

# IN SA News Letter



Issue 227

**JULY - SEPTEMBER 2025** 



INDIAN NATIONAL SCIENCE ACADEMY, NEW DELHI

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#### **Important Events/ Meetings**

The nominations for INSA Fellowship and Foreign Fellowship are received and these are under process. The last date for receiving the nominations was 15<sup>th</sup> July, 2025.

INSA Annual General Meeting (Hybrid mode) was held on September 9, 2025. The following activities / announcements (obituaries / elections) were organized:

The sad demise of Professor Jayant Vishnu Narlikar, Dr Ram Prakash Bambah, Professor Chandra Mani Srivastava, Professor Ramamurti Rajaraman, Professor Sulochana Gadgil (Fellows) and Professor Achim Müller (Foreign Fellow) of the Academy were reported.

### Fellows elected as Council members for Council 2026

78 Indian scientists elected as INSA Fellows

12 Overseas scientists elected as Foreign Fellows

Darashaw Nosherwan Wadia Medal Lecture (2021) was delivered by Professor DM Banerjee, FNA on "Development-Environment and Homo Sapiens Three Pillars of the Modern World" at National Centre for Earth Science Studies (NCESS), Thiruvanathapuram on 22<sup>nd</sup> July, 2025 under the aegis of INSA Thiruvanathapuram local chapter.

As nominated by INSA Prof. Anil Kumar Tripathi, has been elected to the Capacity Building Committee of the Inter Academy Partnership (IAP) Leadership for a three-year term beginning 11 December 2025.

Dr Bushra Ateeq, FNA, INSA representative on the AASSA-WISE Special Committee (2025-2027), participated in the 3rd AASSA-WISE Symposium held virtually in Japan on 4<sup>th</sup> August 2025. She delivered a talk on women in science in India. The symposium was organized by AASSA-WISE in collaboration with the Science Council of Japan (SCJ).

The first joint call of the four Co-chairs of the 6th Yusuf Hamied INSA-Royal Society UK Bilateral Workshop was held virtually on 19 August 2025. The meeting included introductions, an overview of previous Yusuf Hamied workshops, updates on venue and logistics, and a runthrough of the draft programme. The Co-chairs also discussed potential sub-themes and suitable speakers for their respective themes.

The INSA S20 Expert Committee members including, Dr Shekhar Mande, Professor Madhavan Nair Rajeevan and Dr N Srinivasan participated in the S20 Webinar held on 27 August 2025, organized by the Academy of Science of South Africa (ASSAf). Members contributed expert comments and suggestions for inclusion in the draft S20 Communiqué.

The final summit of the Science20 (S20) was convened online on 23rd September 2025. The meeting, hosted by the Academy of Science of South Africa (ASSAf), brought together Presidents of S20 Academies to review and conclude the year-long consultations leading to the adoption of the S20 Statement. INSA was represented by its President and Vice President (International), who actively participated in the deliberations. This summit marked the culmination of extensive discussions and collective drafting undertaken through webinars and consultations, resulting in the final version of the S20 Statement.

### Leadership Development Program in Science & Technology (LEADS-September 2025)

The INSA-NCGG LEADS Program (September 1-6, 2025) was a six-day capacity-building initiative designed to nurture future-ready leadership among mid-career scientists and professionals. 37professors/academicians/scientist have participated in the program. The program brought together distinguished speakers from science, academia, administration, industry, and public policy who shared their insights on the intersections of science, governance, technology, ethics, and leadership.

The sessions covered critical themes such as India's research and innovation ecosystem, the role of science, technology and innovation in achieving the Sustainable Development Goals, cyber security and digital governance, public policy, financial and administrative management, vigilance and ethics, grievance, and gender equity in administration. Discussions also emphasized future-oriented leadership in areas like artificial intelligence, convergent technologies, and nation-building for a Viksit Bharat @ 2047.

Prominent speakers included Professor Ashutosh Sharma (President, INSA), Dr N Kalaiselvi (DG, CSIR & Secretary, DSIR), Professor Sachin Chaturvedi (DG, RIS), Professor Rishikesha T Krishnan (Professor of



Strategy, IIM Bangalore), Sh. Sandeep Mukherjee (Additional Director, ISTM), Sh. V Srinivas (Secretary, DARPG & DPPW), Sh. Rishi Kumar Shukla (Former Director, CBI), Dr Akhilesh Gupta (Adviser & Distinguished Visiting Professor, IIT Roorkee), and Mr Ashwini Lohani (Director, Prime Minister's Museum & Library), among others.

The program also featured an exposure visit to the PM Gati Shakti Exhibition Complex and a cultural evening, complementing the technical sessions with practical and informal engagements.

Overall, the program provided participants with multidimensional perspectives on leadership, blending insights from science, technology, governance, and policy, while preparing them to take on roles that contribute to India's development and global scientific advancement.





LEADS-September 2025

#### **INSA Distinguished Public Lecture Series**

As part of the INSA Distinguished Public Lecture Series, Professor KM Venkat Narayan, M.D., Executive Director of the Emory Global Diabetes Research Center, USA, delivered an illuminating lecture on "Evolving Landscape of Science in the 21st Century: Opportunities and Challenges" on September 22, 2025, at 3:00 PM in the INSA Auditorium. The session was presided over by Professor Sanjay Puri, Vice-President (Resource Generation & Management), INSA.

Professor Narayan traced the remarkable evolution of science from the major public-health triumphs of the 20th century to the multifaceted challenges of the 21st century. Using diabetes as a prototype of contemporary health issues, he underscored the growing dual burden of disease in India and highlighted the concept of convergence science-integrating life, physical, computational, and social sciences to address complex global problems.

Drawing from the long-term CARRS study, he explained how South Asian populations exhibit predominantly insulin-deficient subtypes of diabetes, resulting in higher mortality at younger ages. He emphasized that lifestyle and environmental factors can substantially mitigate genetic risks and called for greater research



investment and

interdisciplinary collaboration, particularly in low- and middleincome nations.

The lecture also reflected on the shifting global research landscape, the need to balance cooperation and competition, and the importance of fostering scientific temper and public trust in science.

The event witnessed an enthusiastic response with around 300 participants, including faculty members, researchers, and students from Amity University (Noida), Jamia Millia Islamia University, and University of Delhi, among others. The session





concluded with a vibrant interaction on strengthening India-US collaborations and promoting convergence-driven innovation in science and public health.

### ESG and Sustainability: Roadmap for Viksit Bharat @2047

A one-day conference on "ESG and Sustainability: Roadmap for Viksit Bharat @2047" was successfully organized on 4<sup>th</sup> August 2025 at the Indian National Science Academy, New Delhi, in collaboration with the Center for Sustainable Energy, IIT Roorkee, and the Indian National Science Academy (INSA). The conference was coordinated by Professor Soumitra Satapathi (IIT Roorkee), with support from Professor







ESG and Sustainability: Roadmap for Viksit Bharat
@2047FIG CAP

Ashutosh Sharma (President, INSA) and Prof. K.K. Pant (Director, IIT Roorkee), and was supported by industry partners Ecogenesis Energy Pvt. Ltd. and UNISED.



#### **Ease of Doing Research & Development (R&D)**

Members of the INSA-CSTIP team participated in the Fourth Regional Consultative Meeting on "Ease of Doing Research & Development (R&D)" hosted by NITI Aayog on 6th August 2025. As part of this national effort, Indian National ScienceAcademy is actively contributing through ongoing initiatives shaping the R&D landscape in India. The meeting brought together eminent voices from academia, research institutions, government bodies and global partners to discuss strategies for strengthening India's research and innovation ecosystem. Key discussions focused on simplifying compliance, fostering stronger academia-industry collaboration, and adopting global best practices to position India as a hub for cutting-edge research.





Ease of Doing Research & Development (R&D)

### Policy Research in India: Current Status and Way Forward

A seminar on "Policy Research in India: Current Status and Way Forward" was conducted on 8th August 2025,

featuring Dr Akhilesh Gupta (Senior Consultant, INSA-CSTIP and Former Senior Adviser & Head, PCPM, DST). The session explored the role of evidence-based scientific knowledge in shaping national, international and state-level policies, highlighting key examples where science has directly influenced policy decisions. Dr. Gupta discussed major national and international policy frameworks, outlined key themes under the INSA-CSTIP initiatives, and shared examples of policy areas studied by selected Centres for Policy Research (CPRs). The seminar also addressed the challenges facing India's Science, Technology, and Innovation (STI) ecosystem, offering insights into ways forward to strengthen policy research and institutional linkages.

#### **TRIPS 2025 Summit**

The TRIPS 2025 Summit (Technology, Research, Innovation, and Policy Summit) was held at IIT Kanpur under the theme "Bridging Research, Innovation, and Policy for a Sustainable Future." This one-of-its-kind summit in India brought together researchers, technologists, policymakers, and industry leaders to celebrate innovation and shape forward-looking policies.











TRIPS 2025 Summit

Prof. ManindraAgrawal, Director, IIT Kanpur, served as Patron, and Prof. Ashutosh Sharma, President INSA & Institute Chair Professor, IIT Kanpur, served as Chairperson of the summit. The event aimed to foster collaboration for a sustainable, future-ready world.

### 6th Regional Consultative Meeting on Ease of Doing R&D

The 6th Regional Consultative Meeting on Ease of Doing R&D, was held at CSIR-IICT, Hyderabad, during10-11 September 2025. Professor Ashutosh Sharma, President of INSA, delivered the keynote address on "Rethinking Research Ecosystems: Ease of Doing R&D in India," highlighting the need for cultural change, stronger collaboration among stakeholders, and better alignment between funding and knowledge to strengthen innovation. He also shared insights from the ongoing national survey on Ease of Doing R&D by NITI Aayog and INSA-CSTIP. The inaugural session featured dignitaries from CSIR, NITI Aayog, and DRDO.











6th Regional Consultative Meeting on Ease of Doing R&D

A panel discussion, joined by Dr Brajesh Pandey, ED, INSA, and other experts, reflected on funding, regulatory frameworks, and access to knowledge resources. Dr Pandey emphasized Al-enabled proposal screening, timely reviews, improved equipment maintenance, and better procurement processes, while also stressing the need for awareness of regulatory rules and improved career prospects for young researchers. The meeting concluded with a call to align policies, processes, and people to make India's research ecosystem more efficient, inclusive, and future-ready.

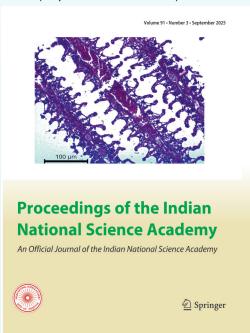
#### Financial Assistance by INSA

Twelve Indian scientists were supported by the Academy for attending the Non ISC (International Science Council) sponsored conferences abroad.

Six Indian scientists were supported by the Academy for attending the ISC (International Science Council) sponsored conferences abroad.

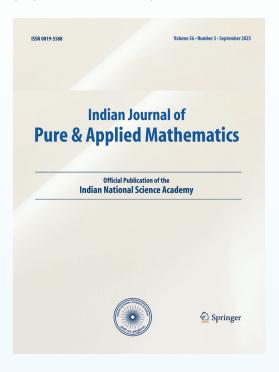
#### **Recent Publications of the Academy**

Proceedings of the Indian National Science Academy: Vol 91 No.3 (September 2025 issue): Published.

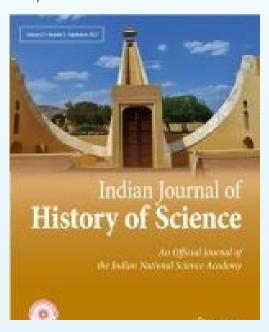




Indian Journal of Pure and Applied Mathematics, Vol 56 No. 3 (September 2025 issue): Published.



Indian Journal of History of Science, (60 Issue 2) (June 2025 issue): Published.



### Indian National Young Academy of Science (INYAS) Activity

The Indian National Science Academy established Indian National Young Academy of Science (INYAS) in December 2014. Following outreach activities have been carried out by INYAS members.

Programme 01: The third session of the Summer Webinar Series for Undergraduate Students in Mathematics and Computer Science was held on 6 July 2025 via Zoom under the convenorship of Dr Manjil Saikia. The session featured Professor Prerona Chatterjee from IIT Madras, who delivered an insightful and engaging talk titled "Alice, Bob, and Some Bags of Cash." Focusing on the CHSH game, the lecture bridged the domains of theoretical computer science and quantum mechanics, introducing participants to fundamental concepts such as qubits, quantum entanglement, and the intriguing nature of information in quantum systems. Through a story-driven and interactive approach, Professor Chatterjee simplified complex theoretical ideas, making them accessible



Summer Webinar Series for Undergraduate Students in Mathematics and Computer Science



to undergraduate students. Her ability to blend mathematical rigor with relatable analogies helped participants grasp the underlying logic of quantum computation. The talk also explored the P vs NP problem, sparking curiosity about one of computer science's most profound and unresolved questions. The webinar witnessed the participation of 43 students who remained actively engaged throughout the session. Professor Chatterjee's interactive style encouraged thoughtful questions, leading to a vibrant exchange of ideas and deeper exploration of the discussed topics. Participants appreciated the clarity, enthusiasm, and relevance of the session, which effectively connected theoretical concepts with real-world applications. This webinar successfully carried forward the momentum of the ongoing series, offering students a platform to explore advanced computational and quantum theories in a student-friendly manner. Overall, it strengthened their conceptual foundations while nurturing curiosity and critical thinking within a stimulating academic environment.

Programme 02: The Science Outreach Program on "SCIENCE: Stimulating Curiosity, Innovation, and Exploration in New Concepts and Experiments" was successfully held on July 24, 2025, at Vivekananda Mission School, Joka. Jointly organized by Barasat Government College and INYAS, the event was coordinated and led by Dr Riddhi Datta, with active participation from 77 students and 3 teachers. The program aimed to ignite young minds' curiosity and enhance their understanding of scientific concepts through engaging and interactive sessions. The event featured popular science talks by Dr Kalyan Mahapatra, Dr Riddhi Datta, and Dr Subhadipa Sengupta, who delivered thought-provoking lectures on diverse themes including learning science through nature, the interdependence of plants and people, and the molecules of life. These sessions inspired lively discussions among students, encouraging them to relate scientific principles to everyday life. The program's impact was evident through the participants' enthusiastic feedback-86% reported being motivated to explore science further. The event concluded with the distribution of certificates and educational kits. recognizing students' engagement and curiosity. Overall, the outreach program successfully fostered scientific awareness and creativity among school students, aligning with INYAS's mission to promote

science communication and inspire the next generation of innovators.

Programme 03: The Summer Webinar Series of INYAS continued on July 7, 2025, with an insightful online session conducted via the Zoom platform under the convenorship of Dr Manjil Saikia. The event featured Professor Rhythm Grover from IIT Guwahati, who delivered an engaging lecture focused on statistical techniques emerging from her research. Attended by 27 participants, the session provided an excellent opportunity for students to understand the role of statistical tools in addressing real-world research problems. Professor Grover's talk offered participants a deeper appreciation of how statistical methods form the foundation of scientific inquiry across disciplines. She illustrated the use of statistics in interpreting data, validating results, and drawing meaningful conclusions, thereby bridging theory with practical application. The session was marked by high interactivity, with several students posing insightful questions that led to stimulating discussions. Their active participation reflected both enthusiasm and keen understanding of the subject matter. Overall, the webinar successfully met its objective of enhancing students' awareness of the practical significance of statistics in modern research, contributing meaningfully to the educational goals of the INYAS Summer Webinar Series.

Programme 04: The concluding session of the Summer Webinar Series of INYAS was held on August 3, 2025, via the Zoom platform, under the convenorship of Dr Manjil Saikia. The session featured Professor Arvind Ayyer, FNA, FASc, from IISc Bangalore, who delivered an enriching lecture on graph theory. Attended by 18 participants, the talk began with fundamental concepts of graph theory and gradually advanced to the proof of the celebrated formula for determining the number of labelled trees on n vertices. Professor Ayyer's exampledriven and interactive teaching approach made the intricate topic both engaging and comprehensible for students. His clear explanations, coupled with practical illustrations, helped participants connect abstract mathematical ideas with logical reasoning and problem-solving techniques. The active participation and enthusiastic responses reflected the effectiveness of his presentation. Concluding the Summer Webinar Series, this final session ended on an intellectually stimulating and high note, reinforcing the series' objective of fostering curiosity and deep understanding



among undergraduate students in mathematics and computer science.

Programme 05: The INYAS-NCR Zone Meeting was held on August 10, 2025, at the Inter-University Accelerator Centre (IUAC), Vasant Kunj, New Delhi, under the convenorship of Dr Ashwani Kumar Tiwari. The meeting brought together 9 members and 5 children, including both alumni and current INYAS members, for an engaging and productive discussion. The agenda focused on planning upcoming initiatives such as the RuSETUP events, a science outreach program in Budaun, the INYAS Quiz 2025, and a grant writing workshop proposed at IIT Delhi. Members actively participated in the discussions and expressed commitment to contributing toward the successful execution of these events, reflecting a strong spirit of collaboration and enthusiasm within the zone. In addition to the meeting, a science outreach activity was organized by Dr Pankaj for members and their children, adding an interactive and educational dimension to the gathering. This engaging session fostered curiosity and hands-on learning, aligning with INYAS's mission to promote scientific thinking at all levels. Overall, the NCR Zone meeting proved highly effective in strengthening coordination among members, streamlining upcoming plans, and setting a clear roadmap for future activities. The event concluded on a positive and collaborative note, reinforcing the shared goal of advancing science outreach and professional development initiatives within the INYAS network.

**Programme 06:** The first event of the five-part "RADAR" series was successfully conducted on 22nd August 2025 at Room J3, LG02, Amity Institute of Pharmacy (AIP), Amity University, Noida. Jointly organized by the Indian National Young Academy of Science (INYAS) and the Centre of Pharmaceutical Regulatory Affairs, AIP, the session witnessed the enthusiastic participation of 30 students exclusively from the Pharmaceutical Regulatory Affairs stream. The event was designed to promote analytical and regulatory thinking among students through an engaging group discussion format. The discussion revolved around the theme "Tariffs on Pharmaceuticals: Protecting Business or Hurting Patients?" with participants debating whether India and the U.S. should impose tariffs on pharmaceuticals or keep medicines borderless. Teams presented well-reasoned arguments, demonstrating awareness of both economic and ethical implications. Students were assessed on

their clarity of thought, relevance of arguments, global perspective, teamwork, and communication skills. The activity not only deepened participants' understanding of pharmaceutical policies and global trade dynamics but also strengthened their ability to think critically and articulate ideas effectively. Overall, the event achieved its objective of enhancing regulatory awareness, encouraging debate on contemporary issues, and fostering collaboration among emerging professionals in the field of pharmaceutical regulation.

Programme 07: The East Zone INYAS outreach program titled "SwachhGaon, SundarKal" (Clean Village, Beautiful Future) was successfully organized on 15th August 2025 from 11:30 AM to 1:30 PM at Garampeta Primary School, Garampeta Village, near IISER Berhampur. Jointly conducted by INYAS East Zone and IISER Berhampur, the program was coordinated under the guidance of Dr. Totan Adak and convened by Dr Parikshit Moitra. The event witnessed the enthusiastic participation of over 100 villagers and students, marking a meaningful community-driven celebration of Independence Day with a focus on environmental responsibility and rural sustainability. The outreach initiative aimed to raise awareness about sustainable waste management and sanitation practices in rural areas. Sessions were conducted on waste segregation, composting, recycling, and reducing single-use plastics, emphasizing simple, practical steps toward a cleaner and healthier environment. Prof. Ashok K. Ganguli, Director, IISER Berhampur, delivered an inspiring address encouraging the adoption of scientific and sustainable methods for maintaining village cleanliness. Villagers actively contributed by sharing local waste management practices and participating in interactive discussions, fostering a strong sense of ownership and collaboration. The program effectively empowered the community with knowledge and practical tools, while aligning its goals with the Swachh Bharat Mission and the United Nations Sustainable Development Goals (SDGs) 3 and 6-Good Health and Well-being, and Clean Water and Sanitation. Overall, the event successfully blended scientific outreach with social responsibility, reinforcing the vision of a cleaner, healthier, and self-reliant rural India.

**Programme 08:** From 1st to 3rd August 2025, the INYAS Central Zone organized a three-day immersive workshop at IIT (BHU), Varanasi, coordinated by Dr Sanjay Singh, INYAS Central Zone Coordinator, in



collaboration with the School of Materials Science and Technology. The workshop brought together around 50 school students from Classes 11 and 12 of Sunbeam School, Ghazipur, providing them with an opportunity to experience research life at a premier institute firsthand. The program offered participants hands-on exposure to live laboratory demonstrations, including material synthesis and characterization, allowing them to observe scientific processes in real-time. Students also explored advanced facilities such as the Central Instrumental Facility (CIF), Precision Engineering Hub, and the Department of Physics, gaining insight into sophisticated equipment and experimental methodologies. Through interactive sessions and practical experiences, the workshop successfully introduced students to the workings of a research environment, fostering curiosity, critical thinking, and enthusiasm for scientific inquiry. The initiative not only provided exposure to cutting-edge science and technology but also inspired students to consider future careers in STEM fields, effectively bridging school-level education with professional scientific research and campus life at IIT (BHU).

Programme 09: The INYAS NCR Zone organized an online session on August 19, 2025, at 6:00 PM to provide detailed insights into the Marie Skłodowska-Curie Actions (MSCA)-Doctoral Network (DN) program. Coordinated by Dr Ashwani Kumar Tiwari, the event featured Dr Subhash Babu as the resource person and attracted over 200 registrations, with more than 80 active participants joining the live session. The program aimed to familiarize early-career researchers and students with the call details, funding opportunities, eligibility criteria, and collaboration procedures associated with this prestigious EU-funded doctoral training initiative. Dr Babu's presentation offered a comprehensive overview of the application process, emphasizing strategies to maximize chances of success and highlighting the benefits of international research collaboration. The interactive Q&A segment allowed participants to clarify practical queries regarding proposals, partnerships, and mobility, making the session highly engaging and informative. The strong participation reflected India's growing interest in global research opportunities and the increasing motivation among students and institutions to pursue international collaborations. Overall, the event successfully enhanced awareness, provided actionable guidance, and inspired attendees to actively explore

opportunities offered by the MSCA Doctoral Network, contributing to the professional growth of early-career researchers in India.

Programme 10: The "Ignite Curiosity: A Day of Science" program, jointly organized by INYAS and CSIR-JIGYASA, was held on 23rd August 2025 at CSIR-NIIST, Thiruvananthapuram (Bhatnagar Auditorium & Seminar Hall), coordinated by Dr Ishita Neogi and Professor Vinayak Kamble. The event brought together 101 participants, including 79 school students, 8 teachers, and 14 UG/PG students, for a full day of engaging science outreach and interactive learning activities. During the Ignite Curiosity segment, students explored diverse scientific topics through inspiring talks and hands-on sessions. Dr C Anandharamakrishnan explained nutrition and digestion, while Professor Samir Mandal took participants on a journey through the cosmos. Professor Vinayak Kamble led live exhibits and guided tours of laboratories and research facilities, allowing students to experience science in action. In parallel, Quiznova 2025 tested the knowledge and quick thinking of UG and PG students through a spirited science quiz, coordinated collaboratively by CSIR-NIIST and INYAS, and concluded with remarks from Dr Ramakrishnan Matte. The program successfully combined inspiring talks, interactive demonstrations. lab visits, and competitive quizzing, fostering curiosity, scientific thinking, and enthusiasm among participants. By engaging students across age groups and academic levels, the initiative not only celebrated scientific knowledge but also reinforced the value of collaborative outreach efforts, making it a highly impactful day of learning and inspiration under the partnership of INYAS and CSIR-JIGYASA.

Programme 11: The Ecoparvah 2025 – Young Climatizers Pitchathon Finale was held on 22nd August 2025 from 9:00 AM to 5:00 PM at BRIC-NABI, Mohali, under the convenorship of Dr Meena Krishania and with support from INYAS North Central Zone. As the concluding day of Punjab's first Climate Week, the event brought together around 200 participants, including students, policymakers, entrepreneurs, and academics, to celebrate youth-led climate innovation and foster collaboration across sectors. The program featured panels from policy, academia, investors, and entrepreneurs, emphasizing the role of collaboration in accelerating climate action and promoting Greenpreneurship. The highlight was the Young



Climatizers Pitchathon Finale, where 10 student teams presented innovative climate solutions. The jury included four INYAS members, who evaluated the projects on innovation, feasibility, and impact. The winning teams were ECOPOLY (₹25,000), FootprintAI (₹15,000), and SAFFAU (₹10,000). The event not only showcased creative solutions to pressing environmental challenges but also provided a platform for students to engage with mentors, investors, and policymakers. Overall, the finale successfully celebrated youth-driven climate initiatives, promoted cross-sectoral dialogue, and reinforced the importance of innovation, collaboration, and entrepreneurship in addressing climate change.

Programme 12: The "Leadership for Women in STEM" workshop, organized by INYAS West Zone, was held on 21st August 2025 at the KV Auditorium, ICT Mumbai, under the convenorship of Dr Neetu Jha with support from Dr Hitesh Pawar and the organizing team. The program brought together 62 participants to celebrate women's contributions to science and to empower young researchers to take on leadership roles in STEM fields. The workshop featured inspiring talks, including Dr Shubra Singh on Women in Science and Leadership, Dr Neetu Jha on Leading with Purpose: Inclusive Science, and Dr Sarita Vig on Research Ready: Digital Tools for Inquiry. Complementing the lectures, participants engaged in interactive leadership exercises and situation-based prompts, encouraging practical reflection and skill-building. This blend of motivational talks and hands-on activities fostered an environment of learning, confidence, and peer interaction. Overall, the program successfully inspired participants, enhanced leadership skills, and equipped women researchers with tools and strategies to navigate challenges in STEM, reinforcing INYAS's commitment to promoting gender equity and excellence in scientific leadership.

Programme 13: The webinar "Demystifying AI: Evolving Landscape of Innovation in Applied Sciences and Engineering" was held on 30th August 2025 from 10:00 to 11:00 AM via Google Meet, organized collaboratively by INYAS-INSA, CSIR-NGRI, and BITS Pilani Hyderabad Campus. Coordinated by Dr Shib S Ganguli and Kirtimaa nSyal, the event attracted around 170 participants out of 270 registrations and aimed to highlight the transformative role of artificial intelligence (AI) in applied sciences and engineering. The webinar featured talks by Dr Mudrika Khandelwal, Dr Shib Ganguli, Dr Priyanka Bajaj, and Dr Kirtimaan Syal,

who explored AI applications across diverse domains, including materials science, Earth sciences, pharmacy, and biological sciences. The session was highly interactive, with participants actively engaging in the Q&A segment, seeking clarification and sharing ideas on AI-driven research and innovation. The discussion emphasized AI's potential to drive interdisciplinary innovation and its growing relevance in scientific research and problem-solving. Overall, the webinar successfully enhanced awareness of AI applications, motivated participants to explore its possibilities in their fields, and laid the groundwork for future offline workshops, fostering knowledge exchange and collaborative learning within the scientific community.

Programme 13: The National Space Day 2025 celebration was organized by INYAS West Zone on 23rd August 2025 at AECS No. 3, Anushaktinagar, Mumbai, convened by Dr Adish Tyagi and Dr Brindaban Modak. The event brought together around 150 students to celebrate space science and exploration while fostering curiosity and scientific thinking among young learners. The program featured an inspiring lecture by Dr KK Singh on "Communicating with the Universe", which enhanced students' understanding of astrophysics and highlighted projects such as MACE. A space quiz conducted by Dr Mohit Tyagi and Dr Santosh Gupta actively engaged participants, with 20 winners receiving INYAS medals in recognition of their knowledge and enthusiasm. Additionally, the event marked the inauguration of a Science Club at AECS No. 3, aimed at promoting hands-on learning, curiosity, and innovation among students. Overall, the celebration successfully combined lectures, interactive activities, and recognition of student achievements to inspire the next generation of space enthusiasts and scientists.

Programme 14: RuSETUP 2025 – Empowering Rural Youth: Career Avenues in Agricultural Sciences through Machine Learning was held from 8th to 12th September 2025 at CCSHAU, COA Bawal, Haryana, organized by COA Bawal in collaboration with INYAS, under the convenorship of Dr Sharanjeet Dhawan and coordination by Dr Ashwani Kumar Tiwari. The program brought together 35 rural youth participants to provide specialized training on artificial intelligence (AI) and machine learning applications in agriculture, aiming to equip them with modern agri-tech skills and knowledge. The week-long program featured sessions by INYAS researchers and COA faculty, blending expert



lectures with hands-on training to demonstrate practical applications of AI in farming, such as crop monitoring, yield prediction, and resource optimization. Participants described the experience as "transformative" and "eyeopening", gaining both the confidence and competence to implement AI-driven solutions in agriculture. By bridging the technology gap, the initiative promoted self-reliance, innovation, and sustainable agricultural practices, enabling rural youth to explore modern career avenues in agri-tech and contributing to the larger goal of fostering technological adoption and innovation in rural India.

Programme 15: The Science Promotion Camp – Pharma Scope: Exploring Careers in Pharmaceutical Sciences was held on 14th September 2025 at BDM College of Pharmacy, Jhajjar, organized by INYAS. The event brought together around 150 participants, including students, staff, and faculty, for an engaging session aimed at promoting careers and opportunities in pharmaceutical sciences. Dr Kalpana Nagpal delivered an insightful talk titled "Exploring the World of Pharmacy: A Gateway to Science, Health, and Bright

Career", highlighting the critical role of pharmacy in healthcare, the growth of the pharmaceutical industry, and diverse career pathways in R&D, clinical research, pharmacovigilance, and manufacturing. The session included an interactive Q&A segment, allowing participants to clarify doubts and explore career guidance. Certificates were distributed to attendees, and refreshments were provided, creating a welcoming and inclusive atmosphere. The camp successfully inspired students to align their skills with industry needs, encouraged pursuit of higher education and research, and reinforced the significance of pharmaceutical sciences in health and innovation. Overall, it served as a valuable platform to motivate young learners toward professional growth and scientific exploration in the field of pharmacy.

Programme 16: The INYAS National Technical Symposium and Mid-Year Meeting 2025 on "Advances in Science and Technology for Sustainable Future (ASTSF)" was held from 18th to 20th September 2025 at Vellore Institute of Technology, Vellore. Jointly organized by the Indian National Young Academy of



Group Photograph of the INYAS MYM 2025





Launch of INYAS Mid-Year Newsletter during the inaugural session

Science (INYAS) and VIT Vellore, the three-day event brought together leading scientists, young researchers, and students from across India to deliberate on the evolving role of science and technology in shaping a sustainable future. The meeting opened with a grand inaugural session graced by distinguished guests. Padma Shri Dr AS Kiran Kumar, Chairman, PRL Management Council and Member, Space Commission (GoI), delivered the keynote address, emphasizing the role of scientific innovation in addressing global challenges and urging young scientists to work towards creative, sustainable, and socially beneficial solutions. Dr VM Tiwari, Director, CSIR-NEIST and Vice President, INSA, highlighted the contributions of INSA and INYAS in strengthening the science-society interface, while Dr Sanjay Puri, Vice President, INSA, lauded INYAS's dynamic outreach programmes and its commitment to nurturing scientific communication. Addressing the gathering, Dr. B. L. V. Prasad, Director, CNES, and Dr.GopikaVinod, Scientist H, BARC, spoke on interdisciplinary collaboration and the responsibility of young researchers in advancing science for national progress. INYAS Chairperson Dr Nishant Chakravorty welcomed the participants and reflected on INYAS's

journey of a decade, underscoring its commitment to collective scientific growth. The launch of the INYAS Mid-Year Newsletter 2025 was a key highlight of the inauguration, which witnessed participation from more than 1500 scholars and members.

Over the course of three days, the symposium hosted multiple plenary and thematic sessions, panel discussions, and workshops covering a broad spectrum of disciplines-from frontier research in physical, biological, and agricultural sciences to innovations in materials, diagnostics, and sustainable technologies. The sessions facilitated interdisciplinary dialogue on current scientific challenges, emerging research frontiers, and their applications in addressing societal needs. Engaging panel discussions explored research ethics, open access, and opportunities for responsible innovation, while the technical sessions reflected India's growing strength in both fundamental and applied sciences. Poster presentations by rural and university scholars further enriched the scientific atmosphere, providing a platform for young researchers to present their work and interact with peers and mentors. The INYAS Special General Body Meeting provided an



opportunity for members to review the Academy's activities, discuss flagship programmes, and chart new directions for the coming year. The meeting concluded with the BODH Workshop (Building Opportunities, Driving Hope), which emphasized the importance of aligning scientific inquiry with community welfare and national priorities. The INYAS Mid-Year Meeting 2025 at

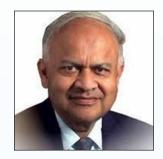
VIT Vellore emerged as a vibrant forum for collaboration, inspiration, and knowledge exchange. Through its diverse sessions and enthusiastic participation, the event reaffirmed INYAS's mission to empower young scientists and promote innovation-driven research for a sustainable and progressive India, in line with the vision of Viksit Bharat 2047.



#### **OBITUARY NOTES**

#### **FELLOWS**

Professor Jayant Vishnu Narlikar (*b* 19.07.1938; *d* 20.05.2025; YOE: 1977; Council Member: 1987-88) Jayant Vishnu Narlikar obtained his PhD from King's College, London. He joined the Institute of Theoretical Astronomy as a Founder Faculty Member (1966) and became Professor at the Tata Institute of Fundamental Research (TIFR), Mumbai in 1972 after returning to India. He was Founder Director (1989-2003) Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune and continued working there as Emeritus Professor. Professor Narlikar specialized in astrophysics and cosmology. His work with Hoyle on gravity led to what is today known as the Hoyle-Narlikar Theory of gravitation. In 1993, he joined with Hoyle and Geoffrey Burbidge in proposing an



alternative to big bang cosmology, known as the quasi-steady state cosmology. He has served in the Science Advisory Council to Prime Minister (1986-89).

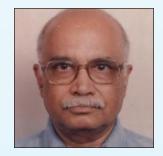
**Dr Ram Prakash Bambah** (*b* 30.09.1925; *d* 26.05.2025; YOE: 1955; Council Member: 1971-73; Vice-President: 1979-80), Ram PrakashBambah obtained his PhD from the University of Cambridge. He joined Panjab University, Chandigarh as Reader in 1952 and became Professor in 1957 and served as Vice-Chancellor of Panjab University followed by Emeritus Professor at the same university. He was also a Professor at Ohio State University during 1964-69. Professor Bambah has made substantial contributions in Number Theory and Discrete Geometry.



Professor Chandra Mani Srivastava (b 10.01.1932; d 14.02.2022; YOE: 1987), Chandra Mani Srivastava obtained his PhD from Imperial College, London. He joined the Department of Physics, IIT Bombay, Mumbai (1958) and also worked there as Head, Advanced Center for Research in Electronics and the Materials Science Centre (1976-92) till his retirement. He was also Emeritus Professor at IIT Bombay. His research interests included aspects of Physics Quantum Mechanics to Materials Science and Semiconductors. He actively worked to unravel the mystery of two most puzzling manifestations: the superconductivity in oxides and the colossal magnetoresistance in manganites. He was consultant to many ferrite industries in the country and is known as `Father of Ferrites' in India.



Professor Ramamurti Rajaraman (*b* 11.03.1939; *d* 12.07.2025; YOE: 1985; Council Member: 2004-2006; Vice-President: 2010-12), RamamurtiRajaraman obtained his PhD from Cornell University, New York. He started working first at Delhi University (1969-76), then Indian Institute of Science (IISc), Bangalore (1976-93), finally JNU (1994-till retirement) and subsequently served as Emeritus Professor. Rajaraman evaluated the full three-body energy of nuclear matter non-perturbatively. His work on quantum Solitons and his book, the first in the field, have been widely used by both particle physicists and condensed matter theorists around the world.





Professor Sulochana Gadgil (b 07.06.1944; d 24.07.2025; YOE: 1995), SulochanaGadgil obtained his PhD from Harvard University, Cambridge. She worked at the Indian Institute of Science (IISc), Bangalore (1973-2006) and played a key role in the establishment of the Centre for Atmospheric and Oceanic Sciences (1983). Professor Gadgil was an Honorary Professor at the Centre for Atmospheric and Oceanic Sciences of IISc. She has contributed significantly to the understanding of monsoon dynamics, tropical convection, coupling of the tropical atmosphere to the oceans and agricultural strategies for a variable climate. Her research contributions include the discovery of northward propagations of the equatorial cloud band. She



has developed a theoretical framework for using information/prediction of climate variability to identify farming strategies for maximizing the long-term average returns.

#### **FOREIGN FELLOW**

Professor Achim Müller (b 14.02.1938; d 28.02.2024; YOE: 2010), Achim Müller obtained his PhD from University of Göttingen, Germany. He was a Professor in Faculty of Chemistry in University of Bielefeld, Germany. Professor Müller has made substantial and significant contributions in Inorganic Chemistry covering a wide spectrum of areas, Supramolecular inorganic chemistry, Nano sciences, Bio-inorganic chemistry, Heterogenous catalysis, Molecular Physics and many others. His work on probing and controlling water structures inside Bielefeld rings and balls, and nano-scaled porous capsules / artificial cells has attracted international attention.



#### **HR ACTIVITY**

### Celebrations of National importance Day like Independence Day (My Gov Portal)

Staff members were encouraged to participate in online competition on MyGov Portal organized by the Ministry of Defence to commemorate events of national importance such as Independence Day through the hyperlink

"https://www.mygov.in/campaigns/independence-day/?target=webview&type=campaign&nid=0

Topics of competitions given in the link:

- a) Quiz on Role of Women in Shaping the New India
- Essay Competition on The Topic Operation Sindoor- Redefining India's Policy Against Terrorism
- c) Painting Competition on the Theme New India Empowered India
- d) Reel Competition Walk to The Monuments or Sites of Indian Independence

Offline Essay and Quiz competition was organized on events of national importance Independence Day on 03<sup>rd</sup> July, 2025 at 4.00pm in Room No.606, and Room no. 607 6<sup>th</sup> Floor Jubilee Centre in the Academy.

#### Celebration of National Space Day, 2025

Indian National Science Academy has celebrated National Science Day,2025 and organized a short and Informative Video on space, on 22.08.2025 at 11.00 am for all staff members in multipurpose hall Jubilee Building.



## Swachhta Pakhwara (Swachhta Hi Seva and Special Campaign 5.0): Pledge ceremony, 2025

The INSA staff took Pledge on Swachhta Pakhwara (Swachhta Hi Seva and Special Campaign 5.0) on 17.09.2025 at 3.00 PM in INSA Multipurpose Hall at ground floor Jubilee Centre and all old file/records etc. were disposed off/sold during Swachhta Pakhwara.



Swachhata Campaign 5.0