

Department of Information Technology

Academic Year 2023-24 Semester II

Innovative Practices in Teaching-Learning Activity

Flip class room Activity

Class: SE-(B)

Day and Date: 14/3/2024

Subject: Database Management System

Subject code: 214452

Brief about the activity:

- ✓ Objectives of the activity: Normalization with examples
- ✓ Expected outcome: Student will able to Compare various Normalization Types i.e. 1NF, 2NF, 3NF, BCNF

No. of Students attended: 51

List of resources shared: <https://youtu.be/vAkrA1BQnSw?feature=shared> (NPTEL Video)

Proof of resources shared (snapshotsetc.):





DBMS Flip_class Activity(2023-24) ☆ All changes saved in Drive 🔖 🗺️ 👁️ ↶ ↷

Questions Responses **51** Settings Total points: 10

Accepting responses

Summary Question Individual

Insights

Average 7.37/10 points	Median 8/10 points	Range 2-10 points
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Total points distribution

Points scored	No. of respondents
2	1
4	2
5	7
6	3
7	11
8	14
9	6
10	7

Conduction platform (if any): Video and Google Quiz

Recorded session video link: NA

Assessment tool used to check learning of the students:

- ✓ Direct (example or any quantitative assessment tool used): Quiz
- ✓ Indirect (feedback of event outcomes on the scale of excellent-5 to poor-1): 5

Proofs of the activity (brief description and steps followed for effective implementation):

Link for student submission:

1.Link for the video Normalization with examples was shared with students on Google Classroom and asked to go through it.

2.Based on the video topic was discussed with students.

3.Quiz based on it was conducted.

Link for Student Submission:

https://docs.google.com/forms/d/e/1FAIpQLSd3Mq78zJmlASWOtwAF79mKFrKLU1q2WmWiKptxi_hGBOOIA/viewform

Process followed for Performance Evaluation:

1.Quiz Based on it was conducted.

Impact of the innovative practice:

Students acquired the concept very easily.

(NOTE: Attach the documents wherever required as proof of the event)

Prachi V.

Signature of the Course Teacher





Hope Foundation's
International Institute of Information Technology, Pune
DEPARTMENT OF INFORMATION TECHNOLOGY
Innovative Practices in Teaching-Learning Activity
Think-pair -share
Role of Machine Learning in Autonomous vehicle

Academic Year and: 2023-24

Semester: V

Branch: IT

Class: TE

Subject: Machine Learning

Subject code: 314443

Day and Date: Friday, 20th Oct. 2023

Brief about the activity:

Objectives of the activity:

- i) To encourage students for individual reflection, thinking, and processing new information before they may be influenced by other students' answers.
- ii) To teach the students how to explain their thoughts first to a peer, and then to a larger audience (the entire class).

Expected outcome:

- EO 1) To let students talk and learn more in a natural way.
- EO 2) To give them the chance to think and try out ideas and new languages.
- EO 3) To provide a comfortable way for students to work through new skills and concepts, and work well in large classes.

No. of Students attended: 45

List of resources shared:

- 1) <https://www.electronicdesign.com/markets/automotive/article/21147200/nxp-semiconductors-the-role-of-machine-learning-in-autonomous-vehicles>
- 2) <https://www.youtube.com/watch?v=-UPfyvDJz9I>
- 3) <https://medium.com/@gtssidata5555/role-of-machine-learning-in-autonomous-vehicles-3c98f1edaf15>



Proof of resources shared (snapshots etc.):

Think Pair Share activity scheduled on 20th Oct

Sonali S. Patil <sonalip@isquareit.edu.in>
to teita

16 Oct 2023, 10:41 (4 days ago)

Dear students,

Find the topic for the **Think Pair Share** activity scheduled on 20th Oct. at 10:45am in 307

Topic Role of machine learning in autonomous vehicles

Group A - Roll No.(1 -15) -- Object detection
 Group B - Roll No.(16 -30) --Classification
 Group C - Roll No.(31 -45) --Segmentation
 Group D - Roll No.(46 -60) -- Tracking
 Group E - Roll No.(61 -76) -- Prediction

Thanks and regards

Prof. Mrs.Sonali Patil
 PhD Pursuing (VU,Pune) ,M.E. (Comp. Engg.)LMISTE
 Assistant Professor ,Department of Information Technology,
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 Phase I, Hinjawadi, Pune - 411057, Maharashtra

Find the below links to explore the topic

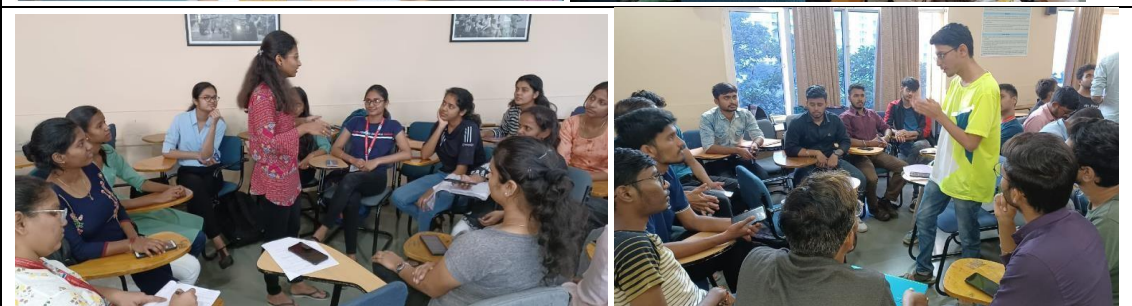
- 1) <https://www.electronicdesign.com/markets/automotive/article/21147200/nxp-semiconductors-the-role-of-machine-learning-in-autonomous-vehicles>
- 2) <https://www.youtube.com/watch?v=-UPfyvDjz9I>
- 3) <https://medium.com/@gtssidata5555/role-of-machine-learning-in-autonomous-vehicles-3c98f1edaf15>

Conduction platform (if any): Classroom

Proofs of the activity (brief description and steps followed for effective implementation):

- 1) Topic “Role of Machine Learning in Autonomous Vehicles” is divided in the following groups as per different ML techniques used
 Group 1 -- Object detection
 Group 2 --Segmentation
 Group 3-- Tracking
- 2) T : (Think) Teachers begin by asking a specific question about the above subtopics to the group. Students "think" about what they know or have learned about the topic from given resource.
- 3) P : (Pair) Each student’s group paired with another group.
- 4) S : (Share) volunteer of each group shared their thinking with another group .
- 5) Activity concluded with summarization of all ML techniques used in Autonomous vehicle.

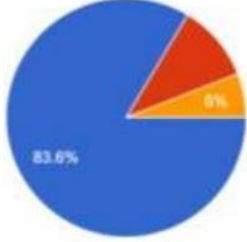
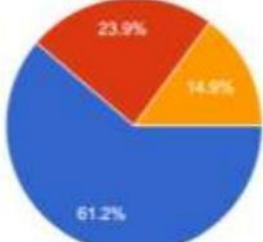
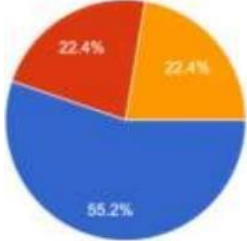
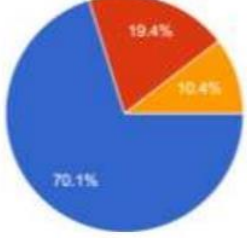

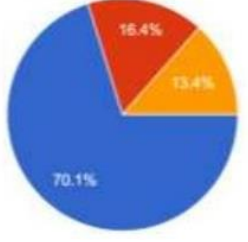




Students engaged in the activity

Feedback analysis of both Direct and Indirect assessment:

Indirect (feedback of event outcomes on the scale of excellent-5 to poor-1):

<p>Do you prefer to work and share with your friend before answering the question during the lecture?</p>	
<p>Did you benefit from applying think-pair-share strategy with the friend in your group during this activity?</p>	
<p>Do you find that there is fun and you enjoy applying think-pair-share strategy during this activity?</p>	
<p>Is there an exchange and sharing of opinions, thoughts and ideas between you and your friends when applying think-pair-share strategy during this activity?</p>	
<p>Do you think applying think-pair-share strategy boosts your self-confidence?</p> 	

CO-PO Mapping

Course Outcome (COs)	Program Outcomes (POs)											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
EO 1	2											
EO 2		2		1					1			1
EO 3				2					2			2

1 - LOW , 2 - MEDIUM , 3 - HIGH

Justification:

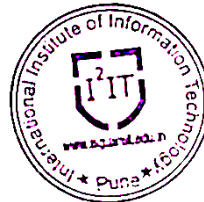
- PO1: Students will be able to understand machine learning aspects in autonomous vehicle.
- PO2: Students will be learning to analyse the real life example in machine learning
- PO4: Students will engage in research-based investigations of the data generated by autonomous vehicle.
- PO9: Students will be engaged in team works.
- PO10: Students will be able to develop communication skill in natural way by sharing their views on role of machine learning in autonomous vehicle
- PO12: Students feel more comfortable in sharing their thoughts about new technology.

Impact of the innovative practice: Students were able to present their topics in systematic way.



Prof.Sonali Patil

Signature of the Course Teacher





Hope Foundation's
International Institute of Information Technology, Pune
DEPARTMENT OF INFORMATION TECHNOLOGY
Innovative Practices in Teaching-Learning Activity
Role Play activity

Academic Year and Semester: 2023-24 Sem-I

Branch: IT

Class: BE

Subject: Deep Learning

Subject code: 414443

Day and Date: Wednesday 13/09/2023

Brief about the activity:

- ✓ **Objectives of the activity:** To understand various types of autoencoders and deep learning concepts through role play
- ✓ **Expected outcome:** student will be able to Compare various types of autoencoders and deep learning concepts
- ✓ Relevance:
- ✓ Justification:

No. of Students attended: 32

List of resources shared: How to perform Role play was discussed in the class among students and ask them to participate.

Proof of resources shared (snapshotsetc.):

Conduction platform (if any):

BE classroom 219

Recorded session video link:

<https://drive.google.com/file/d/1DDLgk8PeG201FfGVF3mh5Pr87Qk2HM4/view?usp=sharing>

Assessment tool used to check learning of the students:

- ✓ Indirect (feedback of event outcomes on the scale of excellent-5 to poor-1):

Proofs of the activity (brief description and steps followed for effective implementation):

In this one student has explained about what is autoencoders, six students have explained various types of autoencoders in deep learning. one student explained applications of autoencoders. Student has to act as an autoencoder or its type explaining its working by examples. Also Explaining owns advantage like how I am different than other autoencoders and comparing with other types.

Feedback analysis of both Direct and Indirect assessment:

Direct feedback taken from students they found this activity excellent. And helped them to remember types throughout the education.



Activity proofs.



Datta is giving introduction to all participants and their roles



Prithish is explaining undercomplete autoencoders



Soumaya is explaining Contractive Autoencoders

Impact of the innovative practice: participants have got better understanding of autoencoders types for which they have acted.

Reflective critiques for team assisted individualization:

1. **Challenges:** only few students selected for role play activity due to time limitations. Recording of this activity
2. **Steps to be taken to avoid the problems:** -one student has given responsibility of video editing
3. **Changes for the next activity:** Need to identify more activities with maximum student participation.

Students who have performed roleplay Activity

Sr.No.	Name	ROLE ASSIGNED
1	Datta	Autoencoder
2	Athravshirsh	Sparse Autoencoder
3	Ganesh	Variable Autoencoder
4	Soumya	Contractive Autoencoder
4	Sanika	Denoising Autoencoder
5	Prerana	Stochastic Autoencoder
6	Pritish	Undercomplete Autoencoder
7	Avishkar	Applications of Autoencoders
8	Ananyapranav	Video Editing



Signature of the Course Teacher

