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 ranked 188 in the country level for the year 2022. Further, GMRIT was declared as the 1st best Clean & Smart campus by AICTE.

VRSEC – an Overview: Velagapudi Ramakrishna Siddhartha Engineering College (VRSEC) is the first Private Engineering College in the United state of Andhra Pradesh (AP) and was established in the year 1977. VRSEC is offering 9 UG Programmes (B. Tech.) and 9 PG Programmes (M. Tech.) in Engineering with various specializations. In addition, the institute is offering PG Programmes of Masters in Business Management (MBA) and Masters in Computer Applications (MCA). 7 UG programs and 5 PG programs in engineering are accredited by NBA in Outcome Based Education Format (OBE). The total student intake of the institute is 1470 and total student strength of the college is about 5700. UGC has conferred the Autonomous status to the Institute in 2006. The institute bagged All India Rank 178 in the year 2021, 141 in the year 2022, and 151-200 band in the year 2023 given by NIRF-MHRD. VRSEC was accredited by NAAC with an 'A+' grade and certified with ISO 21001-2018. Six engineering departments are recognized as Research Centres by JNTUK, Kakinada. The institute has received more than Rs.10 Crores amount as sponsored research grant from various research agencies. The faculty and students are regularly publishing their research articles in indexed journals and conferences across the globe. The institute has strong industry partnership and signed 60 MOUs with various organizations. The institute has established various advanced Labs and Center of Excellence in collaboration with industries like Siemens, DASSAULT Systems, IBM, Oracle, Cisco, ADRIN-ISRO, National Instruments, and University of West Alabama.

Chief Patrons

Dr. J. Girish
Director-Education, GMRVF

Dr. C. Nageswara Rao
President – SAGTE

Patrons

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

Dr. A. V. Ratna Prasad
Principal, VRSEC

Conveners

Dr. P. Ramana, Professor & HoD, GMRIT
Dr. P. V. R. L. Narasimham, Professor & HoD, VRSEC

Co-ordinators

Dr. N. V. A. Ravikumar., Sr. Assistant Professor, GMRIT
Dr. B. Venkateswara Rao, Associate Professor, VRSEC
Dr. P. Upendra Kumar., Sr. Assistant Professor, GMRIT
Dr. J. Vimala Kumari., Assistant Professor, VRSEC

Organizing Committee

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Dr. Rajesh Kumar Patnaik, Associate Professor, GMRIT
Dr. L. V. Suresh Kumar, Associate Professor, GMRIT
Mr. S. N. V. S. K. Chaitanya, Assistant Professor, VRSEC
Mr. V. Hari Vamsi, Assistant Professor, VRSEC

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Dr. Manohar Mishra
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Quarbz Info Systems, Kanpur, India

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Dr. Hareesh Myneni
Assistant Professor
Dept. of Electrical & Electronics Engineering
NIT Srinagar

A Collaborative One-Week Online Faculty Development Program (Joint-FDP) on

AI Applications to Electric Vehicles

4th to 9th March, 2024

Organized by
Department of Electrical & Electronics 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 & ISO 9001:2015 Certified)
&
Department of Electrical & Electronics Engineering
VR Siddhartha Engineering College, Vijayawada, A.P.,
(UGC - Autonomous Institutions, Affiliated to JNTUK, Kakinada, accredited by NBA and NAAC with 'A+' grade and certified with ISO 21001-2018)

Visit us at: https://www.gmrit.edu.in/
https://www.vrsiddhartha.ac.in/

About the Department

GMRIT – Department of Electrical and Electronics 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 EEE 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 Teknology, 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.

VRSEC – The Department of Electrical and Electronics Engineering is established in the year of 1977. The department offers B.Tech. program in Electrical and Electronics Engineering with an intake of 120 and M.Tech. program in Power Systems Engineering with an intake of 18. Both UG and PG programs are accredited by National Board of Accreditation (NBA) under the outcome-based education system for a period of 3 years and 2 years respectively. The department has been recognized as research center by JNTUK, Kakinada, India. The department has introduced various programs such as skill development, hands-on sessions, and technical workshops to strengthen the overall development of the students and faculty. The department is having state-of-art laboratories for teaching UG/PG courses and conducting research in power systems domain. The department has major equipment in various laboratories such as 220kV Transmission line simulator, HV Testing facilities, Numerical relays and relay coordination unit with fault simulator, Rotary machine setup and PV emulator. The department is also enriched with all kinds of simulation tools such as Power world, PSCAD, PSIM, MiPower, Multisim, PVSol in addition to MATLAB/Simulink to carry research in Power system studies, Power electronics drives and control aspects. The faculty members are actively involving in the product development.

About the FDP

The Faculty Development Program on "AI Applications to Electric Vehicles" is designed to empower educators with cutting-edge knowledge and skills essential for preparing the next generation of engineers and researchers in the rapidly evolving field of electric vehicle technology. This program aims to delve into the intersection of artificial intelligence and electric vehicles, exploring how AI can revolutionize various aspects of electric mobility, from battery management and energy efficiency to autonomous driving capabilities. Faculty participants will engage in gaining insights into the latest advancements in AI-driven solutions for electric vehicles. The program focuses on enhancing technical expertise and emphasizes effective teaching methodologies and curriculum development, ensuring that educators can effectively convey the intricacies of this interdisciplinary field to their students. By the end of the program, participants will be equipped with the knowledge and resources to integrate AI applications into electric vehicle curricula, fostering innovation and excellence in the academic community.

Topics Covered

- Introduction to AI in Electric Vehicles
- Machine Learning Basics for EV Applications
- Sensor Technologies for Autonomous Electric Vehicles
- Battery Management Systems and AI Optimization
- AI-driven Power Electronics for Electric Drivetrains
- Predictive Maintenance using AI in Electric Vehicles
- Autonomous Navigation and Control Systems
- Energy Efficiency Enhancement through AI
- Data Analytics for EV Performance Monitoring
- AI in Charging Infrastructure and Smart Grid Integration
- Ethical Considerations in AI for Electric Vehicles
- Future Trends and Innovations in AI for EVs
- Transforming Electrical Utility Industries and Healthcare in the Era of Industry 4.0

Contact Persons

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Dr. B. Venkateswara Rao	: 9440993606
Dr. P. Upendra Kumar	: 6302982459
Dr. J. Vimala Kumari	: 9701387118

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: 24/02/2024

Bank Account Details for Payment

Account: Pilla Ramana
Account number: 183610100001972
Bank Name: Union Bank of India
Branch: GMR Nagar, Rajam
IFSC Code: UBIN0818364
Phonepe/Google Pay: 9491569956 (please copy the payment transaction ID and place it in the registration link given below)

Registration Link
https://forms.gle/3V3RNNgBPZynSpqx9

Test and Certificate

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.

Artificial intelligence in electric vehicles