



Advanced Workshop on Semiconductor Manufacturing

20th to 28th November 2025

Centre for Nano Science and Engineering
Indian Institute of Science, Bangalore-560012
Tel: 080-2293 3542 Email: workshop.cense@iisc.ac.in



Program Schedule

20th November 2025, Thursday (Online mode – Microsoft Teams)

Time	Event
10:00 AM – 10:30 AM	Introductory Session – Prof. Sushobhan Avasthi & Ms. Sabiha Sultana
10:30 AM – 11:30 AM	NNfC Safety Protocol – Ms. Shruti Hegde
11:30 AM – 12:15 PM	Introduction to Wet Etch Bay – Dr. Rekha M
12:15 PM – 1:00 PM	Introduction to Furnaces – Mr. Saleem Ahmed B

1:15 PM – 2.00 PM: Lunch Break

Time	Event
2:00 PM – 3:00 PM	Introduction to Thin Films – Mr. Chandan H B
3:00 PM – 4:00 PM	Introduction to Lithography – Mr. Ajeya Shettar
4:00 PM – 4:45 PM	Introduction to Dry Etch – Ms. Santhra M L
4:45 PM – 5:30 PM	Introduction to MOSFET Module – Ms. Sabiha Sultana

21st November 2025, Friday (Online mode – Microsoft Teams)

Time	Event
9:30 AM – 10:15 AM	Introduction to Electrical Characterization – Mr. Kumar M P
10:15 AM – 11:00 AM	Introduction to AFM – Mr. Prajwal R V
11:00 AM – 12:00 PM	Introduction to SEM – Dr. Rashmitha Keshava Devadiga
12:00 PM – 1:00 PM	Introduction to FTIR / UV Vis Spectroscopy – Ms. Sinchana R & Ms. Bindhu V

1:00 PM – 2.00 PM: Lunch Break

Time	Event
2:00 PM – 3:00 PM	Introduction to FIB – Dr. Nagabhushan J Choudhari
3:00 PM – 4:00 PM	Introduction to TEM – Mr. Ambresh M



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Holiday – 22nd November 2025, Saturday

Holiday – 23rd November 2025, Sunday

24th November 2025, Monday

Time	Event
8:30 AM – 9:00 AM	Registration for the Workshop (Ground Floor CeNSE Seminar Hall)
9:00 AM – 9:30 AM	Briefing & Introductory Session

MOSFET – Batch 1 09:30 AM – 1:00 PM	MOSFET - Batch 2 9:30 AM – 1:00 PM	MOSFET - Batch 3 9:30 AM – 1:00 PM	MOSFET - Batch 4 9:30 AM – 1:00 PM
Fabrication Session - 1 RCA Oxidation Ellipsometer (NNFC)	Characterization Session - 1 SEM / FIB (MNCF)	Lab Visit: Gas Sensor Lab Packaging Lab (Second Floor SF-31 & Third Floor TF-32)	Lab Visit: Packaging Lab Gas Sensor Lab (Third Floor TF-32 & Second Floor SF-31)

1:00 PM – 2:00 PM: Lunch Break (Ground Floor Parking Area)

MOSFET - Batch 1 2:00 PM – 5:00 PM	MOSFET - Batch 2 2:00 PM – 5:00 PM	MOSFET - Batch 3 2:00 PM – 5:00 PM	MOSFET - Batch 4 2:00 PM – 5:00 PM
Characterization Session - 1 SEM / FIB (MNCF)	Fabrication Session - 1 RCA Oxidation Ellipso (NNFC)	Characterization Session - 1 AFM / FTIR / UV-Vis spectroscopy (MNCF)	Characterization Session - 1 Probe Station 2 (MNCF)



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25th November 2025, Tuesday

MOSFET - Batch 1 9:30 AM – 1:00 PM	MOSFET - Batch 2 9:30 AM – 1:00 PM	MOSFET - Batch 3 9:30 AM – 1:00 PM	MOSFET - Batch 4 9:30 AM – 1:00 PM
Fabrication Session - 2 Litho 1 SiO ₂ wet etch Diffusion (NNFC)	Characterization Session - 2 AFM / FTIR / UV-Vis spectroscopy (MNCF)	Fabrication Session - 1 RCA Oxidation Ellipso (NNFC)	Characterization Session - 2 SEM / FIB (MNCF)

1:00 PM – 2:00 PM: Lunch Break (Ground Floor Parking Area)

MOSFET - Batch 1 2:00 PM – 5:00 PM	MOSFET - Batch 2 2:00 PM – 5:00 PM	MOSFET - Batch 3 2:00 PM – 5:00 PM	MOSFET - Batch 4 2:00 PM – 5:00 PM
Characterization Session - 2 AFM / FTIR / UV-Vis spectroscopy (MNCF)	Fabrication Session - 2 Litho 1 SiO ₂ wet etch Diffusion (NNFC)	Characterization Session - 2 SEM / FIB (MNCF)	Fabrication Session - 1 RCA Oxidation Ellipso (NNFC)

26th November 2025, Wednesday

MOSFET - Batch 1 9:30 AM – 1:00 PM	MOSFET - Batch 2 9:30 AM – 1:00 PM	MOSFET - Batch 3 9:30 AM – 1:00 PM	MOSFET - Batch 4 9:30 AM – 1:00 PM
Fabrication Session - 3 PSG etch+4pp ALD Al ₂ O ₃ Litho 2 SiO ₂ wet etch (NNFC)	Characterization Session - 3 Probe Station 2 (MNCF)	Fabrication Session - 2 Litho 1 SiO ₂ wet etch Diffusion (NNFC)	Characterization Session - 3 TEM (MNCF)

1:00 PM – 2:00 PM: Lunch Break (Ground Floor Parking Area)



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MOSFET - Batch 1 2:00 PM – 5:00 PM	MOSFET - Batch 2 2:00 PM – 5:00 PM	MOSFET - Batch 3 2:00 PM – 5:00 PM	MOSFET - Batch 4 2:00 PM – 5:00 PM
Characterization Session - 3 Probe Station 2 (MNCF)	Fabrication Session - 3 PSG etch+4pp ALD Al ₂ O ₃ Litho 2 SiO ₂ wet etch (NNFC)	Characterization Session - 3 TEM (MNCF)	Fabrication Session - 2 Litho 1 SiO ₂ wet etch Diffusion (NNFC)

27th November 2025, Thursday

MOSFET - Batch 1 9:30 AM – 1:00 PM	MOSFET - Batch 2 9:30 AM – 1:00 PM	MOSFET - Batch 3 9:30 AM – 1:00 PM	MOSFET - Batch 4 9:30 AM – 1:00 PM
Fabrication Session - 4 Metal dep Litho 3 (background) Metal dry etch Anneal (background) (MNCF)	Characterization Session - 4 TEM (MNCF)	Fabrication Session - 3 PSG etch+4pp ALD Al ₂ O ₃ Litho 2 SiO ₂ wet etch (NNFC)	Characterization Session - 4 AFM / FTIR / UV-Vis spectroscopy (MNCF)

1:00 PM – 2:00 PM: Lunch Break (Ground Floor Parking Area)

MOSFET - Batch 1 2:00 PM – 5:00 PM	MOSFET - Batch 2 2:00 PM – 5:00 PM	MOSFET - Batch 3 2:00 PM – 5:00 PM	MOSFET - Batch 4 2:00 PM – 5:00 PM
Characterization Session - 4 TEM (MNCF)	Fabrication Session - 4 Metal dep Litho 3 (background) Metal dry etch Anneal (background) (NNFC)	Characterization Session - 4 Probe Station 2 (MNCF)	Fabrication Session - 3 PSG etch+4pp ALD Al ₂ O ₃ Litho 2 SiO ₂ wet etch (NNFC)



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28th November 2025, Friday

MOSFET - Batch 1 9:30 AM – 1:00 PM	MOSFET - Batch 2 9:30 AM – 1:00 PM	MOSFET - Batch 3 9:30 AM – 1:00 PM	MOSFET - Batch 4 9:30 AM – 1:00 PM
Lab Visit: Gas Sensor Lab Packaging Lab (Second Floor SF-31 & Third Floor TF-32)	Presentation by participants (First Floor Multimedia Classroom FF-11)	Fabrication Session - 4 Metal dep Litho 3 (background) Metal dry etch Anneal (background) (NNFC)	Presentation by participants (First Floor Multimedia Classroom FF-11)

1:00 PM – 2:00 PM: Lunch Break (Ground Floor Parking Area)

MOSFET - Batch 1 2:00 PM – 4:00 PM	MOSFET - Batch 2 2:00 PM – 4:00 PM	MOSFET - Batch 3 2:00 PM – 4:00 PM	MOSFET - Batch 4 2:00 PM – 4:00 PM
Presentation by participants (CeNSE Seminar Hall)	Lab Visit: Gas Sensor Lab Packaging Lab (Second Floor SF-31 & Third Floor TF-32)	Presentation by participants (CeNSE Seminar Hall)	Fabrication Session - 4 Metal dep Litho 3 (background) Metal dry etch Anneal (background) (NNFC)

Time	Event
4:00 PM – 5:00 PM	Fabrication & Characterization Quiz (CeNSE Seminar Hall)
5:00 PM – 5:30 PM	Feedback, Valedictory & Concluding Session
5:30 PM – 6:00 PM	Hi-Tea

