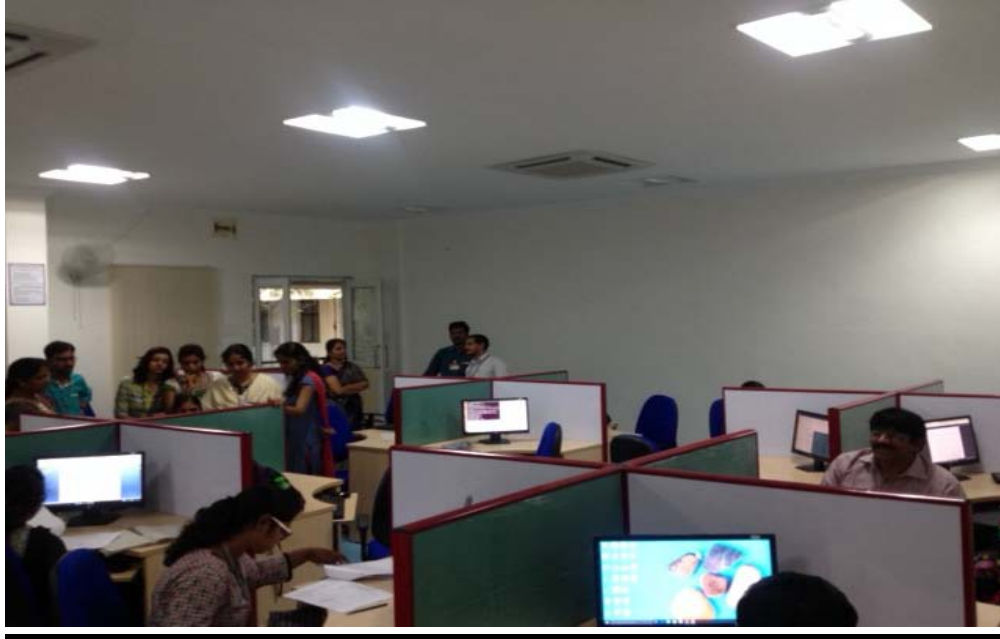


Center of Excellence in Data Science



The center builds upon College infrastructure Room No-A 102 in CSE Department and expertise in data science data analytics, and high performance computing, while collaborating with other academic partners, industry, and government agencies, to support the following **objectives and strategies**:

- **Research:** Generate innovative technologies and methods, while increasing competitive research grants and public-private partnerships.
- **Commercialization and Incubation:** Drive growth of large and small commercial partners by supporting the commercialization of new products and services.
- **Consultations and Resources:** Facilitate access to advanced computing and data visualization facilities, resources, and expertise.
- **Education and Training:** Increase the pool of well-trained, highly skilled data scientists to meet national demands by supporting formal graduate and undergraduate programs and experiential learning opportunities.

Activities:

Education

- ✓ Through integrated data exercises in our core courses our students will gain knowledge of data science fundamentals & applications
- ✓ students work on team projects that reinforce fundamental principles and the broader uses and impacts of data science

Research

1. Strategic research area: Multimodal data processing, data handling and knowledge representation

- Text and NLP processing techniques
- Image, video and signal processing
- Advanced data and knowledge oriented DB: (storage, querying, and knowledge presentation,
- NoSQL DB, Graph DB, RF triple stores, data warehousing, OLAP, spatio-temporal databases and data streams

2. Strategic research area: Machine learning and data mining techniques

- Versatile and scalable algorithms, Multilabel classification; active and online learning; semi Supervised learning
- Interpretative models: Multi view clustering and re-description mining, Causality enabled Data mining techniques
- Time series & data streams mining
- Machine learning techniques for mining complex systems and networks, Modelling & mining processes in multi-layer networks, Outlier detection in graphs
- Visualization of data and models

3. Strategic research area: Heterogeneous computing and advanced cloud services

- Control/Data Flow Computing Architecture
- Algorithms for Heterogeneous Computing
- Energy aware Algorithms and Computing Architectures
- Scalable Cloud and Fog Scientific Computing Services

4. Strategic research area: Application use cases

- Bio sciences and healthcare
- Business analytics and finance
- Web & multimedia
- Intelligent transport solutions

Industrial Relationships

5. Networking and dissemination

- Advanced data science courses and workshops
- Networking with industry
- Networking with other organizations

- Facebook
 - Possible internships
- Amazon
 - Class support
 - Possible use of instructional materials

Research Proposals/Grants

- Mrs. B V Kiranmayee- UGC Grant, Minor project for the duration 2016-18
Project Title: A Data mining approach for the efficient detection of brain tumor disease
Approved Amount: Rs. 65,000
- Mrs. S. Nagini- UGC Grant, Minor project for the duration 2014-16
Project Title: Development and validation of a model for non-technical losses (NTL's)
detection of electricity theft using genetic hybrid SVM approach
Approved Amount: Rs. 2.5 Lakhs

M.Tech Projects

- Project Title: Twitter sentiment analysis using naive bayes for hash tags like #India fights corruption, #Rs 500, 1000, #surgical strike, #black money
Status: on-going, mini project

B.Tech Projects

- Efficient prediction of a disease using data mining techniques
Status: completed in 2016
- Tweet analysis for real time detection and earthquake reporting system
Status: completed in 2016
- Ranking spatial data by quality preference
Status: completed in 2016
- Monitoring on-line tests through data visualization
Status: completed in 2016

Workshops conducted:

- International Advanced Computing Conference(IACC) conducted workshop on “Data Analytics “
On 5th JAN 2017 with 70 number of participants
- International Conference on data Science (InDaS) conducted during the period 26/2/14 to 28/2/14 with 110 no of participants
- A 3-day workshop on “Big data analytics and cloud computing” conducted during the period 4/9/14 to 6/9/14.
Speaker: Ravi Kumar Itha, specialist, senior, Analytics Application Development, DELOITTE
- A two day workshop on “Big data & Hadoop” conducted during the period 27/11/15 to 28/11/15
Speaker: Mr. Venu Tadiparti, IBM.

Certification/Training Programs conducted :

- “Big Data and Hadoop” certification program is conducted for 3rd year B.Tech students in 2015

Special Interest Group (SIG) :

- Data Mining
- Data Analytics

The above two SIG's are having meeting once in every week for discussions and knowledge transformation regarding the current technologies and tools under data science

Research:

- 4 Ph.Ds awarded under the domain of Data Mining.
- 3 of our faculty submitted their Ph.D thesis.
- 20 faculty are pursuing Ph.Ds in the broad domain of data mining, data analytics and Business Intelligence

Higher Studies:

Students are encouraged to select their specialization in Post-Graduation related to Data Analytics/Data science/BI

Placements :

Students were recruited as Data Analyst in DELOITTE MNC