Vidyavardhini's College of Engineering and Technology

Department of Computer Engineering

Academic Year 2023-24 (Odd Sem)

Innovation activities by the faculty members in teaching-learning

Sr. No.	Name of Faculty	Course Name / Sem / Course Code	Innovative / Creative activity used	Short Description of the activity
1	Dr. Megha Trivedi	Discrete Structure and Graph Theory	Game to demonstrate the application of Euler path	Students were asked to apply theorem for the existence of Euler path to a real-life example- 7 bridges of Königsberg puzzle
			Flipped classroom	Student were asked to watch a video on Mathematical Induction and exercise to apply principle of Mathematical Induction to solve real life example was discussed in the class
2	Dr. Dinesh Patil	Blockchain (VII sem)	Peer Teaching	The students were asked to ask to teach a particular topic in front of the other students. The students were encouraged to raise the questions
		Internet Programming (V sem)	Peer Teaching	The students were asked to ask to teach a particular topic in front of the other students. The students were encouraged to raise the questions
3	Dr. Vikrant Agaskar	SE/III/OOPM(Java)/CSL304	Kahoot Game	Questions in the form of quizzes related to OOP were displayed on a shared screen and students answered on their own devices.

4	Dr. Swapna Borde	Machine Learning/VII/CSC701	Collaborative Learning	In this activity, Students are making groups and solving given problems in ML. In this they are discussing problems among them and then some students are asked to share the solution of problems with other students. The activity encouraged participation of students. Students were able to learn different problems efficiently.
		Theoretical Computer Science/V/CSC501	Collaborative Learning	In this activity, Students are making groups and solving given problems in TCS. In this they are discussing problems among them and then some students are asked to share the solution of problems with other students. The activity encouraged participation of students. Students were able to learn different problems efficiently.
5	Mr. Anil Hingmire	Software Engineering/ Sem V/ CSC602	Closed Fishbowl	In this activity, students inside the fishbowl actively engage, while students who are outside are listeners. In a closed fishbowl, there's an inner circle of students who share their thoughts and an outer circle for those who need more time to think. This method was used for requirement elicitation and documentation.
		Software Engineering/ Sem V/ CSC602	Case Study	Case studies are an instructional method (not a theory) that refers to assigned scenarios based on situations in which students observe, analyze, record, implement, conclude, summarize, or recommend. case studies were

				conducted on process models and students should analyse the scenarios, select an appropriate process model for software development and justify
6	Ms. Smita Jawale	Data Structures sem III/ Div 1 CSC303	Mentimeter Quiz	Students were engaged while using live polls, word clouds, quizzes, multiple-choice questions. This is a good revision tool and fun activity. It also made them aware of their knowledge gaps, and they work towards filling those gaps.
		Advanced database Management System Sem V/ CSDLO5013	Centimeter Quiz	Students were engaged while using live polls, word clouds, quizzes, multiple-choice questions. This is a good revision tool and fun activity. It also made them aware of their knowledge gaps, and they work towards filling those gaps.
7	Mr. Sunil Katkar	Computer Graphics (CSL303) SE/III Div-1, Div-2	Pixel Art Challenge	Students create pixel art using a limited color palette and a grid. This challenge encourages attention to detail and creativity in designing characters, objects, or scenes.
8	Ms. Swati Verma	Data warehousing and mining/ Sem V/CSC504	Jeopardy Game	Students were asked to prepare data warehousing, pre-processing and classification topics, groups were formed and the jeopardy game was played wherein they had to answer questions with different value points in order to win.

9	Mrs. Sneha Mhatre	Big Data Analytics BE CSC702	Collaborative Learning-Debate on NoSQL types	In this Activity, Students asked to seat equally in 4 rows in classroom •Assigned different types of NoSQL to each row, Course instructor allotted 45 minutes time to the individual row to read the topic from reference book or any other material Students were discussed with their group members in same row about topic in details Slow learner students got cleared their doubts and they felt easy to understand the concept and they show more interest to study when they are formed Then students from each row debating about their given topics and discussed their pros and cons Ask students to prepare report on task that given to them.
10	Ms. Neha Surti	Digital Logic & Computer Organization and Architecture Sem III/ Div 1 & Div 2/ CSC304	Spin the Wheel	In this activity, students were divided into different teams (based on the number of topics on the wheel). After spinning the wheel, whichever topic comes where the wheel stops, the respective team was asked to discuss the same based on various parameters. This activity is an interactive and engaging method to encourage student participation and make learning more fun.
11	Ms. Aarti Puthran	Data Structure	Mentimeter Quiz	

		Sem III/ Div 2 & Div 3/ CSC303		In this activity ,Students were engaged while using live polls, word clouds, quizzes, multiple-choice questions.
12	Ms. Akshaya Prabhu	Discrete Structures and Graph Theory Sem III CSC302	Collaborative Learning(Div 1, 2,3)	In this activity students were divided into 3 groups. Groupwise students were given different problems to solve. Students discussed with group members and solved the problem. One student from each group was asked to solve the problem on board. This helped slow learners to understand concepts.
13	Ms. Brinal Colaco	Object Oriented Programming with Java Sem III CSL304	Debugging Quiz	In this activity, students were given code with errors to solve and get the correct output. This exercise was designed to assess and improve student's debugging skills.
14	Ms. Amruta Mhatre	Machine Vision BE CSDL7011	Collaborative Learning	In this Activity students can make Groups of two or more learners work together to solve problems, complete tasks, or learn new concepts. This approach actively engages Students to process and synthesize information and concepts, rather than using rote memorization of facts and figures.
15	Mr. Chintamani Chavan	Digital Logic & Computer Organization and Architecture Sem III/ Div 3 CSC304	Peer Teaching	In this activity, students were asked to form each group of maximum 5 students. Topic is assigned to each group. Each group is asked to prepare a presentation on a topic and deliver it in practical hours. This activity is an interactive and engaging method to encourage student participation and make learning more fun.

16	Ms. Priti Rumao	Computer Network CSC503	Flipped classroom	In this activity, 1.The students were shared a YouTube video on How Data moves through the Internet - Networking Fundamentals. 2. Instead of teaching the steps in the classroom, the students were asked to view the video at home. 3. A discussion on how computer network helps transmitting data over the internet was done in the class. 4. Students discussed the protocols which will be in use to work on given scenarios. Message on google classroom was shared with the students regarding the activity.
17.	Ms. Priyanaka Bolinjkar	Object Oriented Programming with Java Sem III/Div 1 CSL304	Debugging Quiz	In this activity, students were given code with errors to solve and get the correct output. This exercise was designed to assess and improve student's debugging skills.
		Computer Graphics Sem III/ Div III CSC305	Collaborative Learning	In this activity, Students are making groups and solving given problems. In this they are discussing problems among them and then some students are asked to share the solution of problems with other students. The activity encouraged participation of students. Students were able to learn different problems efficiently

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Sr. No.	Name of Faculty	Course Name / Sem / Course Code	Innovative / Creative activity used	Short Description of the activity
1	Dr. Megha Trivedi	SBL/IV/ CSL405/Div-1	Open Book Test	Students were asked to issues text books mentioned in the syllabus from the college library for the same. A quiz of 30 questions had to be attempted by the students that encompasses a variety of topics including the use of threading modules, race conditions, locks, and best practices. The quiz can assess the understanding of concepts and ability to apply them to real-world scenarios.

2	Dr. Dinesh Patil	OS/IV/	Peer Teaching	The students were asked voluntarily to prepare a topic and deliver a presentation on their selected topic for at least 10 minutes. The other students were asked to be attentive to the class and raise the questions if any. The student delivering presentation were given the full control of the class during these 10 minutes.
3	Dr. Vikrant Agaskar	PM/VIII/ILO8021	Brain storming	During the lecture session students were asked to take one real life case of the project. Students proposed a few cases and then with discussion amongst themselves selected one case. All the students then explored and applied every phase of the project management process to the selected case. This activity gave students confidence to apply knowledge of Project Management to any real life project.

		IoT/VI/CSDLO6011	Peer Teaching	Students were encouraged to deliver a lecture for an hour on the topic of their choice from the syllabus. A group of students voluntarily presented a topic for around 45 minutes. The session was interactive and the fellow students were encouraged to ask doubts which were solved by presenting students and the subject teacher.

4	Dr. Swapna Borde	AOA/IV/CSC402	Algorithm gamification and visualization	Algorithm gamification and visualization play a crucial role in teaching the analysis and design of algorithms. The tools uses graphical representations and animations to illustrate how algorithms work, making complex concepts more accessible. Algorithm gamification and visualization tools enhance algorithmic education by providing visual representations, dynamic animations, and interactive elements. These tools offer advantages such as increased engagement, effective retention, and the promotion of critical thinking skills, making the learning experience more accessible and enjoyable for students.

5	Dr. Anil Hingmire	AI/VI/CSC604	Inquiry-Based Learning	Inquiry-based learning (IBL) encourages curiosity of students to take an active role in their education by posing questions, investigating topics, and developing critical thinking skills. Question: How can AI be used to improve healthcare outcomes, and what challenges does it present in the medical field? Inquiry Process: Students research AI applications in healthcare, analyze their potential benefits and drawbacks, and discuss the ethical considerations associated with using AI in medical settings

6	Ms. Smita Jawale	DBMS/IV/CSC403	Mind Map	Mind mapping is simply a diagram used to visually represent or outline information. It is a powerful graphic technique you can use to translate what's in your mind into a visual picture. Since mind mapping works like the brain does it allows you to organize and understand information faster and better The url was shared with students to draw mindmap Students shared the topics and commands used in SQL According to it the mindmap was created online

7	Mr. Sunil Katkar	SE/IV/MP/CSC405 (Div-1)	Role-Play	Role- play : Architecture of Microprocessor 8086 In this students were playing different functional blocks of architecture of 8086. Every character played by the student explained the detailed function of the block to the class. Here function, working and connection between different blocks of architecture were explained. Also at the end QA round where students discussed various aspects of 8086
8	Ms. Swati Verma	DC/ BE/VIII/ CSC801	Room escape puzzle	Students were asked to prepare on the topics, groups were formed and they were supposed to answer all the questions in order to escape the room.

		QA/ VI/ TE/ CSDLO6013	Bingo cards/ Housie	Students were asked to prepare regression chapters. Housie tickets were distributed which had the answers to the questions. Students were supposed to solve the problems and mark on the bingo card. The one who does the first was awarded as the winner.
9	Mrs. Sneha Mhatre	HPC/VIII/ CSDC8022	Course on NVIDIA Developer Platform	Students were asked to write the logic for simple sequential algorithms and as a teacher teach them how to convert sequential algorithm into parallel program on NVIDIA Programming Platform. This activity is assigned to all students so they can perform different programs on NVIDIA.

		SBL/IV/ CSL405/Div-1 & Div-3	Open Book Test	Students were asked to issues text books mentioned in the syllabus from the college library for the same. A quiz of 30 questions had to be attempted by the students that encompasses a variety of topics including the use of threading modules, race conditions, locks, and best practices. The quiz can assess the understanding of concepts and ability to apply them to real-world scenarios.
10	Ms. Neha Surti	SPCC/VI/CSC601	Digital Storytelling	The Digital Storytelling activity focuses on enhancing creativity, innovation and digital presentation techniques for difficult topics. In this activity the students working in groups created engaging videos on the difficult topics of Assemblers and macro processor and also posted them on social media platforms like YouTube.

11	Ms. Aarti Puthran	SMA/VIII/CSDL8023	Debate	In this activity students were given a topic to debate on " Is social media a blessing or a curse?" Students are divided into two teams. One team is in favor of social media, opined that it has many merits like Staying connected with friends and relatives ,Keeping up to date news, Reducing communication barriers, Opportunities for entertainment as well as business, Free advertising. While opposite team opposed it with the negative side of social media like leads to addiction, leads to isolation, security issues and health issues, affecting productivity, spread fake news very fast.
12	Ms. Akshaya Prabhu	DL/VIII/ CSDC8011	Open Book Test	Students were asked to issue books from the library and explain AlexNet architecture in depth. They were given only 1 question to be solved in 60 mins.
13	Ms. Brinal Colaco	Applied Data Science/VIII[CSDC8013]	Open Book Test	An open book test on hypothesis testing allows the students to

				demonstrate their understanding of key concepts and their ability to apply them to real-world situations while having access to reference materials. This format can simulate the experience of professional work, where you must use available resources to make informed decisions and analyses. The test was based on the following types of questions: Conceptual Questions Understanding Practical Application Problem Solving

		Skill based Lab Course: Python Programming / Sem IV/CSL405 Div 2	Open Book Test	An open book test on multithreading in Python was conducted in SE Div 2 on 3rd April, 2024. Students were asked to issues text books mentioned in the syllabus from the college library for the same. A quiz of 30 questions had to be attempted by the students that encompasses a variety of topics including the use of threading modules, race conditions, locks, and best practices. The quiz can assess the understanding of concepts and ability to apply them to real-world scenarios.

14	Dr. Amruta Mhatre	SE/IV/OS/CSC404 (DIV 2/ 3)	Open Book Test	Disk scheduling is done by operating systems to schedule I/O requests arriving for the disk. Disk scheduling is also known as I/O Scheduling. Students are able to understand Multiple I/O requests may arrive by different processes and only one I/O request can be served at a time by the disk controller. Thus other I/O requests need to wait in the waiting queue and need to be scheduled.
15	Mr. Chintamani Chavan	SE/IV/AOA/CSC304	Algorithm gamification and visualization:	Algorithm gamification and visualization tools enhance algorithmic education by providing visual representations, dynamic animations, and interactive elements. These tools offer advantages such as increased engagement, effective retention, and the promotion of critical thinking skills, making the learning experience more accessible and enjoyable for students.
16	Ms. Priti Rumao	SE-3/IV/DBMS/CSC403	SQL Olympiad	The SQL based Olympiad aims to assess students' abilities and aptitude in the field of

		TE/VI/MC/CSC603	Flip Classroom	Database. It comprises of 2 parts: Objective (30 Marks) & Subjective (20 Marks). Main focus was on SQL Query solving. A flipped classroom is an instructional strategy and a type of blended learning, which aims to increase student engagement and learning by having students complete readings/learning at their home and work on live problem-solving during class time. The students were shared a YouTube video on 1G to 5G and 6G Cellular Network. Instead of teaching the steps in the classroom, the students were asked to view the video at home. A discussion on how mobile cellular network evolved is conducted in classroom with the help of scenarios which were given to students.

17	Ms. Priyanaka Bolinjkar	SE-1/IV/DBMS/CSC403	SQL Olympiad	The SQL based Olympiad aims to assess students' abilities and aptitude in the field of Database. It comprises of 2 parts: Objective (30 Marks) & Subjective (20 Marks). Main focus was on SQL Query solving.
18	Mrs. Soniya Khatu	SE/IV/MP/CSC405 (Div 2/3)	Role-Play	Role- play : Architecture of Microprocessor 8086 In this students were playing different functional blocks of architecture of 8086. Every character played by the student explained the detailed function of the block to the class. Here function, working and connection between different blocks of architecture were explained. Also at the end QA round where students discussed various aspects of 8086

Dr. Megha Trivedi
HOD, Computer Engineering