

PSG INSTITUTE OF ADVANCED STUDIES, COIMBATORE

Sensitization program on Silvaco-TCAD on 30-3-2019, 2:00 PM to 5:00 PM

Prof. Bindu Salim, Mr. Sureshkumar Mohan, Prof. K. K. Venkataraman

Silvaco sensitization program was conducted on 30-3-2019 at 2:00 PM. Prof. P. Radhakrishnan welcomed the participants and briefly explained the need to incorporate simulation and modelling in their research work. This was followed by a talk by Prof. Bindu Salim where she explained the need for process simulation while the semiconductor technology is making a shift with the introduction of new materials and compatible processes, scaling challenges, bulk properties to molecular or atomic processes and design for manufacture. She has further explained the features of TCAD tool available at PSGIAS, the Silvaco-TCAD, the flow to be followed while designing and modelling a new device and an example design flow. From 3:30 PM onwards a demonstration of design and modelling of a MOSFET was arranged in the CAD lab, where Mr. Sureshkumar Mohan took the participants through line by line coding for modelling the device and further simulation depicting the results and extracting parameters of interest. This included familiarizing the command window (deckbuild), Atlas the simulator and Tony plot the graphical interface which displays the electrical characteristics. 17 participants attended the program.