

Research Areas

Since its inception, the Department of Computer Engineering has been a torchbearer for enterprising research. Currently, research is being pursued in the following areas:

1. Data Mining

Research Impetus

The world as we know is fast gaining momentum to be a full fledged information economy. From a neighbourhood shop-and-carry hypermarket to complex financial analyses, data mining is now being incorporated into every aspect we could think of.

Around the World

Some of the key research topics in the domain of data mining include

- a. Fraud Detection
- b. Data Mining and IOT
- c. Web Mining
- d. Text Mining
- e. Data Warehousing

Our Research Focus

Text Mining (*Additional information may include **research papers published, ongoing projects, faculty involved***)

//(any other Research Focus in the field of Data Mining being pursued by the Department, will be included here)

2. Machine Learning

Research Impetus

As we continue to become more technology reliant, Machine Learning has presented us with a promise to transfigure the future. The advent of higher computational power and organizations gaining access to better data, has fast surged ML as the current buzzword in the chambers of computational science research.

Machine Learning offers us the prospect of harnessing technology to simplify our day-to-day living, without requiring us to invest time and money in programming them. This would transpire into a better streamlined, convenient and quality living for the mankind as a whole.

Around the World

Some of the current topics of interest in Machine Learning are:

1. Deep Learning
2. Clustering Approaches
3. Manifold Learning
4. Fuzzy Memories
5. Natural Language Processing (NLP) using ML

Our Research Focus

Natural Language Processing using Machine Learning

(additional *information may include **research papers published, ongoing projects and faculty involved***)

//(any other Research Focus in the field of Machine Learning being pursued by the Department, will be included here)

3. Network and Information Security

Research Impetus:

The cyberspace is an extremely valuable medium for individuals and organizations alike, holding data worth billions of dollars. It is therefore highly imperative to create a virtual security apparatus to safeguard our data.

As more and more data is digitized and computer interaction over networks proliferate, cybersecurity continue to emerge as a field of growing global prominence.

Around the World

Research topics in this field compass:

1. Cryptography
2. Mobile Ad hoc Network
3. Grid Security
4. Information Security
5. Cloud Security
6. TCP/IP protocol layering

Our Research Focus

Information Unavailable

4. Parallel and Distributed Computing

Research Impetus

Data processing demands in the avenues of science, engineering and business is becoming daunting, thereby necessitating that computational systems with pumped up computational power be now exploited. Parallel and Distributed Computing methods are helping us accomplish this objective.

P&DC is helping Academia and Organizations around the world to stage and solve problems with highly intricate calculative needs. Parallel and distributed computing systems have found prodigious use in the industries spanning aviation, broadcasting, e-commerce to space research.

Around the World:

Current topics of research in Distributed Systems:

1. Fault tolerant systems
2. Large scale sensor networks

Current topics of research in Parallel Computing:

1. Automatic Parallelization
2. Optimization development
3. Graphics Processing Units (GPU)

Our Research Focus:

Information Unavailable

