

# NEWSLETTER

*It brings us great pleasure to announce the successful release of the third edition of our newsletter. Our newsletter is an important platform that showcases the achievements and accomplishments of our faculty, students, and staff. We encourage you to take a moment to read through this latest edition of our newsletter and learn about the latest happenings at our institute. We hope you find it informative and engaging.*

## Future Hopes by Vigyan Prasar



Dr. Anindita Bhadra

Dr. Anindita Bhadra and Dr. Neelanjana Sengupta are both esteemed members of the Department of Biological Sciences, who have been recognized as Future Hopes in the compendium published by Vigyan Prasar on 75 women trailblazers of Indian Science. They are passionate about science and are committed to mentoring and inspiring the next generation of scientists. Their inclusion in the compendium is a testament to their achievements and their dedication to advancing the field of science in India.



Dr. Neelanjana Sengupta

## Selected as the Fellow of RSC 2023



Prof. Alakesh Bisai

The President of the RSC has invited Prof. Alakesh Bisai, Department of Chemical Sciences of IISER Kolkata, to become a 'Fellow of the Royal Society of Chemistry' (2023) through the 'Leaders in the Field' Scheme, based on research contributions in the field of Natural Product Synthesis [research highlights in 'Organic Chemistry Portal' as 'The Bisai Synthesis of (-)-Physovenine' and 'The Bisai Synthesis of Lycoramine'].

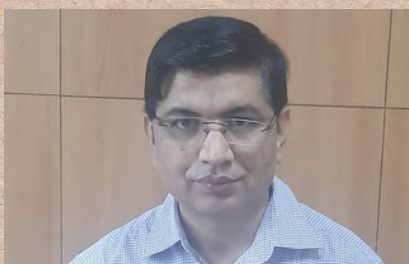
## Appointed as Honorary Professor



Prof. David Milstein

Prof. David Milstein is a distinguished chemist and researcher based at the Weizmann Institute of Science in Israel. We are privileged to have him as an Honorary Professor at IISER Kolkata. Prof. Milstein has made significant contributions to the field of chemistry and has received numerous accolades for his work. His research focuses on the development of new catalysts for chemical reactions, with a particular emphasis on sustainable and environmentally friendly methods.

## Invited talk at Gordon Research Conference



Prof. Ashwani K. Tiwari

Prof. Ashwani K. Tiwari from the Department of Chemical Sciences has been invited to deliver a talk on "Dynamics of Methane and Water Dissociation on Metal Alloy Surfaces" during the Dynamics at Surfaces Gordon Research Conference (GRC) to be held between July 23-28, 2023. His presentation is expected to be highly informative and generate interest among his peers in the field.



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## Achievement by Non-Teaching Staff Member

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Mr. Dibyendu Debnath

The start-up idea of **Mr. Dibyendu Debnath**, Assistant Registrar, Student Affairs came under the 'Promising Idea' category of the Ideapool Reviewers in a prestigious competition conducted by the Research Innovation and Scientific Entrepreneurship (RISE) Foundation IISER. The foundation serves as a nodal hub to enhance entrepreneurship in the eastern and north-eastern parts of India.

In addition to this recognition, RISE has also announced a special 'Service Wallet Coupon' for Scientific Advisory Assistance, which will undoubtedly help Mr. Debnath in his entrepreneurial journey. We are proud to see individual efforts rewarded and hope this recognition will inspire others to pursue innovative ideas and entrepreneurial endeavors.

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## Students' Achievements

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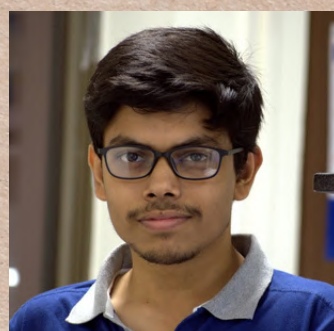


IICM 2022 Team

After the long pandemic, IISER Pune took up the initiative to host the Inter IISER Cultural Meet in 2022. After rigorous selection procedures, a relatively young team of the first and second years, guided by the 18MS seniors, was formed to compete for IISER Kolkata in IICM. IISER Kolkata participated in every offline event as well as most online events, and after three days of nail-biting competition and immense tension, Our students finally conquered a triumph over the rival squads in IICM 2022. IISER Kolkata bagged 9 Medals, with 3 Golds in JAM, Debate, and Short Film; 4 Silvers in Stand Up, Drama, Duet Singing and Short Film again !; and 2 Bronzes in a Music band and Wall Painting! This victory will provide an immense motivation in the future generations of IISER Kolkata.

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**Dr. Bibhasvata Dasgupta** recently completed his PhD under the guidance of Prof. Prasanta Sanyal at the Stable Isotope Laboratory of the Earth Sciences department in January 2023. After completing his PhD, Dr. Dasgupta received offers from four different Postdoctoral positions at prestigious universities such as Columbia University, the University of Texas, the National University of Singapore, and Utrecht University. Dr. Dasgupta has chosen to accept the offer from Utrecht University for his postdoctoral research.



**Mr. Subhadeep Gupta**, a PhD student of Dr. Amirul Islam Mallick, Department of Biological Sciences, received the SERB International Travel Support (ITS) award. The award was granted for Mr. Gupta's research work on "T6SS dependant microbial competition under environment stress," which he will present at the Microbiology Society Annual Conference.

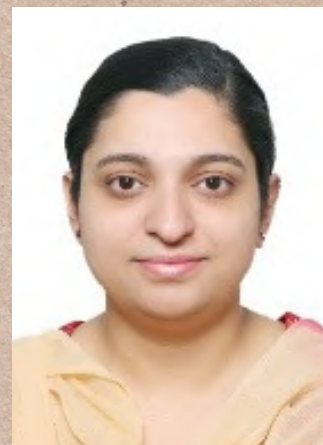


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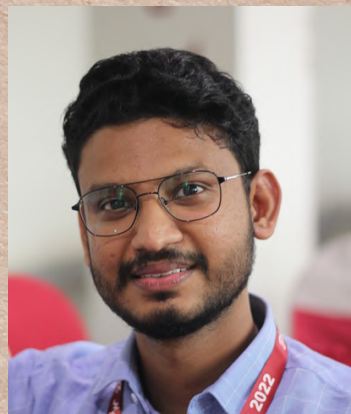
## Students' Achievements

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**Dr Debdatta Ray**, a National Post-Doctoral Fellow working in the bioNAP lab under Prof. Nirmalya Ghosh, Department of Physical Sciences, IISER Kolkata, has recently been awarded the INSPIRE Faculty Fellowship. Her award-winning proposal is "Spin-orbit photonics in the palm of your hand: A first-of-its-kind miniaturized weak measurement meta-device with SOI metasurfaces." Before joining IISER Kolkata, Dr. Ray was working a post-doctoral fellow at the University of Muenster, Germany, with the Women in Science (WIRE) Fellowship. She was also awarded the Swiss Government Excellence Scholarship to complete her PhD from the Swiss Federal Institute Of Technology, Lausanne (EPFL, Switzerland).



**Mr. Madhav Sharma**, an Integrated Ph.D. student of Prof. Jayasri Das Sarma, Department of Biological Sciences, has received the "Early Career Investigator Travel Award" as well as the "Young Investigator Award for Most Outstanding Oral Presentation" for the work on "Ifit2 restricts murine betacoronavirus induced spinal cord pathology" that he presented at the 27th International Scientific Conference of the Society on Neuro-Immune Pharmacology, which was held from March 15-18, 2023 for the first time in India (New Delhi) in association with the National Brain Research Centre, Manesar, Gurgaon, Haryana.



**Mr. Sourabh Biswas**, a senior PhD student at the Dog Lab under the guidance of Dr. Anindita Bhadra in the Department of Biological Sciences, has recently been awarded the Developing Nations Award by the Animal Behavior Society in the USA. This prestigious award recognizes his outstanding research contributions to the field of animal behavior, particularly in understanding canine behavior and cognition.



IISER Kolkata recently participated in the sports meet held at IIT (ISM) Dhanbad from March 17th to 19th, and achieved great success in multiple events. The team participated in Athletics, Basketball, Chess, Cricket, Football, Table Tennis, and Lawn Tennis. The team has performed exceptionally well and has brought laurels to the institution.



## Events



International Mother Language Day

The celebration of International Mother Language Day at IISER Kolkata is a testament to the Institute's commitment to promoting linguistic diversity and cultural exchange. On this occasion, IISER Kolkata organized various events and activities, highlighting the importance of preserving and promoting linguistic diversity. Through these events and activities, IISER Kolkata aims to create awareness about the importance of preserving mother languages and promoting multilingualism, which is essential for developing a culturally diverse and harmonious society.



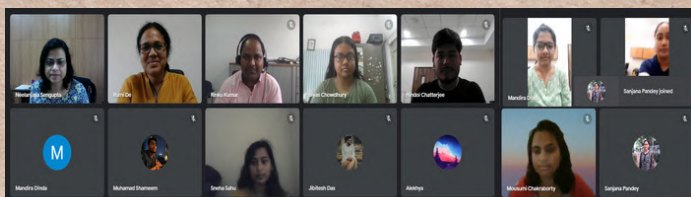
Ek Pehal's Anniversary

On February 11th, 2023, Ek Pehal celebrated its anniversary with its beloved students from nearby villages. The children participated in dance, drama, and singing performances, showcasing their career aspirations through a fashion walk and sharing their thoughts and ideas. The event was a grand achievement thanks to the hard work and dedication of every volunteer and supporter who contributed to its success. Ek Pehal is now resuming in-person classes for the children on their campus and taking small but significant daily steps toward a brighter future.



Speak for India

Mr. Abhigyan Saha, an alumnus of IISER Kolkata, won the National Debate Competition: SPEAK FOR INDIA, IISER Kolkata SAC Cultural took up the responsibility to host this year's District Level Selection Round for SPEAK FOR INDIA, 2023. A total of 80 participants registered for this competition, and 4 IISER Kolkata students made us proud by qualifying for the next round. Dr. Neelanjana Sengupta judged the event, and the students enjoyed themselves while competing with each other.



International Biophysics Week

On March 24th, members of the "Gāṅgeya" Student Chapter at IISER Kolkata celebrated the International Biophysics Week. The event consisted of four research talks that covered various areas of biophysics. Each webinar included a lecture that lasted between 20-30 minutes, followed by a Q&A session that lasted between 5-10 minutes. The purpose of the event was to provide an opportunity for students to learn more about biophysics and engage in discussions with experts in the field.



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## SEMINAR

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- Dr. Arindam Mondal [Assistant Professor, School of Bioscience, Indian Institute of Technology (IIT) Kharagpur] delivered a talk on 01.03.2023: "Tracking the adaptation hotspots in bat influenza virus RNA polymerase."
- Dr. Manuel Rivera [Assistant Professor, Purdue University] delivered a talk on 01.03.2023: "Algebraic models for loop spaces I."
- Prof. Saikat Chatterjee [School of Electrical Engineering and Computer Science, KTH-Royal Institute of Technology, Sweden] delivered a talk on 02.03.2023: "Generative Models and Role of Deep Neural Networks."
- Dr. Manuel Rivera [Assistant Professor, Purdue University] delivered a talk on 02.03.2023: "Algebraic models for loop spaces II."
- Dr. Somoday Hazra [Post-Doctoral Fellow, Faculty of Medicine, Technion I.I.T Haifa, Israel] delivered a talk on 03.03.2023: "PTSD and its challenges to create an animal model to investigate the role of hippocampal CaMKII in trauma resilience."
- Dr. Manuel Rivera [Assistant Professor, Purdue University] delivered a talk on 03.03.2023: "Algebraic models for loop spaces III."
- Dr JJ Vittal [Emeritus Professor of Chemistry, National University of Singapore] delivered a talk on 09.03.2023: "Dynamic Photoreactive Crystals."
- Mr. Sankha Subhra Bakshi [IPhD Student, HRI, Allahabad] delivered a talk on 13.03.2023: "Nonequilibrium dynamics of suppression, revival, and loss of charge order in a laser-pumped electron-phonon system."
- Dr. Soumen Sarkar [Assistant Professor, IIT Madras] delivered a talk on 14.03.2023: "Some basics on locally  $k$ -standard  $T$ -manifolds."
- Dr. Arnab Chakraborty [Associate Professor, ISI Kolkata] delivered a talk on 15.03.2023: "Complete Information Impartial Games."
- Dr. Soumen Sarkar [Assistant Professor, IIT Madras] delivered a talk on 16.03.2023: "Some basics on locally  $k$ -standard  $T$ -manifolds."
- Prof. René Michael Königs [Professor, RWTH Aachen University, Germany] delivered a talk on 20.03.2023: "Lighting up carbene and nitrene transfer reactions."
- Dr. Shibanda Das [Post-Doctoral Fellow, Department of Polymer Science and Engineering, University of Massachusetts Amherst, USA] delivered a talk on 21.03.2023: "Self-organization of biomolecular condensates."
- Prof. S S Prabhu [Professor, TIFR] delivered a talk on 22.03.2023: "Development of Tera-Hertz (THz) Spectroscopy for the study of Materials."
- Prof. Ansuman Lahiri [Professor, Department of Biophysics, Molecular Biology & Bioinformatics, University of Calcutta] delivered a talk on 22.03.2023: "Simulating Modified RNA."
- Prof Arnab Bhattacharya [Professor, Tata Institute of Fundamental Research, Mumbai] delivered a talk on 23.03.2023: "How to give a bad talk! 10 commandments and more."
- Prof Swapan Pati [Professor, JNCASR] delivered a talk on 27.03.2023: "Modeling Transport Properties of Phonons and Charge Carriers in a few Materials."
- Mr. Santanil Jana [PhD student, UBC Canada] delivered a talk on 28.03.2023: "Mod 2 Cohomology of Unordered Flag Manifolds."
- Dr. Subhro Bhattacharjee [Associate Professor, International Centre for Theoretical Sciences, Bengaluru] delivered a talk on 29.03.2023: "Quantum Spin liquids."



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## SEMINAR

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- Prof. Supratim Datta [Professor, DBS, IISER Kolkata] delivered a talk on 29.03.2023: "Tapping thermophilic enzymes for biomass degradation: What have we learned about engineering better enzymes?"
- Dr. Soumya Sengupta [Post-Doctoral Researcher, Indian Institute of Astrophysics, Bengaluru] delivered a talk on 29.03.2023: "Modelling Exoplanetary Atmospheres: The Theoretical View."
- Prof. Sagar Chakraborty [Professor, IIT Kanpur] delivered a talk on 30.03.2023: "Game-theoretic meaning of oscillatory outcomes in evolutionary dynamics."
- Dr. Subhro Bhattacharjee [Associate Professor, International Centre for Theoretical Sciences, Bengaluru] delivered a talk on 30.03.2023: "A toy model of quantum spin liquids: Details and FAQ."
- Prof. EV Gireesh [Corporate Trainer and Life Coach] delivered a talk in a seminar on 30.03.2023 with the help of Brahma Kumaris.

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## COLLOQUIUM

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Prof. Soumitra Sengupta

Prof. Soumitra Sengupta, a senior professor at the Indian Association for the Cultivation of Science (IACS) in Kolkata, delivered a talk on March 1st, 2023, as part of an Institute Colloquium. The title of his talk was "A Journey to the World of Hidden Dimensions." Prof. Sengupta's talk provided a fascinating glimpse into the world of theoretical physics and the ongoing quest to uncover the hidden dimensions of our universe.



Prof. Ashutosh Chilkoti

Prof. Ashutosh Chilkoti, the Alan L. Kaganov Distinguished Professor at Duke University's Department of Biomedical Engineering, gave an Institute Colloquium on March 15th, 2023, entitled "Functional Biomolecular Condensates from Synthetic Intrinsically Disordered Proteins". During his talk, Prof. Chilkoti discussed his research on using synthetic intrinsically disordered proteins (IDPs) to create functional biomolecular condensates.



Dr. Ankit Barik

On March 16th, Dr. Ankit Barik, a post-doctoral researcher at Johns Hopkins University in Baltimore, United States, delivered a talk titled "Stably Stratified Layers in Planets and Stars" that focused on the behavior of stable fluid layers in planets and stars. Mr. Barik discussed how these stable layers are formed, their properties, and their impact on the overall behavior of the planetary or stellar system.