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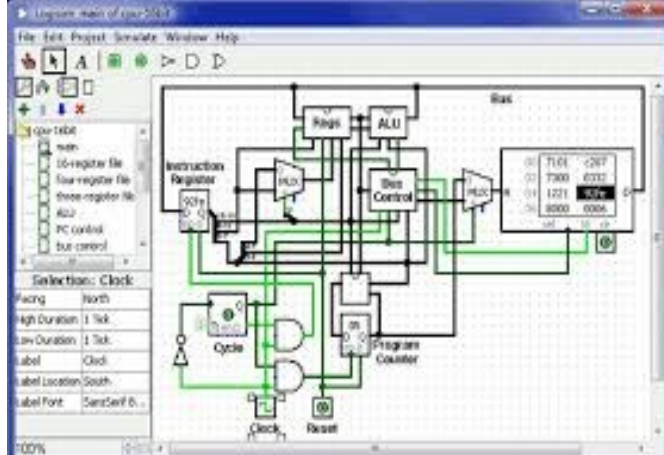
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## ORGANISING COMMITTEE

All faculty and Staff members of Engineering & Applied Sciences Department, V.I.I.T, Pune



## RESOURCE PERSON



**Prof. ( Dr. ) M.B.Patil**

Ph.D. University of Illinois

M.S. University of Southern California.

B.Tech. (Electrical ) IIT Bombay.

**Professor, Department of Electrical Engineering, IIT, Bombay**

**Research Interest:** Circuit simulation

Semiconductor device modelling and simulation

Real-time simulation of power electronic circuits and systems

## VENUE

**Seminar hall, E building ,  
Vishwakarma Institute of Information  
Technology,**

Sr. No. 3/4, Kondhwa Bk., Pune- 411048 .

## MAP



Organized by  
**Department of Engineering & Applied  
Sciences**



**Two days workshop on**

**“ Use of Circuit  
Simulator in teaching  
Basic Electrical and  
Electronics courses”**

**27<sup>th</sup> and 28<sup>th</sup> January 2017**

Funded by  
**Savitribai Phule Pune University**



Technical Sponsorship by



Bansilal Ramnath Agarwal Charitable Trust's  
**Vishwakarma Institute of Information  
Technology**

An ISO 9001:2008 Certified Institute  
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## ABOUT INSTITUTE

Vishwakarma Institute of Information Technology (VIIT) was founded in 2002 to impart world class education and to develop useful manpower with entrepreneurship qualities for industries. VIIT is NBA accredited institute and has obtained Grade A from National Assessment And Accreditation Council (NAAC) and is also an ISO 9001 - 2008 certified organization. It is a self financed engineering institute affiliated to Savitribai Phule Pune University. It is recognized and approved by All India Council of Technical Education (AICTE), New Delhi. VIIT has developed into an institute recognized amongst few top ranking engineering colleges in Pune. It has come with all basic and advanced modern infrastructure facilities excelling in both academic and research activities.

## ABOUT WORKSHOP

Simulation can play a very vital role in the teaching of basic electrical and electronics courses to undergraduate students. It allows the teacher to generate suitable plots for displaying in the class while teaching specific topics. Circuit parameters can be changed and effect can be seen on performance. Circuit can be designed with given specifications and design can be verified with simulation. The purpose of this two days workshop is to explore circuit simulation as an aid for teaching basic electrical and electronics course at the Under Graduate level.

## OBJECTIVE

The goal of this two days workshop is to impress upon the participants the usefulness of circuit simulation in teaching basic electrical and electronics courses. Each participant will be asked to solve specific problems from basic electrical and electronics courses. The problems are designed to cover many of the concepts encountered in a typical electrical and electronics course. After successfully solving, they will simulate the circuit and verify the solution. By the end of the workshop, it is expected that the participants have gained expertise in not only addressing the pedagogical issues involved in the examples but also in how to make effective use of a circuit simulator to confirm the circuit behavior and to explore the effect of various circuit parameters.

## TOPICS

Specific problems in the following areas will be broadly considered during this workshop . There may be variation during the workshop depending on the background of the participants and their requirements. Participants are expected to come prepared with the relevant theoretical background.

- Network theorems
- RC and RL circuits
- Phasors
- Counter design
- Bode plots
- Diode circuits
- Common-emitter amplifier

## ABOUT THE SIMULATOR

SEQUEL is a freely available general-purpose circuit simulation package developed at IIT Bombay which will be used for this workshop. Its GUI includes a schematic editor for entering the circuit diagram and a graphing utility for viewing the simulation results. Several simulation examples in electronics and power electronics, which are particularly useful for teaching engineering courses, are included in the package.

### Features

- DC, transient, small-signal analysis
- Efficient "steady-state waveform" computation
- Digital (event-driven) simulation
- Mixed-signal simulation
- GUI for schematic capture, plotting etc
- Open source and works on both Windows and Linux platform

## WHO MAY BENEFIT

Engineering college teachers from various institutes involved in teaching basic electrical and basic electronics course to UG students from first and second year of their curriculum.

## REGISTRATION FEE

**Rs. 500/-**

- \* Includes Course material, Tea, Lunch
- \* Registration fee does not include accommodation charges.
- \* Participant will have to pay extra charges for accommodation if required. Arrangement can be made by organizers at reasonable rates.

## REGISTRATION DETAILS

- Registration is limited and is on first- come - first served basis.
- Registration should be done in the given Google form and with the prescribed fee. Link for online registration : <https://goo.gl/forms/2KPCrVQc0wg0Oecs1>
- Each registered participant will be provided Course Material, Working Lunch, Tea and Certificate of Participation.
- The filled google form on given link along with the Demand Draft / online payment details should be sent to the address given below. DD should be drawn from any Bank in favor of "The Principal, VIIT, Pune" payable at Pune.
- Online registration details are as follows :
  - \*Account holder Name : Vishwakarma Institute of Information Technology
  - \* A/C No.: 10881011001265
  - \* A/C Type: Current
  - \* Bank : Oriental Bank of Commerce
  - \* Branch : F.C. Road
  - IFSC Code : ORBC0101088
- Last date of registration is 23th January 2017**