



ASET/AIIT EVENT REPORTS FOR AUGUST – 2018

Directorate of Outcome

Outcome Report

Event/Activity Organized @AUH

1. Event Type: Workshop

Event Title: Workshop on Silvaco Tools

Details of Speaker/Resource Person: Mr. Abhishek Attri

Date: 09/08/2018

Venue: Smart class C Block(C-214)

Organized by: ASET

Faculty Coordinator(s): Ms. Jagandeep Kaur & Ms. Shruti Karkra

Participation: ASET Faculty and Students (B. Tech. ECE/EEE and M. Tech. ECE)

Point wise highlights of the Event:

- General introduction of Silvaco
- Silvaco TCAD modules & their capabilities
 - Athena
 - SSuprem4
 - Optolith
 - MC Implant
 - Elite
 - MC Deposit/Etch
 - Atlas
 - S-pisces/Device 3D
 - Blaze 2D/3D
- Application Area
 - Power Devices
 - Display Technology
 - Reliability
 - Optical Devices
 - Advanced technology

Outcome of the Event with Time Line (Proposed/Achieved)

(Provide suitable details wherever applicable)

1. Outcome related to Academia Connect		
a) Collaborations for Research Papers/Conference Papers/ Book Chapter etc	N	
b) Collaborations & MOU for Research Guidance [PhD, PG & UG (summer training, Dissertation)] & Projects/Use of Instruments etc.	Y	• Silvaco allows optimization of existing processes and provide productive skilling behavior. • FEOL to BEOL application of this includes Advanced CMOS, SOI, TFT,LED, OLED, Power (Silicon,SiC,GaN), Optical(CIS,Solar cell, LASER)
c) Collaboration for Funded Projects.	N	
2. Outcome related to Industry Connect		
a) Placement	N	

b) Collaborations for Research Papers	N	
c) Collaborations & MOU for Research Guidance [PhD, PG & UG (summer training, Dissertation)] & Projects/Use of Instruments.	Y	• Reduces time to market for fabulous houses through creation of virtual process based PDK prior to silicon. • Reduces mask and prototyping foundry caused by replacing costly and time consuming experiments with quick and accurate simulation.
d) Collaboration for Funded Projects.	N	
3. Outcome related to Society Outreach		
a) Benefit to society in terms of Health & hygiene	N	
b) Benefit to society in terms of Education	Y	• Easy to learn • Powerful debug mode • User friendly SUPREM-like syntax • Automatic switching from 1D to 2D mode • Stress simulation ,including intrinsic, doping, lattice and thermal mismatch
4. Outcome related to Students Learning &Grooming		
• Extremely accurate and fast multi-threaded Monte Carlo implants simulation • Seamless link to 2D device simulators including structures monitoring, and electrode specifications. • Physics based opto lithographic simulator for realistic photo resist mask shape.		
5. Any other		

Enclose event report along with glimpses of the event(Photographs)



