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

School of Electrical Engineering (SELECT)

Vision

To be a leader for academic excellence in the field of electrical, instrumentation and control engineering imparting high quality education and research leading to global competence for the societal and industrial developments.

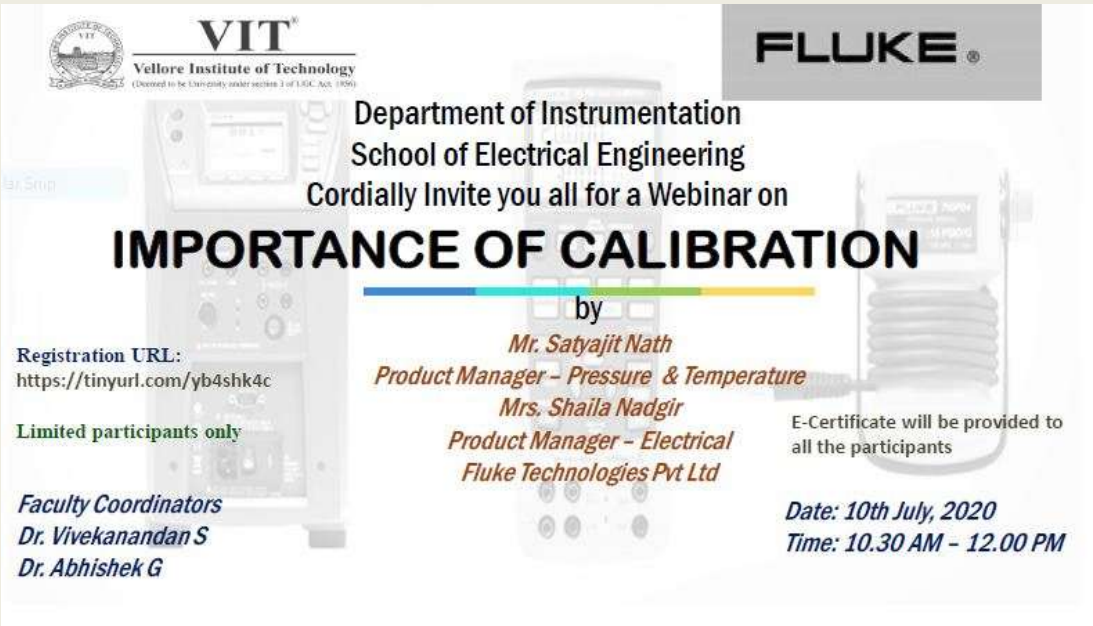
Mission

- Impart high quality education and interdisciplinary research by providing conducive teaching learning environment and team spirit resulting in innovation and product development.
- Enhance the core competency of the students to cater to the needs of the industries and society by providing solutions in the field of electrical, electronics, instrumentation and automation engineering.
- Develop analytical skills, leadership quality and team spirit through balanced curriculum.

Faculty Achievements

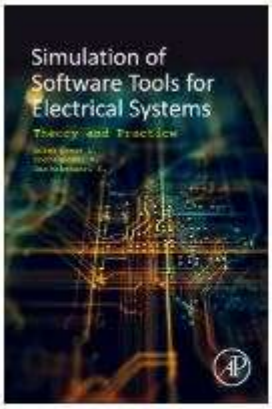
1. Workshop on Importance of Calibration

SELECT school organized a Workshop titled “Importance of Calibration” on 10th July, 2020. The speakers were Mr. Satyajit Nath, Product Manager – Pressure & Temperature and Mrs. Shaila Nadgir, Product Manager – Electrical Fluke Technologies Pvt Ltd.



2. Book Published by Dr. Indragandhi V

Dr. Indragandhi V published a book titled “Software Tools for the Simulation of Electrical Systems”



Preview

Software Tools for the Simulation of Electrical Systems

Theory and Practice

1st Edition - August 8, 2020

☆☆☆☆☆ Write a review

Authors: Ashok Kumar, . Indragandhi, Uma Maheswari
Paperback ISBN: 9780128194164
eBook ISBN: 9780128194171

View on ScienceDirect »

Description

Simulation of Software Tools for Electrical Systems: Theory and Practice offers engineers and students what they need to update their understanding of software tools for electric systems, along with guidance on a variety of tools on which to model electrical systems—from device level to system level. The book uses MATLAB, PSIM, Pspice and PSCAD to discuss how to build simulation models of electrical systems that assist in the practice or implementation of simulation software tools in switches, circuits, controllers, instruments and automation system design. In addition, the book covers power electronic switches and FACTS controller device simulation model building with the use of Labview and PLC for industrial automation, process control, monitoring and measurement in electrical systems and hybrid optimization software HOMER is presented for researchers in renewable energy systems.

Top Publications
July 2020

1) Raja Singh R., Yash S.M., Shubham S.C., Indragandhi V., Vijayakumar V., Saravanan P., Subramaniyaswamy V., "IoT embedded cloud-based intelligent power quality monitoring system for industrial drive application" Future Generation Computer Systems**. I.F.** 6.125

2) Bairabathina S., Balamurugan S., "Review on non-isolated multi-input step-up converters for grid-independent hybrid electric vehicles", International Journal of Hydrogen Energy **I.F.** 4.939

3) Jonnalagadda V.K., Elumalai V.K., Singh H., Prasad A., "Nonlinear control design using TakagiSugeno fuzzy applied to under-actuated visual servo system", Transactions of the Institute of Measurement and Control **I.F.** 1.649

4) Sambaiah K.S., Jayabarathi T., "Optimal Modeling and Allocation of Mixed Wind and Solar Generation Systems in Electric Distribution Networks", IETE Journal of Research **I.F.** 1.125

5) Kanagavel R., Vairavasundaram I., "FPGA implementation and investigation of hybrid artificial Bee colony algorithm-based single phase shunt active filter", Comptes Rendus de L'Academie Bulgare des Sciences **I.F.** 0.343

Top Publications
August 2020

1) Jeevitha S., Amutha Prabha N., “Novel medical image encryption using DWT block-based scrambling and edge maps”, Journal of Ambient Intelligence and Humanized Computing. **I.F.** 4.594

2) Seshadri A., Lenin N.C., “Review based on losses, torque ripple, vibration and noise in switched reluctance motor”, IET Electric Power Applications. **I.F.** 2.834

3) Purohit C.S., Manna S., Mani G., Stonier A.A., “Development of buck power converter circuit with ANN RL algorithm intended for power industry”, Circuit World. **I.F.** 1.395

4) Dewangan S., Prakash T., Pratap Singh V., “Design and performance analysis of elephant herding optimization based controller for load frequency control in thermal interconnected power system”, Optimal Control Applications and Methods. **I.F.** 1.252

5) Murthy S.K., Goyal A., Rajasekar N., Pareek K., Nguyen T.T., Garg A., “Predictive Modelling and Surface Analysis for Optimization of Production of Biofuel as A Renewable Energy Resource: Proposition of Artificial Neural Network Search”, Mathematical Problems in Engineering. **I.F.** 1.009

6) Ajith A., Kumar C.S., Marimuthu R., Balamurugan S. “Design and analysis of majority logic based multipliers in perpendicular nanomagnetic logic”, International Journal of Materials and Product Technology. **I.F.** 0.714

Top Publications September 2020

1) Yousri D., Babu T.S., Mirjalili S., Rajasekar N., Elaziz M.A., "A novel objective function with artificial ecosystem-based optimization for relieving the mismatching power loss of largescale photovoltaic array", Energy Conversion and Management. **I.F.** 8.208

2) Pandian B.J., Noel M.M., "Control of constrained high dimensional nonlinear liquid level processes using a novel neural network based Rapidly exploring Random Tree algorithm", Applied Soft Computing Journal. **I.F.** 5.472

3) Guha D., Roy P.K., Banerjee S., Padmanaban S., Blaabjerg F., Chittathuru D., "Small-Signal Stability Analysis of Hybrid Power System with Quasi-Oppositional Sine Cosine Algorithm Optimized Fractional Order PID Controller", IEEE Access. **I.F.** 3.745

4) Chawda G.S., Shaik A.G., Shaik M., Padmanaban S., Holm-Nielsen J.B., Mahela O.P., Kaliannan P., "Comprehensive Review on Detection and Classification of Power Quality Disturbances in Utility Grid with Renewable Energy Penetration", IEEE Access. **I.F.** 3.745

5) Rukmani D.K., Thangaraj Y., Subramaniam U., Ramachandran S., Elavarasan R.M., Das N., Baringo L., Rasheed M.I.A., "A new approach to optimal location and sizing of DSTATCOM in radial distribution networks using bioinspired cuckoo search algorithm", Energies. **I.F.** 2.702

6) Bezawada P., Yeddula P.O., Kota V.R. "A new time domain passive islanding detection algorithm for hybrid distributed generation systems", International Transactions on Electrical Energy Systems. **I.F.** 1.692

7) Chinnaraj S.G.R., Kuppan R., "Optimal sizing and placement of multiple renewable distribution generation and DSTATCOM in radial distribution systems using hybrid lightning search algorithm-simplex method optimization algorithm", Computational Intelligence. **I.F.** 1.196

8) Muralikumar K., Ponnambalam P., "Analysis of Cascaded Multilevel Inverter with a Reduced Number of Switches for Reduction of Total Harmonic Distortion", IETE Journal of Research. **I.F.** 1.125

9) Ranjan K.G., Tripathy D.S., Prusty B.R., Jena D., "An improved sliding window prediction-based outlier detection and correction for volatile time-series", International Journal of Numerical Modelling: Electronic Networks, Devices and Fields. **I.F.** 0.833

Editorial Committee

Prof. Joshua Reddipogu, Assistant Professor Sr.