



Innovation in Teaching Learning Process

Innovative Assessment

Name of the Innovation	:	Innovative Assessment
Course Code and Name	:	1AEPC401 Finite Element Methods
Class and Semester	:	B.Tech VII
Academic Year and Term	:	2024-25, I
Faculty Name and Designation	:	Dr. S. Sendhil Kumar, Professor

Introduction:

Innovative teaching techniques have revolutionized the traditional approach to education by emphasizing active learning, student engagement, and practical application of knowledge. These techniques, such as problem-based learning, flipped classrooms, and technology-driven assessments, aim to move beyond rote memorization to foster critical thinking, creativity, and collaboration. By addressing diverse learning needs and real-world challenges, innovative methods not only enhance the quality of education but also prepare students for dynamic and competitive professional environments.

Motivation/Purpose of Innovative Technique:

The motivation/purpose of innovative techniques is to enhance the quality of learning by promoting critical thinking, creativity, and problem-solving skills among students. These techniques aim to make education more engaging, interactive, and relevant by bridging the gap between theoretical knowledge and practical application. They foster individual growth, cater to diverse learning styles, and prepare learners to address real-world challenges effectively, ensuring their holistic development and readiness for professional environments.

Procedure Followed:

Through innovative assessment techniques, I strive to foster individual growth and critical thinking by incorporating problem-based learning approaches in finite element methods, enabling students to solve real-world engineering challenges effectively.



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Outcome:

Achieved a 20% increase in positive feedback compared to the previous year.

References:

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- Hmelo-Silver, C. E. (2004).** *Problem-Based Learning: What and How Do Students Learn?* *Educational Psychology Review*, 16(3), 235–266.
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- Felder, R. M., & Brent, R. (2003).** *Learning by Doing: The Role of Problem-Based Learning in Engineering Education.* *Journal of Engineering Education*, 92(1), 7–12.
- Kolmos, A., & Holgaard, J. E. (2010).** *Learning Styles of Science and Engineering Students in Problem and Project-Based Education.* *International Journal of Engineering Education*, 26(3), 552–563.