RAJALAKSHMI ENGINEERING COLLEGE
An AUTONOMOUS Institution
Affiliated to ANNA UNIVERSITY, Chennai

IEEE Computational Intelligence Society

IEEE

ML NEXUS

ONLINE WORKSHOP REPORT

IEEE CIS - REC

17/01/2024 4-5.30 P.M

EVENT OVERVIEW

The ML Nexus workshop, organized by IEEE CIS of Rajalakshmi Engineering College, proved to be an enriching experience for participants interested in machine learning. The workshop spanned a range of topics, covering introductory concepts to hands-on activities and real-world applications

NUMBER OF PARTICIPANTS REGISTERED :357
NUMBER OF PARTICIPANTS ATTENDED:283
VENUE : G-MEET

AGENDA

1.INTRODUCTION TO MACHINE LEARNING - HURSUN

- Hursun initiated the workshop by providing a comprehensive introduction to machine learning.
- This included insights into the relevance of machine learning, its applications, the distinction between machine learning and deep learning, and an overview of various types of machine learning.

2.UNDERSTANDING SETS - MADHUMITHA

- Madhumitha delved into the critical aspect of datasets, covering the definition, key terms, types, and ways to obtain datasets.
- This laid the foundation for participants to understand the data aspect crucial for machine learning.

3.SIGNIFICANCE OF MODEL TRAINING- PRAVEENRAJ

- Praveenraj emphasized the importance of model training in machine learning.
- Participants gained insights into the training process, setting the stage for the subsequent hands-on activity.

4. HANDS ON ACTIVITY ON MODEL TRAINING - HARINI

- Harini conducted a practical session, guiding participants through the process of training a simple model.
- The session included an explanation of the choice of Python, and its libraries, such as NumPy and Matplotlib, further enhancing the participants' understanding.

5. LINEAR REGRESSION AND METRICS - MOHANRAJ

- Mohanraj focused on the practical implementation of linear regression, confusion matrix, and relevant metrics.
- This session provided a deeper understanding of evaluating machine learning models.

6. CLASSIFICATION ALGORITHMS - HARINI

- Harini revisited the classification algorithms, providing additional insights and metrics.
- This reinforced the understanding of different algorithms and their applications.

7. REAL WORLD APPLICATIONS -ROHIT P

- Harini revisited the classification algorithms, providing additional insights and metrics.
- This reinforced the understanding of different algorithms and their applications.

8. QUIZ AND DOUBT CLARIFICATION - PRAJEIN

- A quiz was conducted to assess participants' grasp of the workshop content.
- Following the quiz, a doubt clarification session provided an opportunity for participants to seek clarification on any queries they had.
- The quiz was really interesting and the participants eagerly participated.

1.MAHARAJA R-221501073
2.NARESH S -220801134
3.MOHANRAJ-221501080

had won the quiz finally and concluded the meeting

REGISTRATION FORMS

IEEE CIS WORKSHOP : ML NEXUS - "Discover and Build: DIY Machine Learning Essentials"

Embark on a transformative journey into the world of Machine Learning with our workshop, "ML Nexus." Explore the fundamentals and gain practical insights into the transformative world of ML.

Platform: Google Meet

Topics covered in the workshop are:

Introduction to ML
Mathematics for ML
Process behind training a model
Hands-on Activity - Understanding Data and training a simple model
Real world applications
Interactive session: Q/As and quizzes

Don't miss your chance to discover and build with ML Nexus – your gateway to the world of machine learning!

Receive exclusive **e-certificates from IEEE Computational Intelligence Society** upon completion of our Machine Learning workshop, recognizing your active participation, a prestigious acknowledgment of your engagement in this enlightening event.

Stay tuned for additional details, as comprehensive event information will be sent directly to your email inbox.

NAME *

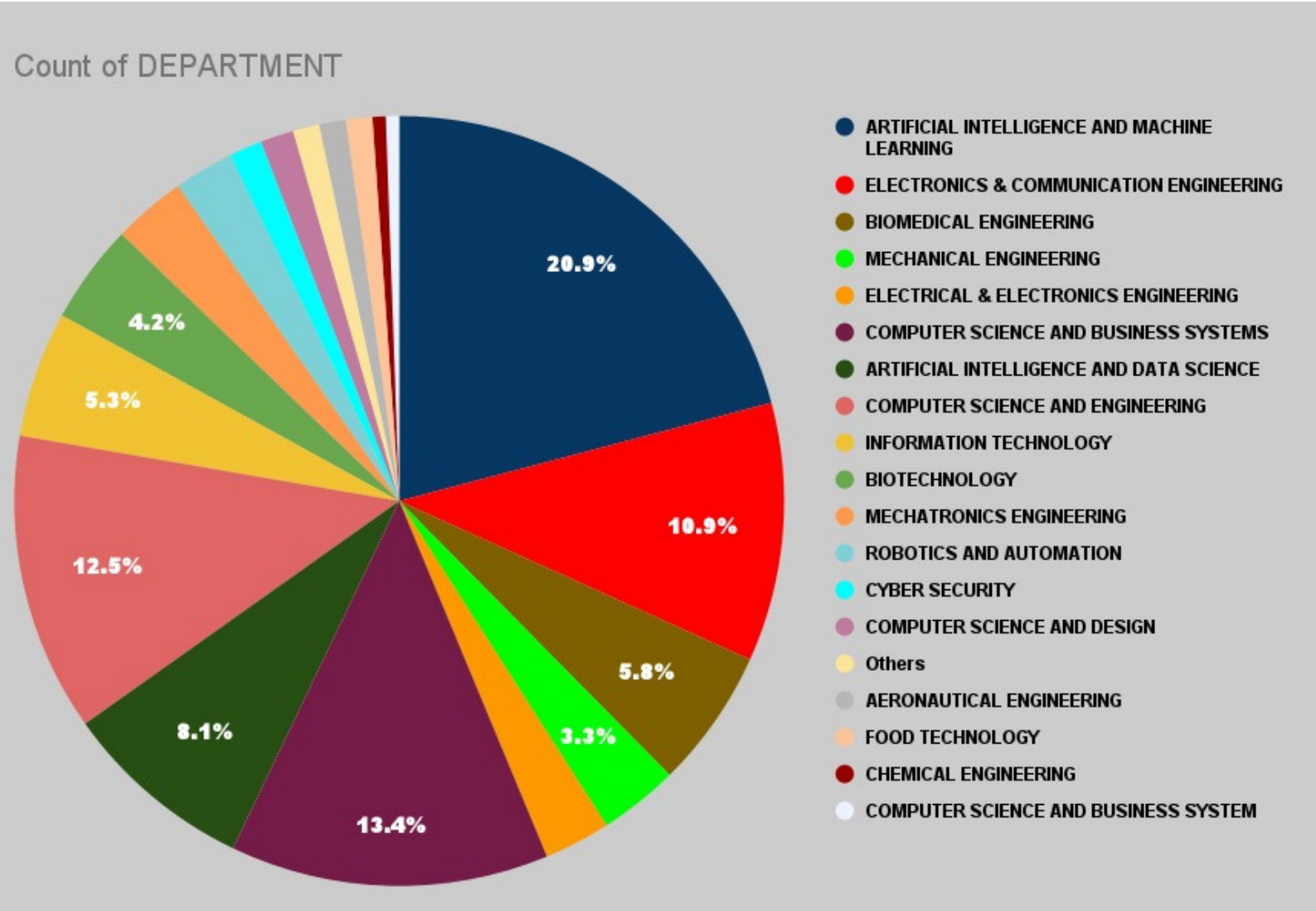
Short answer text

ROLL NO. *

Short answer text

DEPARTMENTS PARTICIPATED

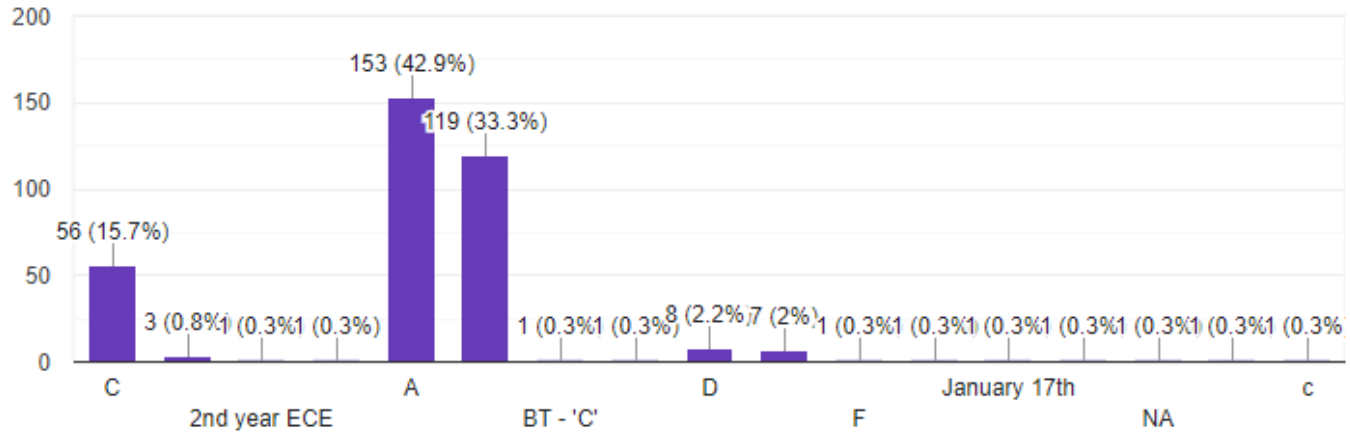
Numerous departments within our college enthusiastically engaged in the Machine Learning workshop, showcasing widespread and active participation across diverse academic units.



SECTION

Copy

357 responses



YEAR

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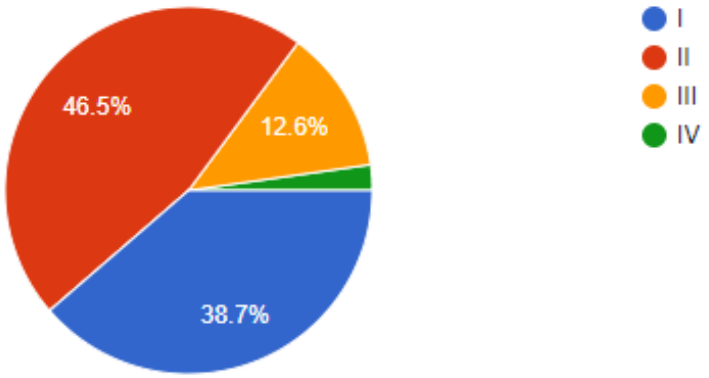
357 responses



FEEDBACK

People who took part in the workshop really liked it and said good things about it. Their positive feedback shows that the workshop was helpful and met their expectations.

HOW MUCH WOULD YOU RATE THE WORKSHOP?

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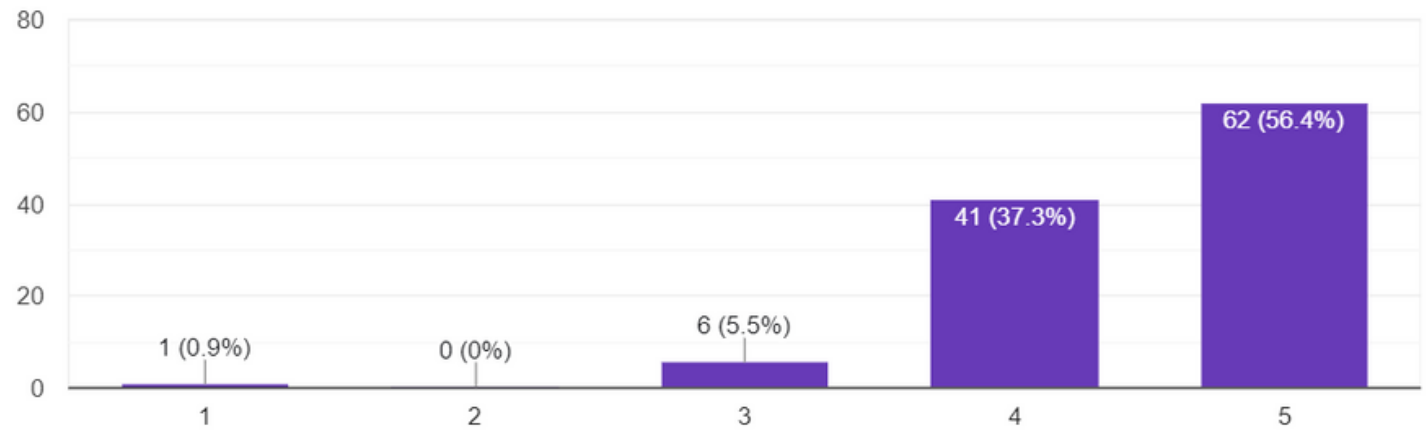
110 responses



HOW MUCH WOULD YOU RATE THE PRESENTATION BY THE MEMBERS?

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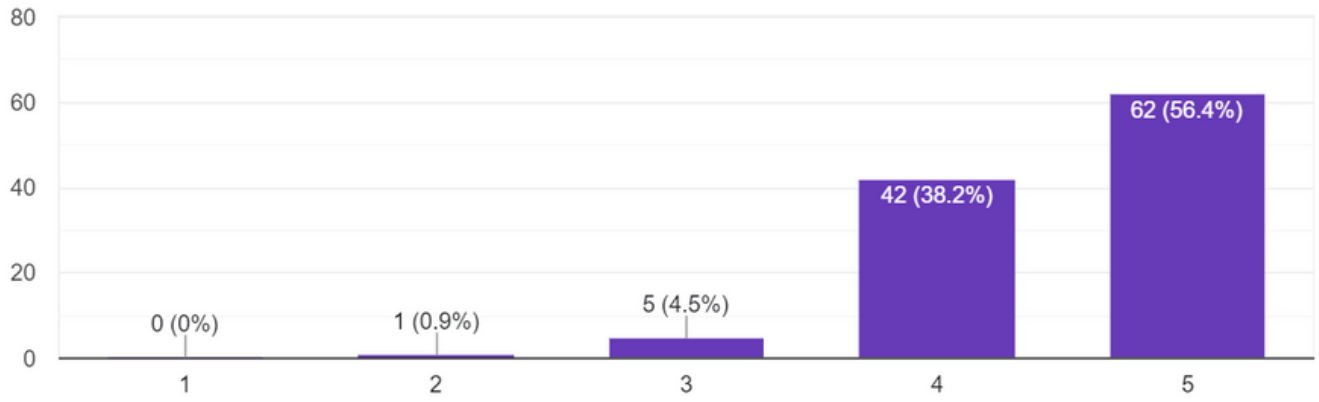
110 responses



FEEDBACK

WHAT SHOULD WE IMPROVE ?

110 responses

- Nil
- Nothing
- Nothing
- None
- nothing
- NA
- -
- none
- Voice clarity

WOULD YOU ATTEND THE WORKSHOP CONDUCTED BY US IN THE FUTURE ?

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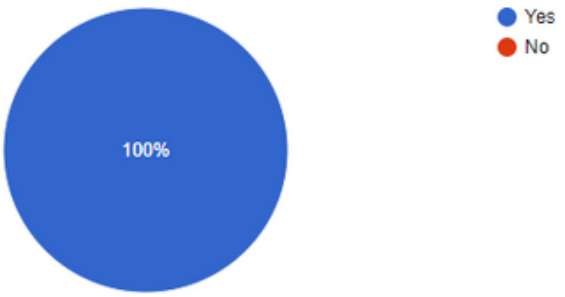
110 responses



WOULD YOU RECOMMEND OUR WORKSHOP TO OTHERS ?

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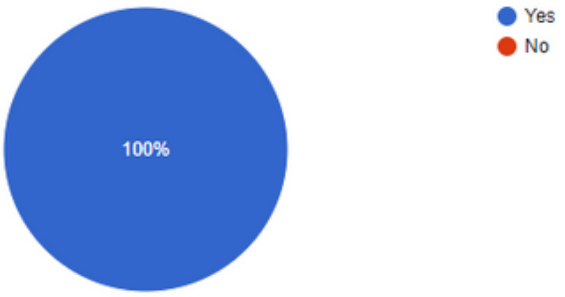
110 responses



SAMPLE CERTIFICATE

RAJALAKSHMI ENGINEERING COLLEGE

IEEE Computational Intelligence Society

IEEE

CERTIFICATE OF PARTICIPATION

is awarded to

MEENA R

for his/her participation in the **ML NEXUS Workshop** conducted by IEEE Computational Intelligence Society (REC Student Branch) on 17/01/2024

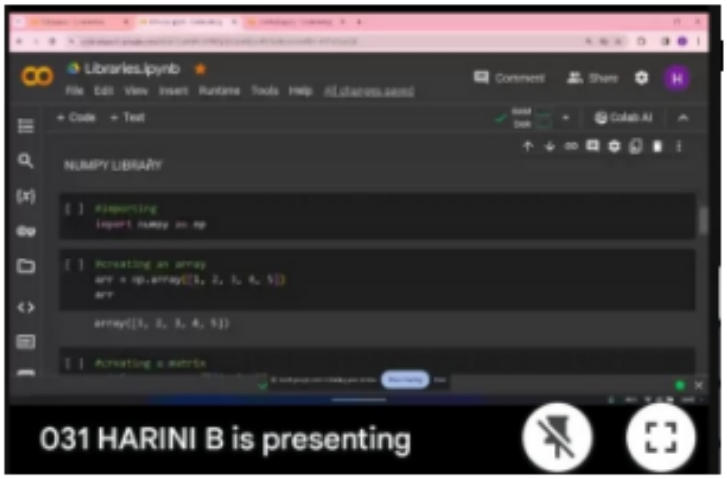
Devendar Rao B
Staff Coordinator

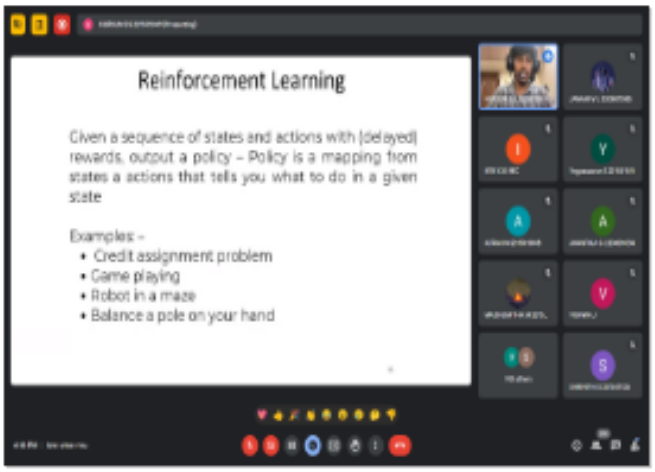
Dr. Sekar K
Head of Department

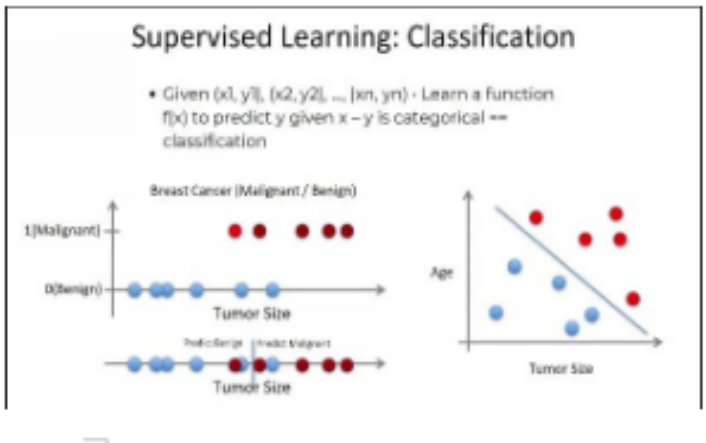
MOMENTS


When Do We Use Machine Learning ?
• We have large amounts of data: machine learning can uncover hidden patterns and trends
• We need to make predictions or decisions: identify fraudulent transactions, or personalize recommendations.
• Humans can't explain their expertise: speech recognition, image recognition, and natural language processing
• Human expertise does not exist (navigating on Mars)
• We need to automate tasks

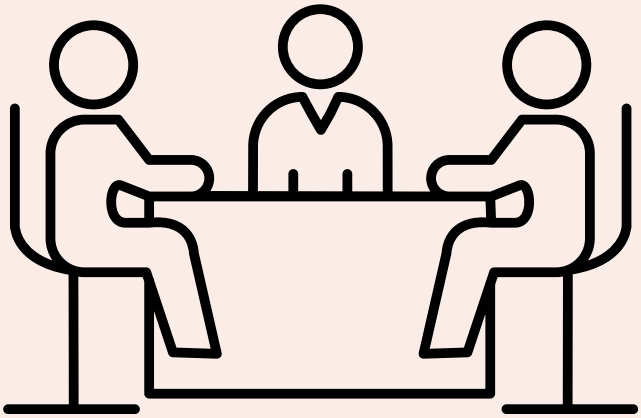

Roadmap
• Mathematics in ML
• Understanding datasets
• Process behind training a model
• practical demonstration of a ml model 1
• practical demonstration of a ml model 2
• real world applications
• Conclusion and Q/A


Libraries.ipynb
NUMPY LIBRARY
031 HARINI B is presenting


Reinforcement Learning
Given a sequence of states and actions with (delayed) rewards, output a policy – Policy is a mapping from states a actions that tells you what to do in a given state
Examples –
• Credit assignment problem
• Game playing
• Robot in a maze
• Balance a pole on your hand


Supervised Learning: Classification
• Given (x1, y1), (x2, y2), ..., (xn, yn) · Learn a function f(x) to predict y given x – y is categorical == classification
Breast Cancer (Malignant / Benign)
1(Malignant)
0(Benign)
Tumor Size
Age
Tumor Size


CONFUSION MATRIX



CONCLUSION

- The ML Nexus workshop provided a well-structured and comprehensive overview of machine learning concepts.
- The combination of theoretical discussions, hands-on activities, and real-world applications ensured a holistic learning experience for participants.
- Diverse range of topics covered by knowledgeable speakers, coupled with interactive sessions, contributed to the success of the workshop.
- Participants had learnt lot new and easier