

VIBES

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Amrit Mahotsav

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ONE EARTH • ONE FAMILY • ONE FUTURE

NISER Newsletter

www.niser.ac.in/vibes

January-June

2023



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MESSAGE FROM THE DIRECTOR



I am pleased to extend my warm greetings as we usher in the January-June 2023 edition of Vibes. This compilation stands as a testament to our institution's unwavering commitment to excellence, innovation, and the pursuit of knowledge.

In the pages that follow, you will find a panorama of accomplishments that reflect the dedication and collaborative spirit that define NISER. From groundbreaking research endeavours to impactful outreach initiatives, our community continues to elevate the institution's standing on the national and global stage.

I am particularly delighted by the significant collaborations that have materialised, further enriching our academic landscape. Our partnership with the Odisha State Higher Education Council (OSHEC) exemplifies our commitment to fostering cross-disciplinary alliances that amplify the impact of our research and innovation.

As we celebrate the remarkable achievements of our alumni, I am reminded of the enduring legacy of NISER's holistic education. The accomplishments of individuals like Mr. Debasish Jena and Dr Sourav Kundu reinforce our dedication to nurturing future leaders who contribute meaningfully to society.

The diverse initiatives showcased in this edition - from G20 awareness campaigns to educational camps - underscore our commitment to creating a dynamic learning environment that extends beyond our campus walls.

I express my heartfelt appreciation to every individual whose efforts have contributed to the vibrancy of this newsletter. It is your dedication, innovation, and tireless pursuit of excellence that propels NISER's continued growth.

Warm regards,

Prof. A. Srinivasan

Officiating Director, NISER

ADVANCED FACILITIES, EQUIPMENTS AND SERVICES

New Facilities

In the quest for scientific eminence, NISER has made significant strides in expanding its research capabilities by introducing state-of-the-art facilities, equipment, and services. This commitment to technological advancement manifests our adherence to fostering groundbreaking discoveries across multiple domains. Herein, we spotlight several remarkable additions: Electrospray ionization (ESI) mass Spectrometry, a home-built vector network analyzer (VNA) based ferromagnetic resonance setup in which one can perform FMR measurements up to 26 GHz, Supercontinuum Laser, and Optical Spectrum Analyzer, Femtosecond amplified laser system and high power laser lab, Ultrafast terahertz spectroscopy, Semiconductor Parameter Analysis System, High frequency electrical characterization System, Low temperature Photo conducting Cryostat based Probe Station, Panchromatic Cathodoluminescence attachment in FESEM, and High temperature reactor for 2D materials growth.

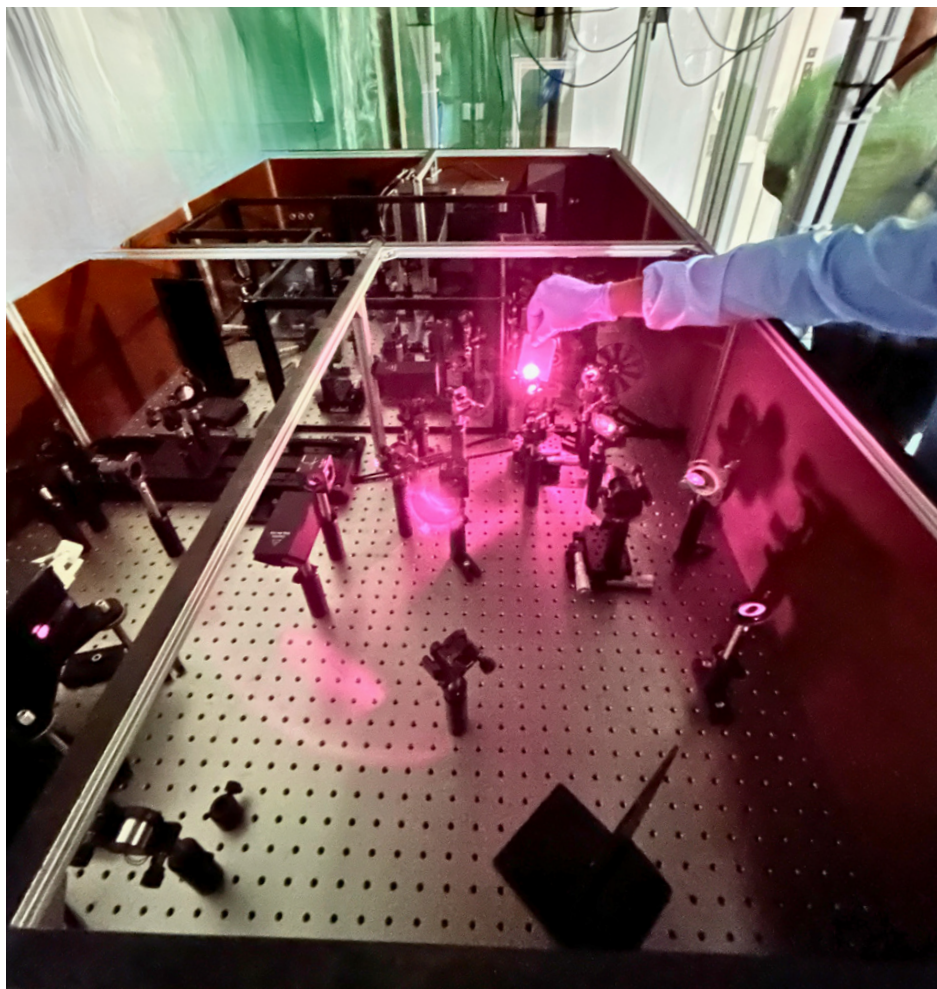
CMRP: Advancing Detector Systems

Within the Centre for Medical and Radiation Physics, a spectrum of cutting-edge equipment and facilities have been established to drive innovation in detector systems. Notable additions include a Multichannel gas mixing system, ISO-6 cleanroom with dual passbox, Gas and silicon detector laboratories, TL/OSL research reader, Film dosimetry system and UV/visible spectrometer.

Cyclotron Facilities

NISER's ambitious undertaking, the Cyclotron Centre Facility, is a testament to the institute's commitment to innovation. This facility, designed for Medical, Basic, and Applied Sciences, will catalyse research and development in diverse domains, including nuclear medicine, nuclear physics, material sciences, radiation biology, and radiation chemistry. It is envisaged to provide a base for the skill development of human resources in applied science courses like Medical Physics (already operational at NISER) and Nuclear Medicine Technology. The facility can impart training to Medical Cyclotron engineers, operators and Radio

pharmacists, as well as undergraduate and postgraduate students of NISER in acceleration sciences, radiation physics and handling of state-of-the-art equipment, data acquisition, radiation safety, and detectors. Underpinned by 50 per cent funding assurance from the Government of Odisha, our collaboration with the Department of Atomic Energy signifies a strategic partnership in realising this exceptional facility. The strides in expanding NISER's technological frontiers and forging meaningful collaborations epitomise the institute's unwavering allegiance to scientific progress and its broader societal implications.



Popular Science Section

A momentous occasion was celebrated on February 28, National Science Day, as the Central Library unveiled its latest endeavour – the Popular Science Section exclusively for its members. This specialised section is tailored to cater to the reading preferences of those predominantly engaged with scientific, technical, and scholarly literature.



New Seminar Hall Complex

NISER's infrastructure received a significant boost with the introduction of two state-of-the-art seminar halls on April 27, 2023. Named after eminent scientists Homi Jehangir Bhabha and Vikram Ambalal Sarabhai, these halls symbolise our commitment to intellectual exchange and partnership. These halls are enhanced by contemporary design and feature cutting-edge audio-visual systems that elevate presentations into dynamic interactions. The spacious layout enables interactive dialogues, catering to diverse discussions. The Homi Bhabha and Vikram Sarabhai Seminar Halls are more than spaces; they embody NISER's focus on collaborative thinking and transformative idea exchange.



Cancer Awareness Programme

On February 4, 2023, on the occasion of World Cancer Day, a collective effort from the Khordha District Administration, Tata Memorial Center, and NISER led to the organisation of an "Awareness Programme for World Cancer Day." The event, held at NISER's Pathani Samanta Auditorium, garnered the participation of approximately 1,200 students from various educational institutions. Spearheaded by Prof. Bedangadas Mohanty, the event welcomed the district collector of Khordha, Shri K Sudarshan Chakravarthy, as the chief guest. It featured speakers from TMC and NISER, including Dr. Lingaraj Nayak, Dr. Aruna Kujur, Dr. Swetlana Panda, Dr. Bandita Dash, and Prof. Bedangadas Mohanty.



ACADEMIC EVENTS

Academic Events Organised



Symposium on Interdisciplinary Sciences



Editorial Talk by Thieme Publisher



HBNI Interaction Meeting in Chemical Sciences



Theme Meeting on CBM Experiment



Odisha Vision 2036 Conclave

- From January 12 to 14, 2023, the OEA, along with Utkal University's Department of Analytical and Applied Economics and NISER's School of Humanities and Social Sciences, jointly hosted the **Odisha Vision 2036 Conclave**, focusing on insightful discussions and cooperation.
- NISER's School of Chemical Sciences held the inaugural **"HBNI Interaction Meeting in Chemical Sciences"** from January 18 to 20, 2023. The event strove to cultivate cooperation among chemists from diverse DAE units (including BARC Mumbai, IGCAR-Kalpakkam, SINP-Kolkata, and HBNI's Central office), facilitating vibrant exchanges.
- The Centre for Interdisciplinary Sciences (CIS) at NISER, Bhubaneswar, organized its inaugural conference, **"Symposium on Interdisciplinary Sciences"** (SIS-1), on January 27 to 28, 2023. CIS, a state-of-the-art interdisciplinary research centre, provides advanced analytical techniques for scientists from various disciplines under one platform. The conference, held at NISER's Pathani Samanta Auditorium, featured prominent Indian speakers, scientific sessions, and discussions, striving to facilitate interaction and idea exchange in interdisciplinary fields such as Physics, Chemistry, Biology, and Earth & Planetary Science. Over 100 participants, including students and postdoctoral fellows, engaged in the symposium, facilitating knowledge exchange and coordination.
- In partnership with Thieme Publisher, the Central Library of NISER co-organised an Editorial Talk titled **"Common Pitfalls for Scientific Writing & Science of Synthesis"** on January 30, 2023. Dr. Rohit Bhatia, Acquisitions Editor at Thieme Chemistry, led the session.
- The School of Physical Sciences hosted the "Emergent Topics in Relativistic Hydrodynamics, Chirality, Vorticity, and Magnetic Field" conference from February 2 to 5, 2023. Aligned with ICPAQGP 2023, the event convened global experts to concentrate on discussing relativistic hydrodynamics, chirality, vorticity, and magnetic fields.
- From February 3 to 4, 2023, the School of Physical Sciences at NISER organised a **"Theme Meeting on Compressed Baryonic Matter (CBM) Experiment – Science and Technology"**, focusing on its science and technology aspects. The meeting, spearheaded by Prof. Bedangadas Mohanty, delved into the intricate details of the CBM experiment and its related advancements.
- In collaboration with SINP, BARC, IMSc, Calcutta University, IOP, and TIFR, the School of Physical Sciences at NISER conducted the **"International Conference on Physics and Astrophysics of Quark Gluon Plasma (ICPAQGP-2023)"** from February 7 to 10, 2023. The conference sought to illustrate the latest theoretical and experimental progress related to Quark-Gluon Plasma (QGP). Additionally, the event underlined QGP's astrophysical significance in comprehending the early universe.
- From February 20 to 25, 2023, the School of Mathematical Sciences at NISER organised the **"Workshop on Number Theory."** The workshop aimed to gather specialists in L-functions and related fields, offering instructional talks to enhance participants' foundational grasp of the research domain and to shed light on current advancements.

- The School of Mathematical Sciences at NISER conducted the "**Conference on Group Theory and Related Topics**" from February 27 to March 4, 2023. The conference promoted discourse on diverse subjects linked to group theory and its practical applications.
- The School of Humanities and Social Sciences at NISER organised the "**National Conference on Science in Everyday Life**" held from March 24 to 25, 2023. The conference aimed to enhance interdisciplinary dialogue concerning the diverse influences of science on daily societal experiences.
- From April 24 to 26, 2023, the School of Physical Sciences at NISER organised a three-day meeting on "**Current Topics in String Theory and Cosmology**."
- The "**Physics of Quantum Matter School**" was hosted by the School of Physical Sciences at NISER from May 22 to June 03, 2023. The programme was designed for early-stage PhD students and delved into fundamental quantum condensed matter physics concepts. Approximately 75 participants from across India engaged in the school's activities.
- On May 29, 2023, the Computer Centre of NISER organised a talk by Mr. Thirumal titled "**Introduction to Hybrid Mobile Application Development using React Native**."
- From June 12 to 17, 2023, the School of Computer Sciences at NISER organised the "**PhD Summer Reading Group 2023**", uniting PhD students in Machine Learning for a productive week of collaborative learning and information exchange.

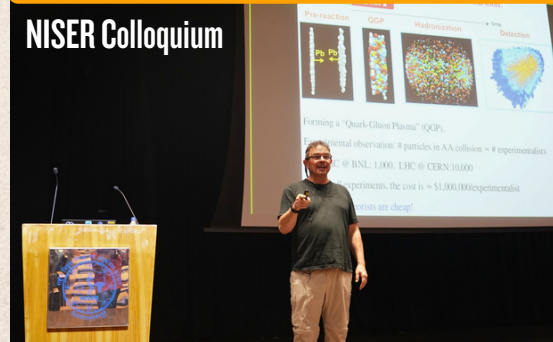
Talks & Special Lectures

- Dr. Swagata Ghatak, School of Biological Sciences, NISER, delivered a talk on "**Excitatory/Inhibitory (E/I) Imbalance in Neurological Disorders**" on February 3, 2023, as part of the Brain Matters talks.
- Dr. Robert D. Pisarski, Brookhaven National Laboratory, presented a lecture on "**The ugly duckling and the swan in heavy ion collisions**" on February 15, 2023, as part of the NISER Colloquium.
- Prof. K. Vijay Raghavan, the Homi Bhabha Chair Professor at the National Centre for Biological Sciences, delivered the inaugural P. K. Parija Lecture in Life Sciences at NISER. The talk titled "**The Brain in Development: Health and Illness**." was presented on March 24, 2023.
- As part of the Swachhta Pakhwada Guest Talk, Mr. Dillip Kumar Mohanty, Executive Officer of Jatni Municipality, delivered a speech on "**Effective Waste Management**" and the "**Mission Shakti**" initiative on March 28, 2023.
- Prof. Manoj K. Harbola presented a lecture on "**What Max Planck could have done instead?**" on April 20, 2023, as part of the NISER Colloquium.
- On April 21, 2023, Dr. Arun Kumar Nayak, NCPW, DAE, delivered a talk titled "**Climate Change, Clean Energy Transition, Nuclear Power Option for India and the Unreasoned Fear of Radiation**" within the ambit of the Jan Bhagidari campaign under the G20 presidency of India.

National Conference on Science in Everyday Life



NISER Colloquium



Physics of Quantum Matter School



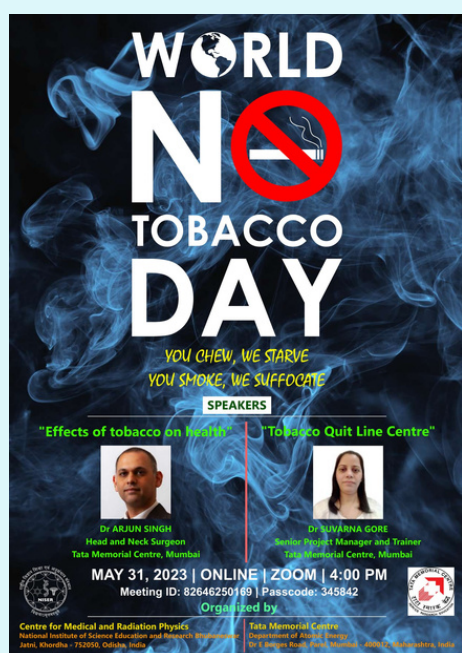
ICPAQGP-2023



Jan Bhagidari Campaign



- In observance of World No-Tobacco Day on May 31, 2023, Tata Memorial Centre, Mumbai, and NISER jointly organised a virtual conference. This event encompassed a pair of engaging and insightful presentations. The first talk, "**Effects of Tobacco on Health**," was delivered by Dr. Arjun Singh, a head and neck surgeon at Tata Memorial Centre, Mumbai. The second lecture, "**Tobacco Quit Line Centre**," was presented by Dr. Suvarna Gore, a Senior Project Manager cum Trainer at Tata Memorial Centre, Mumbai.



NISER Outreach Talk Series

- On February 3, 2023, Prof. S. Balachandra Rao presented a lecture titled "**Aryabhata and His Contributions**," while Prof. Venugopal Padmaja delivered a talk titled "**Calculation of Eclipse in Classical Indian Astronomy**."
- On April 7, 2023, Prof. Jagat K. Roy delivered a presentation titled "**Cell division and cancer: A glimpse into the HPV induced cervix cancer**."
- On April 21, 2023, Prof. Alok Goswami presented a talk titled "**An interesting counting problem and its even more interesting solution**."

The Free Radicals Talks

- TFR organised Alumni Talk on "**Tackling Multireference Quantum Chemistry by Incorporating Selected Configuration Interaction in Moment Energy Expansions**" by Ms. Swati Snigdha Priyadarsini, Michigan State University, USA, on January 4, 2023, and on "**Hybrid QM: QM methods for adsorption of ethanol in H-MFI**" by Mr. Dipansu Kumar, Radboud University, Netherlands on January 6, 2023.
- Alumni Talk on "**Structure, Assembly, and Properties of Cephalopod Protein-Based Materials**" by Dr. Preeta Pratakshya, University of California, Berkeley, on February 6, 2023, and on "**Bio-orthogonal masked acylating agents for proximity labelling**" by Ms. Subhashree Pani, the University of Chicago, USA on May 8, 2023.



Research & Innovation

We extend our heartfelt appreciation to the Department of Atomic Energy (DAE) for their steadfast financial support, a catalyst that has propelled NISER to the vanguard of cutting-edge research and development. In the fiscal year culminating in March 2023, our esteemed faculty members have charted remarkable achievements by securing a total of fourteen new research projects. This formidable feat has yielded a significant infusion of funding amounting to Rs. 6.00 crores

from avenues beyond the purview of DAE. Noteworthy contributors to this funding include esteemed institutions such as the Department of Science and Technology (DST), Department of Biotechnology (DBT), Science and Engineering Research Board (SERB), Department of Space, Indian Council of Medical Research (ICMR), and Council of Scientific and Industrial Research (CSIR), among other pivotal organisations.

Memorandum of Understanding

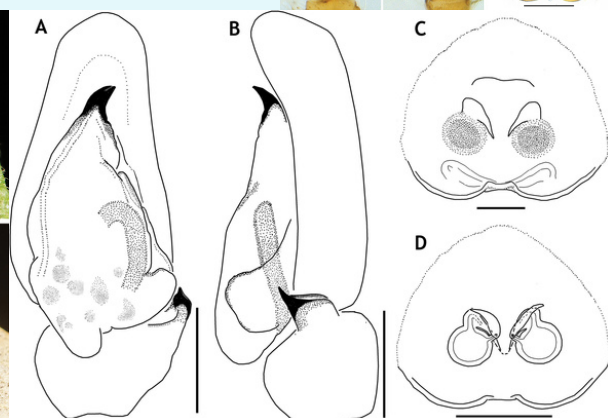
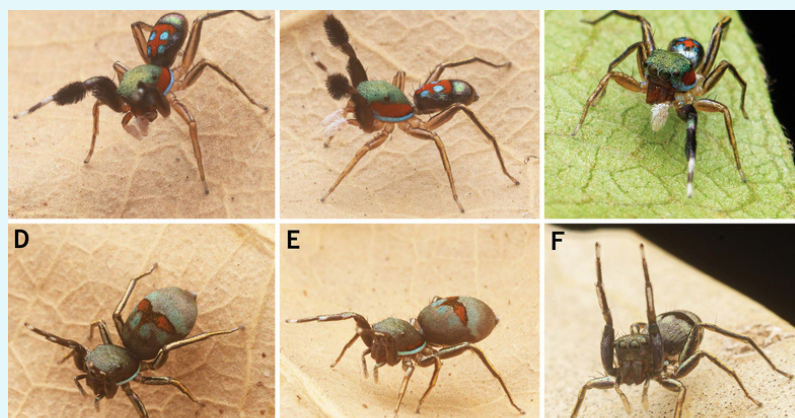
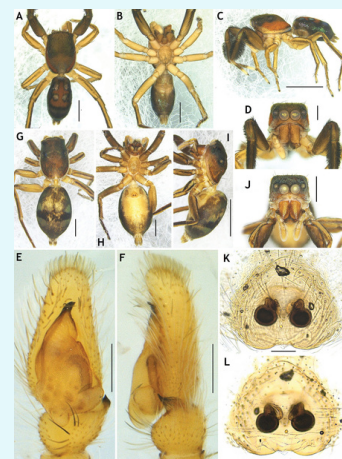
NISER and Odisha State Higher Education Council (OSHEC) have formalised their partnership through a signed MoU. The Government of Odisha's Higher Education Department has launched several innovative programmes to enhance the research and innovation environment of state universities and colleges. Two prominent schemes under this initiative are the "Odisha University Research and Innovation Incentivization Plan (OURIIP)" and the establishment of Multidisciplinary Research Centres of Excellence (MRCoE) at state institutions. NISER will contribute its research facilities to support the OURIIP and MRCoE projects, with the duration in alignment with OSHEC's sanction.



Unveiling a New Species

Exploring Nature's Riches: The Discovery of *Siler niser*

In a testament to NISER's scientific exploration, a novel spider species, *Siler niser*, has been discovered. Through coordinated efforts, **Mr. Ayush Parag**, an Integrated M.Sc. student, and his M.Sc. thesis mentor, **Dr. Aniruddha Datta Roy** from the School of Biological Sciences, paved the way for this remarkable discovery. Assisted by Dr. John T.D. Caleb, an eminent Indian jumping spider specialist, the team engaged in a campus-wide spider biodiversity project, yielding unforeseen outcomes. Named "niser" after its discovery site, this species has been meticulously documented in the esteemed journal "Zoosystematics and Evolution." This finding promises to enhance the understanding of NISER's and Odisha's biodiversity.



Outreach and Summer Programmes

NISER's commitment to community engagement is vividly expressed through its dedicated outreach programmes, fostering educational enrichment and scientific inspiration. The NISER Outreach Committee remains consistent and proactive in devising a spectrum of impactful activities:

- **G20 Jan-Bhagidari Initiatives:** In April 2023, NISER gained recognition as an independent institution dedicated to conducting diverse outreach initiatives to raise awareness about G-20 activities among the public. Several initiatives were carried out, including Science camps, enlightening talks, essay-writing competitions, poster-making contests, and more, all aimed at popularising G20 activities and promoting the dissemination of scientific knowledge.
- **Science Camp:** The Science Camp provided a delightful and educational experience for high school students in Class 11 from different districts of Odisha. Spanning three days, from April 6 to 8, 2023, the event welcomed a total of 128 students accompanied by 23 teachers. These participants hailed from 18 schools representing 12 districts across Odisha.
- **Vigyan Pratibha Resource Generation Camp (VP RGC):** The ongoing process of developing learning units within the NCERT curriculum is dynamic.

The VP RGC took place from June 19 to June 23, 2023, with the participation of scientists representing institutes and universities such as HBCSE, NISER, IOP, IISc., SINP, IISERs, IMSc Chennai, TISS Hyderabad, and Banaras Hindu University. After extensive discussions, nine learning units were carefully chosen for further refinement and finalisation over the next 2 to 3 months.



AWARDS & RECOGNITIONS

Faculty Achievements

VIBES: 5.1

8



Prof. Bedangadas Mohanty

has been awarded the Honorary **D.Sc. degree** as a testament to his dedication to the nation and pioneering research by the Governor of Odisha, who serves as the Chancellor of Sambalpur University.

Dr. Shamik Banerjee

has been bestowed with the esteemed **INSA Young Scientist Award 2022**. This accolade is in recognition of his exceptional strides in the study of asymptotic symmetries of quantum gravity and his contributions to the domain of flat space holography.

Dr. Tapan Mishra

has won the **SERB Science and Technology Award** for Research (SERB-STAR) for the year 2022 for his dedicated research efforts as a testament to his exceptional contributions to the field.

Prof. Himansu Sekhar Biswal

from the School of Chemical Sciences, has recently been honoured with the esteemed distinction of becoming a **Fellow of the Royal Society of Chemistry (FRSC)**.

Alumni Achievements



Mr. Debasish Jena (Int. MSc/2019/School of Biological Sciences) is selected for the esteemed Indian Forest Services by securing the 70th rank.

His journey from the School of Biological Sciences to this significant accomplishment highlights the depth of talent nurtured at NISER.

Dr. Sourav Kundu (Ph.D./2020/School of Physical Sciences) attained the Experimental Physicist staff position at the Centre Européen de la Recherche Nucleaire (CERN).

Remarkably, he is the first Indian student to hold this position within the CERN EP department.



Swachhata Pakhwada

Besides routine cleaning, the Swachhata Committee and NISER students proactively arrange dedicated cleanliness drives and awareness initiatives to maintain a hygienic environment. Student volunteers have taken on a pivotal role by regularly conducting cleanliness campaigns within the hostel premises. This year's campaign, held between March 18 and 31, 2023, encompassed a variety of engaging activities, including Street Play, Quiz, Debate, Drawing, and Painting, all aimed at enabling active student participation.

Student Achievements



Sudip Sau



Sasmita Behera



Abhisek Mishra

Dr. Sudip Sau

affiliated with the School of Chemical Sciences, has attained the prestigious **HBNI Outstanding Doctoral Student Award 2023**. This accolade highlights the notable contributions of Dr. Sau, who was guided by the expertise of Dr. Prasenjit Malto, to his field of study.

Ms. Sasmita Behera

a Research Scholar, was conferred with the coveted **Best Poster Award** at the 6th International Eco Summit held at Gold Coast, Australia. Her innovative insights showcased on this global platform underline the calibre of research excellence nurtured at NISER.

Mr. Abhisek Mishra

a Research Scholar from School of Physical Sciences, NISER achieved acclaim by securing the **Best Poster Award** at the International Conference on Materials for Advanced Technologies 2023, held in Singapore.

RoboTech Club

obtained the **2nd prize** in the **Line Follower competition** at NIRMAN, an event hosted by the Silicon Institute of Technology, Bhubaneswar, by demonstrating their technical prowess and synergy.



RoboTech Club

Tvisha: Intercollege Fest of NISER



The fest embraced arts, sciences, and entertainment. Events like Short Film and Captivating Covers for film enthusiasts, Gagan for astrophotography lovers and Terpsichore, Battle of Bands and more for music and drama enthusiasts were noteworthy. Science education was woven into entertainment through events like Astro Quiz, Blitz Byte, and Integration +C, which combined learning with fun.

Starnight was a showstopper, with captivating performances by Gamak band, DJ Zypbertone, and Italian DJ Olly Esse creating an electric atmosphere. The fest's sports competitions infused healthy competition and sportsmanship.

Tvisha facilitated intercollegiate bonding and networking, connecting students with experts in their fields. The fest's success was evident in the enthusiastic participation across disciplines and campus-wide fervour. In essence, Tvisha's diverse events, intercollegiate camaraderie, and memorable experiences exemplify its significance as a platform for talent that boosts unity and celebrates creativity. It would stand tall in the annals of NISER.



STUDENT ACTIVITIES



Astronomy Club

- On February 1, the NAC and NISER community observed the comet ZTF C/2022e3, which orbits the sun once in 50,000 years, using an 11-inch telescope.
- During the "TVISHA" inter-college fest, NAC hosted two engaging activities: the "ANTARIKSH" Astro quiz competition and the "GAGAN" astrophotography competition. Students from various institutes participated, showcasing their skills. Victors received cash prizes and trophies as recognition of their achievements.
- During Open Day, NAC members demonstrated a model depicting gravitational lensing around a black hole, captivating and inspiring young students with insights into astronomy.
- NAC arranged a live streaming event for the exclusive screening of the North American Nanohertz Observatory for Gravitational Waves (NANOGrav) presentation, synchronised with simultaneous releases by other Pulsar Timing Arrays globally.

OORNA Nature Club

- Oorna conducted invigorating nature walks on January 20 and 21, 2023. During these walks, fascinating creatures such as the Black-crowned Night Heron and the Eurasian Hoopoe were observed.
- A Campus Bird Count was performed between February 11 and 12, 2023, to contribute to the annual Great Backyard Bird Count, a bird-watching event held each February. Numerous species were identified throughout this initiative, including the common myna, Alexandrine parakeet, yellow-wattled lapwing, and red-whiskered bulbul.
- As part of the Open Day on April 7, 2023, Oorna organised a range of activities, comprising a screening of the documentary "A Dream of Trees," a guided tree walk, and an insect exhibition.



- As an integral component of Tvisha '23, Oorna organised a fascinating Treasure Hunt. The competition comprised three rounds evaluating participants' familiarity with marine creatures, trees, and birds. The initial round centred on aquatic-themed questions, followed by games focusing on tree and bird knowledge.
- Oorna actively participates in the Campus Phenology Network (CPN), a countrywide initiative that oversees campus tree monitoring.

CPN operates under SeasonWatch, a programme dedicated to comprehending shifting seasons by examining leaf flush, fruiting, and flowering patterns in typical Indian tree species. Since April 2022, Oorna has diligently monitored 60 trees on campus as an integral component of this project.

The Free Radicals

- In a collaborative event with the Science Activities Club (SAC), TFR educated high school students on the practical applications of chemistry. The focus was on forensic chemistry, demonstrated through the study of a murder case. The session elucidated the underlying principles of chemical tests used to solve the case. The students were divided into groups to tackle the problem. Following the performance of analytical tests, they presented their findings on the murder's cause and perpetrator.



- "Khojo to Jaane!!!" was a captivating chemistry-themed treasure hunt hosted by TFR as part of NISER's intercollegiate fest, Tvisha. Participants decipher interconnected clues scattered around the campus, leveraging their chemistry knowledge. Progressing to the next clue depended on solving the preceding one, adding a time-sensitive challenge. The event drew science and engineering student groups from various Odisha colleges, earning praise for its inventive and engaging structure.

- During the Open Day, assisted by the Science Activities Club (SAC), TFR organised an interactive chemistry demonstration session for the School of Chemical Sciences. Numerous fascinating experiments were conducted aimed at engaging high school students. The scientific principles underlying these experiments were then explained, leading to a rewarding experience where the students expressed their contentment in acquiring novel chemistry concepts.

Zaariya

- Ramzan Donations:** In observance of Ramzan, a donation campaign was organised, resulting in the collection of funds that facilitated the distribution of more than 150 food packets to the underprivileged community through the charitable organisation, Charitism.



- Asha Kiran Old Age Home Visit:** An initiative for fundraising was launched, resulting in the collection of Rs. 14,100/-. This amount was utilised to contribute four beds and a day's meal to the residents of Asha Kiran, an Old Age home. Volunteers visited the home, interacted with the elderly and staged musical performances creating cherished memories.



Science Activity Centre

NISER Open Day 2023: In partnership with the Outreach Committee, the Science Activities Club organised the NISER Open Day on April 8, 2023. This event attracted around 300 students and educators from various Odisha schools. It featured engaging faculty talks and innovative student-led experiments designed to ignite scientific curiosity and promote critical thinking among young minds.

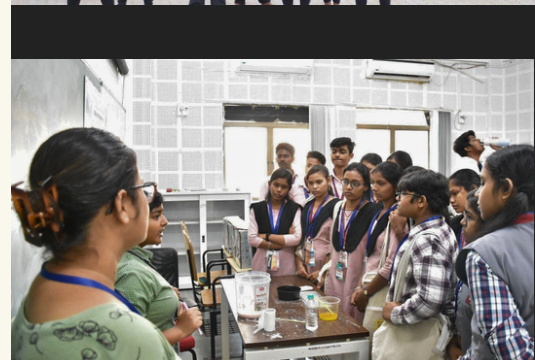
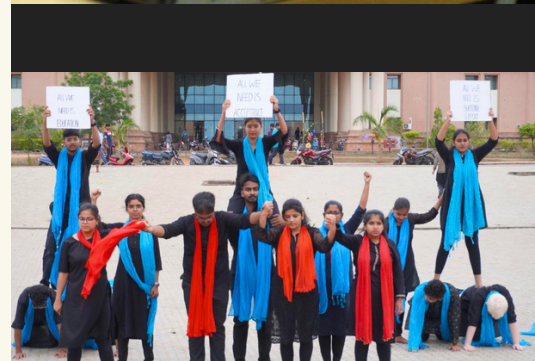
- Dr. Jayesh Mahendra Goyal's engrossing lecture explored the realm of exoplanets, detailing the methods employed in analysing exoplanet atmospheres using observations from various telescopes and planetary atmosphere models.
- Dr. U. Lourderaj's talk on 'Molecular Dances' illuminated the significance of intricate molecular movements in shaping their physical and chemical properties.
- NISER students demonstrated experiments and models in Biology, Mathematics, Chemistry, and Physics, providing insights to the schoolchildren. The event concluded with certificates awarded to participating students.

High-Pot-Thesis!:

- As part of NISER's inter-college fest, Tvisha 2023, the "High-Pot-Thesis!" event unfolded on March 18, 2023. Participants presented implausible hypotheses logically, emphasising scientific reasoning, creativity, humour, and originality. This event could inculcate critical thinking and presentation skills in an enjoyable setting.

Panel Discussion - "Breaking Barriers: Women and LGBTQIA+ Voices in Academia":

In association with WiPMA and Patang from IISER Mohali, the Free Radicals club organised a panel discussion on breaking barriers in academia. Esteemed speakers Dr. Shobhana Narasimhan, Dr. Debashree Ghosh, and Dr. Abhijit Majumder inspired approximately 60 participants from underrepresented communities.



OTHER EVENTS



Republic Day Celebration

With great passion and joy, NISER commemorated India's 74th Republic Day by hoisting the national flag on its campus. After the flag-raising ceremony and the Director's address, the institute acknowledged the outstanding administrative and technical staff members for their exceptional dedication to the community. Awards were bestowed upon six individuals: Mr. Soubhagya Mahapatra (SO-E), Shri Dinesh Bahadur Singh (AO-I), Shri Bidyut Siba Sankar Mohanty (SA-C), Mr. Mriganka Sadhukhan (Technician-D), and Ms. Bishnupriya Das (UDC).

Commemoration of Martyrs' Day

On January 30, NISER solemnly observed two-minute silence to commemorate the death anniversary of the father of the nation, Mohandas Karamchand Gandhi, and pay tribute to the brave souls who sacrificed themselves during India's fight for independence.

Fire Service Week

On April 14, NISER celebrated Fire Service Day, followed by a week-long series of events from April 14 to 20. These activities included poster presentations, essay and slogan writing competitions, fire safety training, emergency evacuation drills, and informative seminars. The events raised awareness and honoured the courageous efforts of firefighters. The theme for this year's Fire Service Week was "Awareness in Fire Safety for Growth of National Infrastructure" (AGNI).

World Environment Day

On June 14, 2023, the NISER community united to commemorate World Environment Day by embarking on a more sustainable and vibrant future. A tree-planting drive was carried out across the campus, underscoring the commitment to preserve and safeguard the natural surroundings.



International Day of Yoga

NISER observed the International Day of Yoga on June 21, 2023. The celebration of the day involved embracing the principles of well-being and mindfulness, as the institute's faculty, staff, and students converged to emphasise the importance of holistic health and the spirit of unity and tranquillity within the campus community. This event served as a platform for participants to delve into the revitalising effects of yoga, recognising its deep-seated impact on overall welfare.

DAE Sports & Cultural Meet

NISER hosted the BRIDGE segment of the XXXVII DAE Sports & Cultural Meet 2022-23. This event is one of several engaging activities that unfold during the comprehensive Sports & Cultural Meet. Competitors hailing from different units within the Department of Atomic Energy (DAE) were designated to eight distinct teams, namely Ajanta, Ellora, Dwarka, Pushkar, Konark, Golconda, Nagarjuna, and Rameshwaram, all primed for spirited competition.



A Fond Farewell



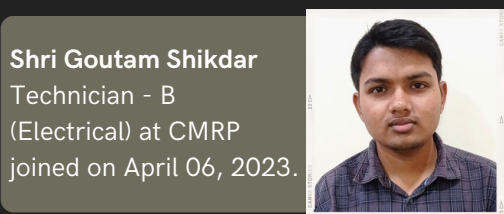
On the momentous day of April 28, 2023, a poignant chapter concluded as NISER bid a heartfelt adieu to Prof. Sudhakar Panda, who served as the Director of NISER. Prof. Panda has skillfully led the institute for six years, contributing significantly to its growth and development. We extend our sincere appreciation for his dedicated contributions to NISER and wish him a joyful retirement ahead.



New Staff



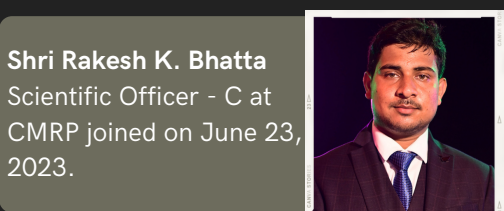
Shri Satyajit Pani
Technician - B
(Mechanical) at CMRP
joined on March 23,
2023.



Shri Goutam Shikdar
Technician - B
(Electrical) at CMRP
joined on April 06, 2023.



Shri Avneesh K. Tripathi
Scientific Assistant - B
(Radiation Physics) at
CMRP joined on May 08,
2023.



Shri Rakesh K. Bhatta
Scientific Officer - C at
CMRP joined on June 23,
2023.

Image by Satyam Chandra Mishra, alumna
(M.Sc. 2015), via Facebook



Image by Satyam Chandra Mishra, alumna
(M.Sc. 2015), via Facebook





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Image by Sourajit Das, (M.Sc. 2022), via Instagram

ଜାତୀୟ ବିଜ୍ଞାନ ଶିକ୍ଷା ଏବଂ ଗବେଷଣା ପ୍ରତିଷ୍ଠାନ
राष्ट्रीय विज्ञान शिक्षा एवं अनुसंधान संस्थान
National Institute of Science Education and Research
ପରମାଣୁ ଶକ୍ତି ବିଭାଗ, ଭାରତ ସରକାରଙ୍କ ଏକ ସ୍ୱୟଂଶାସିତ ପ୍ରତିଷ୍ଠାନ
परमाणु ऊर्जा विभाग, भारत सरकार का एक स्वयंशासित संस्थान
AN AUTONOMOUS INSTITUTE UNDER DAE, GOVERNMENT OF INDIA

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