#### About MVGR

The College was established in the year 1997 by Maharaj Alak Narayan Society for Arts and Sciences (MANSAS). MANSAS was established in 1958 by the erstwhile Raja Saheb of Vizianagaram, (Late) Dr. PVG Raju. The college has state of the art Labs that host equipment costing Rs. 15 Crore. The college was sanctioned an amount of 30 lakhs under FIST by DST (SR/ST/College-291/2015(C)). The college is spread on a lush green 60 Acre campus and has more than 7 lakh sft. build up area. The college library has over 50,000 volumes adorning an enviable collection of books and e-learning material. It offers Bachelor's Degree in Civil, Chemical, Computer Science, Electronics and Communication, Electrical & Electronics, Information Technology and Mechanical Engineering. It also offers Post Graduate courses in Engineering and Management. The college is reaccredited by NAAC with 'A' Grade and recognized as a Business Incubator Centre by the Ministry of Micro, Small and Medium Enterprises (MSME), Govt. of India. The college is undertaking consultancv/Research projects from DST, AICTE, UGC and Govt, of AP, etc.

# About ECE Dept.

Department of Electronics and Communication Engineering was started in the year 1997 with the objective of imparting quality education in the field of Electronics and Communication. Department is re-accredited by NBA. Department is recognized as research centre by JNTU-K, Kakinada. The Department is offering an undergraduate course in ECE with an intake of 180 and PG course in VLSI. The Department has 33 qualified and experienced faculty members, 16 with Ph.D. and 15 pursuing Ph.D. Department is located in a dedicated building with 46,000 sft build up area with 14 state of art and well equipped laboratories with latest configuration and software. The department has 60 lakhs worth sponsored projects and it has conducted 14 International and National workshops for faculty and 5 National level symposiums for students. It has organized many expert lectures with eminent personalities from different reputed organizations. National Instruments. Phytec. ThinkLabs and BSNL are the active associating industry partners collaborating in the department's initiative to provide skills beyond curriculum leading to certifications.

# About EEE Dept.

The Department has state-of-art infrastructure that caters to the outcome based teaching learning. It has a strong team of qualified & experienced faculty members with a right blend of industry, institution and R&D exposure that supports teaching-learning requirements. In addition to curricular exposure, department strives to keep students aware of the pragmatic needs of the industry for the improvement of employability and professional development. Keeping this in view ,the department has signed MOU with SIEMENS India Pvt. Ltd. and ZUNIK Energies Pvt Ltd., to bridge the gap between industry and academia for imparting training to students in the areas of AC/DC Drives, PLC-Automation etc. and it has been equipped with MATLAB, LabVIEW, PSCAD etc.

#### Objective of the Programme:

The Scheme 'Synergistic Training program Utilizing the Scientific and Technological Infrastructure' (STUTI) is intended to build human resource and its knowledge capacity through open access S&T Infrastructure across the country. As a complement to the various schemes of DST funding for expansion of R&D Infrastructure at academic institutions, STUTI scheme envisions a hands-on training program and sensitization of the state-of-the-art equipment as well as towards sharing while ensuring transparent access of S&T facilities.

The objective of this training programme is to give immense knowledge about usage of NI LabVIEW software and hardware for theoretical and practical situations in classroom teaching and research. This course will enable the participants on rapid prototyping in LabVIEW environment. The participants will understand recent technologies such as Artificial Intelligence, Computer Vision, IoT, and data acquisition with myDAQ, myRIO, and cRIO.

#### Course Outcomes

On the successful completion of the course, the participants will be able to

- Implement NI Express VIs platform to design a project and develop simple VI applications that can acquire, analyze and display/store the results.
- Interface myDAQ/myRIO with LabVIEW and Multisim, perform simulation and acquire real world measurements.
- Understand LabVIEW, NI myDAQ and myRIO for high-speed data acquisition in IoT and AI applications.
- Develop a stand-alone application using myRIO.
- Understand how cRIO can be used for data acquisition in electrical/power applications.

#### NI LabVIEW Academy @ MVGRCE

The NI LabVIEW Academy set up at MVGRCE by National Instruments is an initiative under their Planet NI (Nurturing Innovation) framework, which strives to increase the employability of Indian engineering graduates by creating Centre of Excellence in engineering colleges & universities, which will provide cost effective access to world-class latest technology for classroom teaching learning. To make better engineers, NI LabVIEW Academy follows the concept of experiential education using graphical system design approach. The LabVIEW Academy, with its hardware and software tools, empowers the MVGRCE to implement this belief and work on Algorithm engineering. The Academy will also enable both students and faculty to prepare for Certified LabVIEW associate developer (CLAD) and Internships.



Department of Electronics and Communication Engineering



Department of Electrical and Electronics Engineering

DST Sponsored A National Level Training Programme on

# LabVIEW Real-Time Applications

Under Govt. of India's STUTI Program -2021 (DST/RND/STUTI/2021/18)

18<sup>th</sup> to 24<sup>th</sup> January, 2023

Organized by

Department of Electronics & Communication Engineering & Department of Electrical & Electronics Engineering

Maharaj Vijayaram Gajapati Raj (MVGR) College of Engineering (A) Vizianagaram - 535005

# In collaboration with

GITAM Institute of Technology, GITAM Deemed to be University, Visakhapatnam - 530 045







#### For any correspondence contact

Dr. B.Srinivas MVGRCE(A) srinivas.b@nvgrce.edu.in +91-9493281287 +91-9182518194 Prof Balla Srinivasa Prasad GITAM University sballa@gitam.edu +91-9848321070

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Dr. K.V.L. Raju Principal & Correspondent, MANSAS

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# STUTI Program Coordinator

Prof. Balla Srinivasa Prasad, GITAM Institute of Technology, GITAM Deemed to be University

# Conveners

Dr. M.Sunil Prakash, Prof & HOD, ECE Dr. Sarat Kumar Sahu, Prof & HOD, EEE

# Coordinators

Dr. B. Srinivas, Asst. Professor, ECE Mr. K.S. Ravi Kumar, Assoc. Professor, EEE

**Organizing Committee** All the faculty members of ECE and EEE Dept.

# Eligibility:

Students, Research scholars, Faculties from various Institutions and organizations and Industry people can participate.

### Registration, TA/DA and Accommodation :

- No Registration Fee.
- Last date for Registration: 09.01.2023
- Due to limitation on the number of participants (30), applications will be considered on first come first serve basis.
- Maximum 3 participants are allowed from each institute.
- TA Sleeper class through shortest route will be provided.
- DA, Accommodation will be provided for selected Participants.
- Duly signed scanned copy of registration form should be sent to <a href="stuti2022mvgr@gmail.com">stuti2022mvgr@gmail.com</a>

# Hands on experience equipment:







#### **Registration form**

DST funded 7 days Training Program on LabVIEW Real-Time Applications (18.01.23 - 24.01.23)

#### Organized at

Maharaj Vijayaram Gajapati Raj (MVGR) College of Engineering (A), Vizianagaram – 535005

# In collaboration with GITAM Institute of Technology, GITAM Deemed to be University,

#### Visakhapatnam-530 045.

Under Govt. of India's STUTI Program -2021 (DST/RND/STUTI/2021/18)

Name:
Designation:
Branch:
Drganization:
Address:
Assemmedation Dequired (Ves/Na):

Accommodation Required (Yes/No): \_

I would like to participate as a delegate in DST funded 7 days Training Programme on "*LabVIEW Real-Time Applications*" organized by MVGRCE (A) in collaboration with GITAM Deemed to be University under STUTI Program-2021 DST/ RND/STUTI/2021/18.

Signature of Candidate

Signature of Head of the Department/Institution with seal

Date:

# Schedule for DST funded 7 days Training Program on LabVIEW Real-Time Applications (18.01.23 – 24.01.23)

Day	Morning Session (10.00 am – 12.00 pm)		Afternoon session (1.30 pm – 4.00 pm)	
Wed 18.01.23	Topic: Introduction to Graphical Programming.	Lunch Break (12.00 pm – 1.30 j	Hands on experience on SFP instruments (DMM, FGEN, SCOPE, DigIn, DigOut,) Name of the research equipment: NI myDAQ (DST FIST Funding)	
	Resource Person: Prof. G. Sasibhushana Rao, Dept. of ECE, Andhra University, Visakhapatam.		Resource Person: Dr. B. Srinivas, Asst. Prof., ECE, MVGRCE (A).	
Thu 19.01.23	Topic: LabVIEW Programming concepts(Loops, Arrays, Structures, string and I/O Files)		Hands on experience on Internet of Things applications Name of the research equipment: NI myDAQ, NI USB-6211 and myRIO Starter kit sensors (DST FIST Funding- SR/ST/College-291/2015(C))	
	Resource Person: Dr. S.M. Vali, Prof. /Dr. M. Satanarayana, Prof., ECE, MVGRCE (A).		Resource Person: Dr. B. Srinivas, Asst. Prof., ECE, MVGRCE (A).	
Fri 20.01.23	Topic: Interfacing of NI myDAQ, with Multisim and LabVIEW		Hands on experience on IOT Antennas / Microstrip Antenna fabrication Name of the research equipment: MITS Eleven Antenna fabrication Machine (DST FIST Funded-EEQ/2016/000396)	
	Resource Person: Dr. B. Srinivas, Asst. Prof., ECE, MVGRCE (A).		Resource Person: Dr. M. Sunil Prakash, Prof., HOD/ Dr. G. Anjaneyulu, Prof., ECE, MVGRCE (A).	
Sat	Topic: Data generation, Data acquisition and Creating Standalone Applications		Hands on experience on sensors design using COMSOL software. Name of the research equipment: NanoSniff (OmniCant), (DST-SERB Funding- ECR/2017/001183)	
21.01.23	Resource Person: Dr B.Rajesh Kumar, Assoc. Professor, Dept. of EECE, GITAM Deemed University, Visakhapatnam.		Resource Person: Dr B. Rajesh Kumar, Assoc. Professor, Dept. of EECE, GITAM Deemed University, Visakhapatnam.	
Sun	Topic: Machine Learning, Deep Learning and Computer Vision Applications with NI LabVIEW		Hands on experience on ML, DL, and CV applications Name of the research equipment: NI myRIO-1900, MECHATRONICS and EMBEDDED KITS (DST FIST Funding- SR/ST/College-291/2015(C))	
22.01.23	Resource Person: Dr. G. Srinivas, Assoc. Professor, Dept. of CSE, Dept. of EECE, GITAM Deemed University, Visakhapatnam.		Resource Person: Dr. G. Srinivas, Assoc. Professor, Dept. of CSE, Dept. of EECE, GITAM Deemed University, Visakhapatnam.	
Mon 23.01.23	Topic: Research Applications/ Solar MPPT control of DC-DC Converters		Hands on experience on Solar MPPT control of DC-DC Converters Name of the research equipment: cRIO-9022 RT Embedded Controller and cRIO-9118, (DST FIST Funding - SR/ST/College-291/2015(C))	
	Resource Person: Dr. B. Lavanya, Asst. Prof., ECE,/ Dr. Sarat Kumar Sahu, Prof & HOD, EEE, MVGRCE (A), VZM		Resource Person: Dr. V.V. Sastry and team, Director, Centre for E-mobility, GVPCE, VSKP	
Tue 24.01.23	Topic: BLDC/IM Drive for EV Application and Battery Management System Design		Hands on experience on BLDC/IM Drive for EV and BMS Design Name of the research equipment: cRIO-9022 RT Embedded Controller and cRIO-9118, (DST FIST Funding - SR/ST/College-291/2015(C))	
	Resource Person: Mr. K.S. Ravi Kumar, Assoc. Prof., EEE, MVGRCE (A), VZM.		Resource Person: Dr. D. Raveendra, Assoc. Prof, Assoc. Prof, Dept. of EEE, GRIET, Hyd.	

**Training Program Coordinators:** 

Dr. B. Srinivas/ Mr. K.S. Ravi Kumar

#### **Project Investigator, STUTI:** Prof. Balla Srinivasa Prasad



Organized by Maharaj Vijayaram Gajapati Raj College of Engineering (A), Vizianagaram – 535005 In collaboration with

GITAM Institute of Technology, GITAM Deemed to be University, Visakhapatnam-530045



Under Govt. of India's STUTI Program -2021 (DST/RND/STUTI/2021/18)

Since 1997



# MVGR College of Engineering (Autonomous)

VIJAYARAM NAGAR CAMPUS, CHINTALAVALASA, VIZIANAGARAM-535 005 Phone : 08922-241199, 241732, e-mail : info@mvgrce.edu.in Website : www.mvgrce.edu.in

Date: 28.02.2022

To Dr. Balla Srinivasa Prasad STUTI Program Coordinator Professor in Mechanical Engineering, GIT, GITAM Deemed to be University Gandhi Nagar, Rushikonda Visakhapatnam – 5300045

Dear Sir,

Sub: Willingness to be a member of STUTI Program (DST/RND/STUTI/2021/18) - Reg.

\*\*\*

Thank you for your invitation to support the STUTI Program as a collaborating institute. We are

happy to covey our willingness to be part of STUTI Program. We extend our support to make this

program a grand success.

Training Program Coordinator:Name & Designation: Dr R. Ramesh, Dean R&D and Faculty DevelopmentInstitute name: MVGR College of Engineering (A), Vizianagaram

Thanking you,

With regards,

(Dr.K.V.L.Raju) Principal PRINCIPAL MVGR College of Engineering (A) VIZIANAGARAM-535 005

Maharaj Vijayaram Gajapathi Raj College of Engineering (Autonomous)