

## NEWSLETTER

INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH KOLKATA APRIL 2023



Mr. Rakhal Chandran, a 5thyear BS-MS student at the DMS, has been offered the prestigious Presidential Award for the 2023-24 academic year at Purdue University. Mr. Chandran had already received an offer letter from Purdue University pursue а PhD Mathematics.



Mr. Adway Kumar Das, a PhD student of Anandamohan Ghosh from the DPS at IISER Kolkata. won the prestigious 2023-24 Fulbright Nehru Doctoral Research Fellowship. The Fulbright-Nehru Doctoral Research Fellowships are highly competitive and prestigious awards that provide doctoral opportunities for students conduct research in the USA.

## Students' Achievement



Three students of Prof. Sumana Annagiri from the Department of Biological Sciences (DBS) at the Indian Institute of Science Education and Research (IISER) Kolkata have been awarded Student Research Grants for 2023 by the Animal Behavior Society. This recognition is a significant achievement for the students highlights the excellent mentorship provided by Prof. Annagiri. The grants will enable the students to conduct highquality research in animal behavior and contribute to the scientific community's understanding of this subject.



Mr. Manish Kumar Pathak has received \$1500 on the topic - Examination of how ants rescue nestmates when face thev an "Earthquake" and if they preferential show any rescue towards some of their nestmates as compared to others.



Ms. Anwesha Acharjee has received \$1995 on the topic David Tuber Applied Animal Behaviour award, Topic - Impact of pesticides on thememory of a nontarget tropical ant.



Mr. Subhasis Halder has received \$2000 on the topic-Physiochemical mechanisms of aueen control via a novel fertility signal in an ant.



## Biology through the Lenses of Evolution (EvoBio 2023)

A group of research scholars from the Behaviour and Ecology lab organized a student-led multiphasic outreach event for the propagation evolutionary knowledge among governmental schools in Jharkhand and West Bengal. The workshop aimed to deepen the understanding of evolutionary biology among students at a grassroot level by targeting rural school science teachers and young biologists. Over a dozen evolutionary biologists from esteemed institutions such as IISER Mohali, IISER Pune, JNCASR, University of Cambridge, Ashoka University, and Krea University were invited to interact and share their ongoing research with participants in layman terms.





Prof. Neelanjana Prof. Ashwani K Tiwari Sengupta Theoretical Chemistry The Symposium (TCS) series has continued to provide an platform exciting for presenting, sharing, and exchanging emergent ideas on wide ranging topics in Theoretical and Computational Chemistry. Following success of the latest edition, ChemPhysChem has joined hands with Prof. Aswani Tiwari and Prof. Neelanjana Sengupta to present a Special Collection with contributions from the TCS 2021 participants.



Prof. Swadhin Mandal recently visited the Department of Molecular Chemistry and Material Sciences of Weizmann Institute of Science (WIS), Israel, as its prestigious Erna and Jakob Michael Visiting Professor. During this visit, he delivered a colloquium at WIS on the concept he had developed on transition metal mimicking catalysis by electron transfer using small molecules.



Prof. Prasanta K. Panigrahi, Director of IISER Kolkata, has been nominated as a member of the Inter-Ministerial/Expert Committee to discuss and deliberate on the implementation of specific technologies in the areas of Quantum Technologies. As a member of the committee, Prof. Panigrahi will bring his expertise to the discussions and provide valuable insights into the implementation of Quantum Technologies in India.

## **SEMINARS**

- Dr. Guha Dharmarajan [Associate Professor, Division of Sciences, School of Interwoven Arts and Sciences, Krea University] delivered a talk on 03.04.2023: "Human disturbance increases disease emergence risk through predictable changes in parasite community structure."
- Dr. Debdatta Ray [National Postdoctoral Fellow, DPS, IISER Kolkata] delivered a talk on 05.04.2023: 'Metasurface: Miniaturizing optics to the palm of our hand."
- Prof. Benu Brata Das [Professor, Laboratory of Molecular Biology, School of Biological Sciences, IACS Kolkata] delivered a talk on 05.04.2023: "Insight into the DNA breaks-induced genomic instability and the underpinning cause of human diseases."
- Dr. Debanjan Bose [Ramanujan Fellow, S. N. Bose National Centre for Basic Sciences] delivered a talk on 06.04.2023: "Multi-Messenger Study of High Energy Astrophysical Sources."
- Mr. Anjan NM [PhD Student, IISER Kolkata] delivered a talk on 10.04.2023:
  "Ultrafast trapping dynamics in wide bandgap semiconductors."
- Dr. Ishu Saraogi [Associate Professor, DCS, IISER Bhopal] delivered a talk on 11.04.2023: "Chemical Approaches to Tackle the Pandemic of Antibiotic Resistance."
- Prof. Subroto Mukerjee [Professor, DPS, IISc Bangalore] delivered a talk on12.04.2023: "The localization transition in quasiperiodic and interacting systems: A recursive Green's function approach."
- Mr. Ruturaj [IPhD Student, DBS, IISER Kolkata] delivered a talk on 12.04.2023:
  "Differential regulation of homologous Cu-ATPases ATP7A and ATP7B at the trans-Golgi network governs their apico-basolateral trafficking polarity."
- Dr. Sanku Paul [National University of Singapore, Singapore] delivered a talk on 13.04.2023: "Hidden quantum criticality and entanglement in quench dynamics."
- Dr. Basudev Roy [Assistant Professor, DPS, IIT Madras] delivered a talk on 13.04.2023: "Study of some soft matter and biological systems using rotational optical tweezers."
- Prof. Sourov Roy [Senior Professor, IACS Kolkata] delivered a talk on 19.04.2023: "Searching for relativistic axions in the sky."
- Dr. Subhajit Barman (IIT, Madras] delivered a talk on 26.04.2023: "Radiative processes of single and entangled detectors on circular trajectories in (2+1) dimensional Minkowski spacetime."
- Prof. Mohit Prasad [Professor, DBS, IISER Kolkata] delivered a talk on 26.04.2023: "Gap Junctions in Cell Death: Lessons from Drosophila egg."
- Prof. J. Jayabalan [Faculty of Physics and Center for Nanointegration (CENIDE), University of Duisburg-Essen, Germany] delivered a talk on 28.04.2023: "Ultrafast Dynamics in 2D Materials for Quantum Technological Applications."