Kalpana, AP	*Collaborative Learning- Seminar*	Algorithm
5.	CCS375	Web Technologies- Lab integrated	Dr.A.ThomasPaulRoy,ASP	*Collaborative Learning - Case Study*	Web development
6.	CCS377	Web Technologies- Lab integrated	Mrs.M.Jayanthi,AP	*Collaborative Learning- Seminar*	Introduction to Angular JS
7.	CCS336	Cloud Service Management- Lab integrated	Dr.A.SathyaSofia,ASP	*Collaborative Learning- Seminar*	Pricing Models in Cloud
8.	CCS336	Cloud Domain- Cloud Service Management- Lab integrated	Mr.V.NandaKumar,AP	*Collaborative Learning- Seminar*	Understanding and Measuring the value of cloud services
9.	CCS343	Cyber Security and Practices domain - Digital and Mobile Forensics- Lab integrated	Dr.N.Kalpana,AP	*Collaborative Learning*	Investigation
10.	CS8792	Cryptography and Network Security	Mr.K.Suresh,AP	*Collaborative Learning- Seminar*	QR CODE scan
11.	IT8075	Software Project Management	Mr.M.Kamarajan, AP	*Collaborative Learning - Case Study*	Project Management and Control

12.	CS8079	Human Computer Interaction	Dr.Y.ArockiaRaj, AP	*Collaborative Learning - Case Study*	Web Interface Design
13.	CS8079	Human Computer Interaction	Mrs.G.Mariammal, AP	*Collaborative Learning - Case Study*	Cognitive models
14.	CS8079	Human Computer Interaction	Ms.N.Indumathi, AP	*Collaborative Learning - Case Study*	Web Interface Design
15.	OBM752	Hospital management	Dr.M.Buvana, ASP	*Collaborative Learning - Case Study*	Role of Human Resource Management in Hospitals
16.	CS2C12	Data Base Management Systems	Mr.V.Nanda Kumar, AP	*Collaborative Learning- Seminar*	Query Processing
17.	CS2C12	Data Base Management Systems	Mrs.G.Mariammal, AP	*Collaborative Learning - Case Study*	Real time data base application- Railway Reservation System
18.	CS2414	Design Analysis of Algorithm	Dr.A.Thomas Paul Roy, Prof	*Collaborative Learning- Seminar*	Approximation Algorithm for TSP
19.	CCS370	UI and UX Design	Dr.N.Dhanalakshmi, Prof	*Collaborative learning - Case Study*	Figma tool
20.	CCS371	UI and UX Design	Mrs.M.Jayanthi, AP	*Collaborative Learning- Seminar*	Flow Mapping
21.				*Collaborative learning - Case Study*	Figma tool

Sl. No	Course Code	Course Title	Faculty Name	Innovative Teaching Methodology	Topic
22.	CCS372	UI and UX Design	Dr.A.Sathya Sofia, ASP	*Collaborative learning - Case Study*	Figma Tool
23.	CCS367	Storage technologies	Dr.A.Sathya Sofia, ASP	*Collaborative Learning- Seminar*	Securing Storage Infrastructure
24.	CCS339	Cryptocurrency and Blockchain Technologies	Mr.K.Suresh, AP	*Collaborative learning - Case Study*	Blockchain network and it transcations

2024-2025

Sl. No	Course Code	Course Title	Faculty Name	Innovative Teaching Methodology	Topic
1.	CS2312	Data Structures	Mrs.G.Mariammal,AP	*Collaborative learning -Seminar*	Bubble sorting
2.	CS2C11	Artificial Intelligence and Machine Learning.	Ms.S.T.Shenbagavalli,AP	*Collaborative learning -Seminar*	Generalization of Reinforcement Learning
3.	CS2512	Compiler Design	Ms.S.T.Shenbagavalli,AP	*Collaborative learning -Seminar*	Dynamic Programming and Code generation
4.	CS2C14	Foundations of Data Science	Ms.N.Indhumathi,AP	*Collaborative learning -Seminar*	Numpy, Matplotlib
5.	GE3791	Human Values and Ethics	Dr.N.Kalpana,AP	*Collaborative learning - Case Study*	Social Ethics
6.	GE3791	Human Values and Ethics	Mr.M.Kamarajan,AP	*Collaborative learning - Case Study*	Indian Freedom Movement