



DEPARTMENT OF INTERNET OF THINGS

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING LAB

OBJECTIVE: The objective of the Artificial Intelligence and Machine Learning Lab is to provide students with practical experience in implementing AI and ML concepts. The lab focuses on:

1. Understanding and applying machine learning algorithms.
2. Implementing neural networks and AI techniques.
3. Exploring real-world applications of AI and ML in domains like healthcare, finance, and robotics.
4. Enhancing programming skills in Python and using popular libraries like TensorFlow, Keras, and Scikit-learn.

This hands-on approach prepares students to tackle advanced AI/ML topics and challenges in the industry.

PHOTOS:





LAB OUTCOMES

1. **Fundamentals of AI and ML:**

- Understand key concepts such as supervised, unsupervised, and reinforcement learning.

2. **Algorithm Implementation:**

- Learn to implement algorithms like regression, classification, clustering, and dimensionality reduction.

3. **Neural Networks:**

- Design and train neural networks for tasks like image recognition and natural language processing.

4. **Python Proficiency:**

- Utilize Python programming and libraries such as NumPy, Pandas, Matplotlib, TensorFlow, and Scikit-learn.

5. **Real-world Applications:**

- Develop AI/ML-based solutions for use cases in healthcare, autonomous systems, and predictive analytics.

EQUIPMENT DETAILS:

The lab is equipped with advanced systems and tools to ensure optimal learning:

Room Information

- **Room No.:** 2-303
- **Number of Systems:** 90 (all functional)

System Specifications

- **Processor:** Intel(R) Core(TM) i5-10400 CPU @ 2.90 GHz, 6 Cores, 12 Logical Processors
- **RAM:** 8.00 GB (7.75 GB usable)
- **Storage:** 931.51 GB HDD
- **System Type:** 64-bit Operating System, x64-based processor
- **Operating System:** Windows 10 Pro
- **OS Version:** 22H2, Windows 10 Pro Edition

Peripherals

- **Mouse:** DELL (90 units)
- **Keyboard:** DELL (90 units)
- **Monitor:** DELL

Additional Smart Equipment

- **LG Smart Board:**
 - Equipped with Internet connectivity.
 - Integrated with an audio system and cordless microphone for enhanced interactive learning and presentations.

This lab setup ensures that students have access to reliable and high-performance systems to carry out AI and ML experiments effectively.

COORDINATORS:

The lab is coordinated by a dedicated team of faculty members who ensure the smooth conduct of lab sessions:

- **Mrs D. Supriya**
- **Mrs D.Arptha Rani**
- **Mrs M. Keerthi priya**