Sri Shridevi Charitable Trust (R.)
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(Approved by AICTE, New Delhi, Recognised by Govt. of Karnataka and Affiliated to Visvesvaraya Technological University, Belagavi)

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

Date: 05/01/2024

DEPATMENT ACTIVITY CIRCULAR

It is hereby informed to all the students of III and V semesters of AI&DS, department activity **"Code Ground 2.0 and Getting started with ML and AI "** will be conducted on 05/01/2024 from 2.00PM to 4.30PM in their respective class.

Prof. Kotramma Mathada
Departmental Activity Coordinator

Dr. Girish L
HOD, AI&DS

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Department of Artificial Intelligence and Data Science

Department Activity Report

Code Ground 2.0 and Getting started with ML and AI

Academic Year: 2023-24

Targeted Audience: 2nd Year and **3rd Year**

Semester: III and V

Name of the Event: Code Ground 2.0 and Getting started with ML and AI

Date of Conduction: 5th January, 2024

Time: 2:50 PM to 4:30 PM

Number of Participants: 100

Venue: SIET, Auditorium

Topic: "**Code Ground 2.0 and Getting started with ML and AI**"

Resource Person: Dr. Girish L
Designation: Associate Professors
Qualification- BE, M. Tech, Phd

Name of the Company / Institution with Address: Department of Artificial Intelligence and Data Science, SIET, Tumkur

Event Coordinator: Prof. Kotramma Mathada
Assistant Professor
Dept of AI&DS
SIET, Tumakuru.

Objectives:

The goal of AI is to make smart computer system like human to solve complex problems. And ML goal is to discover patterns in the user data and make predictions based on these and intricate patterns for answering business questions and solving business problems.

Topics Covered:

- Machine learning is generally a training system to learn from past experiences and improve performance over time. Machine learning helps to predict massive amounts of data. It helps to deliver fast and accurate results to get profitable opportunities.
- Types of machine learning.

1. Supervised Machine Learning
2. Unsupervised Machine Learning
3. Semi-Supervised Machine Learning
4. Reinforcement Learning

1. Supervised Machine Learning

Supervised learning is defined as when a model gets trained on a **"Labeled Dataset"**. Labeled datasets have both input and output parameters. In **Supervised Learning** algorithms learn to map points between inputs and correct outputs. It has both training and validation datasets labeled.

2. Unsupervised Machine Learning

Unsupervised Learning Unsupervised learning is a type of machine learning technique in which an algorithm discovers patterns and relationships using unlabeled data. Unlike supervised learning, unsupervised learning doesn't involve providing the algorithm with labeled target outputs. The primary goal of Unsupervised learning is often to discover hidden patterns, similarities, or clusters within the data, which can then be used for various purposes, such as data exploration, visualization, dimensionality reduction, and more.

3. Semi-Supervised Learning

Semi-Supervised learning is a machine learning algorithm that works between the supervised and unsupervised learning so it uses both labelled and unlabelled data. It's particularly useful when obtaining labeled data is costly, time-consuming, or resource-intensive. This approach is useful when the dataset is expensive and time-consuming. Semi-supervised learning is chosen when labeled data requires skills and relevant resources in order to train or learn from it.

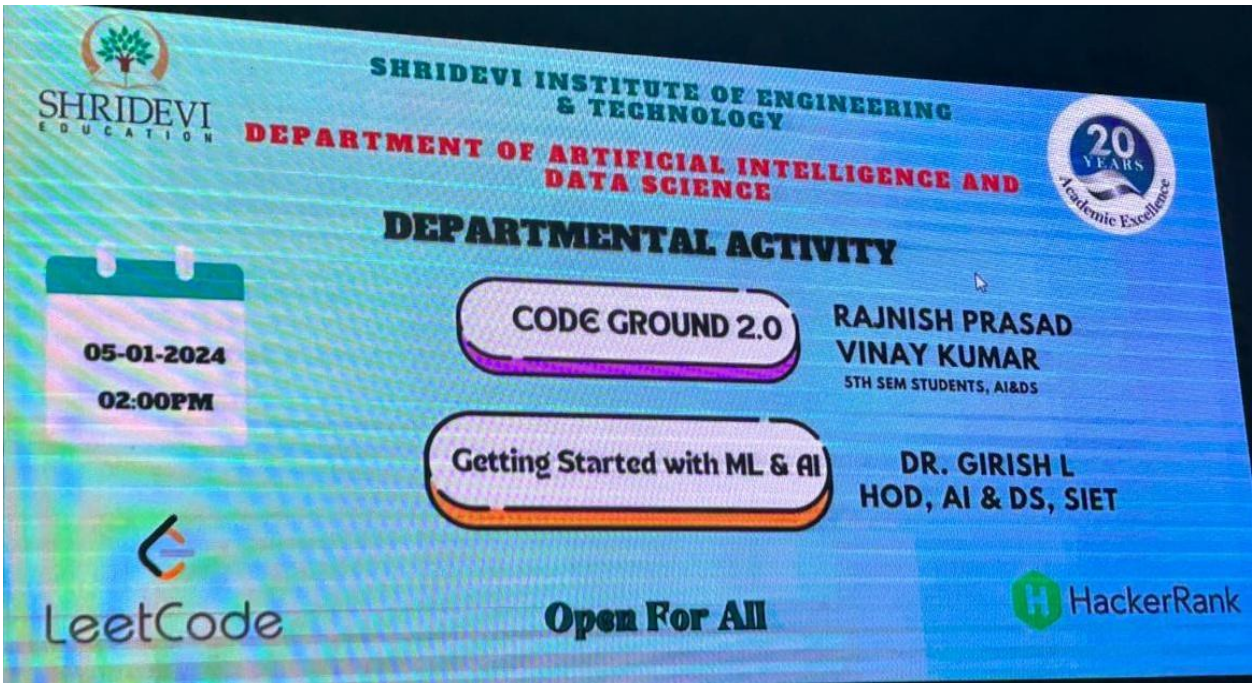
4. Reinforcement Machine Learning

Reinforcement machine learning algorithm is a learning method that interacts with the environment by producing actions and discovering errors. Trial, error, and delay are the most relevant characteristics of reinforcement learning. In this technique, the model keeps on increasing its performance using Reward Feedback to learn the behavior or pattern. These algorithms are specific to a particular problem e.g. Google Self Driving car, AlphaGo where a bot competes with humans and even itself to get better and better performers in Go Game. Each time we feed in data, they learn and add the data to their knowledge which is training data.

- Advantages and disadvantages of AI and ML

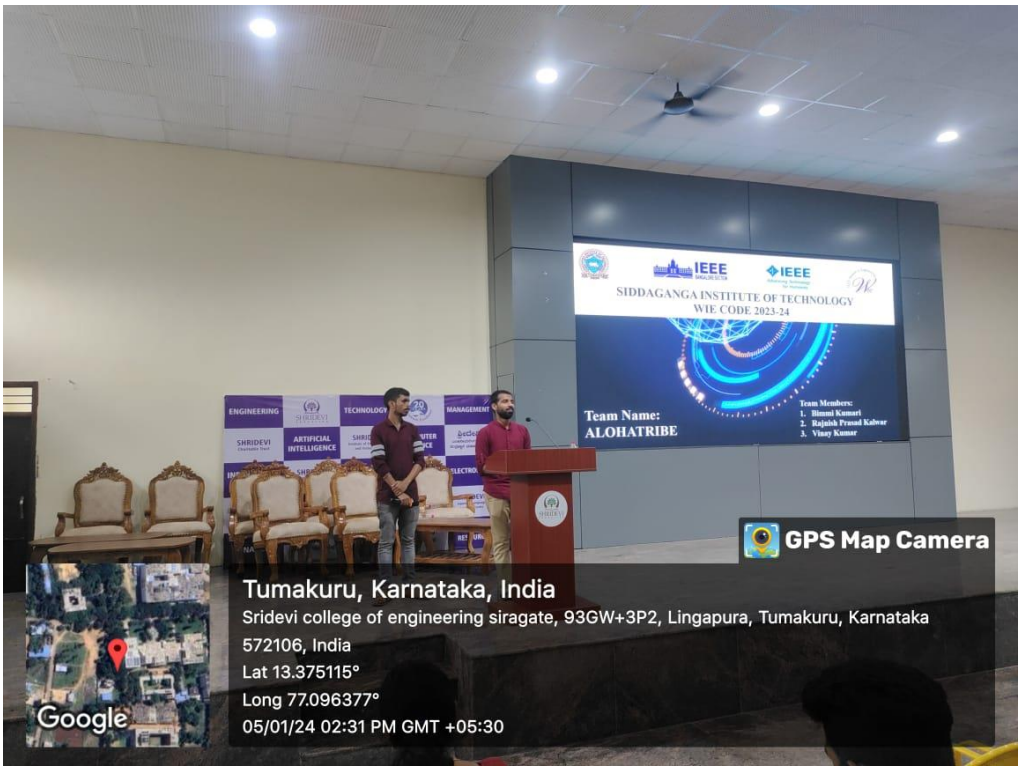
- Machine learning algorithms :
    1. Linear regression
    2. Logistic regression
    3. Support vector machines (SVMs)
    4. K-nearest neighbors (KNN)
    5. Decision trees
    6. Random forests
    7. Artificial Neural networks
- On the same day we honor our students who are attended the National level hackthon event held in SIT, Tumakuru
- Students are shared their experience and inspire the other students also.

Event Gallery:

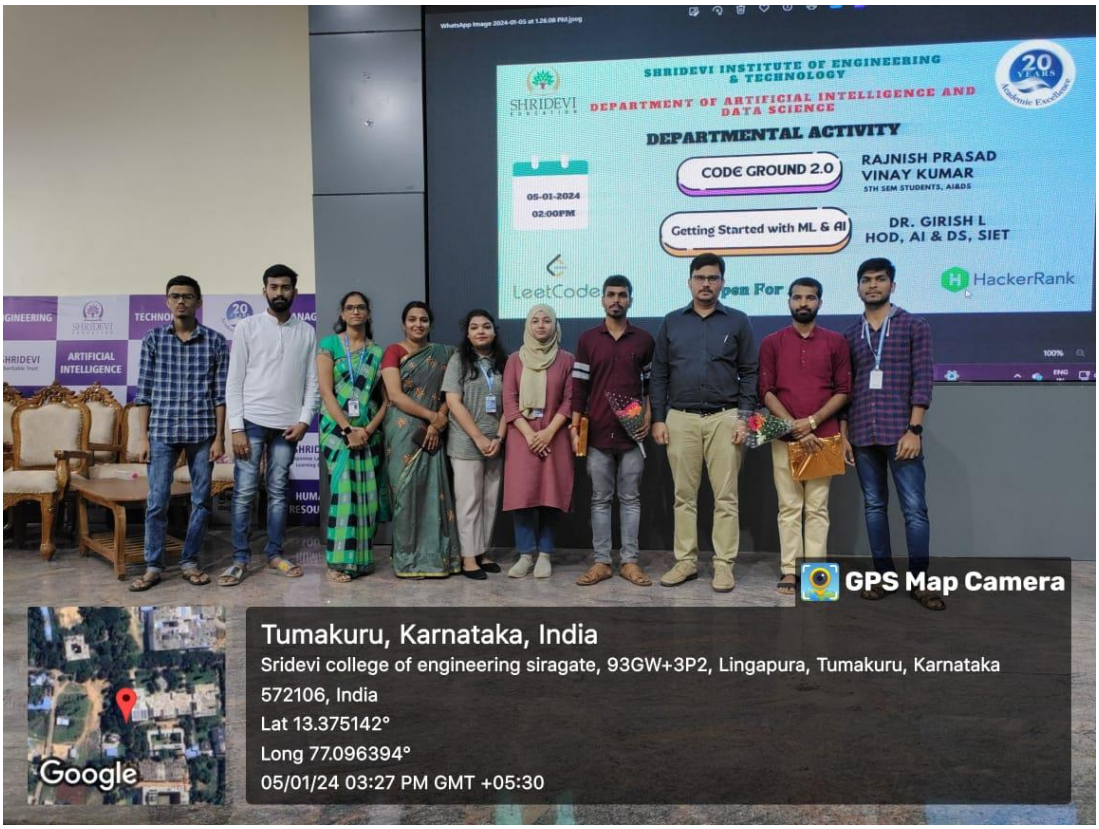


Session handled by Dr. Girish L

Students are assemble in auditorium



Students are shared their experience



Honoring our students

Prof. Kotramma Mathada
Departmental Activity Coordinator

Dr. Girish L
HOD, AI&DS