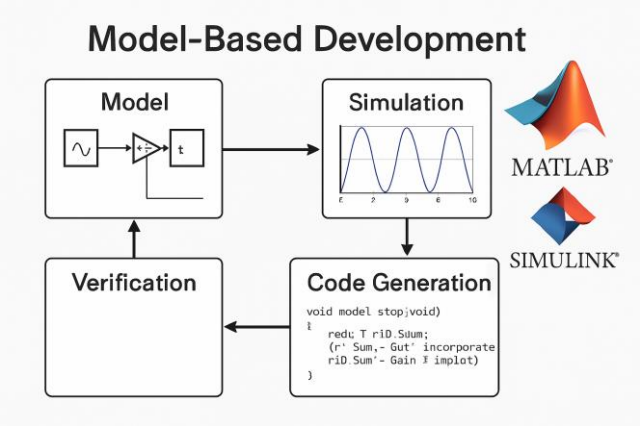
VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

Three Days Workshop

On

Model Based Design using MATLAB/Simulink

Dates: 28-08-2025 to 30-08-2025



Organized by

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

ABOUT THE WORKSHOP

Model-Based Design (MBD) is an advanced engineering approach that uses visual models for designing, simulating, and implementing complex systems. Widely adopted in industries such as automotive, aerospace, and power electronics, MBD accelerates development cycles, enhances accuracy, and simplifies testing and validation. This hands-on workshop provides an in-depth introduction to MBD using MATLAB and Simulink, industry-standard tools from MathWorks. Participants will learn how to build system-level models, simulate dynamic behavior, design controllers, and generate embedded code—all from a single graphical environment. The workshop combines theory and practical exercises, enabling participants to grasp the full development cycle from modeling to deployment. Attendees will also gain exposure to automatic code generation, hardware interfacing, and verification techniques, making this workshop highly relevant for academic research, product development, and industrial applications. Whether you're a student, educator, or industry professional, this workshop offers a valuable foundation in modern simulation-based engineering design practices.

TECHNICAL SESSIONS

- ✓ **Introduction to Model-Based Development**
- ✓ **State flow for code generation**
- ✓ **Embedded Coder for Code Generation**
- ✓ **Code generation of EV applications**
- ✓ **Code generation for power converters**
- ✓ **Hardware-in-the-loop (HIL) and SIL/MIL testing**
- ✓ **Model Verification and Validation**
- ✓ **Hands-on: Creating simple dynamic system models**
- ✓ **Hands-on: Generating and deploying code to target hardware**
- ✓ **Case studies**

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 spurs 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 95 faculty members who pursued their UG, PG and Doctoral degrees from top-notch universities. The school offers B.Tech. (Electrical and Electronics Engineering), B.Tech. (Electronics and Instrumentation Engineering), B.Tech (Electrical and Computer Science 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. 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 have established Centre of Excellence for students R&D activities under the guidance of faculty members and industry experts.

Resource Persons

Industry Expert

REGISTRATION

Registration fee : Rs.500/- for UG/PG students, Scholars and Faculty

*Registration fee excludes 18% GST.

- **Accommodation for outstation participants will be arranged in the campus hostels on a chargeable basis, subject to prior request.**

Prospective participants are requested to register for the three days workshop programme through the following web link

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

IMPORTANT DATES

Last date for registration: 26th August 2025

Dates of Workshop: 28th August 2025 to 30th August 2025

Co-ordinators

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