Vidyavardhini's College of Engineering & Technology

Department of Computer Engineering

Academic Year: 2025-26 (Odd Sem)

Innovation activities by the faculty members in teaching-learning (Odd Sem)

Sr. No.	Name of Faculty	Class/ Semester / Course Name / Course Code	Innovative / Creative activity used	Short Description of the activity	Link
1	Dr. Megha Trivedi	SE/III/2113112/ Discrete Structure and Graph Theory	Tea-cup pyramid activity to demonstrate Mathematical induction	The activity is meant to make students visualize the structure of inductive proof (base case + inductive step).	1.pdf
2	Dr. Dinesh Patil	SE/III/2113114/ Comp.Org.&Arch.	A Drama on Microprocessor Functioning	This activity is meant to make students understand the functioning of various components of microprocessor	2.pdf
3	Dr. Vikrant Agaskar	BE/VII/Augmented and Virtual Reality/CSDC7021	Peer Learning	During the lecture session interested students were asked to select one topic from the syllabus and were given 2 days' time to prepare the topic. They then delivered the session during the lecture slot. Other students were encouraged to ask questions during and after the session.	3.pdf
4	Dr. Swapna Borde	AOA/III/2113113	Human Sorting	To help students understand how different sorting algorithms (like Selection Sort, Insertion Sort, Quick Sort, Merge Sort etc.) work through a hands-on, interactive demonstration using themselves as elements of an array.	4.pdf

5	Dr. Anil Hingmire	TE/V/SE/CSC502	SWOT Analysis with Case Study-Based Learning	A case study-based activity was conducted to enhance students' analytical thinking and strategic decision-making. Learners, divided into small groups, analyzed real-world cases like AI-based software projects using the SWOT framework to assess Strengths, Weaknesses, Opportunities, and Threats, promoting structured risk analysis and system design.	5.pdf 6.pdf
6	Ms. Smita Jawale	ADBMS/V/CSDLO5013	NoSQL Olympic	To enhance students' understanding of database query formulation and optimization by engaging them in an interactive card game where they use command, table, and query cards to collaboratively or competitively construct accurate and efficient queries.	7.pdf
7	Dr. Swati Varma	DWM/V/CSC504	Shark Tank – Case Study Analysis through Data Mining	To make students analyze real-world business failures and propose effective solutions using appropriate data mining techniques	8.pdf 9.pdf
8	Dr. Sneha Mhatre	BDA/VII/CSC702	Big Data Scavenger Hunt	To make students explore real-world data sources and apply practical analytical skills by solving creative data discovery challenges	10.pdf
9	Ms. Neha Surti	ML/VII/CSC701	PitchML	To engage students in applying machine learning knowledge by identifying real-world application scenarios and analyze potential commercial benefits.	11.pdf 12.pdf

10	Ms. Brinal Colaco	Full Stack Java Programming/SEE -III/ 2113611	Code Debugging using AI tools	The Code Debugging Challenge using AI tools is a collaborative, real-time classroom activity where students work in groups of five to analyze and debug a given erroneous or logically flawed Java code snippet.	13.pdf
11	Mrs. Soniya Khatu	CN/V/CSC 503	Protocol Design	To apply existing protocols knowledge and design different network protocols for different real time applications.	14.pdf 15.pdf
12	Ms. Bhakti Jadhav	BDA/VII/CSC702	Big Data Scavenger Hunt	To make students explore real-world data sources and apply practical analytical skills by solving creative data discovery challenges.	18.pdf
		ADBMS/V/CSDLO5013	NoSQL Olympic	To enhance students' understanding of database query formulation and optimization by engaging them in an interactive card game where they use command, table, and query cards to collaboratively or competitively construct accurate and efficient queries.	16.pdf
13	Mrs. Manali Payghan	CN/V/CSC503	Meme-Based Network Concept Demonstration	To make students understand, demonstrate and explain complex networking concepts from the syllabus using humorous memes or comic strips to enhance peer understanding and retention.	19.pdf
		DWM/V/CSC504	Shark Tank – Case Study Analysis through Data Mining	To make students analyze real-world business failures and propose effective solutions using appropriate data mining techniques	20.pdf

14	Ms. Vinal Waghela	NLP/VII/CSDC 7013	Word Sense Disambiguation (WSD) Detective Game	To enhance students' understanding of Word Sense Disambiguation (WSD) through a collaborative, game-based activity promoting contextual analysis and semantic reasoning.	22.pdf
		IR /VII/ CSDC7023	IR Mystery Box	The IR Mystery Box activity aimed to make Information Retrieval concepts practical and engaging. It focused on enhancing students' query formulation using advanced techniques like Boolean operators, proximity searches, and field restrictions, while also promoting critical relevance assessment through solving complex information puzzles.	21.pdf
15	Ms. Joyce Dsouza	AOA/III/2113113	Human Sorting	To help students understand how different sorting algorithms (like Selection Sort, Insertion Sort, Quick Sort, Merge Sort etc.) work through a hands-on, interactive demonstration using themselves as elements of an array.	23.pdf 24.pdf
16	Ms. Awantika	TCS/V/CSC501	TOC in traffic	The focus of the activity was to make students understand automata with the help of real-world examples.	25.pdf 26.pdf 27.pdf
17	Mr. Sridhar S	NLP/VII/CSDC 7013	Word Sense Disambiguation (WSD) Detective Game	To enhance students' understanding of Word Sense Disambiguation (WSD) through a collaborative, game-based activity promoting contextual analysis and semantic reasoning.	28.pdf 29.pdf

18	Mr. Atharva Desai	SE/III/DS_Generative AI	AI Expo – Build & Pitch Your GenAI Use Case	To enable students to apply their understanding of GPT architecture, variants, ChatGPT, ethical considerations, and various Generative AI tools by designing and presenting an innovative AI-based solution for a real-world problem.	30.pdf
		BE/VII/Machine Learning/CSC701	PitchML	To engage students in applying machine learning knowledge by identifying real-world application scenarios and analyze potential commercial benefits.	31.pdf
19	Ms. Shilpa Jaiswal	SE/III/COA/2113114	Role play Activity to demonstrate different Pipeline phases	To help students understand concepts and phases of instruction pipelining and visualize simultaneous instruction execution through role play for better conceptual clarity.	32.pdf 33.pdf

Dr. Megha Trivedi
HOD, Computer Engineering

Vidyavardhini's College of Engineering & Technology

Department of Computer Engineering

Academic Year: 2025-26 (Even Sem)

Innovation activities by the faculty members in Teaching-Learning (Even Sem)

Sr. No.	Name of Faculty	Class/ Semester / Course Name / Course Code	Innovative / Creative activity used	Short Description of the activity	Link
1	Dr. Megha Trivedi	Optimization in Machine Learning /VIII/CSDC8021	Campus Placement Simulation-Role-Play Activity on Selection Methods in Evolutionary Optimization	A role-play-based campus placement simulation was conducted to demonstrate selection methods in evolutionary optimization. Students applied techniques like Roulette Wheel, Tournament, Rank Selection, and Elitism to understand their impact on decision-making and learning outcomes.	1.pdf
2	Dr. Dinesh Patil	TE 2, TE3/ Sem VI / Cryptography and System Security / CSC602	Security Scenario Challenge	The instructor presents 25–30 scenario-based questions on topics such as the CIA triad, authentication, cryptographic algorithms, and cyber-attacks through slides. Students work in groups to analyze each scenario, discuss answers, vote, and justify their responses, making the activity interactive and engaging.	2.pdf
3	Dr. Swapna Borde	TE1, TE2 and TE3/ Sem VI / Quantitative Analysis (TH) CSDLO6013	Online Poll	This activity is an interactive online poll designed to help students understand different types of data collection and sampling techniques. Students are given real time examples and asked to identify the correct category using an online polling tool (Mentimeter). They vote using their smartphones, see live results on the screen and then discuss the answers to improve their understanding.	3.pdf

4	Dr. Anil Hingmire	TE 2, TE 3/ Sem VI/ Artificial Intelligence/CSC604	Algorithm Auction	The Algorithm Auction is a group activity where students analyze real-world problems and bid on the most suitable search algorithm by justifying their choice using factors like complexity, optimality, completeness, and heuristics. The best-justified bid wins, helping students understand the applications of informed and uninformed search techniques.	4.1.pdf4.2.pdf4.3.pdf
5	Ms. Smita Jawale	SE 2,3/ Sem IV / Database Management System / 2114112	DBMS Taboo Challenge	In this activity, students are divided into small groups. Each group selects a participant who explains a DBMS concept written on a card without using certain "taboo" words. The team must guess the correct concept within a given time limit. Points are awarded for correct answers, making it a fun and competitive learning experience.	5.pdf
6	Dr. Swati Varma	SE 1,2,3/ Sem IV/ Introduction to Business Stataistics-1/1081313	Survey-Based Data Collection and Analysis	Students are divide into groups and they have to collect data either using primary method or secondary method and present the same. Apply data representation techniques and statistical measures on it.	6.pdf
7	Dr. Sneha Mhatre	TE-1 & TE-2 /Sem 6/ Mobile Computing / CSC603	Mobile Network Tag Game – Understanding Cells, Base Stations & Handovers.	Role based activity to help students understand how mobile networks work by experiencing cell coverage, handovers, and interference through an interactive movement-based activity.	7.pdf

8	Ms. Neha Surti	TE-1 & TE-2/Sem 6/ System Programming and Compiler Construction / CSC601	Compiler Construction Relay	This activity reinforces the sequential flow of compiler phases and promotes teamwork and communication. In this activity, Students were divided into teams where each member performed one compiler phase while processing an expression provided by the opposing team. The relay format encouraged teamwork, peer learning, and active participation, aligning with outcome-based education practices.	8.pdf
9	Ms. Sweety Patil	FE-A, FE-B, FE-C / Sem 2 / PCC - Data Structure / PCC2011	Crossword Puzzle Battle	The Crossword Puzzle Battle is a team-based activity where students create and solve crossword puzzles on data structure concepts such as arrays, linked lists, stacks, queues, and trees. The activity encourages teamwork, creativity, critical thinking, and conceptual learning in a fun and competitive way.	9.pdf
10	Mrs. Soniya Khatu	BE 1,2,3/SEM VIII/Social Media Anlytics / CSC8023	Analytics Ethics Courtroom	Analytics Ethics Courtroom is an activity where students simulate a courtroom debate on privacy and ethics in social media analytics. One group defends data collection practices, while another raises privacy concerns. Students analyze ethical boundaries and propose privacy-aware solutions, helping them understand ethical challenges, trust, and compliance in data analytics.	**10.1.pdf** **10.2.pdf**
11	Ms. Bhakti Jadhav	SE 1,2,3/ SEM IV/ Operating System/ 2114115	OS Escape Room	The OS Escape Room is a game-based learning activity where students solve operating system challenges related to CPU scheduling, deadlock detection, and memory allocation in teams. The activity promotes problem-solving, teamwork, and practical application of OS concepts in a fun and interactive environment.	11.pdf

12	Mrs. Manali Payghan	BE 1 2 3/SEM VIII/Applied Data Science	Concept Connect: Learn Data Science Through Daily Life	This activity focused on helping students learn data science concepts by connecting them with simple real-life examples. Students worked in groups to present topics in an easy and understandable manner, adding a fun and engaging element to the learning process. This encouraged active participation, better understanding, and enjoyment while learning.	12.pdf
13	Ms. Vinal Waghela	BE 1,2,3/SEM VIII/Distributed Computing/ CSC801	One Resource, Many Process-Understanding Mutual Exclusion	This activity demonstrates how multiple processes compete for a single shared resource in a distributed or concurrent system. Since only one process can access the resource at a time, a mechanism called mutual exclusion is required to prevent conflicts, data inconsistency, or race conditions. Through this activity, students were able to clearly understand how mutual exclusion maintains data integrity and proper coordination in a multi-process system.	13.pdf
14	Ms. Joyce Dsouza	SE 1/ Sem IV / Database Management System / 2114112	DBMS Taboo Challenge	In this activity, students are divided into small groups. Each group selects a participant who explains a DBMS concept written on a card without using certain "taboo" words. The team must guess the correct concept within a given time limit. Points are awarded for correct answers, making it a fun and competitive learning experience.	14.pdf
		TE 1/ Sem VI / Cryptography and System Security / CSC602	Security Scenario Challenge	The instructor presents 25–30 scenario-based questions on topics such as the CIA triad, authentication, cryptographic algorithms, and cyber-attacks through slides. Students work in groups to analyze each scenario, discuss answers, vote, and justify their responses, making the activity interactive and engaging.	

15	Ms. Awantika Sharma	SE 1,2,3/Sem 4/CTH/2114111	Elevator Behavior as DFA.	Students will understand how real-world systems can be represented using a DFA and will learn how finite automata can model real-life systems and decision-based behavior.	15.pdf
16	Mr. Sridhar S	BE 1,2,3/ Sem 8 / Deep Learning / CSDC8011	CNN Analyzer — A Convolution Challenge Game	A team-based learning activity was conducted where Convolutional Neural Network (CNN) operations such as convolution, padding, and stride through an Image and generating output.	16.1.pdf 16.2.pdf
		TE-3/Sem 6/ System Programming and Compiler Construction / CSC601	Compiler Constructio n Relay	To strengthen understanding of parsing techniques and the sequential workflow in Compiler Construction through collaborative problem-solving.	
17	Mr. Atharva Desai	SE 1,2,3/Sem 4/Introduction to Web Technology/ MDC401	Debugging Arena – Find, Fix & Explain	Activity where students are given buggy web code and must identify and fix the errors using tools like browser DevTools. After debugging, they present their corrected code and explain the issues and solutions. This activity builds problem-solving, logical thinking, and practical coding skills while encouraging teamwork and active learning.	17.pdf
18	Ms. Shilpa Jaiswal	TE-3/Sem 6/ Mobile Computing / CSC603	Mobile Network Tag Game – Understandi ng Cells, Base Stations & Handovers.	Role based activity to help students understand how mobile networks work by experiencing cell coverage, handovers, and interference through an interactive movement-based activity.	18.pdf

		TE-3/Sem 6/ Artificial Intelligence/ CSC604	Search Algorithm Olympics-A Team-Based Learning Approach to Artificial Intelligence Search	Enable students to work in teams to analyze and solve AI search problems effectively.	

Dr. Megha Trivedi
HOD, Computer Engineering