



**GMRIT - an Overview:** GMR Institute of Technology (GMRIT), was established in the year 1997 by GMR Varalakshmi Foundation - the corporate social responsibility arm of GMR Group. GMRIT offers aspiring engineers' high quality technical education. GMR Institute of Technology has come a long way since its inception and has carved a niche

for itself in the corporate world. It is currently placed among the top 50 colleges in the country and among the top 5 colleges in the state of Andhra Pradesh. GMRIT provides its learning community state-of-the-art facilities, infrastructure, and a competent faculty. The Institute encourages collaborative learning between industry and academia as a means of reinforcing its curriculum with practical and real-world experiences. It is this emphasis on a well-rounded education that makes GMRIT a preferred institute among engineering colleges in India. GMRIT being an autonomous institute since 2012, has brought in several best practices in curriculum design, delivery, and assessment to keep up the pace with the dynamic industry requirements. Several incentive schemes have been introduced to nurture research culture. GMRIT emphasizes collaborative learning between industry and academia as a means of reinforcing its curriculum with practical experience relevant to industry needs. Collaboration with the industries and academia makes the students industry ready. It offers Eight Under Graduate and Six Post Graduate programs. All B.Tech. programs are accredited by NBA under Tier-1 complying with Washington Accord and the college is accredited as an 'A' grade institution by NAAC for the three consecutive cycles and certified with ISO 9001-2015. The institute has well established system to implement Outcome Based Education (OBE). In the ranking done by NIRF-MHRD, GMRIT was in the band of 201-300 for the year 2024. Further, GMRIT was declared as the 1<sup>st</sup> best Clean & Smart campus by AICTE.



**NIT Warangal - an Overview:** National Institute of Technology (NIT) Warangal is the oldest one in the bracket of first 17 NITs. It is the first regional engineering college whose foundation stone has been laid by the former prime minister, Pandit Jawaharlal Nehru in the year 1959. Over a period of

more than six decades, NIT Warangal has emerged as one of the leading institutions in engineering and technology. Warangal is the second largest city of the state of Telangana, Hyderabad being the first one which has several places of interest to visit. Some of the cultural heritages worth seeing in Warangal are Ramappa Temple, Bhadrakali Temple and thousand pillar temple. NIT Warangal is poised to create an ambience for nurturing innovation, incubation, creativity and excellence within its faculty and students towards achieving the sustainable development goals. We emphasize on student centric education with interdisciplinary research and development for the benefit of Industry and Society. NIT Warangal becomes a preferred institution for top rankers in Joint Entrance Examination (Main) because of its excellent teaching learning process, infrastructure that a student needs for effective learning. Over the years the college has established itself as a premier Institute imparting technical education of a very high standard leading to the B.Tech degrees in various branches of engineering, M.Tech, and PhD programmes in various specializations. All B. Tech and M. Tech programmes of NIT Warangal are NBA accredited.

### Chief Patrons

**Dr. J. Girish**  
Director-Education, GMRV

**Prof. Bidyadhar Subudhi**  
Director- NIT Warangal

### Patron

**Dr. C.L.V.R.S.V. Prasad**  
Principal, GMRIT

### Conveners

**Dr. Y. Ravi Kumar, Professor & HoD, NIT -Warangal**

**Dr. G. Sasi Kumar, Professor & HoD, GMRIT**

### Co-ordinators

**Dr. S. Chiranjeeva Rao, Associate Professor, GMRIT**

**Dr. S. Ravibabu, Associate Professor, GMRIT**

**Prof. Gudipadu Venkatesh, Assistant Professor, NIT-W**

### Organizing Committee

**Dr. V. Suresh Babu, Professor, NIT-W**

**Dr. M. Vykunta Rao, Associate Professor, GMRIT**

**Dr. B. Venkata Suresh, Sr. Assistant Professor, GMRIT**

**Dr. K. Siva Prasad, Sr. Assistant Professor, GMRIT**

**Dr. Y. Shireesha, Sr. Assistant Professor, GMRIT**

### Resource Persons

**Dr. K. Ramji, Professor**  
Department of Mechanical Engineering, Andhra University  
Topic : AI&ML applications

**Dr. Y. Ravi Kumar, Professor & HoD**  
Department of Mechanical Engineering, NIT Warangal  
Topic : Recent trends in 3D printing

**Dr. M.V.A. Raju Bahubalendruni, Assistant Professor**  
Department of Mechanical Engineering, NIT Puducherry  
Topic: Industry 4.0

**Dr. K. Venkata Rao, Professor**  
Department of Mechanical Engineering, Vignan University  
Topic : Online Modelling and Monitoring of metal deposition.

**Mr. Hrishikesh Kamat, Chief Executive Officer**  
Shalaka Connected Devices LLP, Pune  
Topic: Digital twins and Smart Factories

**Ms. Manasa, Sr. Engineer, Flamboyant Solutions,**  
Visakhapatnam. Topic: Condition monitoring & Predictive analogy

**Prof. Gudipadu Venkatesh, Assistant Professor**  
NIT-Warangal  
Topic : Microwave Processing of Metallic Materials

**Dr. A. Sureshkumar, Sr. Manager**  
TVS Training & Services Ltd, Chennai.  
Topic : PLC& Arduino



**A Collaborative Five Day Online Faculty  
Development Program (Joint-FDP)**

on

**Recent Trends in Digital  
Manufacturing Technologies: Scope,  
Impact and Applications**

**21<sup>st</sup> to 25<sup>th</sup> October, 2024**

**Organized by**

**Department of Mechanical Engineering  
GMR Institute of Technology**

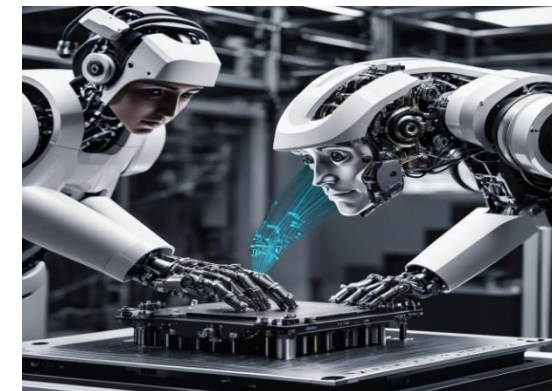
Rajam, Vizianagaram, A.P.

(An Autonomous Institution affiliated to JNTU-GV, Accredited by  
NBA under Tier-1 and NAAC with 'A' Grade)

&

**Department of Mechanical Engineering  
National Institute of Technology  
Warangal, Telangana**

Visit us at: <https://www.gmr.it.edu.in/>  
<https://nitw.ac.in/>



## About the Department

**GMRIT** - Department of Mechanical Engineering of this esteemed institution (GMRIT) was established in 1997. The department is accredited by the National Board of Accreditation (NBA under Tier-1) and admits 120 students annually. Strong foundation in Mechanical Engineering fundamentals, emphasizing mathematical and scientific principles, and cultivating meritorious and self-disciplined engineers is the motto of this department. The curriculum focuses on applying design processes to develop innovative engineering solutions. A strong belief on an industry-drafted Choice Based Credit System (CBCS) curriculum coupled with implementation of outcome-based education enables the student's success in competitive fields. Moreover, highly qualified faculty and vibrant academic atmosphere nurture the students' innate skills to achieve the department's goals. Industry internships, extra-curricular and co-curricular activities bridge the gap between class room theories and real-world applications, eventually transforming the student potentially ready for industry. The foreign collaborations enable selected students to undertake full semester internship at University Teknologi, Petronas (UTP) in Malaysia under the UTP Research Attachment Programme. In addition, the state-of-the-art research facilities encourage students to develop research competencies and enable them to broaden their horizons. The students' magnificent feat in prestigious campus placements is a testament for the academic excellence and scientific research.

**NIT Warangal** - The Department of Mechanical Engineering is one of the oldest departments of the National Institute of Technology, Warangal (NITW). Established as one of the major departments of the Institute, since its inception in 1959, the Department of Mechanical Engineering has been actively engaged in teaching and research in diverse fields of Mechanical Engineering. With excellent faculty, the Department of Mechanical Engineering offers Under Graduate (B.Tech.) and Post Graduate (M.Tech) in Automobile Engineering, Computer Integrated Manufacturing, Additive Manufacturing, Machine Design, Manufacturing engineering, Materials and System Engineering Design & Thermal Engineering and research (Ph.D) programmes. Vision of the department is to be a global knowledge hub in mechanical engineering education, research, entrepreneurship and industry outreach services. Mission of the department is to Impart quality education and training to nurture globally competitive mechanical engineers. Provide vital state-of-the-art research facilities to create, interpret, apply and disseminate knowledge. Develop linkages with world class educational institutions and R&D organizations for excellence in teaching, research and consultancy services.

## About the FDP

The Faculty Development Program on "Recent Trends in Digital Manufacturing Technologies: Scope, Impact, and Applications" explores the evolution and core concepts of Industry 4.0 and its impact on modern engineering practices. Participants will gain insights into digital manufacturing, the forefront of Electrical Vehicle Technology, and the power of AI and ML algorithms. The program covers Machine Learning in Robotics and Automation to enhance manufacturing efficiency, the intricacies of 3-D Printing, and the innovative applications of microfluids.

This FDP emphasizes the importance of digital transformation in smart factories and provides a platform for faculty to exchange ideas on cutting-edge digital manufacturing techniques. Participants will engage with industry experts, gaining exposure to current industrial trends and state-of-the-art hardware and software tools used in Digital Manufacturing.

## Topics Covered

- Introduction to Digital manufacturing: Understanding the Evolution and key Concepts.
- Industry 4.0 approach
- AI and ML: Algorithms, Techniques, and Applications
- Robotics and Automation: Enhancing Efficiency through Machine Learning
- Recent trends in 3D printing
- Role of IoT and Data analytics in manufacturing

## Contact Persons

**Dr. Chiranjeeva Rao Seela : 9849748090**

**Dr. S. Ravi Babu : 8179637829**

## Eligibility

All interested Faculty, Research Scholars, PG Students, and Industry Personnel

## Registration Details

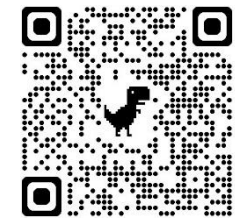
Faculty, Research Scholars, PG Students : Rs. 300/-  
Industry Participants : Rs. 500/-  
Last date for Registration : 18.10.2024

## Bank Account Details for Payment

Account : Seela Chiranjeeva Rao  
Account number : 18361010006719  
Bank Name : Union Bank of India  
Branch : GMR Nagar, Rajam  
IFSC Code : UBIN0818364  
PhonePe : 9849748090

(please copy the payment transaction ID and place it in the registration link given below)

## Registration Link



[Click here](#) or [Scan QR](#)

## Test and Certificate

The link for the different sessions will be emailed to the registered participants. An online test will be conducted at the end of the FDP. The certificate will be issued for those participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test.