CENTRE FOR INTELLIGENT COMPUTING

INTRODUCTION

The Intelligent Computing Research Centre is focused on the development of Intelligent Computing algorithms and models for solving real world problems. Research Centre creates a platform to conduct extensive research in the area of Intelligent Computing. The Research Centre exposes the members of faculty, researchers, and students to the contemporary Research works and technologies by involving them in projects and collaborating with industries. At present 22 Faculty members are actively working in the area of Intelligent Computing and its related research fields like Computer Vision, Image/Speech/Video Processing, Medical Image Processing, Natural language Processing and Smart applications, etc., The Research Centre has essential infrastructure to conduct independent and interdisciplinary Research.

VISION

To establish as a national center for Research in Intelligent Computing Systems for resolving the real-world problems with Smart applications.

MISSION

- Developing Students, Research scholars and Faculty members in the concepts and techniques of modern Intelligent Computing and Systems.

- Enabling Students and Faculty carry out cutting-edge research in the area of Artificial Intelligence, Machine Learning, Digital Image Processing, Pattern Recognition, Soft Computing, Robotics, Human Computer Interaction and Computer Vision.

- Collaborating with Industries, Institutions and Research & Development organizations to undertake Interdisciplinary Research works.

OBJECTIVES

- To Develop the fast and efficient Object detection algorithms with the help of Machine Learning techniques, for applications such as Image Retrieval, Surveillance, and Advanced Driver Assistance Systems.

- To apply Soft-Computing techniques on optimizing the performance of Smart applications.

- To develop the Intelligent systems in Medical image processing aids for Professional graders.

- To Provide Security solutions for huge data transactions and analytics.

RESEARCH FACILITIES

LIST OF SOFTWARE AVAILABLE

- ✓ Operating System – Ubuntu 16.04 LTS / Windows 10
- ✓ Programming Languages – Python 3.5, JAVA 1.8
- ✓ Image Processing Library – OpenCV - 3.3.0
- ✓ Deep Learning Library – TensorFlow 1.1.0

Demonstration of Deep Learning Library – Tensorflow

Demonstration of Image Processing Techniques – OpenCV

PATTERN RECOGNITION RESEARCH LAB

INTRODUCTION

The Research lab will support research environment in innovative technologies that contributes to sustainable development of the society. It will create a platform to conduct extensive research in the area of Pattern Recognition. The Research laboratory will expose the faculties, researchers, and students to latest technologies by involving them in live projects and collaborate with industries. The lab at present has a sound infrastructure to conduct independent and group research and planning to further extend the infrastructure to meet the future requirements.

VISION

To collaborate with industries and leading research laboratories for joint projects and become pioneer in the field of PATTERN RECOGNITION.

MISSION

- To conduct industry-oriented research.
- To strengthen the laboratory by obtaining financial and technical support from government funding agencies.
- To connect with pioneering research laboratories and effectively complete knowledge transfer.

OBJECTIVES

- Development of next generation pattern recognition algorithms and models for solving real world problems
- Create a platform to conduct extensive research in the area of Pattern Recognition

LIST OF SOFTWARE AVAILABLE

- ✓ Operating System – Ubuntu 16.04 LTS / Windows 10
- ✓ Programming Languages – Python 3.5, JAVA 1.8
- ✓ Big Data Framework – Hadoop 2.7.2 | Apache Spark 2.1.1
- ✓ Web Technologies - PHP 5.5
- ✓ Database – MySQL 5.0
- ✓ MatLab

Pattern Recognition Research Lab