



INST - IISERM Bilateral Meeting 2022

14th and 15th March 2022

Jointly organized by

Institute of Nano Science and Technology
(Department of Science & Technology)

&

Indian Institute of Science Education and Research Mohali
(Ministry of Education)



“Institute of Nano Science and Technology” and “Indian Institute of Science Education and Research Mohali” are jointly organizing the first bilateral meeting on 14th and 15th March 2022. Faculty members from both the institutions across various disciplines will discuss their research activities followed by a poster session. This meeting will provide a platform to discuss the emerging trends in science and technologies that will foster collaborations on the various topics of mutual interest of the faculty members of these two neighboring institutions.



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Day 1: 14th March 2022
Venue: INST auditorium

Inaugural session

9:05-9:10hr	Dr. Suvankar Chakraverty
9:10-9:20hr	Prof. Amitava Patra (Director, INST)
9:20-9:30hr	Prof. J. Gowrishankar (Director, IISERM)

Session Theme: Functional Materials & Devices

9:30-9:35hr	Introduction about research in Physical Sciences at INST (Dr. Chandan Bera, Session Co-Chair)
9:35-10:00hr	Dr. Tripta Bhatia (IISERM)
10:00-10:25hr	Dr. Dipankar Mandal (INST)
10:25-10:50hr	Dr. Ananth Venkatesan (IISERM)

Tea Break: 10:50 to 11:40hr

11:40-11:45hr	Introduction about research in Physical Sciences at IISERM (Dr. Goutam Sheet, Session Co-Chair)
11:45-12:10hr	Dr. Ehesan Ali (INST)
12:10-12:35hr	Dr. K. P. Singh (IISERM)
12:35-13:00hr	Dr. Chandan Bera (INST)

Lunch Break: 13:00 to 14:30hr

Session Theme: Energy & Soft-matter

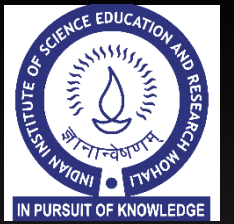
14:30-14:35hr	Introduction about research in Chemical Sciences at IISERM (Dr. Jino George, Session Co-Chair)
14:35-15:00hr	Dr. Kamalakannan Kailasam (INST)
15:00-15:25hr	Dr. Ujjal K. Gautam (IISERM)
15:25-15:50hr	Dr. Tapasi Sen (INST)

Tea Break: 15:50 to 16:40hr

16:40-16:45hr	Introduction about research in Chemical Sciences at INST (Dr. Debabrata Patra, Session Co-Chair)
16:45-17:10hr	Dr. Raj Kumar Roy (IISERM)
17:10-17:35hr	Dr. Jayamurugan Govindasamy (INST)
17:35-18:00hr	Dr. Subhabrata Maiti (IISERM)



INST - IISERM Bilateral Meeting 2022



Day 2: 15th March 2022
Venue: INST auditorium

**Session Theme: Probing biological systems:
mechanisms & applications**

9:25hr	Welcome
9:30-9:35hr	Introduction about research in Biological Sciences at IISERM (Dr. Mahak Sharma, Session Co-Chair)
9:35-10:00hr	Dr. Deepa Ghosh (INST)
10:00-10:25hr	Dr. Sabyasachi Rakshit (IISERM)
10:25-10:50hr	Dr. Asish Pal (INST)

Tea Break: 10:50 to 11:40hr

11:40-11:45hr	Introduction about research in Biological Sciences at INST (Dr. Deepika Sharma, Session Co-Chair)
11:45-12:10hr	Dr. Vidya Negi (IISERM)
12:10-12:35hr	Dr. Asif Khan Shanavas (INST)
12:35-13:00hr	Dr. Sharvan Sehrawat (IISERM)

Lunch Break: 13:00 to 15:00hr

Poster Session: 15:00 to 17:00hr

Concluding Session

17:00-17:15hr	Concluding Remarks (Prof. Arun Grover, Research Advisory Council, IISERM)
17:15-17:20hr	Vote of thanks (Dr. Rachna Chaba)

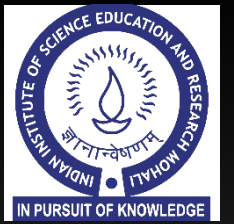
Title of Talks:

Session Theme: Functional Materials & Devices

- **Dr. Tripta Bhatia:** Functional synthetic soft biomaterials
- **Dr. Dipankar Mandal:** 3D printed technique: A possibility of ferroelectret fabrication with giant piezoelectric coefficient for high throughput mechanical energy harvester
- **Dr. Ananth Venkatesan:** Are phonons lagging behind a nano-beam? Non-linear damping phenomena in Palladium Nano-mechanical beams
- **Dr. Ehesan Ali:** Computational Designing of Single-Molecule Magnets
- **Dr. K. P. Singh:** Nano Processing and heterostructuring silk with light for ultrasensitive devices
- **Dr. Chandan Bera:** Theoretical and Computational Studies of Nanomaterials



INST - IISER Bilateral Meeting 2022



Title of Talks:

Session Theme: Energy & Soft-matter

- **Dr. Kamalakannan Kailasam:** Fuels from Natural Sunlight: Realising Ciamician's Dream
- **Dr. Ujjal K. Gautam:** Oxygen harvesting, hypoxia, and autophagy: new material properties and potential applications
- **Dr. Tapasi Sen:** DNA-assembled advanced plasmonic nanoantennas to enhance single molecule detection
- **Dr. Raj Kumar Roy:** Folding of aromatic polyamides into a rare intrachain β -sheet type structure and reinforcement of secondary structure through host-guest interactions
- **Dr. Jayamurugan Govindasamy:** Supramolecular Chemistry and Nanotechnology Assisted Development of Functional Organic Nanomaterials for Diverse Applications
- **Dr. Subhabrata Maiti:** Spatiotemporal Regulation in (Bio)molecular Assembly and Catalysis

Title of Talks:

Session Theme: Probing biological systems: mechanisms & applications

- **Dr. Deepa Ghosh:** Exploring a cellular self- destruction strategy with biosynthesized magnetic nanoparticles for health care application
- **Dr. Sabyasachi Rakshit:** Probing mechano-elasticity in age-related loss and cancer progression
- **Dr. Asish Pal:** Precision control over nanostructures from supramolecular peptides-functional polymers towards smart nanobiomaterials
- **Dr. Vidya Negi:** One pathogen many consequences: a challenge to deal
- **Dr. Asif Khan Shanavas** Photo-theranostics with inorganic and organic nanoparticles
- **Dr. Sharvan Sehrawat:** Single domain antibodies to probe and modulate anti-viral immunity