





## **SILVACO**

# Online Familiarization Workshop on

## Nanotransistors and Energy Devices Technology 21 – 23 February, 2023

The Centre for Nanotechnology at the Indian Institute of Technology Guwahati (IITG) is pleased to announce an online workshop on Nanotransistors and Energy Devices Technology during February 21-23, 2023, in partnership with Silvaco, under the aegis of the Indian Nanoelectronics Users Program – Idea to Innovation (INUP-i2i). INUP-i2i is run by six institutions across the country leading in the field of nanoelectronics with the support of Ministry of Electronics and Information Technology (MeitY), Government of India.

This workshop aims to familiarize the participants with the fabrication and operation of nano-dimensional transistors as well as energy devices. The lectures will be delivered by leading researchers from academia and industry. The participants will also get to use Silvaco 3D TCAD software to simulate some of these devices, helping them better visualize and understand their physics and technology. Online applications are invited from interested researchers, faculty, and students in the academia, research labs, and industries to participate in this workshop. This training workshop will be highly useful for gaining experience in nanoelectronics and nanotechnology.

### **OUTLINE OF THE WORKSHOP**

- Nanotransistors
- 3D Printing
- 3D TCAD Simulations
  - o FinFETS
  - Plasmonic Solar Cells
- Supercapacitors
- Green Hydrogen Generation
- Nanofluidics for Energy Harvesting

#### **SPEAKERS**

- Prof. Sang Ouk Kim (KAIST, South Korea)
- Prof. Kazunari Domen (University of Tokyo, Japan)
- Dr. Partha Mukhopadhyay (Tokyo Electron Ltd.)
- Prof. Swaroop Ganguly (IIT Bombay)
- Prof. Siddhartha Sankar Ghosh (IIT Guwahati)
- Prof. Uday Narayan Maiti (IIT Guwahati)
- Prof. Kalyan Raidongia (IIT Guwahati)
- Prof. Biman B. Mandal (IIT Guwahati)
- Prof. Tanmay Dutta (IIT Guwahati)
- Industry experts from Silvaco
- Industry experts from Vedanta



Last date for registration: 7 February, 2023