



Workshop

on

Advances in Microscopy (AIM) - 2025 Optical imaging across the scales

organized by

Advanced Centre for Materials Science (ACMS)

In conjunction with

Materials Science & Engineering (MSE) and Biological Sciences & Bioengineering (BSBE), IIT Kanpur



4th September 2025 (Thursday)

Mode: Hybrid (Zoom link will be shared with registered participants)

Session I

(Venue: Faculty Building, FB - 421)

09:00 – 09:30

Registration

09:30 – 09:35

Introductory Remarks by Workshop Coordinator

Prof. Nitin Mohan (Faculty coordinator Live Cell Imaging Lab, ACMS)

09:35 – 09:45

Inaugural Address & About ACMS by

Prof. Anish Upadhyaya (Head, ACMS, IIT Kanpur)

09:45 – 09:50

Address by

Prof. Kantesh Balani (Head, Materials Science & Engineering, IIT Kanpur)

09:50 – 09:55

Address by

Prof. Amitabha Bandyopadhyay (Former Head, Biological Sciences and Bioengineering, IIT Kanpur)

09:55 – 10:00

Address by

Prof. Ashwani Kumar Thakur (Head, Biological Sciences and Bioengineering, IIT Kanpur)

10:00 – 10:30

High Tea & Group Photo

10:30 – 11:00

*Talk #1: From Magnifying Lenses to Super-Resolution Microscopy:
An Overview of Optical Imaging*

Prof. Nitin Mohan (Biological Sciences and Bioengineering, IIT Kanpur)



Session II

(Venue: Faculty Building, FB - 421)

11:00 – 11:30

*Talk #2: Confocal Imaging: The Optical Sectioning Technique
(Widefield to LSM)*

Mr. Rishi Kant (PASS APAC, Life Sciences Zeiss India)

11:30 – 12:00

Talk #3: Challenges in Microscopy of Non-adherent Cells

Prof. Rakesh Kumar Majhi (Biological Sciences and Bioengineering, IIT Kanpur)



12:00 – 12:30

*Talk #4: Live Cell Imaging Optical Sectioning Techniques:
Considerations and Applications*

Mr. Rishi Kant (PASS APAC, Life Sciences Zeiss India)



12:30 – 14:00

Lunch Break

Session III

(Venue: ACMS & Faculty Building, FB - 421)

14:00 – 15:00

Visit to Live Cell Imaging Lab and ACMS Facilities



15:00 – 15:45

*Talk #5: Studying Small Light Emitters and Scatterers using Optical
Microscopy*

Prof. Venkata Jayasurya Yallapragada (Department of Physics, IIT Kanpur)



15:45 – 16:30

Talk #6: Single-Molecule Imaging in Understanding Virus Life Cycle

Prof. Dibyendu Kumar Das (Biological Sciences and Bioengineering, IIT Kanpur)



16:30 – 17:30

Valedictory Session

Prof. Vimal Kumar (Professor-in-charge, Office of Outreach Activities, IIT Kanpur)

ACMS (www.iitk.ac.in/acms)

