Information Technology Department

GMR Institute of Technology is situated at Rajam, a small industrial town about 100 KMs from the 'city of destiny', Visakhapatnam in Andhra Pradesh. The campus of the institute is spread over sprawling 117 acres of land. The lush sylvan and idyllic surroundings at the heart of the agricultural belt, offer an ideal setting for higher studies. The institute is affiliated to the Jawaharlal Nehru Technological University, Kakinada and is approved by AICTE New Delhi. The institute has been accredited NAAC – 'A' grade of UGC. The institution is also having ISO 9001:2008 Quality Systems. The department of EEE has been accredited by National Board of accreditation (NBA). GMRIT offers 4-year B.Tech. Programs in seven core disciplines, 2-year M. Tech programs in six specializations.

The approved annual intake of the institute is 1038 students. The institution received the grant extension of autonomous status for a period of ten years w.e.f 2018-19 to 2027-2028.

About IT Department

Vision

To be a preferred department of learning for students and teachers alike, with dual commitment to academics and research, serving students in an atmosphere of innovation and critical thinking.

Mission

To provide adoptable education for the graduates in preparing them for a rewarding career to develop academic and research in collaboration with industry and other institutions in the field of Information Technology. **(M1)**

To prepare the students as thinking professionals and good citizens who will be able to apply their knowledge critically and innovatively in solving professional and social problems.**(M2)**

Overview

GMRIT's Information Technology Department was formed in 1999 and covers the technical attributes of

IT, its multiple applications and the appropriate management of IT resources. Courses especially focus on the application of IT in various information and administrative systems. The annual intake of this Department is 120 students.

Facilities & Infrastructure

Three state-of-the-art laboratories - Interactive, Networking, & Unix Labs.

- Over 170 high configuration branded (HP) systems and two Intel Xeon dual processor servers.
- 1 GBPS Bandwidth Internet connectivity from BSNL & Airtel through dedicated leased lines.
- Video conferencing, Digital library, e-journals, e-learning & e-book facilities through INDEST (Indian National Digital Library in Engineering, Science & Technology) membership.
- CTLP and Video Courses on LAN.
- LAN connectivity through OFC, Wireless & Intranet.
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Major Courses Offered
- Data Structures
- Computer Networks
- Computer Organization
- Object Oriented Programming through Java
- Operating Systems
- Data Base Management System
- Middleware Technologies

- Software Engineering
- Information Security
- Object Oriented Analysis and Design
- Cloud Computing
- Distributed Databases
- Human Computer Interaction
- Design and Analysis of Algorithms
- Web technologies
- Network Programming
- Data Warehouse & Data Mining
- Data Analytics

Academic Achievements

Papers Published in Journals

1. T. Daniya, S. Vigneshwari , "Rider Water Wave-enabled deep learning for disease detection in rice plant", Advances in Engineering Software, Volume 182, No. 103472, August 2023,DOI:https://doi.org/10.1016/j.advengsoft.2023.103472.

2. Pendela Kanchanamala, Revathi K.G., M. Belsam Jeba Ananth, Optimization-enabled hybrid deep learning for brain tumor detection and classification from MRI, Biomedical Signal Processing and Control, Volume 84, 2023, 104955, ISSN 1746-8094, https://doi.org/10.1016/j.bspc.2023.104955.

3. Pendela Kanchanamala, Ramanathan Lakshmanan, B. Muthu Kumar, and Balajee Maram AACO: Aquila Anti-Coronavirus Optimization-Based Deep LSTM Network for

Road Accident and Severity Detection International Journal of Pattern Recognition and Artificial IntelligenceVol. 37, No. 05, 2252030 (2023)

https://doi.org/10.1142/S0218001422520309.

4. Ashutosh Choudhary has Presented Paper on IEEE xplore 2nd International Conference on Applied Artificial Intelligence and Computing 2023 organized by Narasu Sarathy Institute of Technology salem ,India on 4-6 May 2023.

5. Ms. Padmavathi P has Presented Paper on IEEE xplore 2nd International Conference on Applied Artificial Intelligence and Computing 2023 organized by Narasu Sarathy Institute of Technology salem ,India on 4-6 May 2023.

6. Dr. K.Jayasri has got best paper award in the ICRISET 2023 organised by Vignan's Institute of Engineering for Women Vishakhapatnam.

7. **Srihari.P**., Venkat, K.K.N., Sirisha, B.S., Yaswanth, B.V., Krishna, B.V."Game Automation System Based on Computer Vision"2nd International Conference on Sustainable Computing and Data Communication Systems, ICSCDS 2023 - Proceedings 10.1109/ICSCDS56580.2023.10105000

8. **Kanchanamala, P**., Lakshmanan, R., Muthu Kumar, B., Maram, B. AACO: "Aquila Anti-Coronavirus Optimization-Based Deep LSTM Network for Road Accident and Severity Detection " International Journal of Pattern

Recognition and Artificial Intelligence Volume 37, Issue 5, 1 April 2023, Article number 2252030.

9. **A. K. Choudhary,** S. Purbey, and B. K. Dewangan, "Evolution of Low - Power Blockchain Technology by using Iterative Sharding for IoT Environment," 2022 OPJU International Technology Conference on Emerging Technologies for Sustainable Development (OTCON), Raigarh, Chhattisgarh, India, 2023, pp. 1-6, doi: 10.1109/OTCON56053.2023.10113981.

10. **Choudhary, A.K.** "Design of a blockchain-based secure and efficient ontology generation model for multiple data genres using augmented stratification in the healthcare industry", Signal Video and Image Processing(2023). ,[Indexed by SCIE, IF:1.583 Q2, Link: https://doi.org/10.1007/s11760-023-02576-1].

11. **T. Daniya**, "Traffic sign detection using Deep learning techniques," 2023 Third International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT), Bhilai, India, 2023, pp. 1-6, doi: 10.1109/ICAECT57570.2023.10118165.

12. Dr. Ajit Kumar Rout has filled a patent on the title "AN IMAGE PROCESSING SYSTEM BASED ON IOT FOR OBSTACLE DETECTION ON ROADS" date 12/05/2023.

Webinars/Faculty Development Programs

1. Ms. U. Archana has attended FDP on "Professional Skills and Intellectual Property Rights" from 15-05-2023 to 19-05-2023.

Training and Placement

- Deepak Teja Damirekula(19341A1226) and B Sowndarya(19341A1212) are placed in Rinex Technologies with 5.2 LPA.