BRILLIANT INSTITUTE OF ENGINEERING & TECHNOLOGY
(Approved by AICTE, New Delhi, Affiliated to JNTU-Hyderabad)
Abdullapur(V), Abdullapurmet (M), R.R. Dt. Hyderabad - 501505
Website: www.b-iet.ac.in, e-mail: principal@b-iet.ac.in

DEPARTMENT OF CIVIL ENGINEERING

Academic Year: 2022 – 23

Course	**Transportation Engineering**	Year / Semester	**III / I**
Topic	**Highway Planning**	Innovative Method Chosen	**Flipped Classroom**

Flipped Classroom

1. Flipping the classroom is an inverting the classroom approach to teaching. In this approach, the traditional in-class teaching is "flipped" to better meet the needs of individual learners. Students gain control of the learning process through studying course material outside of class, using readings, pre-recorded video lectures. It helps the faculty/lecturer to redefine in-class activities and include homework problems and keep the students engaged in the content.

2. Details of the Implementation:

It Works

1. Before class: Students watch recorded lectures, audio–video lessons, or read study materials related to Highway Planning, such as road network planning, highway alignment, road classification, surveys for highway alignment, traffic studies, and factors affecting highway location.

2. During class: Students participate in activities, group discussions, problem-solving exercises, and concept-based activities related to highway planning. The teacher guides the students, clarifies doubts, and provides individual support, resulting in more interactive and practical learning.

It is useful

Students can learn the basic concepts of Highway Planning at their own pace. More classroom time is available for discussion, doubt-clearing, and practical activities. It encourages active learning, better engagement, conceptual understanding, and application of transportation engineering principles

Example: A civil engineering teacher explains the basic concepts of Highway Planning, including road classification, highway network planning, factors affecting highway alignment, reconnaissance and preliminary surveys, traffic studies, and selection of the most suitable route, using a short video before the class. Students watch the video at home. The next day in class, they work in groups to identify suitable highway routes using maps and survey information, discuss alignment alternatives, and solve problems related to traffic volume, road network planning, and route selection, while the teacher guides them and explains their practical applications in urban roads, rural highways, expressways, transportation networks, and regional connectivity.

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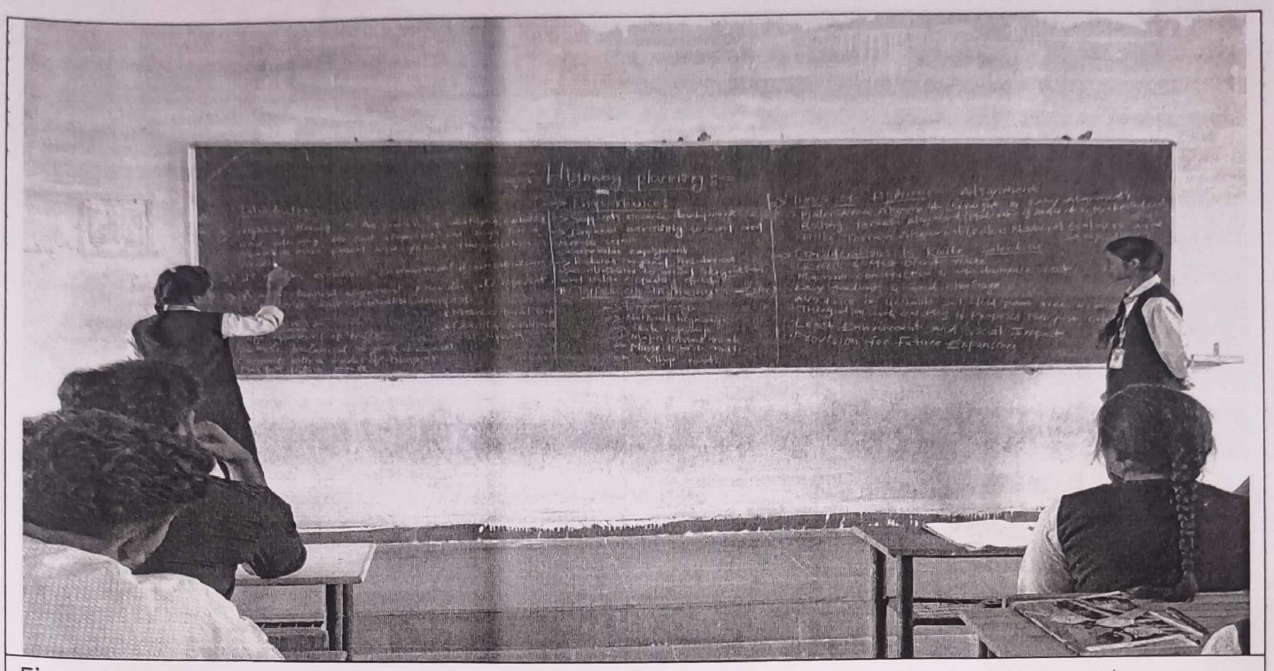


Figure1 : Flipped classroom on Highway Planning 20QA1A0119(N.Shivani), 21QA5A0132 (P.Shyamala)

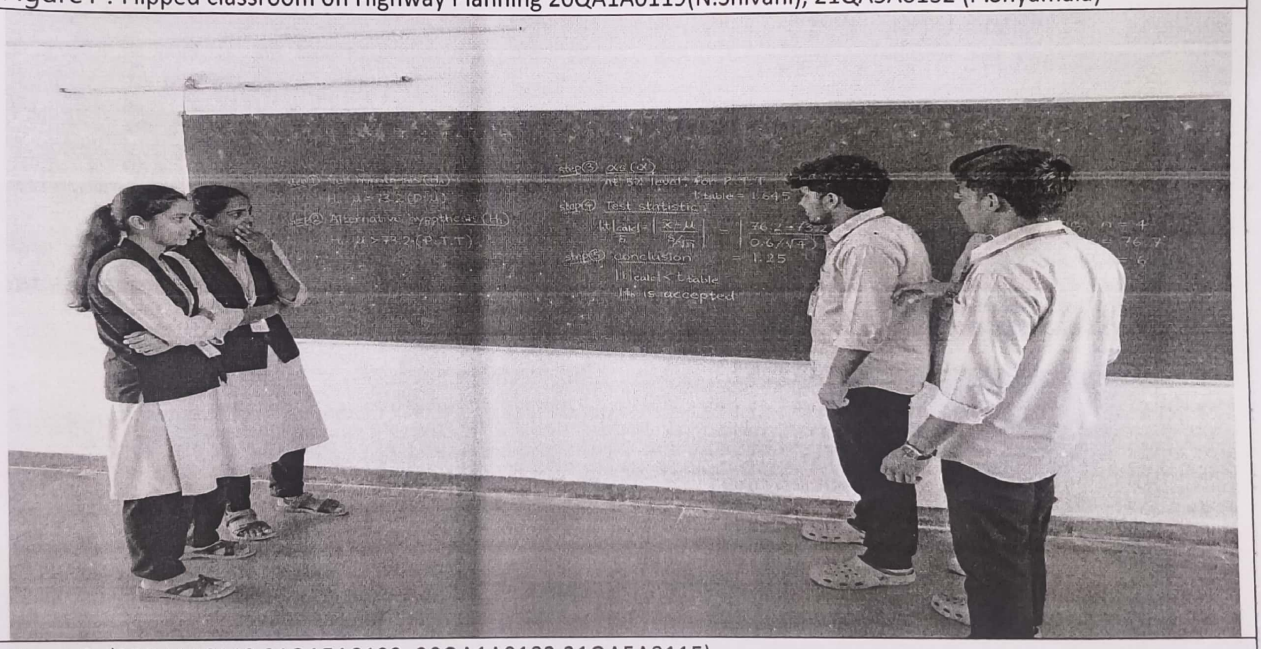


Figure 2: (20QA1A0119,21QA5A0132, 20QA1A0102.21QA5A0115)

Coordinator

Head of the Department

Head of the Department
Department of Civil Engineering
Brilliant Institute of Engineering & Technology
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College Code: QA

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DEPARTMENT OF CIVIL ENGINEERING

Date: 09-11-2022

To
The Principal,
Brilliant Institute of Engineering and Technology,
Adbullapur (V & M) - 501505,
R. R. District, Hyderabad.

Respected Sir,

Sub: Seeking Permission – Innovative TLP – Req. – Reg.
* * *

We are hereby bringing to your kind notice that the department of Civil engineering department is going to conduct an innovative session i.e., flipped class room conducting by our faculty members to our students. where the traditional learning order is reversed Students learn the lesson before class. A technique where people share ideas freely without criticism to solve a problem or think creatively. We are scheduled the program on 19-11-2022 at 9:15pm to10:55 pm to III year I semester. This will be a good knowledge sharing platform for students.

We are confident that you will continue to serve the institution diligently and will have a satisfying and rewarding career with the institution.

In this regard, we are requesting you kindly permit us to conduct the program to the students.

Thanking you sir.

Yours Sincerely,

Head of the Department

Head of the Departme
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DEPARTMENT OF CIVIL ENGINEERING

Date: 16-11-2022

Circular

This is to inform faculty members and students in the department of civil engineering that the department is going to conduct a flipped class room involving faculty along with students (Transportation Engineering over view) on 19-11-2022 at 9:15pm to10:55 pm. This will be a good knowledge sharing platform for students' ideas and solutions through disciplined idea generator on this method. Hence, it is directed that all the students of III year I Semester and who are interested to participate enroll their names with concerned faculty on or before 18-11-2023.

Head of the Department

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Copy to:

Circulate in all Civil classrooms.
Display in the all notice boards
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DEPARTMENT OF CIVIL ENGINEERING

Flipped classroom :

A flipped classroom is a modern teaching method where the traditional way of learning is reversed.

Explanation:

In a normal classroom, faculty teaches the lesson in class. Students do homework after class Students learn the lesson at home (through videos, presentations, readings), Students do activities, discussions, problem-solving in class with the faculty help.

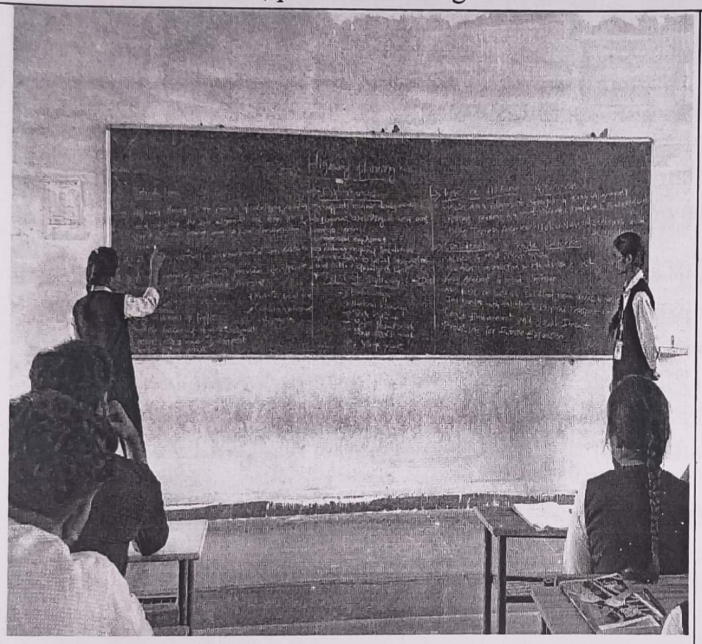


Figure: 1 20QA1A0119, 21QA5A0132

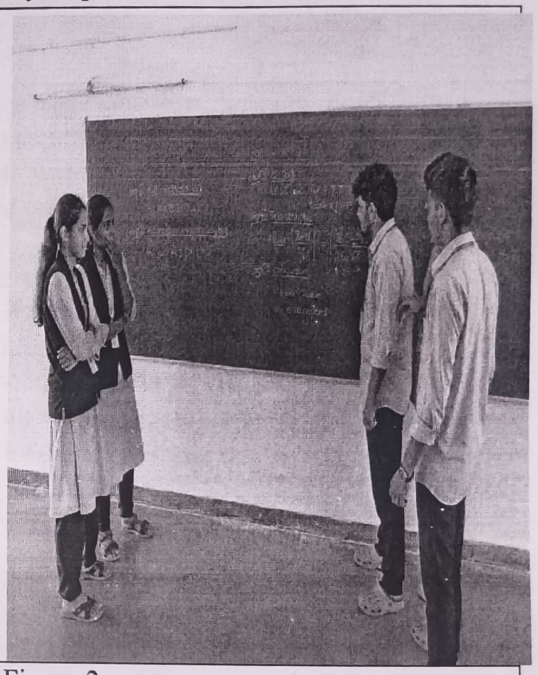


Figure:2 120QA1A0102,20QA1A0119,21QA5A0115,21QA5A0132,

It Works

1. Before class: Students watch recorded lectures, audio–video lessons, or read materials.
2. During class: Students do activities, group work, problem-solving, Teacher guides, clarifies doubts, and helps individually, more interactive and practical learning

It is useful

Students learn at their own pace, More time for discussion and doubt-clearing, encourages active learning, better engagement and understanding.

Example: A math teacher records a video explaining algebra basics. Students watch it at home. Next day in class, they solve algebra problems in groups while the teacher helps.

Coordinator

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DEPARTMENT OF CIVIL ENGINEERING

Summary Report

On

Flipped class room

The Department of Civil Engineering conducted a **Flipped Classroom** session on the topic "Transportation Engineering ". The main objective of this event was to enhance the communication skills, debate skills, and technical knowledge of students. The activity also helped students develop confidence in expressing and presenting their understanding of the subject.

The event was organized in the form of a group discussion on flow through pipes in Transportation Engineering , and their engineering applications. The session encouraged active participation and collaborative learning among students. It was mapped to Program Outcome (PO1,PO10) which focuses on effective communication and teamwork.

A large number of students actively participated in the event and shared their views and knowledge on the topic. On this occasion, **Dr. Shaik Rusthum, Principal**, motivated the students to take part in such academic activities and appreciated their enthusiasm. He congratulated the organizing committee for successfully conducting the event and advised the faculty members to organize more such interactive learning activities to inculcate confidence, leadership qualities, and technical competence among students.

The program concluded successfully with positive feedback from both students and faculty members. The flipped classroom approach proved to be an effective method for improving student engagement, knowledge sharing, and conceptual understanding of Fluid Mechanics.

The competitive spirit among the students. The total number of students participated 24.

Winner Notification

S.NO	Roll Number	Name Of The Student
1	20QA1A0102	Arbaz Khan
2	20QA1A0119	N.Shivani
3	21QA5A0115	K.Mani Veerat
4	21QA5A0132	P.Shyamala

Coordinator

Head of the Department

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