

# **School of Electrical Engineering**

Presents
a Two-days Hands-on Workshop
on

# Python for Science and Engineering Applications



## Co-ordinators

# Dr. Vinodh Kumar E Dr. Medarametla Praveenkumar Dr. Jitendra Kumar Goyal

School of Electrical Engineering Vellore Institute of Technology, Vellore-632014.

Dates: 16-17 October 2023

## ABOUT THE WORKSHOP

Python is a versatile and easy-to-use programming language. For its simplified syntax and open source licence, Python has been widely used for data visualization, data analysis, and task automation to name a few. Moreover, Python is one of the widely used languages in several applications ranging from Machine learning, Artificial Intelligence, Data science and Web development. Hence, considering the growing importance of the Python programming in both academia and industry, this workshop targets to provide the in-depth knowledge necessary to use Python in scientific and engineering applications. The key topics that will be covered in the workshop are as follows.

#### **Contents:**

- 1. Fundamentals of Python programming
- 2. Decision making and Loops in Python
- 3. Data structures in Python
- 4. Functions in Python
- 5. File handling
- 6. Numerical Routines: NumPy
- 7. Graphical analysis using Python
- 8. Python for Control Applications

#### ABOUT VIT

VIT was established with the aim of providing quality higher education on par with international standards. It persistently seeks and adopts innovative methods to improve the quality of higher education on a consistent basis. The campus has a cosmopolitan atmosphere with students from all corners of the globe. Experienced and learned teachers are strongly encouraged to nurture the students. The global standards set at VIT in the field of teaching and research spur us on in our relentless pursuit of excellence. In fact, it has become a way of life for us. The highly motivated youngsters on the campus are a constant source of pride. Our Memoranda of Understanding with various international universities are our major strength. They provide for an exchange of students and faculty and encourage joint research projects for the mutual benefit of these universities. Many of our students, who pursue their research projects in foreign universities, bring high quality to their work and esteem to India and have done us proud. With steady steps, we continue our march forward.

# ABOUT THE SCHOOL OF ELECTRICAL ENGINEERING

The School of Electrical Engineering (SELECT) has over 98 faculty members who pursued their UG, PG and Doctoral degrees from top-notch universities. The school offers B.Tech. (Electrical and Electronics Engineering), (Electronics B.Tech. Instrumentation Engineering), M.Tech. (Power Electronics and Drives), M. Tech. (Control and Automation), Ph.D and Integrated Ph.D in Engineering. Both B.Tech. and M.Tech. programmes attract the Intelligent students from the country and abroad. The B.Tech. Electrical and Electronics Engineering and B.Tech. Electronics and Instrumentation Engineering Programmes are accredited by the Engineering Accreditation Commission of ABET. All UG & PG programmes of

the school are accredited by the Institution of Engineering and Technology (IET), U.K. The placement record of the school has always been impressive. Almost 100% of the students secure job from the campus placement and many of them are recruited in core companies. The School has stateof-the art laboratories in almost all the areas of Electrical. Electronics and Instrumentation Engineering. SELECT has industry sponsored advanced laboratories for performing world class research and consultancy. Danfoss Advance Drives Lab, Schneider Electric Smart Energy Monitoring Lab, Fluke Testing and Calibration Lab, Q-Max Automated Test Engineering Lab (Alumni Sponsored Lab) and NxP Semiconductors, India, have established Centre of Excellence for students R&D activities under the guidance of faculty members and industry experts.

# **Resource Persons**



Dr. Medarametla Praveenkumar SELECT, VIT



Dr. Vinodh Kumar E SELECT, VIT

#### REGISTRATION

Registration Fee: Rs.500/- (Excluding GST)

Prospective participants are requested to register for the workshop through the following web link.

# https://events.vit.ac.in/

Maximum 50 participants will be accommodated in the workshop. Hence, the preference will be given based on first come first serve basis.

#### WHO CAN APPLY?

Participation in this workshop is open to the UG, PG students, research scholars and faculty members of Science and Engineering streams. It is also open to the Scientists and Engineers who are working in the industry and wish to gain a basic understanding of the concepts involved.

# **CONTACT DETAILS**

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Dr. Jitendra Kumar Goyal Mobile: 9910849941

# **ORGANIZING COMMITTEE**

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