

Short course Program

Modeling, Simulation and Characterization of
Nano-Transistors
26th -30th Oct. 2015

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Day-1 (Monday, 26th Oct. 2015)

Topic	Time	Venue	Speaker
Registration	8.00AM-9.00AM	Outreach	
Inauguration	9AM-9.15AM	Outreach	
Tea	9.15AM-9.45AM	Outreach	
Introduction	9.45AM-10AM	Outreach	Prof. Y. S. Chauhan
Physics of semiconductors	10.00AM-11.30AM	Outreach	Prof. B. Mazhari
MOSFET Physics	11.30AM-1.00PM	Outreach	Prof. A. Dutta
Lunch	1.00PM-2.30PM		
IC Fabrication	2.30PM-4PM	Outreach	Prof. N. Mohapatra
Introduction to PDK	4.00PM-5.30PM	Outreach	Prof. A. Dixit

Day-2 (Tuesday, 27th Oct. 2015)

Topic	Time	Venue	Speaker
MOSFET Modeling	9AM-10.00AM	Outreach	Prof. A. Dutta
MOSFET Fabrication	10.00AM-11.00AM	Outreach	Prof. N. Mohapatra
Break	11AM-11.30AM	Outreach	
Scaling, Moore's Law & FinFET	11.30AM-1.15PM	Outreach	Prof. A. Dixit
Lunch	1.15PM-2.30PM		
MOSFET Fabrication	3.30PM-4.30PM	Outreach	Prof. N. Mohapatra
Break	4.30PM-5PM	Outreach	
TCAD Simulation hands-on	5PM-6.30PM	Outreach	Eigen team
Banquet dinner	7PM-10PM	Outreach	

Day-3 (Wednesday, 28th Oct. 2015)

Topic	Time	Venue	Speaker
Circuit Simulation and SPICE	9.00AM-10.00AM	Outreach	Prof. Y. S. Chauhan
MOSFET Modeling	10.00AM-11.15AM	Outreach	Prof. A. Dutta
Break	11.15AM-11.45PM	Outreach	
Advanced Technology	11.45AM-1.00PM	Outreach	Prof. N. Mohapatra
Lunch	1.00PM-2.30PM		
Compact MOSFET Modeling	2.30PM-4.00PM	Outreach	Prof. Y. S. Chauhan
Break	4.00PM-4.30PM	Outreach	
Parameter Extraction and Keysight ICCAP demo	4.30PM-5.30PM	Outreach	Volunteer

Day-4 (Thursday, 29th Oct. 2015)

Topic	Time	Venue	Speaker
FinFET/FDSOI Modeling	9AM-11AM	L17	Prof. Y. S. Chauhan
Break	11AM-11.30AM		
Introduction to Device Characterization	11.30AM-1.00PM	L16	Keysight/ Cascade
Lunch	1.00PM-2.30PM		
IV/CV/RF characterization (Skype demo from lab)	2.30PM-4.30PM	L16	Keysight/ Cascade
Device Characterization Lab visit	4.30PM	WL-215	Keysight/ Cascade

Day-5 (Friday, 30th Oct. 2015)

Topic	Time	Venue	Speaker
Introduction to RF & RF MOSFET Modeling	9AM-11AM	LHC	Prof. K. V. Srivastava Prof. Y. S. Chauhan
Break	11AM-11.30AM		
GaN HEMT	11.30-1.00PM	LHC	Prof. Y. S. Chauhan
Lunch	1PM-2.30PM		
Physics at Nanoscale	2.30AM-4PM	LHC	Prof. A. Agarwal
Funding, Proposal writing, and New research topics	4.00PM-5.00PM	LHC	All
Tea/Certificates	5.00PM	LHC	