

Information Technology Department

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About GMRIT

Newsletter Issue-6

www.gmr.it.org

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. Archana .U, Anilkumar Ch published a paper on "Secure medical sensor monitoring frame work using novel optimal encryption algorithm driven by Internet of Things". Journal of Measurement Sensors: volume 30, December 2023,100929. <https://doi.org/10.1016/j.measen.2023.100929>.
2. V. Vasudha Rani et. al, published a paper on "Deep Fuzzy Seg Net-based lung nodule segmentation and optimized deep learning for lung cancer detection". journal: *Pattern Analysis and Applications* **26**, 1143–1159 (2023). <https://doi.org/10.1007/s10044-023-01135-1>. (Q2, impact factor SJR (2022): 0.67).
3. Vaddadi Vasudha Rani et al, published a paper on "Chronological pelican remora optimization-enabled deep learning for detection of autism

- spectrum disorder" journal: Signal, Image and Video Processing.
<https://doi.org/10.1007/s11760-023-02741-6>.
(Q2, impact factor SJR (2022): 0.46).
4. Padmavathi pragada et al, published a paper on "Improving Precision Agriculture by Utilizing Resnet152 for Cassava Plant Disease Detection and Enhanced Crop Health Monitoring" journal: journal of chemical health Risks. 2023; vol. 13 No.6(2023): 1193-1198.
<https://doi.org/10.52783/jchr.v13.i6.1852>. (Q2, impact factor SJR (2022): 0.16).
 5. V. Vasudha Rani et al, (IEEE) published a paper on "An Approach To Predict And Classify Retinopathy Stages In Diabetic Patients Using Deep Learning" 2023 Third International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT).
<https://doi.org/10.1109/ICAECT57570.2023.10117960>.
 6. Vasudha Rani Vaddadi et al, (IEEE) published a paper on "Exploiting Cyber Threats And Protecting Cryptocurrencies Toward Bitcoin Exchanges" 2023 5th Biennial International Conference on Nascent Technologies in Engineering (ICNTE)
<https://doi.org/10.1109/ICNTE56631.2023.10146649>.
 7. Jayasri Kotti et al.(IEEE) presented a paper on "IoT Frame work in a Block chain dependent Cloud Environment" 2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT)
<https://doi.org/10.1109/ICCCNT56998.2023.10308158>.
 8. Jayasri Kotti et al. (IEEE) presented a paper on "Scope of IoT in Emerging Engineering Technology during Online Education" 2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT)
<https://doi.org/10.1109/ICCCNT56998.2023.10308107>.
 9. Dr. AJIT KUMAR ROUT et al. (Springer) presented a paper on" PRECISION AGRICULTURAL MAPPING: ENHANCING CROP EDGE SEGMENTATION THROUGH SATELLITE-BASED SPATIAL DEEPLABV3+" during ICRIC-2023 Volume 2 Springer Approved Conference held between 21th to 22nd December, 2023.
 10. M.Harikrishna et al. (Springer) presented a paper on "Deep learning Model Based Approach for DDos detection and classification" 2023 6th International Conference on Recent Innovations in Computing (ICRIC).
 11. M.Harikrishna et al. (IEEE) presented a paper on "Exploring Quantum key Distribution for secure Communication" 2023 IEEE sponsored International Conference on Energy, Materials and Communication Engineering

Book Chapters

1. Mrs. Padmavathi Pragada published book chapter on "Privacy Protection for Internet of Medical Things Data Using Effective Outsourced Support Vector Machine Approach" in AI-Centric modelling and Analytics.

<https://doi.org/10.1201/9781003400110>.

2. Mrs. Swathi Lenka published a book chapter on "Intrusion Detection and prevention in Cloud and IoT Environments: Safeguarding Digital Assets against Evolving Threats" in Advanced Technology for Data and Network Security: Cloud, IoT.
3. Mrs. Padmavathi pragada published a book chapter on "Advanced Algorithms and Applications for Data Analytics based Computational Intelligence"
ISBN: 978-93-5850-422-4
chapter: Secure Communication Protocols for Cloud and IoT: Advancements and Challenges.

Webinars/Faculty Development Programs

1. Ms. B. Padmaja attended an FDP on "Research Methodology" conducted by NPTEL. Aug to Nov- 2023, 8 week course.

2. Ms. Ch. Bharathi attended an FDP on "Programming in java" conducted by NPTEL. Jul to oct -2023, 12 week course.
3. Ms Archana Uriti attended an FDP on Large Language Models in Artificial Intelligence from 4-oct-2023 to 7-oct-2023. conducted by APITA and BLACK BUCKS Engineers Pvt Ltd.
4. Ms. B. Padmaja got NPTEL Elite certificate in "Research Methodology" NPTEL Course.
5. Ms. Ch. Bharathi got NPTEL certificate in "Programming in Java" NPTEL Course.
6. Ms. Archana Uriti got NPTEL certificate in "Computer Vision" NPTEL Course.

Other Events

1. IT Dept has successfully Organized guest lecture on "**Business roles and Opportunities for Engineering Graduates in Overseas**" by Mr. Indraneel Gupta on 17-nov-2023



