INYAS NEWSLETTER

January-July

2023







Indian National Young Academy of Sciences [INYAS]

Half-Yearly News Letter

January 2023-July 2023

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About INYAS

INYAS was founded in December 2014 by INSA with 20 members. The INSA council selected the INSA Young Scientist Medal recipients as its founding members. Currently, INYAS has 108 members from various disciplines. INYAS is an INSA-recognized academy of young scientists in India with the following vision:

Vision

Promotion of Science Education and Outreach
 Encouragement of Networking among Young Scientists
 Supporting Young Scientists in career independence
 Engagement in interdisciplinary & intergenerational scientific dialogues
 Boosting science capacity in the country

Local Chapters

INYAS is committed to International collaborations as well as local outreach. INYAS has formed the following seven local chapters. These local chapters will also liaison with INSA local chapters to initiate new activities and exponentially increase the impact on the ground.

Collaboration with other Young Academies of the world

Chapter Name	Coordinator	Co-coordinators
Delhi-NCR	Dr. Kalpana Nagpal (Amity Uni, Noida Campus)	Dr. Subhash Babu (ICAR-IARI, New Delhi)
Chandigarh	Dr. Rishemjit Kaur (CSIR-CSIO, Chandigarh)	Dr. Santanu Mukherjee (Shoolini University, Solan)
Mumbai	Dr. Mohit Tyagi (BARC)	Dr. Shamin Padalkar (TISS, Mumbai)
Lucknow- Kanpur	Dr. Jai Prakash (AMU, Aligarh)	
Kolkata- Bhubaneshwar	Dr. Praveen Kumar (IACS, Kolkata)	Dr. Ejaz Ahmad (IIT-ISM, Dhanbad)
Hyderabad	Dr. Priyanka Bajaj (NIPER, Hyderabad)	Dr. Sai Santosh Kumar Raavi (IIT Hyderabad)
North-East	Dr. Akshai Kumar Alape Seetharam (IIT Guwahati)	Dr. Mayuri Chabukdhara (Cotton University, Guwahati)
Roorkee- Srinagar	Dr. Arun Kumar Jugran (GBP-NIHE)	Dr. Sugandha Maheshwary (IIT Roorkee)

Core Committee



Rajendra Singh Dhaka, IIT Delhi



Arnab Dutta IIT Bombay



Kiran Bala IIT Indore



Nishant Chakravorty
IIT Kharagpur



DN Pandey IIT Roorkee



Pankaj Barah, Tezpur University Sonitpur



Dr. Pooja Devi CSIR-CSIO Chandigarh



Veda Krishnan ICAR-IARI, New Delhi



Veerendra Kumar Sharma BARC Mumbai

Editors



Kanti Bhooshan Pandey CSIR-CSMCRI Bhavnagar



Vijay Kumar NIT Srinagar

Message from Chair

Dear Colleagues,

Warm greetings from the Indian National Young Academy of Science (INYAS),

Indian National Young Academy of Science dedicates itself in the field of science outreach and diversification meticulously. The global focus is shifting towards attaining sustainability through science and technology.



Understanding the significance of this shifting epicentre, INYAS is contributing its national share by organising diversified events, meetings, symposiums, conferences and technical sessions to target the young population of India by extracting experience from the cognizant consortium of scientific fields. INYAS aims to achieve the goals of - 1) Promotion of science education and outreach, 2) Engagement of networking among young scientists, 3) Supporting young scientists in career independence, 4) Engagement in interdisciplinary and intergenerational scientific dialogues, 5) Boosting science capacity in the country and 6) Collaborating with the other young academies of the world.

INYAS being the flag bearer of young scientists academy in India is constantly working in the direction of gender equality by organising events like WiSDom - Women in Scientific Domain, Women in STEAM and WiSTEM. There are innumerable challenges faced by women, like gender bias and stereotypes in the professional field, limited opportunities and lack of awareness, maintaining the work-life balance, deficiency of role mentors, under-representation in leadership roles. To tackle these issues INYAS actuates events, for example, the International Day of Women and Girls in Science at IIT Ropar and Tezpur University with a whooping student participation of approximately 160 and 130 students, respectively. To encourage students to learn about the women centric glories, INYAS organized Poster Making Competition on "Achievements of Women in Science." It gives me immense exaltation to share that INYAS has a total of 105+ current members. Out of which close to 30% representation in INYAS is from Women researchers. The total count of alumni and current women members in INYAS is 48 from 2014 onwards. INYAS organized its 8th General Body Meeting at INSA, New Delhi during Feb 2023. The induction of new members and election of CC members provides new realms to the members for enhancement and advancement of INYAS as the only recognized young academy of science in India. The annual meetings help its members to connect and ponder upon the new initiatives that proliferate the mission and vision of INYAS

Another area of priority that INYAS lights its focus upon is to bridge the socio-economic gap in higher scientific careers and fill the lack of awareness among the budding students regarding the opportunities in science. To resolve this bane in the education system INYAS organized various Science Awareness Camps and initiated its highly successful flagship event RuSETUP - Rural Science Education Utility Programs. The rural outreach activities comprises scientific visits, demonstration, lecture series and interactive sessions which helps students and teachers from pastoral India. By providing the open forum of deliberation to the participants INYAS aspires to achieve the 3 A's of harmonised education - Accessibility, Accountability and Adaptability. In addition to this INYAS also programmed science camps in various schools and colleges across the nation. To educate young students, a few notable topics discussed were on World Hypertension Day, Campaign on single use plastic, etc.

A nation's multidimensional development depends on the development and opportunities provided to the youth of the country. To uphold this virtue, INYAS organised its flagship event PRAYOJAN - Post-PhD: Research, Academia, and Industry Opportunities, Science Journalism, Grant Writing, and Networking. The event achieved tremendous success by accommodation 150+ enthusiastic young researchers of India to educate themselves with the research and scholarship opportunities provided both nationally and internationally. To impart skill oriented knowledge INYAS organized events like KARYASHALA - High End Workshop, Demystifying Science Olympiad, Workshop on Waste Literacy and Management, National Workshop on Molecular Docking & Electroanalytical Techniques and Workshop on Characterization of Coating Materials. The events marked triumphant recognition and aimed to empower the young participants with the knowledge and skill necessary for career perspective. To expand its reach, INYAS undertakes various online conferences, lectures and seminars time-to-time. These hybrid initiatives allows us to connect with experts worldwide and also allocate a stage to participants to join and learn through INYAS.

It bestows me pride and honor to share with the readers that INYAS have been actively participating and organising G20 and S20 events across the nation. India's presidency in G20 provides a golden opportunity in showcasing and deliberating the indigenous apprehension of scientific and technological upfronts in past decades and also communicating the newly conceptualised notions of research field that Indian researchers are willing to undertake in future. INYAS organized the G20 Awareness Program on Environmental and Socio-Economical Issues of Ladakh Region to promote sustainable demographic inclusivity. INYAS Organized a Panel Discussion on "Empowering Young Scientists in Governance" in Youth20/G20 event at KIIT Bhubaneswar, INYAS presented a session on the theme: "Health, Wellbeing and Sports: Agenda for Youth'' during Youth20/G20 Pre Summit at Leh, Ladakh, and INYAS representative attended the Science20 Thematic events on "Clean energy for greener future", "Universal Holistic Health", "Connecting science to society and culture", and finally in "Synthesis and Policy recommendations". In addition to this INYAS is associated with IIT Hyderabad and Ministry of Education, GoI for Model G20 Initiative in 6 zones across the nation. Attracting a wide range of students and providing the platform to showcase their skills of writing and speaking at a national level. The event was aptly planned and executed with a whooping thousands of entries PAN India.

I perceive extraordinary honor and contentment to share the Half Yearly Newsletter with the readers. The newsletter is a compilation of the events undertaken and organised by INYAS in all its capacity. The milestones that the events achieved is just the tip of the iceberg, and INYAS extends its heartfelt gratitude to INSA for their constant encouragement and humongous support in organizing events. I protract my profound appreciation to the INYAS members, core committee members and INYAS Office for their sincere dedication and expertise in organizing the events nationwide to contribute back to the society. I am obliged to the honorable guests, distinguished speakers and attendees for their valuable time and knowledge in INYAS events. We also thank the funding agencies for the fiscal support towards various events conducted by INYAS.

I hope INYAS spreads its vibrant wings in its future endeavours and outshine itself in the field of science communication and outreach.

With Best regards

Prof. Rajendra S. Dhaka Chairperson, INYAS

INYAS CORE COMMITTEE MEETINGS

INYAS Core Committee meetings were held 8 times between January to July, 2023.

S.N.	Meetings	Date
1.	CC Meeting	January 5, 2023
2.	CC Meeting	February 18-19, 2023 (in-person at INSA, Delhi)
3.	CC Meeting	March 22, 2023
4.	CC-meeting	March 22, 2023
5.	CC-meeting	May 6, 2023
6.	CC-meeting	June 7, 2023
7.	CC-meeting	July 16, 2023
8.	CC-meeting (special agenda GYA)	July 23, 2023







INYAS 8th GENERAL BODY MEETING

Date: 17-19 February 2023

The 8th General Body Meeting (GBM) of INYAS was organized at INSA, New Delhi, on February 17–19, 2023. The event was graced by the presence of Prof. Ashutosh Sharma (President, INSA) and Ms. Meeta Rajivlochan, IAS (Secretary, Department of Youth Affairs) on Days 1 and 2, respectively. New INYAS members (2023) were inducted during the GBM, and they presented a brief about their research and their vision for INYAS activities. INYAS members brainstormed on various aspects of how to carry forward the mission and vision of INYAS. Four new Core Committee members were elected to the CC team as 4 members completed their terms as CC members. Outgoing batch members and outgoing CC members were felicitated during the GBM.







Outreach Activities

Event: National Brainstorming Session on Empowering Young Scientists (EYS) of India

Date: 24-25 January 2023 Organizers: PSA, INYAS, IT BHU No. of survey respondents ~ 1800

The Office of the Principal Scientific Adviser (PSA) to GoI, in association with INYAS and IIT (BHU), Varanasi, organized a "National Brainstorming Session on Empowering Young Scientists (EYS) of India" during January 24–25, 2023, at IIT (BHU), Varanasi. This brainstorming session was a follow-up to the nationwide survey (1800 respondents) conducted among young scientists and an international webinar on Empowering Young Scientists. The conclusion of the event may serve as input for a policy document to be prepared for empowering young scientists in India. INYAS members actively participated in the brainstorming session, representing different institutions as well as national labs in the country.





Event theme: Science: Challenges and Opportunities

Date: 13 February 2023

Organizers: Arun Kumar Jugran and other INYAS Roorkee-Srinagar Chapter members, INYAS No. of participants: ~ 93 students and 12 teaching staff

A one-day program was organized with the school students on the theme "Science: Challenges and Opportunities" at Devbhumi Public School, Nakot, Uttarakhand, jointly by INYAS Roorkee-Srinagar Chapter and GBPNIHE, Srinagar Garhwal, Uttarakhand. The purpose of the program was to increase science sensitization and awareness among school students in order to spread awareness of the importance of science education and introduce various opportunities in science. 93 students, along with 12 teaching staff members of the school, actively participated in the program. The program started with an introduction and welcome session for the speakers and all the participants. A brief introduction of the program, INYAS, and GBPNIHE society was given to students by Dr. Arun Kumar Jugran, Scientist-D, and Member-INYAS. Dr. Shriram Yadav, Associate Prof. and INYAS Member, IIT Roorkee, delivered the lecture on the topic "Science: Challenges and Opportunities". Dr. Yadav highlighted various government schemes available for the students and their benefits. Further Head and Scientist F of GBPNIHE, GRC, Dr. K. Chandra Sekar, welcomed all the professors, teachers, students, and participants and highlighted the various ongoing activities of GBPNIHE. This was followed by a brief lecture on "INYAS and Opportunities for Young Students" by Dr. Rajendra Singh Dhaka, Chair INYAS and Associate Prof. IIT Delhi. Dr. Dakha organized an interactive session in which students were sensitized toward raising scientific questions. Shri B.S. Dhanai, Principal of Devbhoomi Public School Nakot, Srinagar, Thanked all the organizers and participants of the program and requested that more such programs be organized in the near future. The program ended with

a group discussion with students, followed by feedback collection from all attendees. It was gratifying to receive such positive comments from the students.



Event: Bioinoculant-based Farming

Date: 14-15 March 2023 Organizer: Arun Jugran No. of participants~ 70

Two-days program was organized with the stakeholders on the theme "bioinoculant-based farming" at Kothiyara village, Rudraprayag district, Uttarakhand. The program was jointly organized by INYAS, Roorkee-Srinagar Chapter, and GBPNIHE, Srinagar Garhwal, Uttarakhand. The purpose of the program was to create awareness of organic and bioinoculant-based farming among local farmers in Jakholi Block, Uttarakhand, and promote the use of bioinoculants and organic farming among the local farmers. A total of 70 farmers (Male and female), along with some social activists from nearby areas, actively participated in the program. The first day of the program started with the introduction of INYAS and a welcome session for speakers and all the participants by Dr. Arun Kumar Jugran, Scientist-D and Coordinator, INYAS Roorkee Srinagar Chapter. Thereafter, an introduction about the program, the GBPNIHE institute, and its activities in the Indian Himalayan Region was presented by Dr. K. Chandra Sekar, Head GRC NIHE, Srinagar, Uttarakhand. The introductory session was followed by the technical sessions, in which lectures on the importance and use of bioinoculants in hillbased farming and demonstrations of bioinoculant treatment were presented and explained by the faculties and scholars of GBPNIHE, Srinagar, Uttarakhand. This was followed by a lecture on "Livelihood enhancement and marketing of local products," which was briefly discussed with farmers by the Social activist and president of WSHGs, Jakholi, Mrs. Anita Kothari. On the second day, a lecture on "Using Beejamrit and Jeevamrit in Yield Enhancement" was presented by social activist and progressive farmer Mr. H.S. Rana, followed by a practical demonstration of bioinaculants in the farmer's field. The last technical session was followed by a brief group discussion and interaction with the farmers. Finally, the program ended with a vote of thanks.





Event: Science Outreach Program: Materials Science and Technology for Society

Date: 24 March 2023

Organizers: Vijay Kumar (INYAS) and other members from the University of Kashmir

No. of Participants: ~100

To encourage creative thinking and innovation among school students, the Chairman of INYAS, Dr. Rajendra S. Dhaka, delivered an expert talk at Syed Maqsood Model School in Kurhama, in central Kashmir's Ganderbal district on "Material Science and Technology for Society. The event was attended by 100 students and teachers. The event was coordinated by Dr. Vijay Kumar, Assistant Professor, NIT Srinagar, and a member of INYAS. Local arrangements were made by Dr. Gulzar Bhat, University of Kashmir. On the occasion, Dr. Vijay Kumar, Assistant Prof. (NIT Srinagar), said that the program was conducted under the themes of G20 and S20. Such programs are the need of the hour, and they motivate students to choose careers in science. Overall, it was a very motivating lecture, and I hope that students benefited from it," he said. Under INYAS, Prof. Dhaka said that the mandate of INYAS is to motivate young students, and our main focus is to do outreach activities in remote areas. He congratulated Dr. Vijay Kumar for the successful conduct of the expert talk and for reaching out to the grassroots. The program was covered by various local newspapers.



Event: Technology-based Entrepreneurship Development Program on Food Processing

Date: 25-26 March 2023 Organizer: M. S. Santosh No. of Participants: 25

The program was intended to provide information to the Farmer Producer Organization (FPO) members about business opportunities in the food processing sector and the agro processing

sector and motivate them to start processing activity-based enterprises, with the possibility of seed funding support from AIC-JITF. There were 25 participants from two FPOs, viz., Mukteshwara Mahila Farmer Producer Organization (All Women FPO) and Sri Pragati Raitara Utpaadakara Samsthe, at Chintamani Taluk, Chikkaballapur District. The training program was conducted at the Mukteshwara Mahila FPO office at Gollapalligadda, Murugamalla, and Chintamani. The training sessions were handled by Mr. Yeshaswi Nag, Mentor, AIC-JITF, and Dr. Nanjappa, Senior Scientist, Defense Food Research Laboratory (DFRL). The first day comprised inputs on Business Opportunities in Food Processing and Agro processing, along with inputs on FPO business operations. The second day comprised practical inputs on three products: ready-to-serve beverages, minimal processing technology, and ready-to-eat tomato rasam paste. The participants were given certificates at the end of the program. The participants were found to be motivated to start processing activity-based enterprises.







Event: Aahar Kranti

Date: 15 April 2023 Organizer: Vishal Mishra No. of Participants: 50

This lecture was to sensitize students about the intake of an appropriate diet in their routine under the theme Unnat Bharat Abhiyan (UBA), Government of India. The workshop was jointly organized by INYAS, UBA, the Government of India, and the National PG College, Lucknow. This lecture will also positively impact the socio-economic status of farmers as it will boost the selling and purchasing of locally grown vegetables, fruits, cereals, and other natural products rather than packed and processed food.





Event: Micro Scale Energy Systems

Date: 28 April 2023 Organizer: Vishal Mishra No. of Participants: 30+

This lecture was for students of the of the Integral University for educating them about the implementation of microbial fuel cells in the pastoral parts of the country.



Event: Opportunities in Nuclear Science (ONuS-2023)- INYAS Chapter Event

Date: 13 May 2023 Organizer: Mohit Tyagi

No. of Participants: ~ 500 (Online & Offline)

An outreach activity on "Opportunities in Nuclear Science (ONuS)" was organized to celebrate National Technology Day in collaboration with the Indian Nuclear Society (INS) and Nehru Science Centre. It was mainly focused on spreading awareness about the role of nuclear science in daily human life and giving information about various career opportunities in the field of nuclear science. More than 500 students from all over India registered for this event. About 200 students from various universities attended the offline session at the Nehru Science Center's Mumbai Auditorium. The invited talks were arranged by eminent nuclear scientists. Chief guest Sh. Mukesh Singhal, Ex-Director, Human Resources Department, Nuclear Power Cooperation India Ltd., briefed about the various peaceful uses of nuclear energy. Dr. A. K. Dureja, Head of the Human Resources Development Division, Bhabha Atomic Research Centre, explained the various facilities available in the Department of Atomic Energy (DAE) and the various selection procedures in the DAE for various posts. Sh. Sanjeev Sharma and S. S. K. Yadav, Scientific Officer G, NPCIL, delivered invited talks about "Nuclear Energy: A Green Energy Source" and "Generation 1 to Generation 4 Nuclear Reactors". Prof. B. N. Jagtap, President of the Indian Nuclear Society, presented a concluding remark and described it as one of the best events organized by the young team.





Remote and Rural Area Dedicated Activities

Event: Remote Area Lecture

Date: 28 January 2023

Organizers: Ramesh and Dinesh

No. of participants: ~ 100

A remote area lecture at Kovai Public School, Karumathampatti, Coimbatore (Tamil Nadu) was conducted. This school is located in one of the semi-remotest parts of Tamil Nadu, particularly in Coimbatore District, and it is represented by students from various rural parts. The remote lecture was attended by ca. 100 students from 8th to 12th grades. Dr. Dinesh, Associate Professor, IIT, Palakkad, delivered a lecture on "Let's Talk Chemistry," which emphasized applying the learning to solve problems in society. How the chemistry around us is essential to our day-to-day activities Dr. Ramesh, Senior Scientist, SACON, Coimbatore, delivered a lecture on "Importance of Wildlife Conservation". The students were extremely interactive and asked a series of questions during the talks. The students also interacted and were interested in knowing about the possibility of being enrolled at IIT in the future. The lecture session was facilitated by the School's Principal, Dr. Jagadeesh, and other teachers.



Event: INYAS-NCR Chapter Event - "Vigyan Vistar"

Date: 28 -30 January 2023

Organizers: Rajendra Dhaka, Veda Krishnan, Kalpana Nagpal and other NCR chapter members

No. of participants: ~ 40

A three-day INYAS-NCR chapter event, "Vigyan Vistar," was held for 8th to 12th standard students hailing from the schools of rural areas of Rajasthan and Uttar Pradesh. It was organized at the Department of Physics, IIT Delhi, jointly with the Delhi chapters of INYAS, INSA, and NASI to commemorate the International Day of Women and Girls in Science. Around 40 students from host schools along with their teachers participated in this camp. The importance of curiosity and handson learning in science was highlighted by Prof. Monika Kaul (Hansraj College, Delhi University) in the inaugural talk. Other sessions on Day 1 were Energy and Society, My Passion, My Life, and Nontraditional Careers in STEM. A visit to the state-of-the-art labs of IIT Delhi and Biogas, as well as waste-to-wealth model plants, were the other major highlights of Day 1. Day 2 showcased relevant topics like the Indian lifestyle as well as the environment, organic farming and integrated farm management, and the importance of fellowships and opportunities for school students. The sessions were followed by hands-on training on accelerator physics, Na-ion batteries, superconductivity, shape memory, DNA isolation, pH, etc. Day 2 ended with a visit to the RuTAG facility at IIT-Delhi, which showcased the need-based technologies innovated for rural India. Day 3

students visited the National Science Center in Delhi. The event concluded with a valedictory session where feedback from students as well as teachers was taken. Microgreen kits were distributed along with participation certificates to all students. Science kits (chemistry, physics, and biology) were also distributed to schools to promote hands-on experience of science in a better way.





Event: Rural Area Lecture

Date: 25 February 2023

Organizers: Vishal Mishra, IT BHU No. of participants~ 23 farmers

A rural area lecture was conducted at IIT BHU with the active participation of 23 farmers. They are briefed about the CW-MFC system. By using waste, we can reduce start-up costs, and it also helps us reduce waste around the world. CW-MFC removes some organic and inorganic pollutants. Waste can produce energy. This is the energy of the future, because of which, along with improving the rural economy, the youth will also benefit from starting start-ups. Work on their commercial production and its economic aspect is also needed. The CWMFC system was developed to provide continuous power for public toilet lighting.





Event: North Eastern Regional Level Science Exhibition

Date: 27 February 2023 Organizers: Pankaj Barah No. of participants: 120

inSCIgnis of Tezpur University is one of the leading and biggest science fests in North East India. It is celebrated on the occasion of National Science Day, every year. INYAS has supported the North Eastern Regional Level Science Exhibition (NERLSE), which is the most highlighted event of inSCIgnis. NERLSE is one of the biggest science exhibitions in the NE India region. In total 50 teams participated from various schools and colleges. There were around 5000 visitors to the

entire inSCIgnis event. In total six participating teams were selected from both school and UG/PG levels.



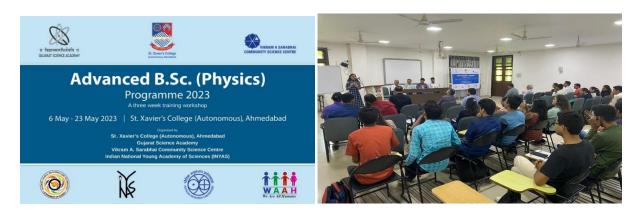
Event: Advanced B. Sc. (Physics) Program 2023 for rural students of Gujarat

Date: 6-23 May 2023

Organizers: Arvind Singh (INYAS) and other members from PRL

No. of Participants: ~35

Amongst the students who opt for doing a Bachelor's in Science there are a few who want to go the depth of their area of specialization and are motivated to challenge themselves further if given the opportunity. The aim of the Advanced B.Sc. Program in Physics is to provide such students with a curriculum that can be challenging, interesting, and inspiring. The Advanced B.Sc (Physics) Program ran during 6-23 May 2023. More than 30 second Year (SEM-IV) B.Sc. students participated in it. It included weekly lectures in Physics, visits to research institutes, career guidance, and summer projects. The course consists of lectures in Electromagnetism, Quantum Mechanics, and laboratory sessions for performing experiments. The program was conducted as a residential program. This allowed students from outside Ahmedabad and Gandhinagar to also participate in the program. The program was coordinated by a committee consisting of scientists, college lecturers and science educators of institutions of Ahmedabad and Gandhinagar.



Science Awareness Camps

Event: Science Awareness Camp

Date: 31 January 2023

Organizer: Rohit Ranjan Shahi No. of participants: ~ 150

A science awareness camp was organized at the Middle school in Nepa, Fatehpur, with 150 participants. The awareness camp opened their eyes to the fact that science is making life better and the world a better place to live. Dr. Rohit Ranjan Shahi introduced the objective of the INYAS and its role in the development of the country. Students learned about renewable and non-renewable energy, the importance of renewable energy, and how to use solar energy efficiently to fulfill daily requirements. Students were fascinated to see the cap with a fan that runs on solar energy. Prizes were distributed to encourage students to take part actively during the lecture session. Various interesting models and demonstrations included the laws of reflection, refraction, diffraction, acids, bases, and salts; demonstrations related to pressure and density; good and bad conductors; automatic streetlights; electrolysis; etc. Children were amazed to see through the microscopes and telescopes.

SCIENCE AWARENESS CAMP

Organized by :Indian National Young Academy of
Sciences (INYAS)
And



Department of Physics, Central University of South Bihar, Gaya

Audience Class 6 to 8 Students

Science Awareness and Demonstration Session

Speakers:

Dr. Rohit Ranjan Shahi (INYAS member) Dr. Vijay Raj Singh Dr. Nitin Chandra January 31, 2023

On

Venue:-

Middle school Nepa, Fatehpur, Gaya

Middle school Nepa, Fatehpur, Gaya

Ms. Srajukta Jena
Ms. Sanjukta Jena

Demonstrators:-Mr. Amit Kumar Gupta Mrs. Priyanka Kumari Mr. Shashi Kant Mohapatra Ms. Aradhana Kumari Ms. Riya Dawn Ms. Sanjukta Jena



Event: Science Camp

Date: 28 February 2023

Organizer: Rohit Shahi, INYAS No. of participants~ 150

A one-day Science Camp for 9th and 11th grade students of different schools was organized jointly by the INYAS and the department of Physics of the Central University of South Bihar (CUSB). Dr. Rohit Ranjan Shahi introduced the objective of the INYAS and its role in the development of science and technology in the country. Around 150 meritorious students from Delhi Public School Gaya, Magadh International School Tekari, and Higher Secondary School Tepa participated in the camp. Dr. R. R. Shahi also interacted with the students and lectured on a sustainable energy source to run vehicles without emitting greenhouse gases. His lecture also contained the role of science in our lives, how it makes our lives better and more accessible, and the science behind climate change and global warming.







Event: Science Camp

Date: 28 April 2023

Organizer: Sharanjeet Dhawan

No. of Participants: 100

INYAS organized the science camp "Enlightening Young Minds" at Kendriya Vidyalya, Leh-Ladakh. Dr. Sharanjeet Dhawan, University of Ladakh, was the convenor of the event. Targeted students during this science camp were students from grades 9th to 12th. Around 100 students participated in the camp. A team of six resource persons from INYAS were present: Dr. Rajender Dhaka, IIT Delhi (Chairperson of INYAS), Dr. Pankaj Barah, Tezpur University, Assam; Dr. Kalpana Nagpal, Amity University in Noida, Uttar Pradesh; Dr. Dhiraj Bhatia, IIT Gandhinagar; and Dr. Shalini Arya, Institute of Chemical Technology in Mumbai. Being in a cold desert with a fragile environment, students face many issues and feel a lack of guidance towards higher studies. Keeping in view all these difficulties, team INYAS interacted with the students and discussed various career opportunities for them. Along with this, various aspects related to their health and wellbeing were discussed. All the students participated enthusiastically in the daylong discussion. They felt quite motivated and inspired by science and research. At the end, refreshment was arranged by INYAS for all the students and staff of the Kendriya Vidyalaya, Leh-Ladakh.



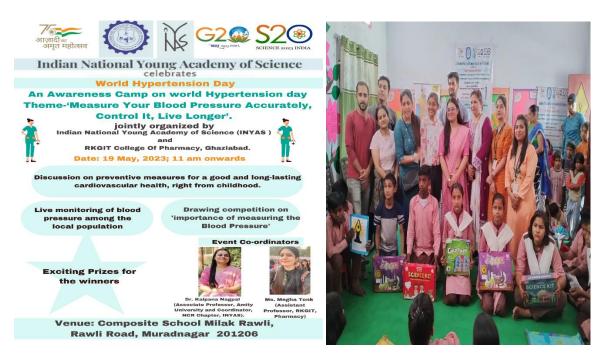


Event: An Awareness Camp on World Hypertension Day Theme 'Measure Your Blood Pressure Accurately, Control It, Live Longer'

Date: 19 May 2023

Organizer: Kalpana Nagpal No. of participants: 59

INYAS conducted an awareness camp on World Hypertension Day, jointly organized with RKGIT College of Pharmacy, Ghaziabad, at Composite School Milak Rawli, Rawli Road, Muradnagar, on May 19, 2023, aimed at educating young students about hypertension and healthy lifestyle choices. The camp included interactive presentations and activities, including a drawing competition where the winners were distributed with exciting science kits. Healthy refreshment was distributed to the students, including fruits that provide potassium and antioxidants, aiding heart health and blood pressure regulation, monitoring the blood pressure of students and staff, and promoting nutritious eating, physical activity, and stress management. Students actively participated in discussions and demonstrations, gaining a basic understanding of hypertension and the importance of maintaining optimal blood pressure. The event successfully raised awareness, instilled healthy habits, and empowered students to make informed choices for their cardiovascular health.



Event: Awareness Campaign for Single Use Plastic Free Campus

Date: 2 June and 5 June 2023 Organizer: Mayuri Chabukdhara

No. of Participants: ~140

The Department of Environmental Biology and Wildlife Sciences, in association with INYAS, celebrated World Environment Day 2023 on June 5, 2023, at Cotton University. The event was celebrated for two days, i.e., June 2nd and 5th, 2023, wherein students from four Government schools in Guwahati were invited to participate. The main aim of the event was to raise awareness among young students regarding plastic pollution and a single-use plastic-free campus. The first day of the event was marked by an "On-the-spot Essay Competition" among students in two groups: classes 8th to 10th and classes 11th to 12th. The topic of the essay was

"Solutions to Plastic Pollution". Students from Government schools in Kamrup Metro district, namely: Gopal Boro Girls Higher Secondary School, Cotton Collegiate Government Higher Secondary School, Bengali Higher Secondary School, and Kamrup Academy Higher Secondary School, participated in the competition. Prominent speakers, Prof. (Retd.) Kaliprasad Sarma, Department of Environmental Science, Tezpur University, and Dr. Akshai Kumar A. S. (INYAS Member and Associate Professor, IIT Guwahati), talked about plastic pollution and solutions. The announcement of the essay winners and prize distribution were done on the same day. Afterward, there was a documentary screening, followed by an open quiz competition. The event ended with a vote of thanks.



Events on Women in Science

Event: Girls in Science

Date: 10 February 2023 Organizer: Neha Sardana No. of participants: ~ 160

INYAS, in association with IIT Ropar, has observed International Day for Women and Girls in Science with about 160 participants from nearby government schools. The event witnessed invited talks from diligent women scientists, Prof. Keya Dharamvir and Dr. Sunita Mishra, followed by literary, slogan-writing, and painting competitions for students.





Event: International Day for Women and Girls in Science

Date: 11 February 2023 Organizer: Pankaj Barah No. of participants: ~ 130

INYAS has organized an event to celebrate the International Day of Women and Girls in Science by collaborating with Tezpur University. Approximately 130 female students (UG Science) from four rural colleges in the Sonitpur District of Assam participated in the event. They were given orientation and mentoring for pursuing higher studies in science. The students were also taken around Tezpur University's campus to see different modern scientific facilities.





Event: International Women Day, 2023

Date: 02 March 2023 Organizers: Neha Sardana No. of participants: ~ 133

INYAS, in association with IIT Ropar, celebrated International Women Day 2023 today with a plethora of activities and lectures by eminent speakers. The guest of honor, Dr. Sarmishtha Bhattacharya, talked about the Cyclotron to probe nuclei and its applications. Dr. Lipika Gautam discussed antibiotic resistance: The Road to the Post-Antibiotic Era. Dr. Subina Narang shared about retinopathy of prematurity, followed by poster-making, slogan-writing, and rangolimaking competitions for all students. Ms. Anita Budhiraja, of NIELIT, discussed the topic of women's empowerment through skill development, followed by a talk by Ms. Arvinder Kaur on women's nutrition and health. The day was concluded by giving prizes to the winners of events carried out by INYAS on February 10 and March 2, 2023.



Event: Online Poster Competition on "Achievements of Women in Science"

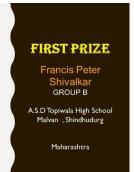
Date: 10 March 2023

Organizer: INYAS Kolkata Bhubaneswar Chapter

INYAS Kolkata Bhubaneswar chapter organized an online poster competition on "Achievements of Women in Science" to mark and celebrate International Women's Day (IWD) 2023. The result of the competition is announced in an online event on March 10, 2023. The program is available on the INYAS YouTube channel.





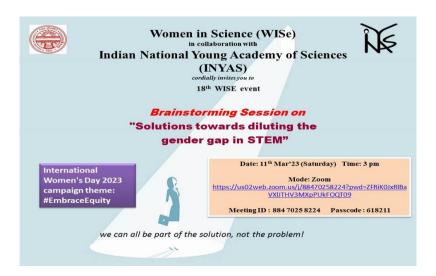


Event: Women In Science (WISe)

Date: 11 March 2023

Organizer: Nishima Wangoo No. of participants: ~ 19

The brainstorming was held amongst WINYAS members to discuss the potential strategies to be employed to dilute the gender gap in STEM. Various ideas were discussed and these initiatives discussed would be taken up in the flagship event WisDOm.



Event: International Women's Day

Date: 17 March 2023 Organizer: Kiran Bala No. of participants: ~ 70

International Women's Day is celebrated at IIT Indore, which was jointly conducted by the Women Cell at IIT Indore and INYAS. On March 9th and March 16th, various competitions, such as poster making and essay writing, were organized for IIT Indore and Simrol Govt. School students. On March 17th, the women's cell convener gave a brief overview of different activities conducted with a warm welcome to all the audience members gathered. The institute's director, Prof. Suhas Joshi, and Dean of administration, Prof. Sandeep Chaudhary, motivated and addressed the students and other audience members present in the hall. Following the Institute dignitaries speeches, there were speakers from academia, industry, the UN Women, women, and child departments to motivate and raise awareness on different topics. A talk by Mr. Gaurav Sharma from Adventure Training Academy titled "Youth and Courage" thrilled the audience with his adventurous experience of climbing Mount Everest. Dr. Nishima Wangoo, Assistant Professor at Punjab

University, delivered a talk titled" Women in Science: The Way Forward" and enriched the audience's knowledge about Indian women scientists and their remarkable contribution towards the development of science and technology. Dr. Savita from UN Women ICO, Madhya Pradesh, spoke on women's empowerment through her talk titled "Gender equality and government programs and schemes for women". Also, for the outreach activities, the Women's Cell of IIT Indore, in association with the INYAS, conducted a poster-making competition in Simrol for school students. These competitions are kind of brainstorming sessions that give us pictures of their understanding of women, their struggles and achievements, etc. The prizes were distributed to the winners of the competitions.





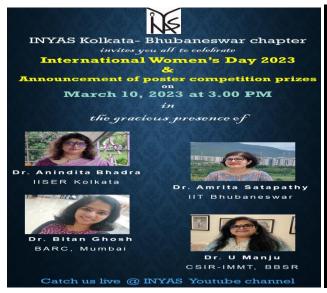
Event: Poster Making Competition on "Achievements of Women in Science" followed by a Webinar (INYAS Kolkata-Bhubaneshwar Chapter)

Date: 10 March 2023

Organizer: Chirasree Roy Chaudhuri, Sriparna Chatterjee

No. of Participants: 50

The poster competition was well received by the school students and in spite of the coincidence with the final examinations in some schools, there was an overwhelming response by around 50 participants. They presented innovative ideas which were judged by eminent members: Dr. Bitan Ghosh from BARC Mumbai, Dr. Anindita Bhadra from IISER Kolkata, and Dr. Amrita Satpathy from IIT Bhubaneshwar. The results were declared on 10th March which was followed by a webinar where the jury members enlightened the audience with the importance of artistic depiction in science. It was well attended by the participants.





Event: Symposium on "Women in STEM as Enablers of Change in Amrit Kaal"

Date: 31 May 2023

Organizer: Shweta Yadav

No. of Participants: 100 offline and others online

With a goal to motivate, encourage and actualize women's participation in (Science, Technology, Engineering, and Mathematics) STEM disciplines, the Central University of Jammu and Indian National Young Academy of Sciences (INYAS) organized a National Symposium on "Women in STEM as Enablers of Change in Amrit Kaal" on 31st May 2023 in the campus of Central University of Jammu, J&K. Convener Dr. Shweta Yadav moderated the discussions and Coconveners (Dr. Neha Sardana, Dr. Vijay Kr Sharma, Dr. Jayaram Kolleboyina and Dr. Sharanjeet Dhawan) introduced the speakers and moderated the respective sessions. In this event, women achievers from six countries: Prof. Ulrike Lohmann (Switzerland), Prof. Vera Sergeeva (Russia), Dr. Frida Sidik (Indonesia), Dr. Alma Oracevic (UK), Dr. Raaga (Egypt), Dr. Dulce M. Morales (Netherlands) along with Dr. Sudha Bhattacharya, INSA senior scientist, Ashoka University, India shared their story and encouraged the audience to choose and sustain in STEM (Science, Technology, Engineering, and Mathematics) disciplines. Apart from this INYAS members also shared their encouraging stories.



Event: The STEAM Gap: Nurturing next generation women leaders

Date: 07th - 08 July 2023

Organizers: Dhiraj Bhatia, Neeldhara Mishra, Pankaj Barah

No. of Participants: ~92

This was 1.5 days very focused workshop with approximately 90 participants from different parts of the country and women to men in 75:25 ratio to discuss various points about limited women visibility in Indian academia leadership roles. Multiple women leader icons gave the talks on their career journeys and many sessions involving gender gaps, women leadership, inputs from Govt of India were discussed. A full report in the form of white paper will be published very soon. The event was attended by students, teachers, professors, scientists, doctors, industry people, healthcare attendees, funding agencies and the overall feedback was very positive. This was the even by the WiSDoM, the flagship initiative of INYAS and the topic and time was very very apt for this meeting.



Event: ICONIC Women scientist under the Wisdom flagship program

Date: 12 July 2023

Organizer: Sugandha Maheswary, Jiban Jyoti Panda, Mayuri Chabukdhara, Rishemjit Kaur,

Shobhna Kapoor, Namisha Sharma

No. of Participants: 80

INYAS conducted an event, "ICONIC WOMEN SCIENTISTS OF INDIA," on July 12, 2023, as part of its flagship program WiSDom (Women in Scientific Domain). This event aimed to cultivate a scientific mindset among school students and ignite their curiosity. The event served as a platform to honor and celebrate the exceptional achievements of women who have pushed boundaries leaving an important mark on the world of knowledge. These extraordinary individuals have not only excelled in their respective scientific fields but have also paved the way for future generations of women scientists. The event started with a message from Dr.

Rajendra Dhaka, Chair INYAS, who briefed the audience about the diverse range of activities undertaken by INYAS. Further, the invaluable motivational talks by the esteemed guest speaker, Prof. Sudha Bhattacharya and Prof. Gagandeep Kang (recorded), captivated the audience. It also featured two storytelling sessions, delivered by INYAS members Dr. Neha Sardana and Dr. Nishad Fatima (alumni) which shed light on the extraordinary lives of iconic Indian women scientists, Kalpana Chawla and Anandibai Joshi. Through these sessions, the attendees were immersed in the awe-inspiring journeys of these trailblazing women, learning about their determination, and ground-breaking contributions to the scientific community. As a part of the event, a quiz competition and a poster competition were also organized, themed on women scientists. The event was coordinated and organized by INYAS members Drs. Sugandha Maheshwary, Jiban Jyoti Panda, Rishemjit Kaur, Shobhna Kapoor, Namisha Sharma and Mayuri Chabukdhara. The event was a great success and was well-received by students, as reflected by huge participation and feedback received. For the students, this event served as an invaluable opportunity to not only gain knowledge but also to be inspired by the remarkable stories of these pioneering women. WiSDom team would like to acknowledge support extended by INYAS alumni Dr. Mahak Sharma for the prizes and evaluation support by INYAS member Dr. Sonu Gandhi and alumni Dr. V Ram.



Sustainability Lecture Series

Event theme: Sustainability lecture - 1 (bimonthly & online)

Date: 11 February 2023

Organizers: INYAS-NCR chapter

Sustainability lecture series (bimonthly & online) is initiated by INYAS -NCR chapter in collaboration with the Department of Microbiology, Institute of Home Economics, Delhi University, and MBSI (Microbiologist Society, India). The theme is "Role of Science in Sustainable Development: An Indian Perspective. Undergraduate students of related disciplines are the potential audience of the series. We are pleased to inform you that the first talk is delivered by Dr. Amit Chandra Kharwal, Dy. Director and Associate Professor, Amity University.



Event theme: Sustainability lecture series- 2 (bimonthly & online)

Date: 25 February 2023

Organizers: INYAS-NCR chapter

INYAS conducted -Lecture 2 of the Sustainability lecture series (bimonthly & online) as initiated by INYAS -NCR chapter in collaboration with the Department of Microbiology, Institute of Home Economics, Delhi University and MBSI (Microbiologist Society, India). The theme is "Role of Science in Sustainable Development: An Indian Perspective. Undergraduate students of related disciplines are the potential audience. This second talk was delivered by Dr. Seema Sangwan, Scientist (Senior Scale), Division of Microbiology, Indian Agricultural Research Institute, New Delhi.



Event: Sustainability lecture series (bimonthly & online)

Lecture 3: Sources of Sustainable Energy

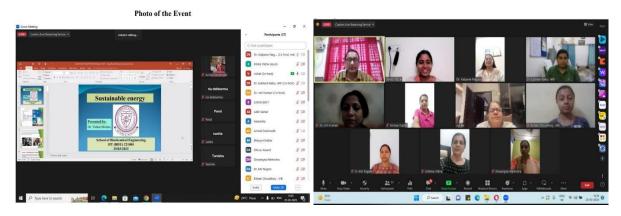
Date: 25 March 2023

Organizer: Kalpana Nagpal and Subhash Babu

No. of Participants: 60

The sustainability lecture series (bimonthly & online) is initiated by INYAS -NCR chapter in collaboration with the Department of Microbiology, Institute of Home Economics, Delhi University, and MBSI (Microbiologist Society, India). The theme is "Role of Science in Sustainable development: An Indian Perspective. The third talk in this series was delivered by Dr. Vishal Mishra,

Assistant Professor, School of Biochemical Engineering, IIT (BHU) Varanasi, and member INYAS, INSA New Delhi. The talk was also broadcasted by YouTube channel. YOUTUBE LINK: https://youtube.com/live/F5iPkadJAiY?feature=share



Event: Sustainability lecture series (bimonthly & online)

Lecture 4: Role of Science in Sustainable development: An Indian Perspective

YOUTUBE LINK: https://www.youtube.com/live/RmGyvfM7fZQ?feature=share.

Date: 8 April 2023

Organizer: Kalpana Nagpal and Subhash Babu

No. of Participants: 50

The sustainability lecture series (bimonthly & online) is initiated by INYAS -NCR chapter in collaboration with Department of Microbiology, Institute of Home Economics, Delhi University and MBSI (Microbiologist Society, India). The theme of the series is the "Role of Science in Sustainable development: An Indian Perspective". The audience for the talk was the Post graduate and Undergraduate students of related disciplines. In this series the fourth talk was delivered by Dr. Sanjay Singh Rathore, Principal Scientist, Division of Agronomy, ICAR-IARI, New Delhi who is also the National Coordinator of National Agricultural Higher Education Project (NAHEP), ICAR, New Delhi-110012. The title of his talk was 'NAHEP- A Revolutionary Tool for Strengthening Agricultural Education in India. The talk was delivered on 8th April at 11 am onwards. The total number of participants was around 50. The talk was also broadcasted on YouTube channel.

Sustainability Lecture Serie jointly organized by **ICAR** FOR EXCELLENCE IN NARES Indian National Young Academy of Sciences, (Delhi Chapter)
Institute of Home Economics, Department of Microbiology,
University of Delhi (Under the aegis of IQAC,IHE) Systematic research in the country started with the establishment of erial Council of Agricultural Research Microbiologists Society, India (Delhi Unit)
LECTURE - 4 (1929) in Delhi, which is known today as Indian Council of Agricultural Research Topic : NAHEP- A Revolutionary Tool for Strengthening Agricultural Education In India ICAR is the apex body for coordinating, <u>Date</u> - 8 April, 2023 guiding and managing research and Fine - 11:00 am onwards

YouTube Link - https://www.youtube.com/live/RmGyvfM7fZQ?

Feature=share education in agriculture including animal sciences and fisheries. ICAR has 113 research institutes, 74 AUs 4 deemed-to-be-universities, 3 CAUs and 731 KVKs spread across the country. SPEAKER With these, ICAR leads one of the largest SPEAKER

Dr Sanjay Singh Rathore

Principal Scientist & National Coordinator,
NAHEP, ICAR, New Delhi NARES in the world. India has one of the largest agricultural research human resource capitals in the world with approximately 30,000 scientists and more than 100,000 Patron (MBSI) of, A.M. Deshmukh technical & supporting personnel in the

National Science Day Celebration

Event: National Science Day

Date: 28 February 2023 Organizers: INYAS and INSA

INYAS and INSA jointly celebrated National Science Day on February 28, 2023. Padma Shri Dr. Anil K. Rajvanshi delivered the Keynote speaker during the event. INYAS also released its newsletter in four regional languages. Saransh: 2022 winners were felicitated during the event





Event: National Science Day

Date: 01 March 2023

Organizers: Nishima Wangoo, Chandigarh chapters of INYAS, NASI and INSA

No. of participants: ~ 100

To celebrate the National Science day and to know the real story behind this day and the saga involved, SPSTI in association with Chandigarh chapters of INYAS, NASI and INSA had organised a hybrid lecture by former Vice Chancellor of Panjab University and a renowned scientist Prof Arun Kumar Grover on "C V Raman and the 1930 Nobel prize in physics at the seminar hall of Central Instrumentation Laboratory at Panjab University Chandigarh. The lecture witnessed the participation of a huge number of students from Physics and other allied subjects.



Conferences/Seminars/Webinars

Event: Science in Everyday Life (Webinar)

Date: 28 February 2023

Organizer: Sharanjeet Dhawan

No. of participants: ~ 50

Under the guidance and support of H'ble Vice Chancellor Prof. S. K. Mehta, UOL Mathematics Club, Department of Mathematics, University of Ladakh, Leh Campus, in collaboration with INYAS (Indian National Young Academy of Sciences) celebrated National Science Day 2023 on February 28, 2023 by organising a One-day webinar on "Science in Everyday Life". Dr. Harleen Dahiya, Associate Professor, NIT Jalandhar, India was the key speaker. The webinar was inaugurated at 11:00 a.m. by Hon'ble Registrar, Prof. Ashok Kumar Sharma, University of Ladakh. He addressed the participants focusing on the importance of Science in everyday life in which he emphasized that one should be innovative and must have a multidisciplinary approach. Dr. Dahiya delivered her lecture entitled "Science in everyday life" in which she focused on how science surrounds us and plays an important role in our daily life. At the end of the talk, all the participants enthusiastically discussed their queries with Prof. Dahiya. The session was concluded at 12:15 p.m. by presenting a formal vote of Thanks by Mr. Tundup Namgyal, Assistant Professor, Department of Mathematics, UOL.





Event: National Symposium 'Gurukul in Emerging Areas in Modern Biology and Medicine'

Date: 02-03 March 2023 Organizer: Pankaj Barah No. of participants: ~ 120

A national-level mentoring symposium 'Gurukul in emerging areas in modern biology and medicine' was jointly organized by INYAS, in collaboration with the Department of Molecular Biology and Biotechnology, Tezpur University. More than 120 students and research scholars from different institutes participated in the event along with 28 scientific posters. They were been mentored by twenty resource persons from different reputed organizations in India. With scientific poster sessions, group mentoring sessions, and evening cultural programs performed by the students, it was a vibrant atmosphere.





Event: National conference on Advanced Nanomaterials and Applications 2023

Date: 20-22 March 2023 Organizer: Rohit R Shahi No. of Participants: 110

Department of Physics, CUSB Gaya organizing a three days National conference on Advanced Nanomaterials and Applications 2023. The Inaugural function of this conference held on 20 March 2023 at Vivekannad Lecture Complex of CUSB Gaya. The conference was proposed by Dr. Rohit R shhai and his team of Department of physics. The chief guest of the inaugural function was Pror. Avinash Chand Pandey Director Inter University Accelerator Center (IUAC -New Delhi). Chief Guest of the inaugural function Prof. Pandey congratulated the organizer for organizing such an event. He told that the research of the past 30 years is nominated over the research of the past 300 years in the area of nanomaterials. The program was presided over by the Honorable Vice Chancellor Prof. Kameshwar Nath Singh. Dr. Rohit Shahi, convener of the conference tells about the aim and objectives of the conference, he told the conference's main aim was to motivate the students and develop the scientific temperament of the research in this region of the county. He also added more than 23 renowned speakers from different IITs, CSIR labs, central universities, research institutes, and CSIR Laboratories to deliver lectures. This conference also had 23 oral and 57 poster presentations occurred. Dr. Shahi also described how the properties of materials change with reducing their size to the nanometer range and told about the relevance of this conference. Also one of the mandates of the conference is to create networking among the INYAS members. Out of 23 keynote and invited speakers, six INYAS members delivered their talk and finalize several future collaborative research.





Event: Science 20 Thematic Conference on "Connecting Science to Society & Culture"

Date: 16-17 June 2023

Participants: Kirtimann and Kiran Bala

It was an excellent event where representatives from different countries kept their views on how science connect with society. Role of AI and new technologies in progression of society was discussed and appreciated. However, most delegates agreed that we should set up the accountability and regulations before launching a new technology.

This event successfully hosted a platform for international collaboration, cooperation, and knowledge sharing to address global challenges, enhance collective capacity, harmonize policies, and share best practices for the responsible development and deployment of disruptive science and technology in pursuit of SDGs.



G20 Dedicated Events

Event: G20 Awareness Program on Environmental and Socio-Economical Issues of Ladakh Region

Date: 27 March 2023

Organizer: Sharanjeet Dhawan

No. of Participants: 100

University of Ladakh and INYAS jointly celebrated G20 awareness program on environmental and socio economic issues of Ladakh region. Dr. Mohd Hussain was the convener of the program, Dr. Sharanjeet Dhawan was Co-convener. The Registrar of the University of Ladakh graced the occasion and while addressing the gathering, he encouraged and emphasized the students for adoption of innovative skills in their routine activities in order to protect and preserve the fragile environment of Ladakh. The program started with Quiz competition in which eight teams participated from different schools of Leh city viz. Govt. Boys Higher Secondary School Leh, Govt. Girls Higher Secondary School Leh, Kendra Vidyalaya and Jawahar Navodaya Vidyalaya. The 1st position was secured by K.V team while second and third position were secured by J.N.V Leh and Govt. Girls Hr. Sec. School Leh respectively. This was followed by a speech competition with each participant delivering a unique and thought-provoking speech on a topic of their choice within the given themes. Sonam Ladol of UOL, Bhuvi Pandita of K.V. Leh and Liyaquat Ali of UOL secured 1st, 2nd and 3rd positions respectively by impressing the judges with their confidence, delivery, and use of language. The last event was a photography exhibition cum competition where students of University of Ladakh namely Padma Angmo, Stanzin Yaoutan & Mudasir Ahmed Mir secured 1st, 2nd & 3rd positions respectively.



Event: Plenary Session on "Empowering Young Scientists in Governance" at Y20

Date: 14 - 15 April 2023 Organizer: INYAS No. of Participants: 200

INYAS was happy to conduct the plenary session on "Empowering Young Scientists in Governance" at the <u>#Y20_Consultation</u> at KIIT, Bhubaneswar. The session was moderated by Sriparna Chatterjee and Kutub Joy (Kutubuddin Molla). Distinguished panelists were Dr. KC Bansal from NAAS, New Delhi, Dr. Chandra Neha Sharma from IIT Hyd, Dr. Rajendra Dhaka from IIT Del, Dr. Nishant Chakravorty from IIT Kgp, and Dr. Anindita Bhadra from IISER Kolkata. The session was attended by Mrs. Meeta Rajivlochan, Secretary, Youth Affairs, Govt. of India, and more than 200 participants from different parts of the country. The Panel discussed the status of Young Scientists in India, roadblocks to empowering, assessment criteria, initiatives of INYAS for empowering young scientists, and Best practices to adopt.



Event: Youth20/G20 Pre Summit at Leh

Date: 26-28 April 2023 Organizer: INYAS

INYAS organized a session on the theme: "Health, Wellbeing and Sports: Agenda for Youth "Youth20/G20 Pre Summit at Leh during April 26-28, 2023. Y20 delegates are from Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the U.K. and the U.S., as well as the European Union. India's special invitee guest countries are Bangladesh, Egypt, Mauritius, Netherlands, Nigeria, Oman, Singapore, Spain and UAE. G-20's invited international organisations are UN, IMF, World Bank, WHO, WTO, ILO, FSB, OECD, AU Chair, NEPAD Chair, ASEAN Chair, ADB, ISA and CDRI. Happy to represent India Dr. Rajendra Dhaka, Dr. Kalpana, Dr. Shalini, Dr. Dhiraj, Dr. Pankaj Barah on behalf of Indian National Young Academy of Sciences (INYAS).



Event: SCIENCE20 THEMATIC CONFERENCE ON UNIVERSAL HOLISTIC HEALTH

Date: 1-2 May 2023

Organizer: Science 20 Engagement group and Indian National Science Academy (INSA)

Presenter: Rakesh Pilania No. of Participants: 45

This was a Science20 Thematic Conference on "Universal Holistic Health" held in Lakshadweep from May 1-2, 2023. Experts on Health Sciences deliberated and explored various aspects of disruptive science and how it can interact with the healthcare ecosystem to better serve the society. Dr. Rakesh Kumar Pilania attended the conference as Guest Invitee and represented the INYAS.





Event: Stage II: Debate competition of Model G 20 program organised jointly by IIT Hyderabad and INYAS under the aegis of Ministry of Education

Date: 30 June 2023 Organizer: Kiran Bala No. of Participants: 20

This event is designed to provide the participants with a platform for thought-provoking discussions, persuasive arguments, and showcase their oratory skills. The event was organized in the central zone at IIT Indore. The event was coordinated by Dr. Kiran Bala, Associate Professor, Department of BSBE, IIT Indore. The debate competition was judged by Dr. Mahaveer Sharma, ICAR-IISR, Indore Dr. Kiran Bala, IIT Indore and Dr. Elangovan Manivannan, DAVV, Indore. 21 participants, were selected as per the the essay competition held as part of Stage One on Zone 5 (Central) to participate in stage II.



Event: Stage 2: Debate competition of Model G 20 program organised jointly by IIT Hyderabad and INYAS under the aegis of Ministry of Education

Date: 24 June 2023

Organizer: Sriparna Chatterjee

No. of Participants: 35

Stage 2: Debate competition of Model G 20 program organized jointly by IIT Hyderabad and INYAS under the aegis of the Ministry of Education was hosted at the School of Basic Sciences, IIT Bhubaneswar on June 24, 2023, with 21 shortlisted participants from Eastern zone. Thanks to the participants who came all the way from Jharkhand, Bihar, West Bengal, and Odisha to participate and make the event a grand success. A special thanks to jury members, Prof. Rajan Jha, Prof. Dinesh Topwal, and Dr. Sriparna Chatterjee. The program was graced by the presence of invited guests Prof. Shreepad Karmalkar, Director IIT BBS, Dr. Manju Unnikrishnan from CSIR-IMMT, and Prof. Shyamal Chatterjee from IIT BBS.



Workshops

Event: Ed-Vantage Career Workshop

Date: 01-02 April 2023 Organizer: Neha Sardana No. of Participants: 130

The two-day career workshop by MetSoc was designed to help individuals identify their strengths, set career goals, and develop the skills and confidence needed to succeed in their chosen fields. The workshop featured speakers from diverse career fields, including the army, software engineering, industrialists, professors, and entrepreneurs. The workshop aimed to provide participants with insights and guidance on career planning and development, as well as opportunities to network with professionals from different fields. The day started with an inspiring keynote speech from a successful industry leader, Mr. Sachit Jain (Managing Director, Vardhman Special Steels), who shared his own career journey and offered valuable insights into the current job opportunities in the core engineering field. This was followed by a series of interactive sessions by influential personalities like Dr. Manish Kumar Hooda (Head Technology Development Division at ScI), Prof. BS Murty (Director, It Hyderabad), Dr. Dinesh Pal (Scientist G; And Technology Director, TBRL DRDO), and Dr. Vijayendra (CEO, Yourpedia Global). The interactive session of the second day started with IRS officer Mr. Kumar Gaurav Dhawan (Dupty Director, PGIMER Chandigarh), followed by Dr. Ashish Sahani (Ass. Prof. IIT Ropar), Dr. Balwinder Sodhi (Ass. Prof. IIT Ropar), Mr. Ashish Kaushik (SDE at Microsoft), and Col. Prabir Sengupta (Honored by VSM by the President of India). Each speaker shared their career journey, challenges they faced, and key lessons learned. The army speaker talked about the skills and values that the military teaches, such as leadership, teamwork, and discipline, which are transferable to any career field. The software engineer shared insights on the growing demand for tech skills and the importance of continuous learning and upskilling in the field. The entrepreneur speakers shared their experiences of starting and growing a business, the challenges they faced, and how they overcame them. Following the panel discussion, there was a Q&A session where participants had the opportunity to ask the speakers specific questions related to their career fields.



Event: Workshop on Characterization of Coating Materials

Date: 08 May 2023

Organizer: Sudhanshu Shekhar Singh

No. of Participants: 40

The workshop was on mechanical characterization techniques for the development and quality control of coated materials was organized. The audience was given a brief introduction to the INYAS and its activities along with IIM Kanpur Chapter and Material Advantage. Dr. Ankit Jain, Mr. Jitendra Singh, and Mr. Abhishek Singh (industry experts) were invited from Anton Paar for the workshop. They conducted presentations to introduce the researchers to the X-ray diffraction spectroscopy equipment and the related solutions to combat different challenges related to various sample conditions for XRD analysis. The session provided participants with the opportunity to interact with industry experts and gain practical experience. It featured practical training with a variety of cutting-edge surface characterization tools, including Calotest testers, nano-indentation, scratch testers, and tribometers. There was also an online training for handling extremely complicated tribometer and scratch testing equipment.





Event: National Workshop on Molecular Docking & Electroanalytical Techniques (MDET -2023)

Date: 06 June 2023 Organizer: M. S. Santosh No. of Participants: 187

Dr. Ramakrishna Matte, scientist from Bengaluru, emphasized the importance of societal accountability in finding constructive solutions. Speaking at the Workshop he stressed that scientists have a responsibility to communicate their work and apply scientific methodologies to solve immediate social problems. According to Dr. Matte, scientific research should extend beyond the confines of laboratories and encompass various aspects of daily life to provide meaningful solutions to societal crises. Dr. Satheeshchandra S., the Secretary of SDM Educational Society, inaugurated the program and highlighted the significance of molecular docking and electroanalytical techniques in addressing health, climate, and food production challenges. Dr. B A Kumara Hegde, the Principal of the college, emphasized the importance of curiosity and its role in scientific advancements. The workshop featured a keynote address by Dr. Matte, two technical sessions, and hands-on training sessions conducted by Dr. Manjunatha J G and Dr. Ramith Ramu. The event concluded with a valedictory session addressed by Dr. Ramu, where opinions were shared by delegates from different institutions.



Event: National Workshop on "Waste Literacy and Management" (Online)

Date: 27 May 2023

Organizers: Shweta Yadav No. of participants: 100

National Workshop on "Waste Literacy and Management" was organized by Central University of Jammu and INYAS in online mode. In Session I, renowned expert Dr. Arup Kr Mishra, Chairman, Assam PCB discussed the Best Practices for Sustainable Waste Management. In Session II, INYAS members Dr Nikhil Dhawan from IIT Roorkee gave a wonderful lecture on Electronic waste recycling. In Session III, INYAS member Dr Ejaz Ahmad from IIT (ISM) Dhanbad talked about Understanding Low and High Temperature Technologies for Solid Waste Management and In Session IV, INYAS member Dr Vishal Mishra from IIT BHU discussed the application of Solid waste based Microbial Fuel cells in waste management. In this program, CUJ faculty members moderated the sessions and the experts suggested innovative waste management strategies. Convener Dr Shweta Yadav thanked all the speakers and participants.



Event: Demystifying Science Olympiad: An Interactive Session with Hands-on Experiments

Date: 03 June 2023 Organizer: Arnab Dutta No. of Participants: 94

Science Olympiad has been an excellent platform over the past few decades for nurturing the natural knack of school students towards fundamental science. Despite the fact that India is one of the leading countries in this global event, the knowledge of this program has seldom penetrated the student community beyond the major cities. To address this issue, Prof. Arnab Dutta (INYAS member from IITB) developed this program titled "Demystifying Science Olympiad: An Interactive Session with Hands-on Experiments" along with Prof. Ankush Gupta from Himi Bhabha Center for Science Education. This interactive program was initiated with an overview of the Science Olympiad, including its brief history, eligibility criterion, sample questions, preparation, and success stories of a few participants. Next, the resource persons exhibited candle flame and redox chemistry experiments while discussing the underlying chemistry. In this interactive session, the students participated in the experiment and displayed their inquisitive minds with multiple interesting queries. Mr. Vishal, Mr. Chandan, Mr. Somnath, and Mr. Manodip aided in executing the experiments and discussed them with the participants at length. INYAS alumni Dr. Vivek Parkar also participated in this program and helped us immensely in organizing this program.



Event: A working group online meeting on Peer-Reviewed Preprints: Benefits and Limitations for Young Indian Researchers

Date: 9 June 2023

Organizers: Sriparna Chatterjee & Kutubuddin Molla

No. of Participants: 53

The scientific publishing industry is undergoing rapid transformations, with Open Access (OA) publishing gaining traction over the subscription model. The extremely high costs charged by many scientific journals are causing problems for academic institutions. Motivated by profit, these journals increase prices faster than the inflation rate. This drains library budgets, leaving very little money to improve the systems and services that support researchers. The exploration of technical solutions to modernize scientific publishing has gained prominence. Initiatives like peer-reviewed preprints are gaining momentum. In response to these evolving dynamics, INYAS, in partnership with the International Science Council (ISC) and the Department of Science and Technology's Centre for Policy Research (DST-CPR), conducted an online workshop titled "Peer-Reviewed Preprints: Benefits and Limitations for Young Indian Researchers" on 9 June 2023 between 14.00 HRS to 16.30 HRS. The workshop commenced with an introduction by Rajendra Dhaka, INYAS Chair and Professor, Indian Institute of Science, Delhi. Following this, Ludo Waltman, Professor and Deputy Director of Centre for Science and Technology Studies (CWTS), Leiden University, delivered a lecture on "Preprinting and Preprint Peer Review- An opportunity to reshape scholarly publishing." Next in line were eight parallel panel discussion sessions in breakout rooms, where participants who are INYAS members discussed the potential benefits of preprints and challenges in broader adoption. A moderator guided the discussions in each breakout room. In the final segment of the workshop Sridhar Gutam, Senior Scientist, ICAR-Indian Institute of Horticultural Research, Bangalore, gave a lecture on the current status of preprint usage in India.



Event: High-End Workshop on "Leveraging molecular laboratory skills on the development of molecular gadgets for diagnosis and prevention of livestock diseases"

Date: 15-28 June 2023 Organizer: Rajib Deb No. of Participants: 25

The ICAR-National Research Centre on Pig in Guwahati, Assam, has scheduled a two-week High-End Workshop on "Leveraging molecular laboratory skills on the development of molecular gadgets for diagnosis and prevention of livestock diseases" from June 15th to June 28th, 2023. The Workshop was co-organized by the Science and Engineering Research Board (SERB), Department of Science and Technology, Government of India, as part of the KARYASHALA Scheme, a SERB Initiative in conjunction with the Indian National Young Academy of Sciences. Dr Rajib Deb, Senior Scientist & INYAS Member acted as Event organizer for the event. The "KARYASHALA" is solely dedicated to boosting the research output of promising Post-Graduate and Ph.D. students from Universities and Colleges through high-end seminars on specialised topics. The Hands-on High-End Workshop Programme on Molecular Tools and Techniques aims to provide opportunities for selected 25 students (MVSc and Ph.D. Level) from various disciplines, primarily from Agricultural Universities including IVRI and NDRI and state veterinary colleges from different parts of India, to acquire specialised research skills and gain hands-on experience. The programme was aimed to provide participants with hands-on experience with modern molecular biology tools and methodologies for the development of diagnostics, including point-of-care technologies, for livestock diseases. Students also had the opportunity to practise utilising several bioinformatic tools used in the creation of diagnoses. They also learned about additional common laboratory procedures used in conjunction with basic molecular biology research tools. The trainees were subjected to pre- and post-evaluation examinations. The selection committee devised numerous criteria for awarding the best team and best trainee. Participation and achievement certificates were distributed during the valedictory session on June 28, 2023. All of the participants provided their feedback reports.







INYAS Flagship Event "PRAYOJAN"

Event: INYAS Flagship event "PRAYOJAN"

Date: 22-23 April 2023 Organizer: INYAS

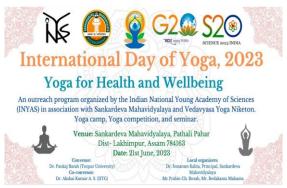
INYAS flagship program named 'PRAYOJAN' (Post-PhD: Research, Academia, and Industry Opportunities, Science Journalism, Grant Writing, and Networking) was held online mode. This event has created a new platform to explore diverse opportunities for PhDs, Postdocs and Early Career Researchers and attracted huge participation across the country. INYAS is grateful to Dr. Akhilesh Gupta, Senior Adviser at the Department of Science and Technology (DST) and Secretary of the Science and Engineering Research Board (SERB), GoI, and Prof. T. G. Sitharam, Chairperson of AICTE for gracing the inaugural and valedictory sessions, respectively. INYAS is also thankful to all the speakers, and thanks to the organizing team for working tirelessly to make this event successful. INYAS extends special thanks to Ashutosh Sharma IITK, President, INSA for conceptualising and nurturing the very idea of PRAYOJAN.



International Day of Yoga

Date: 21 June 2023 Organizer: Pankaj Barah No. of Participants: ~250

The Indian National Young Academy of Sciences (INYAS) organized an event to celebrate the International Day of Yoga in association with Sankardeva Mahavidyalaya and Vedavyasa Yoga Niketon, Lakhimpur district of Assam. The event witnessed participation from over 250 students, teachers from various schools and colleges, as well as villagers. The event featured scientific seminars, yoga demonstrations, and yogasana competitions among school children. Dr. Pankaj Barah from Tezpur University, and Dr. Akshai K. A. S. from IITG, coordinated the event.







Awards, Recognitions, and Achievements by INYAS members

Ankur Gupta: "JMM Emerging Leader 2023" by Journal of Micromechanics and Microengineering.

Ankur Gupta: Selected for a "Scientific High-Level Visiting Fellowship (SSHN)" to visit University in France 2023 by the French embassy of India, July 2023

Aravind Kumar Rengan: G D Naidu Young Scientist Award 2023.

The award is conferred by "People's Thinking Forum," of Tamil Nadu to recognize scientists under the age of 40 doing outstanding research work, as evidenced in

publications. The award carries a shield and a cash prize of INR 1 Lakh. The award has been given to him for the development of novel nanotechnology-based cancer therapy.

Dibyendu Chatterjee: Associate of the National Academy of Agricultural Sciences, NASC Complex, Dev Prakash Shastry Marg, New Delhi 110012, India,



National Academy of Agricultural Sciences (NAAS)

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Santosh Kumar Gupta: CRS Silver medal for outstanding contribution in chemical science and research for societal benefits





Dr. Veerendra K. Sharma: Indian Physics Association (IPA) Buti Foundation Award for Excellence in Theoretical Physics, Astrophysics and Biophysics.

Dr. Veerendra K. Sharma, BARC has been awarded IPA Buti Foundation Award in recognition of his outstanding contributions in membrane physics and soft matter on February 15, 2023. Indian Physics Association gives this award biennially to a scientist below the age of 40 years, who has made outstanding contributions in the area of Theoretical Physics, Astrophysics or Biophysics.

Dr. Veerendra K. Sharma: SMC Bronze Medal 2023

Dr. Veerendra K. Sharma, BARC has been selected for Society for Materials Chemistry (SMC) Bronze medal 2023.



Kirtimaan Syal: NASI Young Scientist Platinum Jubilee Award 2023





Rishemjit Kaur: IEI Young Engineers

Sonu Gandhi: Travel Award by Department of Science & Technology (DST)-IGSTC, New Delhi to avail Connect Fellowship.

Sonu Gandhi: Connect Fellowship by Alexander von Humboldt Foundation for Indo-German collaboration at Fraunhofer Institute for Silicate Research, Wurzburg, Germany

Vinayak Kamble: 2023 Rising Star in Materials Science



Awarded to early-career investigators who are pushing scientific boundaries by conducting research at the forefront of materials science and interfacing disciplines

New Membership 2023



Ankur Gupta
Indian Institute of Technology, Jodhpur





Biological Science Assistant Professor, Biological Engineering Discipline Indian Institute of Technology Gandhinagar

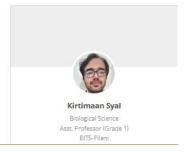


Avinash Sharma
Biological Science
Scientist D
National Centre for Cell Science, Pune



Budhaditya Mukherjee

























Santanu Mukherjee

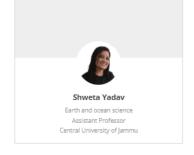
Shoolini University of Biotechnology & Management Sciences, Solan, Himachal Pradesh











Vijay Kumar National Institute of Technology, Srinagar

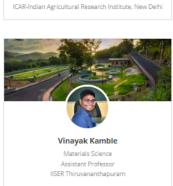
University of Ladakh



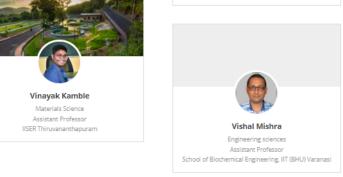
Chemical Science

Indian Institute of Technology Bombay

Associate Professor and Head of the Department Gujarat Biotechnology University



Subhash Babu Agricultural science









Indian National Young Academy of Sciences भारतीय राष्ट्रीय युवा विज्ञान अकादमी

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