

INNOVATIVE TEACHINGS- REALITIES AND NUGGETS

CIVIL ENGINEERING



One way lessons are very traditional and they are exhausting for the students and teacher as well. It mainly focuses on how much knowledge you can pass on to the students and it is more monotonous and boring. Hence there is a need to provide an environment where students feel more encouraged speaking up and expressing their views and ideas. Innovative teaching encourages students joining proactively and interacting with the fellow classmates and the teacher during the lessons coverage in the class room. It must be ensured that the innovative ways of teachings adopted by the faculty is based on the topic and the level of students. Also it must make the students to dig deep and what they truly take away during the lecture sessions. The world has been a shift from concrete building class rooms to online ones and hybrid learning. To keep the students engaged and interested in the present digital scenario, there is a need for innovative teaching strategies.

Innovative Teaching methods	Realities and Nuggets
Interactive Lessons	<ul style="list-style-type: none"> • Live quizzes, Games with spinner wheels or through word clouds, polls or brain storming together • Students can type or choose answers anonymously instead of raising their heads (This makes them more involved and confident and they will express their opinions and no longer worry about being judged or wronged).
Cross Over Teaching	<ul style="list-style-type: none"> • It combines the experience of learning in both the classroom and a place outside. • Concepts and principles are explained and explored in the class room and then a visit is arranged to a particular place outside. There, how the concepts works in a real setting is demonstrated.
Design –Thinking Process	<ul style="list-style-type: none"> • Solution based strategy to solve problems, collaborate and spark students’ creativity. It is a non linear process and can customize it based on your lectures and activities. Following are the 5 stages: • Empathize: Develop empathy, and find out why there is a need for solutions • Define: Issues need to be defined and potential of addressing them be discussed • Ideate: New creative ideas need to be thought of and generated • Prototype: Make a draft or sample of the solutions to explore the ideas further • Test : Solutions have to be tested, evaluated and feedback must be gathered
Project Based Learning	<ul style="list-style-type: none"> • An active learning method where faculty work as a guide and students take charge of their learning

	<p>journey. Studying this way can lead to better engagement and understanding, sparking their creativity and promote lifelong learning.</p> <ul style="list-style-type: none"> • Project based learning makes the class room more engaged while students learn new content and develop skills like researching, working independently and with others, critical thinking, etc.,
<p>Inquiry Based Learning</p>	<ul style="list-style-type: none"> • It is a kind of active learning. Instead of giving a lecture, you start the lesson by providing questions, problems or scenario. • It includes problem based learning and doesn't rely much on the faculty. The faculty is more like a facilitator rather than a lecturer. • Students will research the topic either independently or with a group to find answer.
<p>Jigsaw</p>	<ul style="list-style-type: none"> • Students are divided into small groups. • Each group is given a sub topic of the main topic • Groups are instructed to explore the given ones and develop their ideas. • Each group share their findings to form a big picture
<p>Peer Teaching</p>	<ul style="list-style-type: none"> • This is similar to Jigsaw. Here students understand and master knowledge better when they can explain it clearly. • Students can take the lead this activity by choosing their area of interest within the subject. • This method provides students a kind of autonomy and freedom which help them to develop a feeling of ownership of the subject and the responsibility to teach it right. • Students by heart beforehand and speak loudly to teach their peers so as to make them understand the subject, problems and solutions thoroughly.

Peer Feedback	<ul style="list-style-type: none"> • Peer Feedback is one of the Innovative teaching approaches, which is much more than teaching or learning within the class. • Students must learn essential skills to provide and receive constructive feedback with an open mind and proper manners. • Once they receive the feedback, the students are asked to explain their comments or respond to it.
Personalized Learning	<ul style="list-style-type: none"> • It may be effective for one group of students and it may not be suitable one for other group. • Suitable for introvert students who find it difficult to work in a group. • It takes more time to plan and prepare and help students to learn based on their needs, strengths and weaknesses to achieve better results. • This method tailors the need of the individual student.
Flipped Class Room	<ul style="list-style-type: none"> • Before classes, students need to watch videos, read materials or research to have some basic understanding and knowledge. Class time is devoted to doing the so called ‘homework’ usually done after class, as well as group discussions, debates or other student led activities.



**Innovative Teaching
Methods**