

VALLURUPALLI NAGESWARA RAO VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

An Autonomous, ISO 9001:2015 & QS I-Gauge Diamond Rated Institute, Accredited by NAAC with 'A++' Grade NBA Accreditation for CE, EEE, ME, ECE, CSE, EIE, IT B.Tech. Programmes

Approved by AICTE, New Delhi, Affiliated to JNTUH, NIRF 109 Rank in engineering Category Recognized as "College with Potential for Excellence" by UGC

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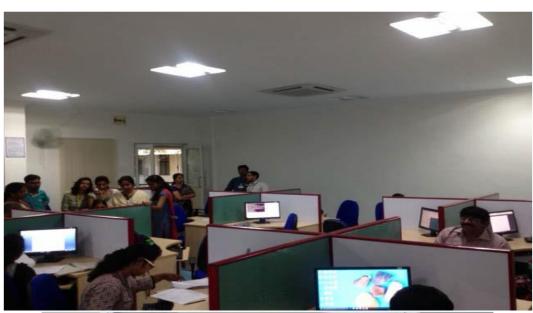
Department of Computer Science & Engineering

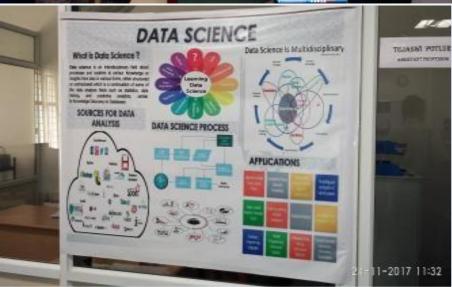
CENTER FOR DATA SCIENCE

Department of Computer Science and Engineering has Center for Data Science that help students in taking up course based projects, mini projects and major projects. These projects often lead to publications, best project awards and patents. Faculty utilize these laboratories to carry out their research work, paper publications and funded projects. Apart from core computing facilities these project laboratories are equipped with High-End Computing GPUs(2 Nos.) to work on large datasets in the area of, Machine Learning (ML), Deep Learning (DL), Data Analytics, network security, cloud computing, and cyber security domains. These GPU computers are available online 24/7 and are assigned with Public IPs so that they can be accessed across the globe.

Objective:

This center focus on solving real-time problems by utilizing Big Data and Data Science technologies through extensive academic research of faculty, research scholars, post graduate and under graduate students to accelerate the implementation of solutions.





Facilities:

- **Hardware:** Intel Core i7-10700@2.9GHz, DDR4 RAM 8GB, HDD SATA 1 TB.
- Software's: Windows 10 Prof, Python, Weka, RStudio.

The Ambience of Center for Data Science:



List of Best Projects Carried out under this center

| S.No | Project Title |
|------|---|
| 1 | Student Performance Analysis For Outcome Based Education |
| 2 | Predictive Analytics On Seasonal And Acute Diseases |
| 3 | Predicting Parkinson's Disease Using Deep Neural Networks |
| 4 | Aims (Automated Preterm Infant Monitoring System) |
| 5 | Sign Language Translator Using Computer Vision |
| 6 | Prediction of Depression in Techies at Workplaces |
| 7 | Emotion Uncovering, Post Covid A Deep Learning Approach |

The project laboratories of the department encouraged research culture among the faculty. These laboratories facilitated research and created high impact on quality publications and generated funded projects. It gave a platform for patenting faculty research findings while involving students also for a real time experience.

Faculty Quality Publications

| S.No | Name of Authors | Title of the Paper/ Book Chapter/Books | Title of the Journal /Title of the Conference/Title of Book | Indexing (SCI/SCOPUS / WoS/UGC/ref ereed Journals) |
|------|--|--|--|---|
| 1 | C Pretty Diana Cyril,J Rene Beulah, Neelakandan S, Prakash Mohan, A Harshavardhan and D Sivabalaselvamani | An automated learning model for sentiment analysis and data classification of Twitter data using balanced CA-SVM | Concurrent Engineering: Research and Applications | SCI |

| 2 | C. Vidyadhari, N. Sandhya and P. Premchand | Bat-Grey Wolf Optimizer and kernel mapping for automatic incremental clustering | International Journal of Modeling, Simulation, and Scientific Computing | SCI |
|----|---|--|--|-------------------|
| 3 | SachinChirgaiya, Deepak sukheja, NiranjanShrivastav | Analysis of Sentiment Based Movie Reviews Using Machine Learning Techniques | Journal of Intelligent & Fuzzy Systems | SCI |
| 4 | V.Nyemeesha and B. Mohammed Ismail | Implementation of noise and hair removals from dermoscopy images using hybrid Gaussian filter | Network Modeling Analysis in Health Informatics and Bio- Informatics | Web of Science |
| 5 | Ambika Shetkar, C. Kiran Mai, and C. Yamini | Diabetic Symptoms Prediction Through Retinopathy | Proceedings of International Conference on Advances in Computer Engineering and Communication System | Web of Science |
| 6 | S. Yeruva · B. P. Gowtham (B) · Y. H. Chandana Prediction of Anemia Disease Using Classification Methods | | Proceedings of International Conference on Advances in Computer Engineering and Communication System | Web of Science |
| 7 | DivyaVanam and VenkateswaraRaoPu lipati | Identifying Duplicate Questions in Community Question Answering Forums Using Machine Learning Approaches | Proceedings of International Conference on Advances in Computer Engineering and Communication System | Web of Science |
| 8 | Dr. N. Sandhya, Dr. M. Rajasekar, M. Gayathri | Prediction of Mechanical Properties of Metal through Machine Learning Approach | International Journal of Advanced Trends in Computer Science and Engineering | Scopus |
| 9 | N.LakshmiKalyani, JeshmithaG,Bindhu Sri Sai U, Samanvitha M, Mahesh J, Dr.B.V.Kiranmayee | Machine Learning Model- Based Prediction Of Flight Delay | 2020 Fourth International Conference on I-SMAC | Scopus |
| 10 | B. Srivani, N. Sandhya, and B. Padmaja Rani | Literature review and analysis on big data stream classification techniques | International Journal of Knowledge-based and Intelligent Engineering Systems | Scopus |
| 11 | SabhaSamreen, Kiran Mai Cherukuri, Dommati Venkat sai Goud | Predictive Data Analysis to Identify Heart Anomalies | International Journal of Recent Technology and Engineering | Scopus |
| 12 | Dr.N. Sandhya, Dr.M. Raja Sekar and Chennakesava Rao Bandaru | GA-SVM Approach to Predict the Mechanical Properties of Steel | Journal of Advanced Research in Dynamical and Control Systems | Scopus |

Faculty Funded/Sponsored Projects

| S NO | PROJECT TITLE | FUNDING AGENCY | PRINCIPAL INVESTIGAT OR | Total Amt. Rs.(In Lakhs) | Status |
|------|---|-------------------|--|-----------------------------------|--|
| 1 | Development and Validation for Non- Technical Losses(NTL's) detection of Electricity Theft using Genetic hybrid SVM approach | UGC minor | Mrs.S.Nagini | 2.50 | Completed (17-04-2014 to 20-05-2016) |
| 2 | Development of a High level frame work that works on flash TFL 2.0 specification for animated text displkay in e-learning | UGC minor | Mrs.P.Radhika | 3.30 | Completed (17-04-2014 to 06-05-2016) |
| 3 | Development of effective Wireless Sensor Network system for Water Quality and Quantity Montoring(AquaSense) | Media Lab Asia | Dr. C. D. Naidu/ECE, Dr.G.Ramesh Chandra(Co- PI)/CSE | 30.18 | Complete (Commencement: 20-09-2013) |
| 4 | A Data Mining Approach for The Efficient Detection of Brain Tumor Disease. | UGC minor | Mrs. B.V.Kiran mayee | 0.65 | Completed (Commencement: October 2016) |
| 5 | Development of a Tool to Predict Mechanical Properties of Steel by Exploring Data Science Techniques | AICTE | Dr.N.Sandhya | 4.27 | On going (Commencement: 2-08-2017) |

List of Faculty/Students Patents

| S.No | Patent Number/Copy Right (Application Number) | Publicati on Date | Inventors (Name of Faculty/ Students) In College | Patent Title | Status |
|------|---|----------------------|--|--|-----------|
| 1 | 201741045066 | 22-12- 2017 | NarayanaRaoVenkata Naga Sripada, Vodnala Naveen Kumar, Padma Shayi Kumar, BaswarajMamidgi, Bhaskar Kakarla. | A Method and System For Analyzing Risk Associated With Respiratory | Granted |
| 2 | 201941033006 | 13-09- 2019 | S.Kranthi Kumar, Dr. ThulasiBikku, Dr.S.B.Chordiya, Natukula Sainath, Dr. ManjuKhari, Dr.S.Nagaprasad, AmitBhati. | Vigya: A Novel Integral System For Precision Agriculture | Published |
| 3 | 202041001461 | 17-01- 2020 | Dr.P Lalitha Surya Kumari, Ms. Purude Vaishali Narayan rao, Channabasamma, Dr. Puja S Prasad, V Shiva Narayana Reddy, | Dart(Depression and Related Tracker): Identification System to Find And Prevent Depression Tendencies of | Published |

| | | | Pari Nidhi Singh. | Women | |
|----|--------------|----------------|---|--|-----------|
| 4 | 202041001789 | 17/01/20 20 | Dr.N.Sandhya, Dr. M. Raja Sekar, Dr.Ashish Kumar Chakraverti, Vivek Kumar, P.ILA Chandana Kumari, Dr.Yashal Singh. | Computer Cache Memory Performance Enhance Using | Published |
| 5 | 202021027657 | 16-10- 2020 | DrKavita r singh, Dr. Rakeshkumar, Mr. N sandeepchaitanya, Prasanthi gottumukkala,, Mrchekurisrisumanth, Dr. amitkumartyagi, | ABIE-Voting system: aadhaar and blockchain intelligent electronic voting system | Published |
| 6 | 202041030793 | 21/08/20 20 | Mr. N Sadeepchaitanya Dr. MD TabrezNafis Dr.ManjuKhari Dr.KalpanaKamalakar Deshmukh, Dr.VrushsenPurushott amPawar, Dr.Beg Raj Singh | Cloud Sharing System: Cloud Computing Information Sharing System in Real Time | Published |
| 7 | 202041031965 | 19-2- 2021 | PeddakasulaKiranmai, D.L.N. Prasunna, SarabuJoshna, J Naresh Kumar, PathiRadhika, Channabasamma, A. Sai Santhosh, A ArunaKumari | Fake News Analysis Using Machine Learning and Updateable Neural Analysis | Published |
| 8 | 2020101738 | 02/09/20 20 | Purna Chand Kollapudi, Brahmananda Reddy Annapu Reddy, ChiranjeeviManike, Subhash P, Narayana M V, Durga Prasad Kavadi, | Automated Real – Time Driving Behavioral Modeling Analysis And Reporting in Denser Traffic Using Data Mining | Granted |
| 9 | 2020102026 | 16-09- 2020 | N Sandeep Chaitanya, Ramesh Vatambeti, RavikanthMotupalli, Chekuri Sri Sumanth, A ArunaKumari, SomavarapuJahnavi, Tejaswi Potluri, PinamalaSruthi, KandulaNeha, ShaikMahammadJame eruddin | ELSM- Quantum Computing: extremely large databases store into a small memory using quantum computing | Granted |
| 10 | 202041051970 | 11-12- 2020 | Dr.C.Kiran Mai Dr.S.Nagini Dr.P.Neelakantan | asp:crime site analysis: automatic method and process of performing crime site analysis and management system | Published |

| 11 | 202141006923 | 26-02- | 1. Mr N Sandeep | AWS-Cloud Data | Published |
|----|--------------|--------|---------------------|-----------------|-----------|
| | | 2021 | Chaitanya, | Performance | |
| | | | Dr.P V Siva Kumar | Increased using | |
| | | | Mr M Ravi Kanth | Machine | |
| | | | Mr.Ch. Sri Sumanth | Programming. | |
| | | | Dr P Subhash | | |
| | | | Dr SrinivasKanakala | | |
| | | | Mr | | |
| | | | GnanaPrakashThurak | | |
| | | | a | | |
| | | | Ms. A ArunaKumari | | |
| | | | Ms. PabbaPrasanna | | |