SHRI VISHNU ENGINEERING COLLEGE FOR WOMEN::BHIMAVARAM
(AUTONOMOUS)

Department of Artificial Intelligence

HIGH PERFORMANCE COMPUTING LABORATORY

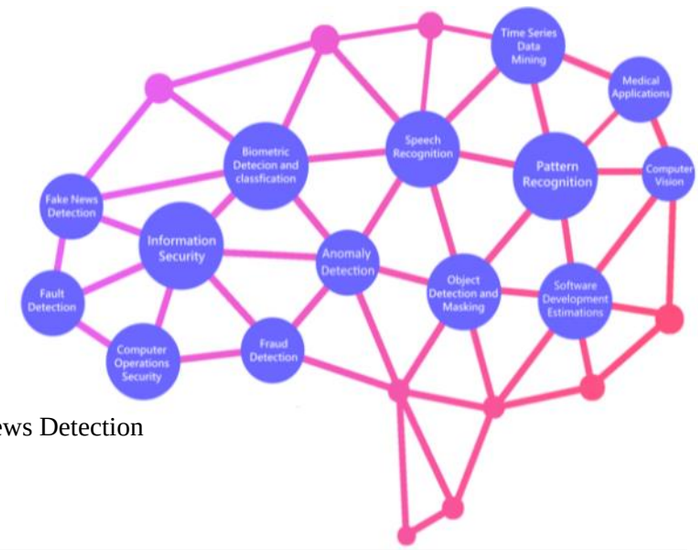
providing high-performance and high-throughput computing environments for the need of the ushering era of Deep Learning

Objectives of this Laboratory:

- Explore and understand artificial intelligence, including machine learning, deep learning, computer vision and natural language processing to perform research on their applicability in various domains.
- Provide cutting-edge GPU computing resources to the faculty and student for building machine learning, deep learning, and computer vision models specifically handling large real-world datasets.

Research Focus:

- Object Detection and Masking
- Self-Driving Cars
- Natural Language Processing
- Finance Application
- Automatic Machine Translation
- Healthcare
- Time Series Data Mining
- Fault Detection
- Fraud Detection
- News Aggregation and Fraud News Detection
- Applications of GANs



Infrastructure:

GPU Tower Workstation Two high performance Tower Workstations each with following configuration **Hardware:** Processor: 2 X Intel Xeon Gold 5118 2.3GHz, 12C, 10.4GT/s 2UPI, 16MB Cache GPUs: 32GB NVIDIA Quadro GV100, 4DP Memory: 128GB DDR4 RAM Storage: 1 TB NVMe Class 40 Solid State Drive and 4TB SATA 7200rpm Hard Disk Monitor: 24” Dell Ultrasharp **Software:** ➢ Ubuntu® Linux® ➢ Latest version of all Deep Learning Frameworks like Tensorflow, Keras, Caffe,MxNet, PyTorch, Nvidia CUDA Support.	**AI Precision Workstations:** Two Dell Precision Workstations each with following configuration: **Hardware:** Processor: Intel® Core™ i7-10700 (8 Core, 16M cache, base 2.9GHz, up to 4.8GHz) GPUs: 2GB Radeon Pro WX2100, DP Memory: 16GB DDR4 RAM Storage: 2TB SATA 7200rpm Hard Disk Monitor: 24” Dell Ultrasharp **Software:** ➢ Windows 10 64bit ➢ Latest version Anaconda with Tensorflow, Keras, PyTorch.

This NVIDIA Setup is used for performing machine learning, deep learning for accelerating high performance applications in the domain of computational science, bioinformatics, multimedia systems and large database systems.