Information Technology Department

About GMRIT

Newsletter Issue-1

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. Kishore, A. R. et al, published a paper on " Design of an efficient VARMA GRU LSTM based predictive Trust Model for high-performance Blockchain networks". Journal: Journal of Integrated Science and Technology, 12(1), 708-708.(2024).

   https://pubs.thesciencein.org/journal/index.php/jist/article/view/a708. (Q3, impact factor SJR (2022): 0.18).

2. Chunduru, A., et al, published a paper on "Multi Chronic Disease Prediction System Using CNN and Random Forest". Journal: SN Computer Science, 5(1), 157.(2024). (Q3, impact factor SJR(2022):0.32).

   Multi Chronic Disease Prediction System Using CNN and Random Forest | SN Computer Science(springer.com)

3. Swathi Lenka et al. published a paper on "A Secure Method of Communication through BB84 Protocol in Quantum Key Distribution". Journal: Special Issue- Machine Learning for Smart Systems: Smart Building, Smart Campus, and Smart   City. volume: Vol. 25 No. 1 (2024). DOI: https://doi.org/10.12694/scpe.v25i1.2152.

4. Kotti, J.., et al published a paper on "IoT-Driven Big Data Analytic to Automate Blockchain Adaptation ". journal: International   Journal of Intelligent Systems and Applications in Engineering (2024). 12(14s), 600–608. Retrieved from https://ijisae.org/index.php/IJISAE/article/view/4699. (Q3, impact factor SJR(2022):0.23).

5. Rani, V.V., et al. Published a paper on "Chronological pelican remora optimization-enabled deep learning for detection of autism spectrum disorder". Journal: SIViP 18, 515–523 (2024). https://doi.org/10.1007/s11760-023-02741-6. (Q2, impact factor SJR(2022):0.46).

6. Chunduru AnilKumar et al. Published a Paper on "A Method for Specifying Yoga Poses Based on Deep Learning, Utilizing OpenCV and Media Pipe Technologies ". Journal: Special Issue- Scalability and Sustainability in Distributed Sensor Networks. Vol.25 No.2(2024).
 DOI: https://doi.org/10.12694/scpe.v25i2.2590. (Q3, impact factor SJR(2022):0.34).

Papers Published in Conferences

1. Jayasri Kotti et al.(Springer) presented a paper on "Face Emotion Recognition based on images using the Haar-cascade front end approach" 2023 4th International Conference on Cognitive Computing and Cyber Physical Systems (IC4S). (pp-331-339).

Face Emotion Recognition Based on Images Using the Haar-Cascade Front End Approach | SpringerLink.

2. Marrapu Harikrishna, chunduru Anil kumar et al. Published a paper on " Exploring Quantum Key Distribution for Secure Communication: A Comprehensive Survey " conference: 2023 International Conference on Energy, Materials and Communication Engineering(ICEMCE). DOI: https://doi.org/10.1109/ICEMCE57940.2023.10434018.

3. A. Ravikishore, Chunduru AnilKumar et al. Published a paper on " An in-depth Analysis of the Elements Shaping Organic Farmers: A Systematic Review " conference: 2023 International Conference on Energy, Materials and Communication Engineering(ICEMCE).

DOI: https://doi.org/10.1109/ICEMCE57940.2023.10434263.

Patents

1. Kotti Jayasri and Boddu Padmaja published a patent titled on "BLOCK CHAIN TECHNOLOGY ENABLED COLLABRATIVE SERVICE RECOMMANDATION SYSTEM(BC-SRDS) AND ITS METHOD THEROF". Application no. 202341057360 A, date of filing: 26/Aug/2023, Publication date: 5/ jan/2024.

2. Kotti Jayasri and Boddu Padmaja published a patent titled on "AN AUTOMATIC TELLER MACHINE (ATM) WITH BIOMETRIC VERIFIED AUTHENTICATION SYSTEM AND METHOD". Application no:202341057361 A, date of filing: 26/Aug /2023, publication date: 5/ jan/2024.

3. Chowdada Bharathi published a patent titled on "AI AND IOT BASED AUTOMATED ATTENDANCE SYSTEM USING FACIAL RECOGNITION". Application no: 202441002586. date of filing: 12/01/2024, publication date: 9/2/2024.

Webinars and Faculty Development Programs

1. B. Padmaja attented an FDP on "DATA SCIENCE MASTERY" from 5-feb-2024 to 10-feb-2024. conducted by VNR Vignana Jyothi INSTITUTE OF Engineering and Technology.

Others

1. SATYA ABHISHEK GUDLA successfully completed two days workshop on "Cyber Security awareness 2023-2024" on 23-01-2024 to 24-01-2024 at Andhra University, Regional Office, CID, Visakhapatnam.
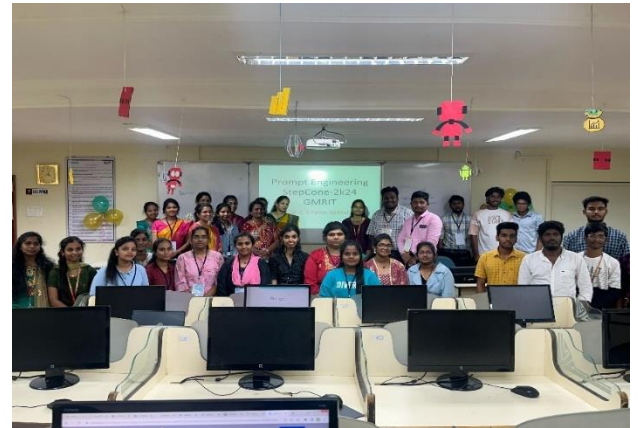
2. INUMULA INDHU successfully completed two days workshop on "Cyber Security awareness 2023-2024" on 23-01-2024 to 24-01-2024 at Andhra University, Regional Office, CID, Visakhapatnam.

3. IT Department successfully organized "WEBOTSAV EVENT" on 16-02-2024&17-02-2024 with 174 students.
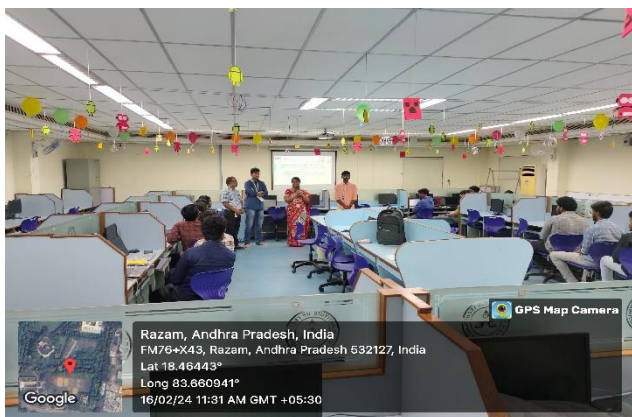
4. IT Department successfully organized "APPDEV EVENT" on 16-02-2024 with 40 students.

5. IT Department successfully organized "PROMPT ENGINEERING WORKSHOP" with 60 students.

6. IT Department successfully organized GAME CRAFTERS EVENT.

7. IT Department successfully organized "TRADE MASTER EVENT" with 50 students.

8. IT Department successfully organized "POWER BI WORKSHOP" with 40 students.