



User Interaction Meeting on Science with IR/THz Free Electron Lasers

January 29- 30, 2026

Homi Sethna Hall, RRCAT Indore.

PROGRAM SCHEDULE

Day-1: Thursday, January 29, 2026

Registration 08:00 – 09:00

INAUGURAL FUNCTION 09:30 – 10:30

INAUGURATION OF INDUSTRIAL EXHIBITION
& DIRECTOR'S HIGH TEA
10:30 - 11:15

TS-1: IR-THz FELs, Associated Facilities & their Applications

11:15 – 11:45	Dr. Shilpam Sharma, RRCAT. IR-Free Electron laser & Associated User Facilities at RRCAT, Indore.
11:45 – 12:15	Dr. Bhuvan Kumar Sahu, IUAC, New Delhi. Free Electron Laser based Compact THz Facility at IUAC, New Delhi.
12:15 - 12:45	Dr. S. B. Roy, Visiting Professor, IIT Bombay. IR and THz Spectroscopic Signatures of the Mott Metal-Insulator Transition.

LUNCH 12:45 – 13:45

TS-2: Scanning-imaging and Study of Nonlinear Phenomena using Intense Pulses from IR/THz FELs

13:45 - 14:15	Prof. S. S. Prabhu, TIFR Mumbai. Probing Non-Equilibrium Phonon-Electron Dynamics in Topological Insulators using RRCAT IR-FEL.
14:15 - 14:45	Prof. Dipanshu Bansal, IIT Mumbai. Probing non-linear phenomena using intense pulses from IR/THz FELs.
14:45 - 15:15	Dr. S. Amirthapandian, IGCAR Kalpakkam. Role of terahertz spectroscopy/microscopy to study ion-solid interaction.

TEA 15:15 - 15:45

TS-3: Time Domain Studies using IR/THz FELs

15:45 - 16:15	Dr. Vasant Sathe, UGC-DAE-CSR, Indore. Stimulated Raman Scattering using FEL.
16:15 - 16:45	Dr. Pravin Velpula, UGC-DAE-CSR, Indore. UGC-DAE CSR User Station: Future Prospects Enabled by the IR Free-Electron Laser at RRCAT.
16:45 - 17:15	Prof. Jayeeta Bhattacharyya, IIT Madras. FEL based experiments for semiconductors.

ISPA EVENT, TEA BREAK & VISIT TO IR-FEL FICILITY
17:15 – 19:00, January 29, 2026

Day-2: Friday, January 30, 2026

TS-4A: IR-FEL based Spectroscopy Studies in Chemistry/Biology

09:30 – 10:00

Prof. Rajib Mitra, SNBNCBS, Kolkata.
Role of Hydration in Biomolecular Condensation: Insight from THz Spectroscopy
and the Potential Effect of High Intensity Radiation.

10:00 – 10:30

Dr. Khageswar Sahu, RRCAT, Indore.
An overview on the use of IRFEL for biomedical applications.

TEA BREAK 10:30 – 11:00

TS-4B: IR-FEL based Spectroscopy Studies in Materials & Molecular Clusters

11:00 – 11:30

Dr. Soumen Bhattacharya, BARC, Mumbai.
Probing the Structure of Metal Clusters with Infrared Free-Electron Lasers.

11:30 - 12:00

Prof. Rajesh Kumar, IIT Indore.
Electrochromic materials and devices for multifunctional applications.

TALKS BY INDUSTRY PARTNERS
12:00 - 13:15

13:15: 13:45

CLOSING SESSION

LUNCH 13:45