



SEMINAR ANNOUNCEMENT

“Silicon Nanodevices: Fabrication Method, Experimental and Simulation Characteristics”

Dr. Sabar D. Hutagalung

Department of Physics, Jazan University, Saudi Arabia

Monday, 20 November 2017, 12-1 PM

In this talk discussed fabrication of various shapes of silicon nanodevices by AFM lithography. Electrical characteristics of side gated junctionless silicon nanowire transistor (SGJLT) were selected as a focus of discussion. The experimental characteristics were measured using an Agilent 4156C Semiconductor Parameter Analyzer (SPA) inside a Lakeshore Cryogenic Probe Station. Meanwhile, 3-D TCAD Sentaurus tools are used as the simulation platform. Hydrodynamic model is taken to be as the main transport model for all simulations and the quantum mechanical effects are ignored.