Teaching Learning Initiatives

Lokmanya Tilak Jankalyan Shikshan Sanstha's
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AICTE ID No. 5435581 : DTE code No. 4123 : University Code No. 278
Department of Computer Science and Engineering

Objective: Collaborative learning

Instruction methods used : Student's Seminar

Session: 2024-25   Semester: V   Section: B

Subject:- Design and Analysis of Algorithms

Topics Covered: Multistage Graph (Forward and Backward Approach) in Dynamic Programming

Objectives: Participants experience various cooperative interactions and support each other's exploration of collaborative learning. By the end of the seminar, each participant will have designed a collaborative learning activity linked to learning objectives that will be ready to run with students or show to colleagues.

Implementation method: Seminar's in ClassRooms

Impact/Conclusion: Develop an interactive learning community for students interested in active learning and help for developing Presentation skills. Build confidence in participants' ability to design, implement, and assess collaborative learning activities

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Objective: Collaborative learning

Instruction methods used: Lecture with Discussion

Session: 2024-25   **Semester: III**   **Section: A**

Subject & Topics Covered: Computer Architecture and Organization- Design Hardwired and Micro-Programmed Design Approaches.

Objectives: The purpose of organizing the Lecture with discussion under Collaborative Learning was to help students to get the clear understanding of topic related to their subject. So, that the students can themself prepare the topic and present in front of other students.

Implementation method: Students will able to understand the concept of subject and explain the related topic depending on the Design Hardwired and Micro-Programmed Design Approaches.

Impact/Conclusion: Students understood the concept of Design Hardwired and Micro-Programmed Design Approaches.

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Title of the Activity:Technical Quiz of Data science.

Name of the Faculty: Prof. Rajshri Pote

Session: 2023-24

Brief Description of Activity:

An offline quiz was organized for students of data science in sixth semester. Quiz was conducted on unit II wherein 10 MCQ questions were provided. This activity was conducted in order to assess the basic understanding of sampling and various distributions of populations. The activity helped students encourage active learning as students are required to recall information, apply concepts, and solve problems. This engagement enhances retention and understanding.

Number of Students Involved: VIth sem- 60

Topics : Sampling & population distribution

Outcome: quizzes allow students to identify their mistakes and misconceptions promptly. This helps them correct errors and improve their understanding in real-time.

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Objective: Student Seminar
Participated By: 65 Students
Mode of Conduction: Offline
Dated: 6/3/2024
Session: 2023-2024   **Semester:**IV   **Section:**A

Subject & Topics Covered: Theory of Computation/Push Down Automata

Objectives: The purpose to organize the activity was to help students to get the clear understanding of topic given to the student and help them to solve the subject based numericals.
Implementation method: Students can themself prepare the topic and explain the same to the class.
Impact/Conclusion: Students participated in the activity with great interest and enjoyed the learning's. This Activity provided the platform to clear the mindset of the students regarding innovative teaching learning process.

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Title of the Activity: Group Discussion on The Impact of Artificial Intelligence on Society.

Name of the Faculty/Coordinator/Resource persons: Mrs. Monali Gotaphode

Date : 04/03/2024

Session : 2023-24

Sem/Section: VIII(A & B)

Platform: Offline(Classroom)

Participants: 20 Students

Purpose/Objective :

A group discussion is a collaborative dialogue where participants/ students exchange idea and viewpoint on a specified topic. It fosters critical thinking and helps in understanding different perspective. enhancing the depth of understanding on the subject matter. This interactive platform is often Used to facilitate learning.

During this Group Discussion, the following topics were covered.
1. Introduction to Artificial Intelligence (AI).
2. Positive Impacts of AI on Society.
3. Challenges and Concerns Regarding AI.
4. Mitigating Risks and Maximizing Benefits.
5. Future Outlook and Opportunities.
6. Conclusion.

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Objective: Collaborative learning

Instruction methods used : Students' subject based presentations

Session: 2023-24   **Semester: VII**   **Section:A**
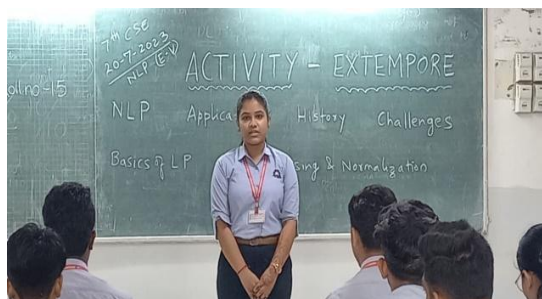
Subject & Topics Covered: Various applications of Natural Language Processing

Objectives:

1. Developing Critical Thinking : Encourages students to analyze, evaluate, and synthesize information collaboratively.

2. Improving Communication Skills : Enhances verbal and written communication skills through discussion and feedback.

3. Promoting Social Skills : Fosters teamwork, cooperation, and respect for diverse perspectives.

Implementation method: Students' subject based presentations in classroom

Impact/Conclusion: Collaborative learning helps students think better, communicate more effectively, and work well with others, making it easier to learn and remember things.

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Objective: Collaborative learning

Instruction method used: Group Discussion

Session: 2023-24 **Semester:** VIII **Section:** A&B

Subject & Topics Covered: Reinforcement Learning-PE VI (Introduction and Applications of Reinforcement Learning)

Objectives:

A group discussion is a collaborative dialogue where participants/students exchange ideas and viewpoints on a specified topic. It fosters critical thinking and helps in understanding different perspectives, enhancing the depth of understanding on the subject matter. This interactive platform is often used to facilitate learning.

During this Group Discussion, the following topics were covered:

1. Introduction to Reinforcement Learning.

2. Applications of Reinforcement Learning.

Implementation method: Group Discussion

Impact/Conclusion: Group discussions enhance teaching and learning by promoting active engagement, critical thinking, and collaborative problem-solving among students.

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Objective: A group discussion is a collaborative dialogue where participants exchange ideas and viewpoints on a specified topic.

Instruction methods used : Group Discussion

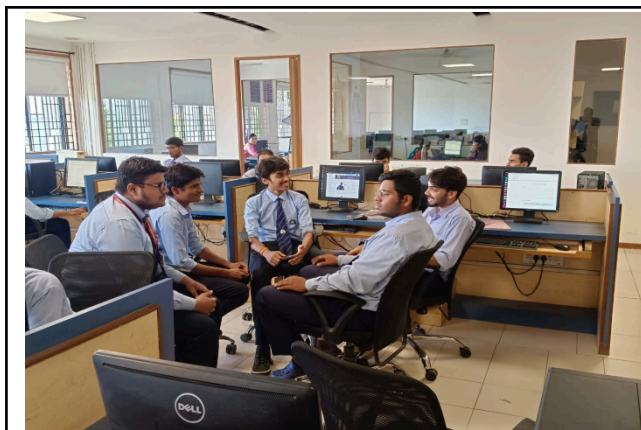**Session: 2023-2024**   **Semester:VIII**   **Section: B**

Subject & Topics Covered: Social Network & Synonymy Network

Objectives: Companies commonly use group discussions in various settings, such as academic institutions, job interviews, business meetings, and community gatherings. The main objective of group discussion is to share and exchange knowledge and ideas, clarify doubts, and arrive at a collective decision or understanding.

Implementation method: Group Discussion

Impact/Conclusion: Group discussions promote a deeper understanding of a topic and increase long-term retention. Group discussions can also help increase participants' attention and help maintain their focus by involving them in the learning process. Group discussions can also provide feedback to instructors on participant comprehension.

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Objective: Collaborative learning
Instruction methods used : Flipped Classroom

Session: 2022-23   **Semester:** V Semester   **Section:** B

Subject : Artificial Intelligence   **Topic Covered :** Expert Systems

Instructor: Mrs. Bhagyashree Dharaskar

Objectives: To understand the functionalities & applications of Expert Systems.The objective was to make students aware of this collaborative learning approach to help them understand the theoretical aspects but also provides practical insights through group discussions and peer learning.

Implementation method: Small group (3-5 students) was formed with the sharing of the topic by teacher in advance, in the form of reading materials such as textbook chapters or online resources The students has prepared the technical poster and discussed the topic in group followed by a class-wide sharing session.

No of students attended: 32

Conclusion: The interactive and collaborative nature of Flipped Classroom has increased student motivation and engagement. It encouraged students to take responsibility for their own learning and developed independent study skills that are crucial for lifelong learning.

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Objective: Initiatives in improving instruction methods.

Instruction methods used : Technical Quiz

Session: 2022-23   **Semester: IV**   **Section: B**

Subject & Topics Covered: Computer Network OSI Reference Model

Number of Students: 43

Objectives: To conduct Technical Quiz on various topics of Computer Networks in order to make them aware of the multiple choice questions asked in the subject. Hence this method was selected for Innovative Teaching Learning Practice.

Implementation method: Technical Quiz was conducted in the classrooms where students were given question papers and they were asked to tick the correct option as answer.

Impact/Conclusion: Students participated in the Technical Quiz activity with great enthusiasm and found it very interesting and useful. Hence this method was added to the Innovative Teaching Learning Process.