



Electronics & ICT Academy

(Under Ministry of Electronics and Information Technology (MeitY), Govt. of India)

Indian Institute of Technology Guwahati, Guwahati, Assam, Pin 781039

Phone: +91-361-2583182, +91-7086502139

Email: eictacad@iitg.ac.in, eictacad@gmail.com

A Short Term Course on “Application of Synopsys Sentaurus TCAD Tool for Modelling Devices”.

Venue: National Institute of Technology Mizoram.

Date: 08 - 12 October, 2018.

Reporting time on 08th October is 08:45 am.

Date	Time	Topic	Expert
08-10-2018 (Day 1)	09.00 am - 09.30 am	Registration & Reporting	-
	09.30 am - 10.00 am	Inauguration	
	10.00 am - 10.15 am	Tea Break	
	10.15 am - 12.00 noon	Expert Talk from Academia	Dr. Gaurav Trivedi, IIT Guwahati
	12.00 – 01.00 pm	Introduction to Wide Bandgap Power Devices.	Dr. Biplab Sarkar, IIT (ISM) Dhanbad
	01.00 pm - 02.00 pm	Lunch	
	02.0 pm - 03.00 pm	▪ Operation in Wide Bandgap Power Devices.	
	03.00 pm - 03.15 pm	Tea Break	
	03.15 pm - 05:00 pm	▪ Reliability in Wide Bandgap Power Devices.	
	05:00 pm - 05.15 pm	MCQ 1	
09-10-2018 (Day 2)	09.30 am - 11.00 am	▪ Modelling Challenges in Wide Bandgap Power Devices -I.	Dr. Biplab Sarkar, IIT (ISM) Dhanbad
	11.00 am - 11.15 am	Tea Break	
	11.15 am - 12.00 noon	Modelling Challenges in Wide Bandgap Power Devices –II.	
	12.00 noon - 01.00pm	Lunch Break	Mr. Ashok Kumar Ray, NERIST
	01.00 pm - 03.00 pm	Introduction to practical concepts of Sentaurus tool in modelling devices I.	
	03.00 pm - 03.15 pm	Tea Break	
	03.15 pm - 05:00 pm	Introduction to practical concepts of Sentaurus tool in modelling devices II.	
	05:00 pm - 05.15 pm	MCQ 2	
10-10-2018 (Day 3)	09.30 am - 11.00 am	▪ Introduction to Synopsys TCAD ▪ Overview of the tool	Mr. G. Krishna Kumar, Product Engineer - Synopsys TCAD, Eigen Technologies Pvt. Ltd
	11.00 am - 11.15 am	Tea Break	
	11.15 am - 01.00 pm	▪ Aspects about Synopsys TCAD & its Methodology	
	01.00 pm - 02.00pm	Lunch Break	
	02.00 pm - 03.00 pm	▪ GUI based Structure creation in Sentaurus Structure Editor (SDE) ▪ Scheme Script Command method in SDE	

Electronics & ICT Academy

(Under Ministry of Electronics and Information Technology (MeitY), Govt. of India)

Indian Institute of Technology Guwahati, Guwahati, Assam, Pin 781039

Phone: +91-361-2583182, +91-7086502139

Email: eictacad@iitg.ac.in, eictacad@gmail.com

		<ul style="list-style-type: none"> Project creation in Sentaurus Workbench (SWB) 	
	03.00 pm - 03.15 pm	Tea Break	
	03.15 pm - 05:00 pm	<ul style="list-style-type: none"> Including Variables in Workbench Visualization by Sentaurus Visual (SVISUAL) Analysis & Discussion 	
	05:00 pm - 05.15 pm	MCQ 3	
11-10-2018 (Day 4)	09.30 am - 11.00 am	<ul style="list-style-type: none"> Device Simulation: Sentaurus Device (SDEVICE) Material Parameter extraction 	Mr. G. Krishna Kumar, Product Engineer - Synopsys TCAD, Eigen Technologies Pvt. Ltd
	11.00 am - 11.15 am	Tea Break	
	11.15 am - 01.00 pm	<ul style="list-style-type: none"> Including Physics & Physical Models Simulation in SDEVICE 	
	01.00 pm - 02.00pm	Lunch Break	
	02.00 pm - 03.00 pm	<ul style="list-style-type: none"> Device Characteristics Extraction Calibration 	
	03.00 pm - 03.15 pm	Tea Break	
	03.15 pm - 05:00 pm	<ul style="list-style-type: none"> Visualization by INSPECT Analysis & Discussion 	
	05:00 pm - 05.15 pm	MCQ 4	
12-10-2018 (Day 5)	09.30 am - 11.00 am	<ul style="list-style-type: none"> Introduction to Process Simulation Structure creation by Sentaurs Process (SPROCESS) 	Mr. G. Krishna Kumar, Product Engineer - Synopsys TCAD, Eigen Technologies Pvt. Ltd
	11.00 am - 11.15 am	Tea Break	
	11.15 am - 01.00 pm	Calibration in Process Simulation	
	01.00 pm - 02.00pm	Lunch Break	
	02.00 pm - 03.00 pm	<ul style="list-style-type: none"> Device Characteristics & Output extraction. Visualization & Analysis 	
	03.00 pm - 03.15 pm	Tea Break	
	03.15 pm - 05:00 pm	<ul style="list-style-type: none"> Summary Discussion and Project Work 	
	05:00 pm - 05.15 pm	MCQ 5	
	05.15 pm – 05.45 pm	Closing ceremony and Certificate Distribution.	