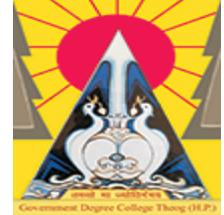




Department of Chemistry Government College Theog



Report on Flipped Classroom Session: "Inductive Effect and Its Applications"

Course: B.Sc. Chemistry, 1st Year

Faculty: Dr. Vikas Nathan

Date: 29th July, 2025

1. Introduction

A flipped classroom session was conducted for first-year B.Sc. Chemistry students on the topic "Inductive Effect and Its Applications." This pedagogical approach aimed to enhance student engagement and deepen understanding by having students review instructional materials before class, allowing in-class time for active learning activities.

2. Pre-Class Preparation

Students were provided with the following resources to study before the session:

- **Lecture:** An introductory Lecture on the inductive effect, covering its definition, types (+I and –I effects), and basic applications
- **Reading Materials:** Articles and textbook excerpts detailing the influence of inductive effects on acidity, basicity, and molecular stability.
- **Practice Problems:** A set of problems to apply concepts related to the inductive effect in various chemical scenarios.

3. In-Class Activities

During the classroom session, the following activities were conducted:

- **Concept Clarification:** Dr. Vikas Nathan addressed common misconceptions and clarified doubts from the pre-class materials.
- **Group Discussions:** Students were divided into small groups to discuss the impact of electron-withdrawing and electron-donating groups on molecular properties.
- **Problem-Solving Sessions:** Groups worked on complex problems involving the inductive effect, followed by presentations of their solutions.

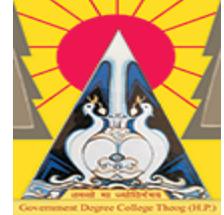
4. Learning Outcomes

By the end of the session, students were able to:

- Define the inductive effect and distinguish between +I and –I effects.
- Explain how inductive effects influence acidity and basicity in organic compounds.
- Analyze the stability of carbocations, carbanions, and free radicals based on inductive effects.
- Apply the concept of inductive effect to predict the reactivity of various organic molecules.



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5. Feedback and Evaluation

Student feedback indicated that the flipped classroom approach:

- Enhanced their understanding of complex concepts through active participation.
- Encouraged collaborative learning and peer-to-peer interaction.
- Provided opportunities to apply theoretical knowledge to practical problems.

6. Conclusion

The flipped classroom session on "Inductive Effect and Its Applications" successfully engaged students in active learning, fostering a deeper understanding of the topic. The combination of pre-class preparation and in-class activities proved effective in enhancing student learning outcomes.

Prepared by:

Dr. Vikas Nathan

Department of Chemistry

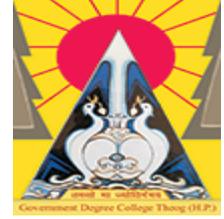
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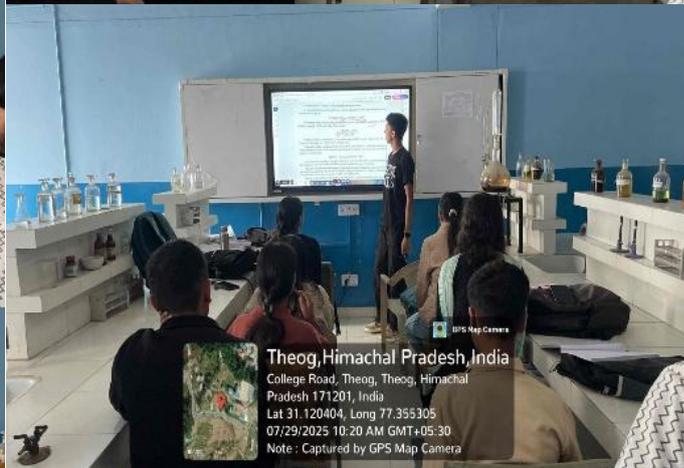
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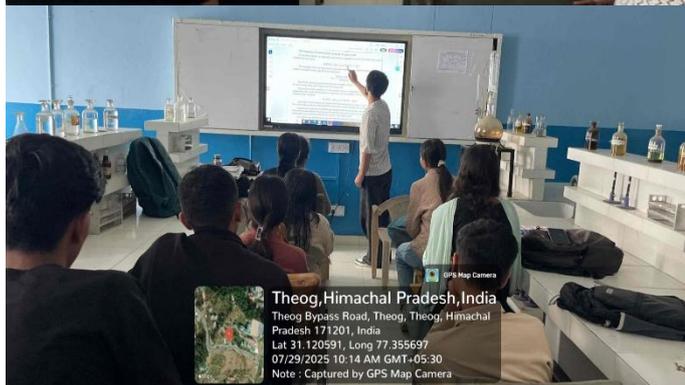
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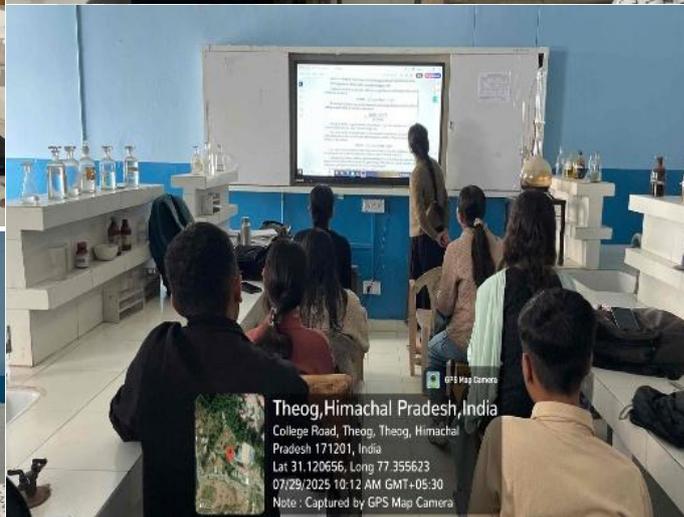
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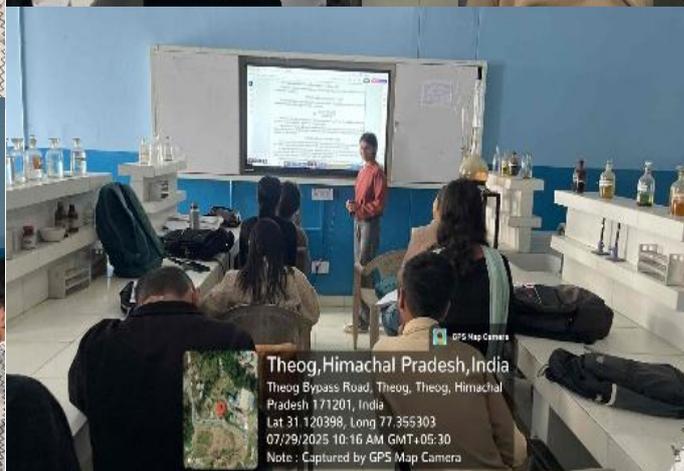
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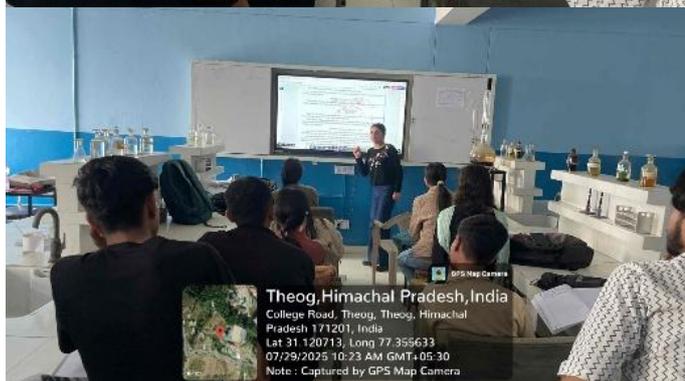
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