Innovations by Teaching Faculties in Teaching and Learning

Sr. no	Name of the faculty	Course Name/ Course Code	Division	Innovative /Creative Activity used	Short Description of the activity	Link of Report
1	Ms. Praiza Gonsalves	Applied Mathematics-I/BSC101	**A**	Peer Teaching	An innovative teaching method where one student or peer instructs another student or peer on a specific topic.	https://drive.google.com/file/d/1MkMAkEO5I1C5jxAEJZkQNd4nWk4wQL90/view?usp=drive_link
		Applied Mathematics-II/BSC201	A, B	Think-Pair-Share	Videos regarding application of DE was given to students, they were asked to think for a while, then discuss their video content with their neighbouring students and write a summary report based on both videos.	https://drive.google.com/file/d/1nLB2Z-pRdYoIE_OeVLiY7HjILgpuN1GD/view?usp=drive_link
2	Ms. Ankita Mane	Applied Mathematics II /BSC201	J	Jigsaw Classroom	The Jigsaw Classroom is a cooperative learning technique where students are divided into groups, each focusing on a different aspect of a topic. After mastering their assigned piece, they share their expertise with other groups, ultimately completing a larger task. This collaborative approach encourages interdependence and helps students learn from each other	https://drive.google.com/file/d/1r1BMFA1nn6zRosPxdSmaCZsDOR_of6Hh/view?usp=drive_link
			H	Flipped Classroom	Video regarding concept was given and problems were solved in Classroom	https://drive.google.com/file/d/1nuRhUP0nTOUj7hOI0hOwreqGPu7McLhQ/view?usp=drive_link

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3	Mr. Ganesh Tilave	Applied Mathematics I /BSC201	E	Jigsaw Classroom	The Jigsaw Classroom is a cooperative learning technique where students are divided into groups, each focusing on a different aspect of a topic. After mastering their assigned piece, they share their expertise with other groups, ultimately completing a larger task. This collaborative approach encourages interdependence and helps students learn from each other	https://drive.google.com/file/d/1wbSLNCNUjSX9KRaxY09BRrtfDOR0dOhZ/view?usp=drive_link
4	Ms. Anahita Pereira	Applied Mathematics I /BSC101	G	Visualizing DMT through sketching	To introduce students to De'Moiver's Theorem geometrically to enhance their visualization abilities so that they can grasp abstract mathematical techniques	https://drive.google.com/drive/folders/1e5PwJMTPPtwsezwIGdBdXjTw_iy7Hx2B
		Applied Mathematics I /BSC201	I	Mastering Double integrals through CROSSWORD	To identify and recall key terminology and concepts related to double integration, such as region types, integration order, and application contexts to strengthen their retention of specialized vocabulary in multivariable calculus through active recall through word-based puzzle	https://drive.google.com/file/d/1xxfNtD9wBPa1LhadRrC4CIAAO1DYse1d/view?usp=drive_link
4	Dr. Suraj Vishwakarma	Applied Physics / BSC102	A,B, C, J	Flipped Class Room	The flipped classroom model was implemented as an innovative approach to enhance conceptual clarity and active learning. In this method, video lectures on advanced topics such as Interference in Thin Films, Gradient, Divergence, Curl, and Heisenberg's Uncertainty Principle were shared with students before class. Students engaged with the content independently and arrived prepared to participate in problem-solving during laboratory sessions.	https://drive.google.com/file/d/1H75xPFNSbbhYnzxT1FkGrDRp5FLjnl4B/view?usp=drive_link

		Physics of Measurements and Sensors/ BSC2023	H	Flipped Classroom	The flipped classroom model was implemented as an innovative approach to enhance conceptual clarity and active learning. In this method, video lectures on advanced topic like Nanotechnology was shared with students before class. Students engaged with the content independently and arrived prepared to participate in presentation of the content.	https://drive.google.com/drive/u/1/folders/1BlFNibZwYCVNECqzSD_sIX7sTa9ujfdX
		Semiconductor Physics /BSC2022	I , K	Flipped Classroom		https://drive.google.com/file/d/1U9eion9-pvwMlX_kUNIAqfYglntYRumE/view?usp=drive_link
5	Dr. Vivek Singh	Applied Physics / BSC102	E, F,G,I	Flipped classroom	The flipped classroom model was implemented as an innovative approach to enhance conceptual clarity and active learning. In this method, video lectures on advanced topics such as Interference in Thin Films, Gradient, Divergence, Curl, and Heisenberg's Uncertainty Principle were shared with students before class.These sessions focused on collaborative discussions and application-based learning, encouraging deeper comprehension of the core physics principles through interactive and student-centered activities	https://drive.google.com/file/d/1u7qsplL0uHyZAo9Xa2zPnCKrZyPkYITy/view?usp=drive_link
		Elective Physics (Physics of Measurements and Sensors) / BSC2023	A, B, C	Flipped classroom	In this flipped classroom activity, students explored basic topics like heat, temperature and nanotechnology through self-study using provided resources. Working in small groups, they delivered presentations using their preferred mode—board explanation or PowerPoint—followed by peer discussions. This approach promoted active learning, communication skills, and a deeper understanding of the subject.	**https://drive.google.com/file/d/1s4VBlVIXclT0KwBvWIyP1hyVAg7pyZf_/view?usp=drive_link**

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6	Ms.Vaishnavi Gurav	Applied Physics / BSC102	D,H,K,L	Flipped Classroom	The flipped classroom model was implemented as an innovative approach to enhance conceptual clarity and active learning. These sessions focused on collaborative discussions and application-based learning, encouraging deeper comprehension of the core physics principles through interactive and student-centered activities	https://docs.google.com/document/d/1QhU4aI8kI5elMUsU8k9y9nK1Rp3aBpJA/edit?usp=sharing&ouid=112648855725742732943&rtpof=true&sd=true
		Physics of Measurements and Sensors/ BSC2023	D, J	Flipped Classroom	The flipped classroom was conducted with the intent to enhance student engagement, foster teamwork, and reinforce conceptual understanding of Nanotechnology through peer-led presentations.	https://docs.google.com/document/d/1l_J6dKHVyLjtJMvCnKjuXv6n14dMLi0W/edit?usp=sharing&ouid=112648855725742732943&rtpof=true&sd=true
		Physics of Measurements and Sensors/ BSC2023	G	Crossword Puzzle	Game-based learning has emerged as a promising educational approach to engage learners and enhance their knowledge and skill	https://docs.google.com/document/d/1VMQXPiqugjROWAM4bn94d11GEPUKW3h9/edit?usp=sharing&ouid=112648855725742732943&rtpof=true&sd=true
7	Mr. Vikas Bhagat	Physics of Measurements and Sensors/ BSC2023	E, F, L	Flipped Classroom	The flipped classroom was conducted with the intent to enhance student engagement, foster teamwork, and reinforce conceptual understanding of Nanotechnology through peer-led presentations.	https://docs.google.com/document/d/1O8rr710fcIS2-ITVQ0tTl-7KIGvMq0sz/edit?usp=sharing&ouid=100918520633228581802&rtpof=true&sd=true

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8	Ms. Chandrakishori Sonarkar	Applied Chemistry / BSC203	E , F & L	"Game Pedagogy - Crossword Puzzle, Jumbling Word	Game-based learning has emerged as a promising educational approach to engage learners and enhance their knowledge and skill	https://drive.google.com/file/d/12qpmATTupoJEB79BUSKLL4brmrX8J6XY/view?usp=drive_link
				Reflection Spot	"During Lecture, the students were divided into two groups, even and odd numbers according to their roll call. Once a particular topic was covered in the class, they were given time to study these theory topics in a group, promoting informal/peer learning."	https://drive.google.com/file/d/191LPD6KNPPvTr2fouKvEz0gtDMGDJVb4/view?usp=drive_link
		Environmental Chemistry and Non-conventional energy sources / BSC2032	D , I & K	Crossword Puzzle	Game-based learning has emerged as a promising educational approach to engage learners and enhance their knowledge and skill	https://drive.google.com/file/d/15890eACqk8RRPcE9cyGIZtSO99_40M3u/view?usp=drive_link
				Reflection Spot	A Reflection Spot is a point where the video pauses and the instructor poses a question	https://drive.google.com/file/d/1VgUQJJDq9RsfnOENm9xNAqhApdAWEFxW/view?usp=drive_link

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9	Ms. Beauty Ansari	Applied Chemistry / FEC103	G H J	Flipped Classroom	Video regarding concept was given and problems were solved in Classroom	https://drive.google.com/file/d/1ZmomCwYj0c1c7V6AOd6R266V3s-5Syj7/view?usp=drive_link
		Environmental Chemistry and Non-conventional energy sources/ BSC2032	G H J	"Game Pedagogy - Crossword Puzzle	Game-based learning has emerged as a promising educational approach to engage learners and enhance their knowledge and skill	https://drive.google.com/file/d/144mkD4MltHEl0kZmFqFn-NcVC3ckyKw0/view?usp=drive_link
10	Dr. Rhushirajeshwari Naik	Applied Chemistry/ BSC103	H, I, K	Poster Activity	To provide students with an effective and creative method to memorize content. To provide students with an effective and creative method to brainstorm.	https://drive.google.com/file/d/1tG4V3PJu5UhBGeOKBJyK-eq-DUWZyrdu/view?usp=drive_link
				Game Pedagogy - Crossword Puzzle	Game-based learning has emerged as a promising educational approach to engage learners and enhance their knowledge and skills.	https://drive.google.com/file/d/1Dd9u7p0ZSU2Q9yQavaG76utJAbzlhux1/view?usp=drive_link

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11	Ms.Dipa Patel	Applied Chemistry (BSC203)	D,G,J	Game Pedagogy - Crossword Puzzle, Jumbling Word	Game pedagogy in teaching leads to improved student engagement, enhanced learning retention, and the development of crucial skills like problem-solving and critical thinking.	https://docs.google.com/document/d/1HltAKp62Qqe3T1MklSTOgW1so0Ss_YKa/edit
		Environmental Chemistry and Non-conventional energy sources/ BSC2032	E,F,L	Game Pedagogy- Pictionary/ Charades Activity	This interactive activity helps reinforce key chemistry concepts while fostering teamwork and creativity	https://docs.google.com/document/d/1TbueYh-OK2zdU6uzQHdzar2NeEofEXrb/edit
12	Ms. Kamini More	Professional Communication & Ethics /AEC101	H, J	Game Pedagogy- Snake and ladder	The think, pair, share strategy is a cooperative learning technique that encourages individual participation and is applicable across all grade levels and class sizes.	https://docs.google.com/document/d/1x8zSOKo73izQ0WnJZlQKH22covmXHXSq/edit?usp=drive_link&ouid=114388346488262974841&rtpof=true&sd=true
		IKS/IKS201	K	Flipped Classroom	A flipped classroom is a teaching model where students learn new content at home through videos or readings, and use class time for interactive, hands-on activities and deeper learning.	https://docs.google.com/document/d/18RMSTTexlbOtVy-4sluf5PzOAS-_O04O/edit?usp=drive_link&ouid=114388346488262974841&rtpof=true&sd=true

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13	Dr.Pradip Gulbhile	Professional Communication & Ethics /AEC101	G	Role play Activity	"Role play is a form of experiential learning. Students take on assigned roles and act out those roles through a scripted play."	https://drive.google.com/drive/folders/1e5PwJMTPPtwsezwlGdBdXjTw_iy7Hx2B
			I	Think-Pair-Share	Think-pair-share is a collaborative learning strategy where students work together to solve a problem or answer a question about an assigned reading.	https://drive.google.com/drive/folders/1e5PwJMTPPtwsezwlGdBdXjTw_iy7Hx2B
14	Ms. Tanya D'souza	Professional Communication & Ethics /AEC101	A, K	Think-Pair-Share (Debate)	Think-Pair-Share (TPS) is a cooperative learning activity that can work in varied size classrooms and in any subject. Instructors pose a question, students first THINK to themselves prior to being instructed to discuss their response with a person sitting near them (PAIR). Finally, the groups SHARE out what they discussed with their partner to the entire class and discussion continues.	https://drive.google.com/file/d/1J9Awsxlb8giWtnYIZ5upr5T0cy457VOi/view?usp=drive_link
		Indian Knowledge System/ IKS201	G , H	Flipped Classroom (Group Presentations)	In a flipped classroom, students receive direct teaching, such as watching a lecture online, before discussing the content in class. The goal is for students to view the content beforehand, also known as first-exposure learning, so that they can acquire the concepts at their own pace.	https://drive.google.com/open?id=1Giy_n6wsS_ZhKjJfNGYrAdoO-JGBQSPR&usp=drive_copy

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15	Ms.Gloria Collaco	Professional Communication & Ethics /AEC101	F	Mindmap	Encourages students to ponder and explore concepts through visual-spatial links that flow from a central theme to outer branches that may be interconnected. It helps to establish the connection between ideas and concepts.	https://docs.google.com/document/d/11B1HYfv3U5amhnlwCzIGJbi5vuGfyqdTXNdhQtRzS1c/edit?usp=sharing
			D	Jigsaw	A cooperative learning technique where students work in small groups to become experts on a specific part of a topic and then teach that knowledge to their peers in other groups	https://docs.google.com/document/d/1dL68ocG3mtqYGPEhmEjv-OSzXuC45NKhgvvE1XBJG8U/edit?usp=sharing
		IKS/IKS201	E F	Role Play	Students act out or simulate real-life scenarios, assuming specific roles or characters relevant to the topic being studied	https://drive.google.com/drive/folders/1AHkIfZFEZVLGk2Tt48UHtAn4hoEK5q32?usp=sharing
16	Dr. Aashi Baynes Cynth R B	Professional Communication & Ethics /AEC101	B, C	Co-Operative Learning (All GO)	Cooperative learning is an instructional approach where students work together in small groups to achieve shared learning goals	https://drive.google.com/drive/folders/1e5PwJMTPPtwsezwIGdBdXjTw_iy7Hx2B
		IKS/IKS201	A, I	Flipped Classroom	A flipped classroom is a teaching model where students learn new content at home through videos or readings, and use class time for interactive, hands-on activities and deeper learning.	https://drive.google.com/drive/folders/1e5PwJMTPPtwsezwIGdBdXjTw_iy7Hx2B

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17	Ms. Jenisa Dsilva	Professional Communication & Ethics /AEC101	E, F	Jigsaw	In this Jigsaw activity, students explore different aspects of an engineering case—ethics, stakeholders, risks, and management—then teach their peers and collaborate to propose a well-rounded solution. It promotes teamwork, critical thinking, and ethical decision-making	https://drive.google.com/drive/u/1/folders/1e5PwJMTPPtwsezwIGdBdXjTw_iy7Hx2B
		IKS/IKS201	B,C	Project based learning	This board game uses project-based learning to teach entrepreneurship, critical thinking, and regional economics. Players invest in toy factories across GDP-ranked Indian states, applying real-world decision-making, teamwork, and problem-solving in an engaging, hands-on format	https://drive.google.com/file/d/1Df3Sjb0Zvquwdz4BqUbttr8CQmQD_CtH/view?usp=drive_link
			G	Flipped Classroom	Flipped classroom is an innovative teaching learning method where strategy of teaching is reversed	https://drive.google.com/file/d/1srL3ZggA19NTV46GzLmcKWdWcjGt_HSF/view?usp=drive_link
			G	Crossword Puzzles on Communication skills	A crossword (or crossword puzzle) is a word game consisting of a grid of black and white squares, into which solvers enter words or phrases according to a set of clues. Each entry is typically numbered to correspond to its clues.	https://drive.google.com/file/d/18IVcKGse9wWMIJr24fQyrvrmtFBMa2v4/view?usp=drive_link

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18	Ms. Shraddha Gosavi	BEEE /ESC102	I & J	Crossword puzzle	Solving puzzles helps to better identify knowledge domains and fix students' information gaps and weaknesses. In other words, when one reaches the correct answer, the feeling of confidence in their knowledge increases which subsequently enhance their self-sufficiency and satisfaction. In fact, the same effort to find the right answer (even if it does not lead to the right answer) can activate learning processes .	https://docs.google.com/document/d/1S3EOU7sB2DXAFqT-4qwRMuKntYoj66iP/edit?usp=sharing&ouid=112202637323356696621&rtpof=true&sd=true
			A,D,H	Mobile game	The activity was conducted using a mobile-based game designed to help students grasp core concepts of DC circuits in a fun and engaging way.	https://docs.google.com/document/d/1eE4RvZ81und4EihE6eAIG6gbcF65oPeO/edit?usp=sharing&ouid=112202637323356696621&rtpof=true&sd=true
19	Ms. Deepti Patne	BEEE /ESC102	A & D	Crossword Puzzle	Solving puzzles helps to better identify knowledge domains and fix students' information gaps and weaknesses. In other words, when one reaches the correct answer, the feeling of confidence in their knowledge increases which subsequently enhance their self-sufficiency and satisfaction. In fact, the same effort to find the right answer (even if it does not lead to the right answer) can activate learning processes .	https://drive.google.com/file/d/1ME1g2axiLQJdLKxSLITqKZJek9lhlS4X/view?usp=drive_link

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