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Department of Electronics & Communication Engineering

Report on "Analytical Modelling and Simulation of Non-Conventional MOSFETs" Organised by Dept. of ECE, 20th July 2020

Submitted by: Dr. Sankata Bhanjan Prusty, Associate Professor, Dept. of ECE

ECE Department conducted a webinar on "**Analytical Modelling and Simulation of Non-Conventional MOSFETs**" on 20-07-2020.

The resource person was: **Dr. Gopi Krishna Saramekala, Assistant Professor at NIT Calicut India.**

DR. GOPI KRISHNA SARAMEKALA is presently associated with the National Institute of Technology Calicut, India as an Assistant Professor in the dept. of Electronics and Communication Engineering. He obtained his M.Tech in Electronics and Instrumentation and PhD in Microelectronics from NIT Rourkela, India. His research focuses on Modeling, Simulation and Fabrication of Semiconductor Devices, 2D materials based Devices, Negative Capacitance FETs, Thin-Film Transistors etc. He has contributed some notable works in the domain of semiconductor devices and published in some reputed journals of IEEE, Springer, Elsevier, etc.

The main focus of the program was to motivate and create awareness among the students on basic challenges in short channel MOS Devices. The talk was focus towards recent and emerging technologies in the domain of Semiconductor Devices. Recent advances and their alternatives for short channel MOS devices will be discussed to encourage the students towards this field and main emphasis will be provided on the evolution of recent technology and its role in building more advanced VLSI devices. Main points of the event can sorted as

- To enhance basic knowledge of Semiconductor Physics and MOSFETs
- To familiar with CMOS Technology Boosters
- To motivate the students towards emerging technologies
- To understand the concept of non-conventional MOSFET
- To understand the challenge of short channel effects in MOS devices
- To familiarize about simulation using TCAD Tools