



Seeing beyond

Time	Activity
	Day 1 Date 24 th July, 2025,
09:00 -09:45 AM	Registration, Inauguration & Introductory address by BITS (NSB Seminar Room)
09:45 -10:30 AM	Lecture: Studying cellular signaling or protein dynamics, looking into the cell with light microscopes (Prof. Shashi Prakash Singh)
10:30 -10:45 AM	Tea Break
10:45 -11:30 AM	Lecture: Fundamentals of Microscopy: Fluorescence & Microscopy Optical Sectioning
11:45 -12:30 PM	Lecture: Introduction to Widefield-Based Optical Sectioning of Optical Sectioning Techniques
12:30 - 1:30 PM	Lunch Break
1:30 PM- 3:00 PM (30 minutes Demo of Live Cell Imaging Set up for Each batch)	Demonstration of Zeiss Epifluorescence microscope with Live cell - Batch-1 (For 7 participants)
	Demonstration of Zeiss Epifluorescence microscope with Live cell - Batch-2 (For 7 participants)
	Demonstration of Zeiss Epifluorescence microscope with Live cell - Batch-3 (For 7 participants)
3:15 – 3:30 PM	Tea Break
3:30 – 5:00 PM (30 minutes hands- on of Live Cell Imaging Set up for Each batch)	Hands-on Practice session for Batch 1, Batch 2 & Batch 3
	Day 2 Date 25 th July, 2025,
09:30 -10:30 AM	Lecture: Introduction to Laser-Based Optical Sectioning (LSM) (NSB Seminar Room)
10:30 -10:45 AM	Tea Break
10:45 -11:30 AM	Lecture: LSM-Based SR Imaging. Techniques & Concept. HR Imaging of fixed and living cells at subcellular resolution.
11:30 -12:45 PM	Demonstration of ZEISS Confocal LSM 880 with live cells- Batch-1 (Time-lapse microscope, for 7 participants)-
	Demonstration of Axio Observer 7 with Apotome 3- Batch-2 (Apotome microscope, for 7 participants)-

01:45 – 2:30 PM	Demonstration of ZEISS Confocal LSM 880 with live cells- Batch-2 (Time-lapse microscope, for 7 participants)-
	Demonstration of Axio Observer 7 with Apotome 3- Batch-3 (Apotome microscope, for 7 participants
02:30 – 3:15 PM	Demonstration of ZEISS Confocal LSM 880 with live cells- Batch-3 (Time-lapse microscope, for 7 participants)-
	Demonstration of Axio Observer 7 with Apotome 3- Batch-1 (Apotome microscope, for 7 participants)-
3:15 - 3:30 PM	Tea Break
3:30- 5:00 PM	Hands-on Practice session End of Day 2
(30 minutes hands-	* <i>At the end of the evening, live samples will be set up on the microscope for</i>
on for Each batch)	overnight processing.
	Day 3 Date 26 th July, 2025,
09:30 -10:45 AM	Lecture: Introduction to Lattice Technology (SIM, Light sheet, and
	Lattice Light sheet) (An Overview) (NSB Seminar Room)
10:45 -11:00 AM	Tea Break
11:00 -12:00 PM	Test & Evaluation.
12:00 -12:45 PM	Discussion and Feedback (End of ZOYC)
12:45 –1:45 PM	Lunch
1:45 - 3:30 PM	Hands-on Practice session for Outstation Candidates only
3:30- 3:45 PM	Tea Break
3:45- 5:00 PM	Certificate distribution by BITS

#The scheduled time may be altered depending on the time taken for the practice session /Demonstration, or lecture; however, participants must ensure throughout the session that their doubts are clarified concerning their research objective.

Thank you for taking the time to read this. Your attention is truly appreciated.