

**INDIAN NATIONAL SCIENCE ACADEMY**  
**Bahadur Shah Zafar Marg, New Delhi 110002**

**Minutes of the Annual General Meeting of the Indian National Science Academy held on 20 September, 2024 in INSA premises in hybrid mode.**

The following Fellows attended the meeting:

In person

Fellow

1. Professor Ashutosh Sharma, President
2. Professor Madhu Dikshit, Vice-President (Fellowship Affairs)
3. Professor Narinder K Mehra, Vice-President (International Affairs)
4. Dr VM Tiwari, Vice-President (Publications/Informatics)
5. Professor Md Zahid Ashraf
6. Professor DM Banerjee
7. Professor Arup Bose
8. Professor Nirranjan Chakraborty
9. Professor Dipshikha Chakravorty
10. Professor Krishan Lal
11. Professor KC Malhotra
12. Dr Prantik Mandal
13. Professor Chitra Sarkar
14. Professor Maithili Sharan
15. Professor Prabodh Kumar Trivedi

Online

1. Professor KN Agarwal
2. Professor Nahid Ali
3. Professor Sher Ali
4. Professor B Bagchi
5. Dr Mahtab S Bamji
6. Dr Arun Bandyopadhyay
7. Professor Bijnan Bandyopadhyay
8. Dr Anirban Basu
9. Dr JK Batra
10. Dr Om Narain Bhargava
11. Professor SV Bhat
12. Professor Tirthankar Bhattacharyya
13. Dr V Bhujanga Rao
14. Professor Asit Kumar Chakraborti
15. Professor Supriya Chakraborty
16. Dr SL Chaplot
17. Professor SK Das
18. Professor Sampa Das
19. Professor Saumitra Das

20. Professor BS Daya Sagar
21. Professor BL Deekshatulu
22. Professor Amol Dighe
23. Professor Balasubramanian Gopal
24. Professor Maneesha Shreedhar Inamdar
25. Professor NR Jagannathan
26. Professor Chanda Jayant Jog
27. Professor Amitabh Joshi
28. Professor Rama Kant
29. Professor Tarun Kant
30. Professor Avinash Khare
31. Professor Gopal Krishna
32. Dr GC Kundu
33. Dr UC Lavania
34. Professor Gobinda Majumder
35. Professor BD Malhotra
36. Professor NK Mondal
37. Dr Arnab Mukhopadhyay
38. Professor Ashwini Nangia
39. Professor SK Pal
40. Professor Sudhakar Panda
41. Professor Ashwani Pareek
42. Professor G Parthasarathy
43. Dr Pradip
44. Professor Manoj Prasad
45. Dr Gangan Prathap
46. Dr SD Rindani
47. Dr Rajendra Prasad Roy
48. Professor Mamiyil Sabu
49. Professor SK Saidapur
50. Dr Poonam Salotra
51. Professor Shobhona Sharma
52. Dr Yogesh Shouche
53. Professor Ajit Iqbal Singh
54. Dr Kulinder Pal Singh
55. Professor Mewa Singh
56. Professor KN Singh
57. Professor RS Singhal
58. Dr Sneh Lata Singla-Pareek
59. Professor Somdatta Sinha
60. Professor Pradeep Srivastava
61. Professor Kandaswamy Subramanian
62. Professor Qudsia Tahseen
63. Professor BK Thelma
64. Professor Anil Kumar Tripathi
65. Professor KC Upadhyaya
66. Professor YD Vankar
67. Professor Sheeba Vasu
68. Professor Akhilesh Verma

*Note: Some Fellows who joined the meeting with different names (reflected in the list like.... ADMIN, iPhone Alhil, Dr.Ganesh, Arun's iPhone, Abha Jain, Asus).*

Dr Brajesh Pandey, Executive Director, Mr Sunil Zokarkar, Deputy Executive Director, Finance & Admin. (online) and Dr (Mrs) Brotati Chattopadhyay, Assistant Executive Director (Council) attended the meeting.

President, INSA welcomed all the Fellows those who joined online as well as in person in the Annual General Meeting. Thereafter, the regular agenda items were taken up.

**1. Condolence at the passing away of the distinguished Fellows.**

The sad demise of our Fellows Professor SN Chatterjee, Professor AM Jayannavar, Professor H Junjappa, Professor Rajinder Kumar, Professor MA Pai, Professor B Ramachandran, Dr BM Reddy, Dr Girish Sahni and Professor MVS Valiathan, and Foreign Fellows Professor ES Ayensu, Professor Alan Baker and Professor Cornelis De Jager, were reported. The obituary notes were read by the President, INSA and everyone present stood in silence for two minutes as a mark of respect to the deceased.

**2. Confirmation of minutes of General Body Meeting held on 9 May, 2024.**

Professor Madhu Dikshit, Vice-President, INSA, presented the minutes of the General Body Meeting held on 9 May, 2024. The minutes were already uploaded on the INSA website. No comments were received, hence, the minutes were confirmed.

**3. Announcement of result of voting papers for election of Officers and Members of the Council for the year 2025.**

Professor Madhu Dikshit, Vice-President (Fellowship Affairs) announced the names of members elected as members of the Council 2025. The list of Council members is attached at **Annexure-I**.

**4. Announcement of results of voting papers for the election of Fellows and Foreign Fellows for the year 2025.**

Professor Madhu Dikshit, Vice-President (Fellowship Affairs) announced the names of those are elected as Fellows and Foreign Fellows w.e.f 01.01.2025. The list is attached at **Annexure-II**.

**5. To announce the Voting results on amendments of INSA Rule 4, Rule 6 (c), Rule 13 and new additions in INSA Rules.**

The amendments of INSA Rule Nos. 4, 6 (c), 13 and new addition in INSA Rules were announced by Professor Madhu Dikshit, Vice-President (Fellowship Affairs), to all Fellows. It will be included in the INSA Yearbook 2025 accordingly.

**6. Announcement of names of representatives of Cooperating Academies and the Govt. of India on the Council of INSA for the year 2025.**

The names of Professor Nikhil Tandon, Professor UB Desai, Dr Ashok K Singh, Dr SP Thyagarajan, Professor Kaustuv Sanyal, as representatives of the National Academy of Sciences (India), Bengaluru, the Indian National Academy of Engineering, National Academy of Agricultural Sciences, National Academy of Medical Sciences and the Govt. of India, Department of Science & Technology respectively, announced.

It was announced that the nomination representative of The Indian Academy of Sciences, Bengaluru, is awaited.

**7. Submission of the list of Fellows corrected up-to-date.**

Professor Madhu Dikshit, Vice-President (Fellowship Affairs) informed that the live number of INSA Fellows as on 20 September, 2024 stood at 1020.

**8. To read as required under Rule 40(c) the name of nominees for election as INSA Fellow / Foreign Fellow.**

Professor Madhu Dikshit, Vice-President (Fellowship Affairs) read the nominations received for election as INSA Fellow/ Foreign Fellow from 1 May, 2024 to 31 August, 2024.

**9. Annual Report of the Academy for the year 2023-24.**

Professor Madhu Dikshit presented the highlights of the annual report for the year 2023-24. The Annual Report (2023-24) of the Academy has been approved.

**10. Review of work of the Academy by the President, INSA.**

During the presentation of review of work of the Academy, President, INSA informed the members about the activities and new initiatives taken up by the academy.

President, INSA informed that 50 books have been digitized and the link of the books will be sent to all Fellows. In the next 3 months, all other books available published by INSA will be digitized. He further mentioned that as per the present MoU with Springer, INSA receives a Thousand Euros Royalty for each book published. A new agreement will be signed with Springer in which authors of respective books will be paid a percentage of Royalty of that particular book. This will encourage the authors to write books that will be published through INSA. These books will be priced at one-fourth of their original price to all the public, while Fellows can download them free of cost from the given link. It was also noted that digitization of all reports has already been started. President, INSA informed that the policy books will also be published very soon. A separate section in PINSA has been created for

publishing policy papers. One or two special policy papers of the recently conducted AASSA symposium will be published in PINSA.

Fellows were informed that three guest house rooms have already been renovated and are ready, and the renovation of other rooms will be completed soon.

President, INSA further informed that the Academy was the knowledge partner of S20-2023 and organized several activities. The final communiqué of S20 was signed by 18 countries and circulated to all Fellows. White paper will also be produced on the S20-2023. He added that the Academy will publish a book on the “Role of INSA in organizing S20 Events” along with a coffee table book shortly.

Fellows were intimated that the Academy has established the Science Policy Center and hired Young Professionals for this center. The policy matters of all events of INSA will be captured and the center will publish white papers. The draft-“Strategic Innovation for Northeastern India INSA-Nectar White Paper” was circulated to all Fellows for their inputs.

It was noted that 40 new computers were purchased at the Academy. President, INSA directed that 2-3 computers must be installed at the guest house lounge for use of Fellows along with the printer on an urgent basis.

President, INSA urged that all INSA Fellows, while delivering lectures in various occasions at national and international forum, may brief about INSA activities during their presentations. It will be helpful for wider publicity of INSA. Two slides of INSA activities will be provided by INSA to all Fellows for inclusion in their presentation.

He also requested that Fellows/INSA Young Associates/INSA Associate Fellows/INSA Women Associates may be involved in various INSA activities.

The President of INSA briefed the members on the proposal to sign a MoU with IIT Delhi and the Research and Information System for Developing Countries (RIS), New Delhi, to establish a Policy Center. This MoU aims to leverage the strengths of IIT Delhi and INSA to advance policy research and strategies on various facets of science, technology, and innovation (STI) policy, including how to effectively shape STI efforts to address societal challenges and strengthen the STI ecosystem. The MoU will also foster broader engagement between INSA and various academic units at IIT Delhi. While INSA currently does not have a provision for mentoring PhD scholars, this agreement introduces a mentorship program. Professors from the collaborating institute working on INSA policy matters will be designated as 'INSA Policy Fellows' for the duration of the collaboration. Additionally, the collaborating institution may consider these 'INSA Policy Fellows' as adjunct faculty, in line with their institutional norms.

President appraised the Fellows about the new initiatives of INSA such as INSA Women Associates (IWA), INSA-American Chemical Society (ACS)

programmes. He mentioned that ACS has supported 75,000 fees each for ten women scientists who participated in the INSA-NCGG LEADS programme.

**11. Any other item.**

During the discussion in any other item, President, INSA mentioned about the proposal received from Professor Narinder K Mehra and Professor Spenta R Wadia for the extension of the tenure of INSA Council from 3 years to 5 years. It was decided that a committee would be constituted to discuss and prepare a proposal, which will be presented at the next council meeting.

The President reiterated that Fellows should be more active and come up with the proposal of new programmes to be conducted by INSA. Professor Krishan Lal, Past president, INSA appreciate that there are lot of good initiatives by the academy during this period, however, younger fellows should be encouraged to attach with the various activities of INSA like remote area lectures in schools/colleges, to invite schools for attending INSA lectures etc. Professor Md Zahid Ashraf mentioned that, INSA Jamia Millia Islamia Distinguished Lectures may be initiated. Professor Ashraf will send a proposal regarding this. Professor BK Thelma proposed that 2-3 days' hands-on workshop in the UG colleges and smaller cities may be conducted under the aegis of INSA. Professor Madhu Dikshit requested that Professors Ashraf and Thelma send the proposals. President, INSA suggested that INSA Office will send the list of city wise INSA Fellows link to the universities, and schools so that they can find the Fellows to deliver the lecture in the respective institutions.

It was suggested that the books published by INSA that are out of print may be examined and reprinted accordingly.

The meeting ended with a vote of thanks to the Chair.

**COUNCIL 2025**

**President:** Professor Ashutosh Sharma, Kanpur (2023-25)

**Vice-Presidents:**

Professor Anil Kumar Tripathi, Mohali (2025-27)

Dr Debashis Mitra, Pune (2025-27)

Professor Indranil Manna, Ranchi (2024-26)

Professor Madhu Dikshit, Lucknow (2023-25)

Professor Sanjay Puri, New Delhi (2023-25)

Dr VM Tiwari, Jorhat (2024-26)

**Members:**

Professor A Ajayaghosh, Chennai (2024-26)

Professor Anil Kumar Gupta, Kharagpur (2024-26)

Dr Anirban Basu, Manesar (2023-25)

Professor Arup Bose, Kolkata (2023-25)

Professor Dipendra Prasad, Mumbai (2025-27)

Professor Dipshikha Chakravorty, Bengaluru (2024-26)

Professor JN Moorthy, Thiruvananthapuram (2025-27)

Professor Maneesha Shreedhar Inamdar, Bengaluru (2024-26)

Dr Manjula N Reddy, Hyderabad (2025-27)

Professor Manoj Prasad, Delhi (2025-27)

Dr Navin Chandra Khanna, New Delhi (2024-26)

Professor Prabodh Kumar Trivedi, Lucknow (2024-26)

Professor Qudsia Tahseen, Aligarh (2024-26)

Professor Sanghamitra Bandyopadhyay, Kolkata (2023-25)

Professor Sanjay Mittal, Kanpur (2024-26)

Dr Soumya Swaminathan, Chennai (2025-27)

Professor Sriram R Ramaswamy, Bengaluru (2023-25)

Professor Srubabati Goswami, Ahmedabad (2023-25)

Professor Sunil Kumar Singh, Goa (2023-25)

Professor Uma Ramakrishnan, Bengaluru (2025-27)

**Fellows elected**  
(Effective from January 1, 2025)

**1. Awasthi, Amit** (b 03.07.1977), PhD, Senior Professor, Translational Health Science & Technology Institute, NCR Biotech Science Cluster, Faridabad.

Dr. Amit Awasthi has conducted seminal research on Th9 cells in disease biology, which is critical to the field of immunology. His work contributes to a deeper understanding of the pathogenesis of autoimmune diseases, allergic inflammation, and cancer immunity.

**2. Banerjee, Anjan Kumar** (b 03.01.1968), PhD, Professor and Dean (R&D), Biology Division, Indian Institute of Science Education and Research, Pune.

Dr. A.K. Banerjee has researched long-distance macromolecular signaling using potatoes as a model system. He has opened new avenues in plant science and made pioneering contributions to our understanding of the development and yield of potatoes.

**3. Banerjee, Rahul** (b 15.12.1977), PhD, Professor, Department of Chemical Sciences, Indian Institute of Science Education and Research-Kolkata, Mohanpur.

Dr. Rahul Banerjee is recognized for his groundbreaking work in the field of nanomaterials, particularly for the discovery of covalently bonded porous organic nanotubes (CONTs), highly stable porous covalent organic frameworks, and nanoporous materials, along with their applications in onboard methane storage

**4. Bang, Abhay** (b 23.09.1950) Founder-Director, SEARCH (Society for Education, Action and Research in Community Health), Gadchiroli, Maharashtra.

Dr. Abhay Bang's journey is deeply rooted in the ethos of Mahatma Gandhi's Sevagram ashram, which served as a significant source of inspiration for him. In 1985, he founded SEARCH (Society for Education, Action, and Research in Community Health) in the underdeveloped Gadchiroli district of Maharashtra. Operating across 150 villages, SEARCH provides community-based healthcare and conducts groundbreaking research that has influenced health policies worldwide. Dr. Bang's pioneering work has brought to light the hidden burden of gynecological diseases among rural women and significantly reduced the infant mortality rate. His innovative model, Home-based Newborn, and Child Care, was adopted nationwide by the Government of India, reaching 11 million rural neonates in 2017 through the dedication of 800,000 ASHAs.

**5. Basu, Gautam** (b 18.07.1961), PhD, Adjunct Professor, Department of Biological Sciences, Indian Institute of Science Education and Research-Kolkata, Nadia.

Prof. Gautam Basu is a biophysical chemist who has made significant theoretical and experimental contributions to computational and structural biology. He has



identified unique peptide structural motifs in proteins, elucidating their stabilization, transitions, and importance to biological functions.

**6. Behari, Sanjay** (b 27.12.1963), MBBS, MS, Director, Sree Chitra Institute for Medical Sciences and Technology, Thiruvananthapuram.

Dr. Sanjay Behari has made significant contributions to the field of neurosurgery at regional, national, and international levels. His work in treating craniovertebral junction anomalies—a condition particularly prevalent in the Indian subcontinent—has resulted in meaningful clinical treatment protocols. His research on clinical grading and management protocols for craniovertebral tuberculosis is widely cited in international literature. Additionally, he has filed several patents.

**7. Bhatla, Neerja** (b 02.01.1959), MBBS, MD, Professor & Head, Department of Obstetrics & Gynaecology, All India Institute of Medical Sciences, New Delhi.

Dr. Neerja Bhatla is an accomplished gynecologist specializing in gynecological oncology. She has significantly advanced our understanding of the epidemiology of human papillomavirus (HPV) infection in India and its relationship with cervical cancer. Dr. Bhatla led an Indian study that contributed to the recent WHO recommendation for a single dose of the HPV vaccine for young girls, resulting in a substantial impact on public health. Additionally, she has worked on validating indigenous, affordable tests for HPV infection, including options that allow for self-sampling by patients

**8. Bhattacharya, Dipankar** (b 29.05.1959), PhD, Distinguished Professor, Inter-University Centre for Astronomy and Astrophysics, Pune.

Dr Dipankar Bhattacharya, for understanding how magnetic fields of neutron stars change with time.

**9. Bhattacharya, Jayanta** (b 07.12.1968), PhD, Dean, Translational Health Science & Technology Institute, Department of Biotechnology, NCR Biotech Science Cluster, Faridabad.

Dr. Jayanta Bhattacharya has made significant contributions to understanding the pathogenesis of HIV infection, elucidating key pathways of antibody development during natural infection. His research is expected to inform rational vaccine design and immune-prophylaxis. Additionally, he has focused on the rapid discovery of neutralizing antibodies and the development of human monoclonal antibodies against SARS-CoV-2 and Nipah virus, which hold potential for use in the prophylaxis and treatment of these conditions.

**10. Chakravorti, Sivaji** (b 18.09.1962), PhD, Professor, Department of Electrical Engineering, Jadavpur University, Kolkata.

Dr Sivaji Chakravorty for his very significant contributions to the area of fault diagnosis, insulation condition assessment and moisture estimation in solid insulation, and development of non-invasive techniques for health assessment of oil-

paper insulation of large electrical equipment with a particular emphasis on transformers.

**11. Chandra, Poonam** (b 05.11.1975), PhD, Associate Professor (G), National Centre for Radio Astrophysics, TIFR, Savitribai Phule Pune University Campus, Pune.

Dr Poonam Chandra for the discovery of electron cyclotron, maser emissions in 4 new stars.

**12. Chauhan, Santosh** (b 30.08.1978), PhD, Senior Principal Scientist (Scientist-F), CSIR-Centre for Cellular and Molecular Biology, Hyderabad.

Dr. Santosh Chauhan has uncovered novel mechanisms that regulate inflammation in the human body, with significant biomedical relevance to autoinflammatory and autoimmune diseases. Additionally, he has established himself as a leader in the field of autophagy.

**13. Chhuneja, Parveen** (b 25.03.1966), PhD, Principal Molecular Geneticist, School of Agricultural Biotechnology, Punjab Agriculture University, Ludhiana.

Dr. Parveen Chhuneja has made significant contributions to the enhancement of modern wheat genotypes for rust resistance and heat tolerance—two major factors affecting wheat productivity. She has released numerous wheat varieties developed using both traditional and modern breeding techniques, leveraging mild species of wheat.

**14. Dasgupta, Swagata** (b 28.09.1962), PhD, Professor, Department of Chemistry, Indian Institute of Technology Kharagpur, Kharagpur.

Dr Swagata Dasgupta for her seminal contributions in protein chemistry research, especially for pioneering work on polyphenols, protein fibrillation and aggregation, protein nanoparticles, and films.

**15. De, Sirshendu** (b 07.10.1967), PhD, Professor, Department of Chemical Engineering, Indian Institute of Technology-Kharagpur, Kharagpur.

Dr Sirshendu De for his outstanding innovative contributions in chemical engineering that provided new theoretical insights and led to simultaneous translation into technological applications such as water purification that provided immense benefits for the underprivileged and helped in improving their quality of life.

**16. Dey, Abhishek** (b 09.07.1977), PhD, Professor, Department of Chemical Science, Indian Association for the Cultivation of Science, Kolkata.

Dr. Abhishek Dey is recognized for his contributions to the development of new spectroscopic tools designed to probe reaction mechanisms, particularly in the selective reduction of O<sub>2</sub>, CO<sub>2</sub>, and N<sub>2</sub>.

**17. Ella, Krishna M** (b 11.03.1969), Co-Founder and Executive Chairman, Bharat Biotech International Limited, Hyderabad.

Dr. Krishna Ella, a prominent Indian scientist and entrepreneur, leads Bharat Biotech in pioneering vaccine development. His notable achievements include Covaxin, India's COVID-19 vaccine; the world's first clinically proven conjugated typhoid vaccine; ROTAVAC; and Revac-B, the first preservative-free hepatitis B vaccine. Bharat Biotech also introduced India's first cell-cultured swine flu vaccine and produces the world's most affordable hepatitis vaccines. Additionally, the company was the first globally to develop a vaccine for the Zika virus

**18. Ghatak, Animangsu** (b 07.01.1971), PhD, Professor, Department of Chemical Engineering, Indian Institute of Technology-Kanpur, Kanpur.

Dr Animangsu Ghatak For his seminal contributions in advancing the field of surface science of soft materials, including aspects of adhesion, friction, and capillarity, as well as in the understanding of the complex interplay between capillary effects, deformation, and the resulting mechanical instabilities.

**19. Ghosh, Ambarish** (b 18.12.1973), PhD, Professor, Centre for Nano Science and Engineering, Indian Institute of Science, Bengaluru.

Dr Ambarish Ghosh for high quality fundamental research to commercialized technologies.

**20. Goenka, Pawan** (b 23.09.1954), Chief Operating Officer, Mahindra & Mahindra Ltd., Mumbai.

Dr Pawan Kumar Goenka has retired as the Managing Director of Mahindra & Mahindra. He is the chairman of SsangYong Motor Company in Korea. He is also currently the Chairman of INSPACE, a part of India's Space Program. He is also the present Chairman of the Board of Governors of IIT Madras. He is also a national council member of CII.

**21. Gopalakrishnan, Senapathy "Kris"** (b 05.04.1955) Chairman, Infosys BPO Limited, Bengaluru.

Mr. Gopalakrishnan is recognized as a global leader in business and technology. He is a co-founder of Infosys, where he held various roles for over a decade. Currently, he serves as the President of the Infosys Science Foundation. Mr. Gopalakrishnan is also the Chairperson of Itihaasa Research and Digital, which publishes the history of the Indian IT industry on the 'itihaasa' microsite and produces reports on industrial and academic research in India. Additionally, he is committed to promoting research in brain sciences and aging-related disorders, as well as investing in startups and the startup ecosystem

**22. Goswami, Ravinder** (b 03.09.1963), MBBS, MD, DM, Professor, Department of Endocrinology and Metabolism, All India Institute of Medical Sciences, New Delhi.

Dr. Ravinder Goswami is a clinical endocrinologist specializing in vitamin D metabolism and its association with bone diseases in India. His research revealed widespread vitamin D deficiency and resulted in a new supplementation schedule based on comprehensive studies, contributing to the establishment of national standards (ICMR/NIN) in this field. Additionally, he has investigated the pathogenesis of idiopathic hypoparathyroidism, demonstrating organ-specific autoimmunity as a key cause.

**23. Gupta, Arvind** (b 04.12.1953) Indian Toy Inventor, Author, Translator and Scientist, 401, Chitrakoot "B" 1065, Gokhale Cross Road, Model Colony, Pune.

Mr Arvind Gupta's outstanding contribution in designing science teaching aids for young children has been recognized by several international organizations such as UNESCO, UNICEF, International Toy Research Association, Halmstad University, Boston Science Centre, MIT (Media Lab), Walt Disney Imagineering and Research, Auh of Rehabilitation Centre, Hilpolstien, Germany and the International Play Association, Finland. He has been actively associated with the Bombay Natural History Society, Conservation Society of Delhi, Spastic Society of North India and the Bharat Gyan Vigyan Samiti. He is an advisor to the National Book Trust on popular science books.

**24. Haldar, Jayanta** (b 28.11.1974), PhD, Professor, New Chemistry Unit and School of Advanced Materials, Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru.

Dr Jayanta Haldar, for his outstanding contributions in the field of antimicrobial research, in particular, for the synthesis of peptidomimetic antimicrobial agents, semi-synthetic glycopeptide antibiotics, combination therapy, antimicrobial coatings, injectable sealants for eye and tissue infections.

**25. Kakde, Mahesh** (b 13.07.1983), PhD, Professor, Department of Mathematics, Indian Institute of Science, Bengaluru.

Dr Mahesh Kakde for his resolution of the main conjecture of non-commutative Iwasawa theory for totally real fields and for his resolution of the Gross-Stark and Brumer-Stark conjectures.

**26. Kakodkar, Anil** (b 11.11.1943), AICTE Distinguished Chair Professor and Chancellor, Homi Bhabha National Institute, Mumbai.

Prof. Anil Kakodkar spearheaded India's journey towards self-reliance in thorium-based nuclear energy, marking a crucial step towards sustainable power generation. He led the design of the Dhruva reactor. His vision includes CILLAGE, a concept for bridging urban-rural gaps through technology-enabled sustainable development. His holistic approach underscores his dedication to shaping a more equitable and prosperous future for all.

**27. Kamat, Samir V** (b 29.05.1964), Secretary and Chairman, Defence Research and Development Organisation (DRDO), New Delhi.

Dr Samir Kamat has provided leadership and direction to several critical materials programmes in DRDO such as the developments of high-strength steels for naval ship hulls, of high-temperature titanium alloys and nickel base superalloy based components for aero engines, of tungsten heavy alloys for kinetic energy penetrators, of fused silica radomes for missile seekers, and of armour solutions for personnel as well as combat vehicles and stealth materials for airborne and naval applications. In addition, he has spearheaded the development of naval systems such as advanced lightweight torpedo, anti-torpedo decoy systems, autonomous underwater vehicles, advanced hull-mounted and towed array sonars for ships, and fuel cells-based air-independent propulsion systems for submarines.

**28. Konijeti, Sreenadh** (b 02.05.1975), PhD, Institute Chair Professor and HAG, Department of Mathematics, Indian Institute of Technology Delhi, New Delhi.

Dr. Sreenadh Konijeti for the study of existence, multiplicity and regularity results for partial differential equations involving non-linear source terms and non-local operators.

**29. Kumar, Sanjay** (b 01.01.1965), PhD, Professor, Department of Physics, Banaras Hindu University, Varanasi.

Dr Sanjay Kumar for the understanding of the response of polymers under translocation and multigradient fields.

**30. Mahalakshmi, Radhakrishnan** (b 08.04.1980), PhD, Professor and Wellcome Trust-DBT Senior Fellow, Molecular Biophysics Laboratory, Indian Institute of Science Education and Research Bhopal, Bhopal.

Prof. Mahalakshmi has made important contributions to membrane protein biophysics and bioenergetics by mapping structure-function effectors of vital human mitochondrial outer membrane channel VDAC, translocase Tom40, and chaperone Sam50. Her pioneering contributions include developing peptidomimetics as precise indicators of membrane protein aggregation and as therapeutics for mitochondria-triggered cancer and neurodegeneration.

**31. Majee, Manoj** (b 12.07.1976), PhD, Scientist - V, National Institute of Plant Genome Research, New Delhi.

Dr Manoj Majee has made excellent contributions in the area of Seed Biology. His research provides novel insights into the role of protein-repairing enzymes in enhancing seed viability and storage.

**32. Majumdar Shaw, Kiran** (b 23.03.1953), Executive Chairperson, Biocon & Biocon Biologics Limited, Bengaluru.

Under the leadership of Dr. Kiran Mazumdar-Shaw, Biocon India became the first Indian company to manufacture and export enzymes to the U.S. and Europe within a

year of its establishment. Through the Biocon Foundation, she continues to make a significant impact by spearheading health and education initiatives aimed at uplifting economically disadvantaged communities

**33. Makharia, Govind K** (b 10.06.1965), MBBS, MD, DM, Professor, Department of Gastroenterology and Human Nutrition, All India Institute of Medical Sciences, New Delhi.

Dr Govind K Makharia has worked extensively on celiac disease in India, contributing to studies on burden of this disease in India and Asia, helped develop a non-invasive biomarker assay for this disease which has the potential to obviate the need for endoscopy and biopsies for enteropathic diseases. In addition, he has worked on the treatment of intestinal tuberculosis, to demonstrate in a multicenter randomized controlled trial that a 6-month treatment regimen is adequate.

**34. Mukhopadhyay, Debdeep** (b 31.10.1977), PhD, Professor, Department of Computer Science and Engineering, Indian Institute of Technology-Kharagpur, Kharagpur.

Dr Debdeep Mukhopadhyay for his fundamental contributions to cryptography and hardware security. His seminal works on fault attacks and micro-architectural security have exposed practical security issues and helped design stronger variants.

**35. Murthy, NRN** (b 20.08.1946) Amoghavarsha No 575, 21st Main, 35th Cross 4th T Block Jayanagar, Bengaluru.

Mr NR Narayana Murthy is one of the founder of Infosys and has previously served it in several capacities. Murthy has been listed among the 12 greatest entrepreneurs of our time by Fortune magazine. He has been described as the "father of the Indian IT sector" by Time magazine and CNBC for his contribution to outsourcing in India. In 2005, he co-chaired the World Economic Forum in Davos, Switzerland.

**36. Murty, Sudha** (b 19.08.1950) Former Chairperson, Infosys Foundation, Bengaluru.

Ms. Sudha Murty is renowned for her contributions to social work, education, and philanthropy, as well as her literary work in Kannada and English. She was the first female engineer hired at TATA Engineering and Locomotive Company. In 1996, she established the Infosys Foundation, where she serves as Trustee. An accomplished author, she has written numerous books—including novels, non-fiction, travelogues, technical texts, and memoirs—all of which have been translated into major Indian languages

**\*37. Nadar, Shiv** (b 14.07.1945) Founder of HCL Group and the Shiv Nadar Foundation, Noida.

Mr Shiv Nadar was the founder and Chairman of HCL Technologies and is Chairman of the Shiv Nadar Foundation. He transformed HCL into an IT enterprise. Since the mid-1990s he has focused his efforts on developing the educational system of India through the Shiv Nadar Foundation.

**38. Nagegowda, Dinesh Addihalli** (b 21.03.1974), PhD, Chief Scientist & Scientist In-Charge, Professor (AcSIR), CSIR-Central Institute of Medicinal and Aromatic Plants Research Centre, Bengaluru.

Dr Dinesh Nagegowda's research has been focused on uncovering the molecular mechanisms associated with bio-synthesis of phytomolecules through integration of biochemical and molecular approaches combined with metabolomic engineering. His research on secondary plant products has great potential to boost secondary metabolite production through synthetic biology approach.

**39. Narayanan, Rishikesh** (b 05.06.1974), PhD, Professor, Molecular Biophysics Unit, Indian Institute of Science, Bengaluru.

Prof. Rishikesh Narayanan has made outstanding contributions to cellular and network neurophysiology that recognize the utilities of complexity in attaining functional robustness using biophysical and computational tools. His work establishes a fundamental framework that exploits ubiquitous, yet structured, plasticity in the heterogeneous brain that manifests degeneracy towards achieving precise function across scales.

**40. Nataraj, Neela** (b 31.05.1968), PhD, Institute Chair Professor and Dean (Faculty Affairs), Department of Mathematics, Indian Institute of Technology Bombay, Mumbai.

Dr Neela Nataraj for work on the finite element methods for Kirchoff plate models and Von Karman equations, especially the discontinuous Galerkin method and new penalty method for the fourth order.

**41. Nilekani, Nandan Mohanrao** (b 02.06.1955), Co-Founder and Chairman, Infosys Technologies Limited, Bengaluru.

Dr. Nandan Nilekani is the founding Chairman of the Unique Identification Authority of India (UIDAI) and co-founder and Chairman of Ek Step Foundation, a non-profit aimed at creating a technology-based platform to enhance basic literacy and numeracy for millions of children. He received The Economist Social & Economic Innovation Award for his leadership in India's Aadhaar initiative. Nilekani is also the author of *Imagining India*, and co-authored *Rebooting India: Realizing a Billion Aspirations* with Viral Shah and *The Art of Bitfulness: Keeping Calm in the Digital World* with Tanuj Bhojwani.

**42. Patravale, Vandana Bharat** (b 21.10.1965), PhD, Professor of Pharmaceutics, Department of Pharmaceutical Sciences and Technology, Institute of Chemical Technology, Mumbai.

Prof. Vandana Patravale has been engaged in pharmacological research leading to translational work on several technologies to products that are in use, including coronary stents based on a biodegradable polymer, and diagnostic kits for detection of Brucella antibodies based on fluorescence silica nanosensors. More recently, she has been working on developing a targeted drug delivery system for malaria and a nasal vaccine against brucellosis for use in animals.

**\*43. Premji, Azim Hashim** (b 24.07.1945), Chairman of Wipro Limited (Western Indian Palm Refinery Oil) and Azim Premji Foundation, Bengaluru.

Mr Premji served as chairman of Wipro Limited, guiding the company through four decades of diversification and growth to emerge as a world leader in the software industry. He also serves as the Chancellor of Azim Premji University, Bengaluru.

**44. Rath, Sankar Prasad** (b 03.02.1972), PhD, Professor (HAG), Department of Chemistry, Indian Institute of Technology Kanpur, Kanpur.

Dr SP Rath, for his substantial contributions in biomimetic study of the multiheme proteins primarily modulating structure and properties of the individual heme centre and structure-property correlation.

**45. Sahoo, Akhila Kumar** (b 18.01.1972), PhD, Professor, School of Chemistry, University of Hyderabad, Hyderabad.

Dr AK Sahoo for his pioneering contributions to the field of **C-H activation** by introducing the concept of reusable/transformable directing groups, especially for the design and development of nitrogen, oxygen rich new energetic materials for Defense applications.

**46. Sane, Sanjay Prafullachandra** (b 12.09.1970), PhD, National Centre for Biological Sciences, Tata Institute of Fundamental Research, Bengaluru.

Dr SP Sane has made seminal contributions to the biology of insect flight by integrating neural circuitry analysis, biomechanics, and sensory physiology. His work transverses between sophisticated lab-based biology and field-based ecological research.

**47. Saraswat, Vijay Kumar** (b 25.05.1949), Former Director General, Defence Research and Development Organisation (DRDO) and Former Chancellor of Jawaharlal Nehru University, New Delhi.

Dr. Vijay Kumar Saraswat is a key scientist behind the development of the Prithvi missile and its induction into the Indian Armed Forces. He has been a pioneer in creating several critical missile technologies previously restricted by the Missile Technology Control Regime, thereby contributing to India's self-reliance in missile technology

**48. Sarma, Vedula Venkata Subrahmanya Srinivasa** (b 15.06.1969), PhD, Senior Principal Scientist, CSIR- National Institute of Oceanography, Visakhapatnam.

Dr VVSS Sarma has contributed to the understanding of biogeochemical processes, biological production and biogenic fluxes in the Indian estuaries and surrounding marine regions.



**49. Sen, Ellora** (b 01.09.1969), PhD, Scientist VI, National Brain Research Centre, Manesar.

Dr Ellora Sen has made important contributions to epigenetics, biochemistry, immunology, and cell biology which has provided mechanistic insight into the dynamic interactions between metabolic reprogramming and inflammation.

**50. Shasany, Ajit Kumar** (b 01.03.1967), PhD, Director, CSIR-National Botanical Research Institute, Lucknow.

Dr. A.K. Shasany's research focused on the sequencing of *Ocimum tenuiflorum*, commonly known as holy basil, and the functional characterization of its genes, revealing a novel aroenate pathway essential for scent biosynthesis. His work also elucidated the virtual compartmentalization of gene activities in petunia petals and metabolic pathways directing eugenol synthesis in *Ocimum*. The comprehensive analysis included over 900 plant accessions across various spices, exploring evolutionary connections and marker identification. This initiative resulted in the development and release of 45 varieties and 22 patents.

**51. Shukla, Vartika** (b 14.02.1966), Chairman & Managing Director, Engineers India Limited (EIL), New Delhi.

Dr Vartika Shukla possesses extensive technical and consulting experience across the hydrocarbon value chain and has led the company to the successful completion of many prestigious projects in the Oil & Gas Refining, Petrochemical, and Fertilizers sectors both in India and overseas. She has been steering several new initiatives of the company in the areas of Bio Fuels, Digitization, Energy Efficiency, Make in India, and Start-up India. Ms. Shukla has made immense contributions to the development of National Policies, especially in the areas of biofuels and future road map for the refining and petrochemical sector.

**52. Singh, Amit** (b 18.03.1976), PhD, Associate Professor, Department of Microbiology of Cell Biology, Centre for Infectious Disease Research, Indian Institute of Science, Bengaluru.

Dr. Amit Singh has made significant contributions to our understanding of host-pathogen interactions in infections caused by human pathogens, specifically *Mycobacterium tuberculosis* (Mtb) and human immunodeficiency virus (HIV). His research has elucidated the intricate relationship between redox mechanisms and drug resistance

**53. Singh, Rajendra** (b 06.08.1959), Indian Water Conservationist and Environmentalist, Tarun Bharat Sangh, Mansarover.

Dr Rajendra Singh also known as "waterman of India", runs the NGO 'Tarun Bharat Sangha' (TBS) since 1975. The NGO based in village hori-Bhikampura in Thanagazi tehsil, near Sariska Tiger Reserve, has been instrumental in fighting the slow bureaucracy, and mining lobby. It has helped villagers take charge of water management in their semi-arid area through the use of johad, rainwater storage tanks, check dams, and other time-tested as well as path-breaking techniques. Over the years

TBS helped build over 8,600 johads and other water conservation structures to collect rainwater for the dry seasons, has brought water back to over 1,000 villages, and revived five rivers in Rajasthan, namely, Arvari, Ruparel, Sarsa, Bhagani and Jahajwali.

**54. Sivarajan, Kumar N** (b 23.10.1968), Chief Technology Officer, Tejas Networks Ltd., Bengaluru.

Dr KN Sivarajan has several years of experience in the field of electrical communication engineering. Dr Sivarajan worked on optical, wireless and telecommunication networks for ten years in academia and research labs before cofounding the optical networking company, Tejas Networks, Bengaluru, in 2000. He is an elected fellow of IEEE, 2021. He is an elected Fellow of the Indian National Academy of Engineering.

**55. Somanath, Sreedhara Panicker** (b 30.07.1963), Chairman, Indian Space Research Organisation (ISRO), Bengaluru.

Dr Sreedhara Panicker Somanath as the ISRO Chairman spearheaded the soft landing of Chandrayaan-3 on the South Pole of the lunar surface along with other notable senior ISRO scientists. He is known for his contributions to launch vehicle design, particularly in the areas of launch vehicle systems engineering, structural design, structural dynamics, and pyrotechnics.

**56. Sundaram, Balasubramanian** (b 05.06.1966), PhD, Professor, Chemistry and Physics of Materials Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru.

Dr S Balasubramanian for his innovative work on computational chemistry and supramolecular materials, especially for developing a novel force field for ionic liquids based on quantum density functional theory, enabling quantitative prediction of their physical properties.

**57. Sur-Kolay, Susmita** (b 16.07.1959), PhD, Professor (HAG), Advanced Computing and Microelectronics Unit, Indian Statistical Institute, Kolkata.

Dr S Sur-Kolay for her outstanding and fundamental contributions to several areas including (a) electronic design automation, in particular, physical design automation of ICs and FPGAs, (b) IC security and protection, and (c) synthesis of quantum circuits.

**58. Sureshan, Kana Meethaleveetil** (b 14.10.1973), PhD, Professor and Dean, Infrastructure and Planning, School of Chemistry, Indian Institute of Science Education and Research Thiruvananthapuram, Thiruvananthapuram.

Dr KM Sureshan, for his significant contributions in supramolecular chemistry and polymer science, especially, for the development of novel 'topochemical azide-alkyne cycloaddition' (TAAC) and 'topochemical ene-azide cycloaddition' (TEAC) reactions to synthesize diverse crystalline and topologically distinct polymers and their applications.

**59. Suri, Ashish** (b 08.04.1970), MBBS, MCh, Professor and Unit Head, Department of Neurosurgery, Neurosciences Center, All India Institute of Medical Sciences, New Delhi.

Prof. Ashish Suri is an outstanding neurosurgeon with a strong aptitude for innovation and a passion for finding out-of-the-box solutions. In addition to his faculty role at a medical institution, he serves as an adjunct professor at an IIT, engaging in collaborative work across diverse fields to address significant challenges in neuroscience. He has mentored numerous students in both neurosurgery and engineering, becoming one of the few to achieve a remarkable balance of excellence in academics, research, and surgical skills, while continuously pushing the boundaries of the field.

**60. Suwas, Satyam** (b 30.09.1969), PhD, Professor and Chair, Department of Materials Engineering, Indian Institute of Science, Bengaluru.

Dr Suwas Satyam for his pioneering contributions to the fundamental understanding of the role of stacking fault energy on texture evolution in materials and, in turn, to the mechanical properties of materials, and for providing excellent scientific solutions to many of the engineering problems pertaining to the processing of various engineering materials for the defence, nuclear, and transportation sectors.

**61. Talukdar, Pinaki** (b 04.11.1975), PhD, Professor, Chemistry Department, Indian Institute of Science Education and Research-Pune, Pune.

Prof. P Talukdar has made significant contributions in the area of Chemical Biology. His group has pioneered developing artificial ion transporters and utilizing them to induce programmed cell death in cancer cells by disrupting ion homeostasis. His group has made ion transporters activated by multiple stimuli for selective targeting of cancer cells.

**62. Umapathy, Siva** (b 10.06.1959), PhD, Professor, Department of Inorganic and Physical Chemistry and, Department of Instrumentation and Applied Physics, Indian Institute of Science, Bengaluru.

Professor Siva Umapathy for his pioneering contributions towards the development of (Raman) spectroscopy tools to study chemical, biological, and materials science phenomena.

**63. Vidya, TNC** (b 05.08.1976), PhD, Professor, Evolutionary & Organismal Biology Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru.

Professor TNC Vidya has made original contributions in the sociobiology of Asian elephants comprising population genetic structuring, behavior and evolutionary aspects.

-----  
*\* Consent to be received. If consent is not received till 90<sup>th</sup> Anniversary General Meeting (to be held during December, 2024), the names will be dropped.*

## **Foreign Fellows elected** *(Effective from January 1, 2025)*

1. **Badesha, Santokh Singh** (b. 01.10.1947), Distinguished Professor of ECE – COE, Purdue University, Elmore Family School of Electrical and Computer Engineering, 501 Northwestern Ave. MSEE-155, West Lafayette, IN 47907, USA.

For international recognition of his invention of foundational technologies that have ushered in the era of digital printing on demand, transforming the communication and productivity of hundreds of millions of people around the world. He is the all-time Xerox recordholder for US Patents, having generated the patented technology that is used in nearly all major Xerox printing system families. Prof Badesha continues to drive innovation across Xerox's suite of printing systems, especially in the areas of solid and aqueous inkjet printing and the next generation of digital printing technology.

2. **Foster, Russell Grant** (b. 19.08.1959), Professor of Circadian Neuroscience and Director, Sir Jules Thorn Sleep and Circadian Neuroscience Institute, Nuffield Department of Clinical Neurosciences, University of Oxford, Dorothy Crowfoot Hodgkin Building, South Parks Road, Oxford OX1 3QU, UK.

For his significant work that has redefined the understanding of how the eye detects light. His landmark discovery that the Fish possesses inner retinal photoreceptors, provided the first evidence for a non-rod, non-cone ocular photoreceptor in any vertebrate. Foster demonstrated that photoreceptors utilize a specialized photopigment maximally sensitive to "blue" light ( $\lambda_{\max}$  480nm). Further, by employing calcium- imaging on the isolated rd/rd cl retina, he identified these photoreceptors in mice as endogenously photosensitive retinal ganglion cells (pRGCs) that utilize the photopigment melanopsin (OPN4). More recently, he demonstrated the mechanism by which pRGCs regulate the molecular clockwork.

3. **Hahn, Horst Werner** (b. 10.08.1952), Professor, Karlsruhe Institute of Technology, Institute of Nanotechnology, Hermann-von-Helmholtz-Platz1, 76344 Eggenstein Leopoldshafen, Germany.

For his highly accomplished research in the field of Materials Science. His primary focus lies in the investigation of nanostructures, encompassing nanoparticulate systems, thin films, and bulk structures. Notably, his groundbreaking work has advanced the understanding of nanocrystalline ceramics, pioneered the development of metallic nano glasses and high entropy oxides, and significantly propelled the field of materials with tunable functional properties.

4. **Jain, Jainendra Kumar** (b. 17.01.1960), Evan Pugh University Professor & Erwin W. Mueller Professor of Physics, 104 Davey Laboratory, Physics Department, Penn State University, University Park, PA 16802, USA.

Prof Jain predicted a new class of exotic particles, which he named "composite fermions," and explained the fractional quantum Hall effect as the integer quantum Hall effect of composite fermions. In doing so, he accomplished a unification of the

fractional and the integer quantum Hall effects, two Nobel prize winning phenomena. His discovery of composite fermions is recognized as a singular and transformative development in the realm of condensed matter physics.

5. **Khosla, Pradeep Kumar** (b. 13.03.1957), Chancellor, University of California, 9500 Gilman Dr. #0005 San Diego, CA 92093, USA.

For his significant contributions in robotics, embedded software and cybersecurity which had a tremendous impact on research directions and practice in the world. He has made seminal contributions in the design, sensor-based control, and software for robot systems and surgical instruments. His experimental work forms the basis for algorithms in high performance commercial robots. The intelligent surgical instrument called 'Micron' is currently in field trials for use in eye surgery.

6. **Pingali, Prabhu** (b. 12.02.1955), Professor of Applied Economics & Director, Tata-Cornell Institute (TCI), Cornell University 375J, Warren Hall, Ithaca, NY 14853-7801, USA.

For his highly acclaimed research and policy accomplishments in agricultural development and food security. His comprehensive review of the Green Revolution impacts (PNAS, 2012) is a standard reference for students of agricultural development. His research on adverse health impacts of pesticides received multiple international awards and led to safer use policies in the Philippines. His work on agricultural mechanization and technology adoption in Africa won him the Research Discovery Award from the American Association of Agricultural Economists in 1988.