FELLOWS ELECTED 2025
(Effective from January 1, 2026)

1. Ambani, Mukesh Dhirubhai (*b* 19.04.1957), BE, MBA, Chairman and Managing Director, Reliance Industries Limited, Mumbai.

Mukesh Dhirubhai Ambani is an Indian billionaire businessman and the Chairman, Managing Director and largest shareholder of Reliance Industries Ltd. He is known for his leadership in transforming Reliance Industries into a global conglomerate, including significant investments in telecommunications, retail and petrochemicals. Ambani directed and led the creation of the world's largest grassroots petroleum refinery in Jamnagar, India, which could produce 660,000 barrels per day (33 million tonnes per year). In December 2013, Ambani announced the possibility of a "collaborative venture" with Bharti Airtel in setting up digital infrastructure for the 4G network in India.

2. Amte, Mandakini (*b* 25.12.1946), MBBS, Social Worker and Medical Officer, Lok Biradari Prakalp, Hemalkasa, Gadchiroli.

Mandakini Amte popularly known as Manda Amte is a medical doctor and social worker from Maharashtra. She along with her husband, Prakash Amte were awarded the Magsaysay Award for 'Community Leadership' in 2008 for their philanthropic work in the form of the Lok Biradari Prakalp amongst the Madia Gonds in Gadchiroli district of Maharashtra and the neighbouring states of Andhra Pradesh and Madhya Pradesh. Mandakini along with her husband performed surgery and treated malaria, tuberculosis, and dysentery, burns and animal bites. To conform to tribal sensibilities, they placed most of the hospital’s facilities out of doors, beneath the trees.

3. Arunan, Elangannan (*b* 11.05.1961), PhD, Professor, Department of Inorganic and Physical Chemistry, Indian Institute of Science, Bengaluru.

Outstanding work on H-bonding & weak interactions

4. Babu, Subash (*b* 23.02.1970), MBBS, PhD, Scientific Director, NIAID-ICER India, National Institute for Research in Tuberculosis, Chennai.

He is a physician-scientist, working for the US NIH in Chennai. He has been working in the fields of lymphatic filariasis, soil-transmitted helminth, and immunology of tuberculosis, HIV and Covid-19, and the interaction of these infectious diseases with metabolic diseases. He has also made important contributions to a better understanding of epidemiology, immune response, pathogenesis, correlates of protection and biomarkers for various infections, and in the development of diagnostic and prognostic approaches for these diseases.

5. Balkrishna, Pandit Shashishekhar (*b* 29.03.1950), PhD, Chairman, KPIT Technologies Limited, Pune.

Ravi Pandit is the Founder-Chairman and currently Non-Executive Chairman of KPIT Technologies. Ravi's commitment to environment has resulted in development

of solutions for generation of hydrogen from biomass, indigenous development of hydrogen fuel cell and indigenous development of sodium ion batteries. KPIT has won global patents in all these domains for innovative and impactful solutions. He is the only private sector member of esteemed Empowered Group, the highest decision-making body for National Green Hydrogen Mission.

6. Bapat, Sharmila Avadhut (*b* 20.11.1965), PhD, Scientist G, National Centre for Cell Science, Pune**.**

Dr. Bapat is being nominated for her distinguished contributions to cancer biology, particularly her pioneering work in cancer stem cells associated with high grade ovarian cancer. Through this work she has helped develop strategies for drug resistance and for eradication of dormant cancer cells. Her work has important therapeutic implications.

7. Barman, Anjan (*b* 23.06.1969), PhD, Senior Professor & Dean (Faculty), Department of Condensed Matter Physics and Material Sciences, SN Bose National Centre for Basic Sciences, Kolkata.

Anjan Barman is a leading figure in the area of magnonics and spintronics in India, whose contributions have been well recognised internationally. He has made significant contributions to straintronics, through studies on magneto-elastic modes in strained nanomagnets and has developed extreme sub-wavelength magneto-elastic electromagnetic nano-antennas. He has set up one of the best laboratories in the world to study a broad class of magnetic materials, using a variety of experimental techniques. His work has led to the discovery of novel phenomena that have had a profound impact on these fields. He has carried out outstanding work using a broad range of experimental techniques for probing Ghz dynamics including ultrafast magnetooptical pulsed laser methods, scattering based spectroscopies, as well as spin pumping and other spintronic measurements. He has also used theoretical methods for modelling and analysing nanomagnetic response and dynamics at high frequencies, including the development of micromagnetic approaches for spin waves.

8. Basu, Suddhasatwa (*b* 05.01.1963), PhD, Professor (FIPI Chair), Department of Chemical Engineering, Indian Institute of Technology-Delhi, New Delhi.

Professor Suddhasatwa Basu has made significant contributions to electrochemical energy systems, particularly in developing various fuel cell technologies, as well as advancing hydrogen generation methods through polyelectrolyte membrane electrolysis and photochemical water splitting. His research also encompasses CO_2 conversion to chemical fuels, employing innovative electrocatalysts like carbon-doped selenium and Cu-lignin complexes to enhance efficiency and selectivity in electrochemical reduction processes. Additionally, he has worked on water purification techniques, including dye removal using reverse micelles and photocatalytic dye mineralization, aiming to provide environmentally friendly solutions for rural applications. Through these endeavours, Prof. Basu has significantly advanced sustainable energy and environmental technologies.

9. Bharti, Himender (*b* 13.12.1968), PhD, Professor and Former Head, Department of Zoology & Environmental Sciences, Ant Systematics and Evolutionary Biology Laboratory, Punjabi University, Patiala.

Prof Himender Bharti is a leading ant systematist in Asia, whose interdisciplinary work on ant systematics, ecology and evolution, going well beyond delineation of new species, has changed thinking in the field. His studies have led to novel insights into evolutionary trends in high-altitude Himalayan ant species and also in the use of ants as indicators of ecosystem health and biodiversity trends. He has described more than 100 species of ants. Most significantly, he has built up a Natural History Collection of about 1000 Indian Ant species, which is a huge resource for scientists.

10. Bhattacharya, Satya Sundar (*b* 19.09.1972), PhD, Associate Professor, Department of Environmental Science, Tezpur University, Tezpur.

Dr. S. S. Bhattacharya has made pioneering contributions in soil science. He unravelled novel pathways of heavy metal detoxification by earthworms. He has also developed microbial formulations and vermitechnology for transforming solid wastes as potential components of organic-centric agriculture.

11. Birla, Kumar Mangalam (*b* 14.06.1967), MBA, Chairman, Aditya Birla Group, Aditya Birla Centre, Mumbai.

Kumar Mangalam Birla is the chairman of the Aditya Birla Group, one of the largest conglomerates in India. The Aditya Birla Group-owned Idea Cellular merged with Vodafone India to create India's then largest telecom service provider, Vodafone Idea. Also in 2018, UltraTech Cement acquired the cement business of Century Textiles, while Binani Cement became a wholly- owned subsidiary of UltraTech Cement. In 2018, Novelis entered into an agreement to acquire Aleris Corporation.

12. Chakraborty, Chandan (*b* 17.08.1965), PhD, Professor (HAG) & Head, Department of Electrical Engineering, Indian Institute of Technology-Kharagpur, Kharagpur.

Professor Chandan Chakraborty has made significant contributions to power electronics and renewable energy systems. His research includes the development of advanced power converters, fault-tolerant motor drives, and innovative multilevel inverter topologies for solar photovoltaic applications. He has also worked on adaptive control techniques for induction motor drives and the integration of electric vehicles into microgrid systems.

13. Chandrasekaran, Natarajan (*b* 02.06.1963), MSc, Chairman of Tata Sons and Tata Group, Mumbai.

Chandrasekaran joined Tata Consulting Services as an intern and gradually worked his way up within the company, eventually becoming its Chief Operating Officer in 2007 and Chief Executive Officer in 2009. In 2017 Chandrasekaran became the Chairman of Tata Sons; he was the first chairman with no relation to the Tata family through either blood or marriage. Among the notable events during his tenure was

Tata Group's acquisition in 2022 of Air India, an airline founded by the Tata family in 1932 and which remained under Tata ownership until it was nationalized in 1953. He was tasked by Tata Sons' Board of Directors to modernize and redevelop the airline, which had become run-down and debt-laden after decades of mismanagement. In 2016, Chandrasekaran was named board director for the Reserve Bank of India. He has also served as a Chairperson on various boards, including for NASSCOM (2012-2013) and IT Industry Governors' at the WEF, Davos (2015-2016). In March 2022, the Government of India honoured him with Padma Bhushan for excellence in Trade and Industry. On 16 May 2023, he was awarded as Knight of the Legion of Honour by the President of France Emmanuel Macron.

14. Chowdhury, Shantanu (*b* 09.09.1968), PhD, Chief Scientist, CSIR-Institute of Genomics and Integrative Biology, New Delhi**.**

Demonstrated that telomere-binding protein TRF2 regulates gene expression beyond telomeres, influencing neural stem cell identity. This work links telomere biology to neurodevelopment and potential neurological disorders.

15. D'Silva, Patrick (*b* 24.10.1972), PhD, Professor, Department of Biochemistry, Indian Institute of Science, Bengaluru.

Explored mitochondrial protein quality control, focusing on chaperone-mediated folding and redox homeostasis. His studies contribute to understanding mitochondrial dysfunction in diseases such as neurodegeneration.

16. Das, Benu Brata (*b* 24.12.1975), PhD, Professor, School of Biological Sciences, Indian Association for the Cultivation of Science, Kolkata.

Investigated DNA damage response pathways, focusing on topoisomerase-mediated repair mechanisms. His research provides insights into genome stability and cancer progression, highlighting potential therapeutic targets.

17. Das, Chandrima (*b* 18.03.1978), PhD, Professor-G, Biophysics and Structural Genomics Division, Saha Institute of Nuclear Physics, Kolkata.

Dr. Chandrima Das has made a significant contribution in understanding the link between the epigenome and cancer. Further she has made contributions in understanding the role of matrix remodeling and immune signaling pathway and protein turnover during tumor development.

18. Das, Sarit Kumar (*b* 15.06.1963), PhD, Institute Professor & V Balakrishnan Chair Professor, Heat Transfer and Thermal Power Laboratory, Department of Mechanical Engineering, Indian Institute of Technology-Madras, Chennai.

Professor Sarit Kumar Das is internationally recognized for his pioneering work in nanofluids and microscale heat transfer. His research has significantly advanced the understanding of thermal conductivity enhancement in nanofluids, particularly through studies on temperature-dependent behaviour and particle dynamics in microchannel systems. Beyond nanofluids, Prof. Das has made substantial

contributions to bio-microfluidics, developing lab-on-chip platforms for medical diagnostics and drug delivery, as well as to thermal management in energy systems like PEM fuel cells and battery stacks.

19. Deshpande, Anand Suresh (*b* 07.05.1962), PhD, Chairman and Managing Director, Persistent Systems Limited, Bhageerath, Pune.

Anand Deshpande is the Founder and Chairman of Persistent Systems, a global technology services company. His entrepreneurial journey transformed a small startup into an industry leader. Dr. Deshpande's commitment to education is evident through his service as Chairman of several premier technical institutions, including lIT Patna, lllT Allahabad, and VJTI Mumbai. His expertise was also leveraged at the national level as a parttime board member of UIDAI (Unique ldentification Authority of lndia) from 2016 to 2022. Currently, Dr. Deshpande serves as the co-chair of the Biotechnology Research lnnovation Council (BARIC), where he is developing strategic programs to advance lndia's bioeconomy, bringing his technological expertise to the field of biotechnology innovation.

20. Dhevalapally, Ramachary B (*b* 18.06.1973), PhD, Senior Professor, School of Chemistry, University of Hyderabad, Hyderabad.

Contribution in organic catalysis

21. Forbes, Naushad (*b* 13.05.1960), PhD, Co-Chairman, Forbes Marshall Private Limited, Pune.

Naushad is Co-Chairman of Forbes Marshall, India's leading process and energy efficiency company. He is Chairman, Ananta Aspen Centre, and Centre for Technology, Innovation and Economic Research (CTIER). Forbes Marshall helps Industry build and sustain highly efficient plants by reducing waste, optimising process and energy efficiency, and complying with regulatory requirements. Forbes Marshall has consistently ranked as a Great Place to Work, and is a multinational with Indian roots. Naushad is on the board of several educational institutions and public companies.

22. Ganapathy, Rajesh (*b* 18.01.1977), PhD, Professor, International Centre for Materials Science, Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru.

Rajesh Ganapathy is one of the best experimenta list of his generation in India and in the world. His work is in the field of soft matter physics driven far from equilibrium, a field that has been spawning a gamut of deep conceptual ideas that have implications for all of physics. He has specifically addressed the most basic and critical issues in (A) Disordered Systems: the nature of the glass transition, random pinning glasses, yielding in amorphous solids subject to external stresses and the formation of mechanical memories; (B) Creating experimental systems to study the interplay between broken symmetry, topological defects and curved geometries; (C) Constructing stochastic heat engines at a microscale driven by non-thermal noise; and (D) Active Matter: pioneering the study of collective dynamics of engineered particles rendered active by vertical vibrations, shape-mediated jamming and

unjamming transitions, active defects on curved surfaces. His experiments challenge theories, and encourage new thinking by revealing hitherto hidden structure.

23. Gangadharan, Sindhu, BTech, Senior Vice-President and Managing Director, SAP Labs India Private Limited, Bengaluru.

Sindhu is widely regarded as the Technology Humanist - a title she earned for her deep-rooted belief in Technology and for leveraging Tech solutions for the benefit of the society at large. Over the last 22 years, Sindhu rose through the ranks and navigated several strategic and leadership roles to become the first woman to lead SAP Labs India. As the Managing Director & Sr Vice President of SAP Labs in India, Sindhu is responsible for product development and innovation at SAP's Research & Development facilities in India. As a global technology leader, Sindhu serves on the Board of multiple organizations such as US-based Qualtrics, Siemens India, Titan Company Limited and Ever Loop by SAP. In 2021, Sindhu was re-elected to the NASSCOM Executive Council for the second consecutive term.

24. Ganguly, Dipyaman (*b* 25.10.1977), MBBS, PhD, Senior Principal Scientist, CSIR-Indian Institute of Chemical Biology, Kolkata.

He is an immunologist, exploring the immunobiology of plasmacytoid dendritic cells (pDCs) as well as role of Piezo1 mechanosensors in immunocellular functions. He discovered a crucial role of pDCs in obesity as well as several novel regulatory modules in human pDCs. He was also the first to report crucial role of Piezo1 mechanosensors in immune-cellular functions.

25. George, Subi Jacob (*b* 01.01.1977), PhD, Professor and Head, New Chemistry Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru.

Outstanding work in supramolecular chemistry.

26. Ghosh, Anish (*b* 25.12.1979), PhD, Professor, School of Mathematics, Tata Institute of Fundamental Research, Mumbai.

International expert on diophantine approximations and homogenious dynamics.

27. Ghosh, Sujit Kumar (*b* 04.01.1978), PhD, Professor, Department of Chemistry, Indian Institute of Science Education and Research-Pune, Pune.

Porous organic framework.

28. Ghosh, Sundargopal (*b* 02.01.1968), PhD, Professor, Department of Chemistry, Indian Institute of Technology-Madras, Chennai.

Fundamental work on Boron chemistry.

29. Godrej, Nadir Burjorji (*b* 27.11.1951), MBA, Managing Director, Godrej Industries Limited, Mumbai.

Godrej currently serves as Managing Director of Godrej Industries, one of India's biggest businesses, and as chairman of Godrej Agrovet. A veteran of the Indian industry, Nadir has played an important role in developing the animal feed, agricultural input and chemicals businesses owned by Godrej. His active interest in research related to these areas has resulted in several patents in the field of agricultural chemicals and surfactants. With his tremendous experience and expertise, Nadir has also contributed to the development of a variety of industries by participating keenly in industry bodies such as the Compound Livestock Feed Manufacturers Association of India, Indian Chemical Manufacturers Association, and Oil Technologists' Association of India. Currently, Nadir is the President of Alliance Française de Bombay.

30. Gopalan, Jagadeesh (*b* 03.06.1966), PhD, Professor, Department of Aerospace Engineering, Indian Institute of Science, Bengaluru.

Professor Gopalan Jagadeesh is a leading expert in hypersonic aerodynamics and shock wave dynamics, serving as the founder of a unique Centre of Excellence in Hypersonics. He has significantly advanced experimental hypersonic research through the development and utilization of shock tunnels, enabling studies on shock-shock interactions, boundary layer phenomena, and flow control mechanisms critical for high-speed aerospace application. Beyond aerospace, his innovative work on micro-shock waves has led to applications in biomedical fields, such as drug delivery and biofilm disruption.

31. Jain, Mukesh (*b* 27.08.1978), PhD, Professor, School of Computational and Integrative Sciences, Jawaharlal Nehru University, New Delhi.

Prof. Mukesh Jain has made significant contributions in deciphering the response of rice and chickpea towards abiotic stress, employing the tools of genomics, epigenomics and bioinformatics. He has developed webservers/databases for gene expression analysis for delineating regulatory networks, functional annotation, and SNP discovery in chickpea that are available to the global scientific fraternity. The omics information generated in his laboratory has led to the identification and deployment of target genes for developing drought-tolerant rice plants through genome editing.

32. Joseph, Jomon (*b* 09.11.1968), PhD, Scientist G, National Centre for Cell Science, Pune**.**

Dr. Jomon Joseph is recommended for his work on the annulate lamellae (AL), a less studied cellular compartment. He has shown how Nup358, a protein in the AL, controls ER-mitochondria contacts and a variety of cell biological pathways.

33. Joshi, Anil Prakash (*b* 06.04.1955), PhD, Founder, Himalayan Environmental Studies and Conservation Organization (HESCO), Dehradun.

Dr Joshi is known as the Mountain Man, an Ashoka Fellow. His slogan "Local need meet locally" signifies a step towards making rural India economically independent. Dr Joshi has been actively working to revitalize indigenous watermills or Gharats (Watermill) in the country, advocating a complete shift towards small hydropower projects. One of Dr Anil Prakash Joshi's significant contributions lies in the reviving streams, springs, and rivers. His approach to regenerating these water bodies is rooted in a profound understanding of Science of Nature. His pioneering initiative to introduce Gross Environmental Product (GEP) as an ecological growth measure for the state has caught international attention. This groundbreaking move marks the first instance globally where Annual Ecological Growth is measured parallel to GDP; international and national journals have acknowledged GEP.

34. Joshi, Suhas Sitaram (*b* 07.06.1968), PhD, Director, Indian Institute of Technology-Indore, Indore.

Professor Suhas S. Joshi has made significant contributions to the field of mechanical engineering, particularly in the areas of machining processes and manufacturing technologies. His research focuses on improving the productivity and quality of multi-scale machining processes through physics-based modelling and characterization. He has established excellent research infrastructure for micromachining, laser micro-machining, and titanium machining, which have been instrumental in advancing manufacturing capabilities in these areas.

35. Kalita, Jayantee (*b* 01.01.1962), MBBS, MD, DM, Professor, Department of Neurology, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow.

Dr Kalita is an eminent neurologist and has made significant contributions in the understanding of Japanese B encephalitis, dengue and central nervous system tuberculosis. She reported the diagnostic role of thalamic lesion on imaging as well as the basis of movement disorder and neurophysiological changes in Japanese B encephalitis. In the field of central nervous system tuberculosis, Dr Kalita has contributed enormously including 4 randomized controlled trials, basic understanding of cerebral salt wasting syndrome, drug induced hepatitis and paradoxical reaction in tuberculous meningitis. Establishing the role of levofloxacin and aspirin in treatment of tuberculosis meningitis are her important contributions. She has also made contributions in the field of peripheral neuropathy, stroke, cerebral venous sinus thrombosis, vitamin B12 deficiency, migraine and Wilson disease.

36. Kalyani, Babasaheb Neelkanth (*b* 07.01.1949*)*, MS, Chairman and Managing Director, Bharat Forge Limited, Pune.

Babasaheb Neelkanth Kalyani served as the chairman and managing director of Bharat Forge, the flagship company of the Kalyani Group and the world's second-largest forging manufacturer after ThyssenKrupp of Germany. To contribute to a clean and emission-free environment, Kalyani set up Kenersys Limited to manufacture various energy-efficient wind turbines for domestic and international

markets. He is also engaged in developing solar energy equipment for the non-conventional energy sector. In a joint venture with KPIT Cummins, Bharat Forge is developing a hybrid solution that would contribute in the country being able to meet its vehicular emission targets. Kalyani is also a recipient of Indian government's Padma Bhushan award for contributions to Trade and Industry.

37. Karandikar, Abhay (*b* 15.06.1965), PhD, Secretary, Department of Science & Technology, Government of India, New Delhi.

Karandikar joined the High Performance Computing and Communications Group at Centre for Development of Advanced Computing (C-DAC), Pune to work on PARAM 9000. While at IIT Bombay, Karandikar has also served as the coordinator of Tata Teleservices IIT Bombay Center of Excellence in Telecommunications (TICET) and the National Center of Excellence in Technology for Internal Security (NCETIS). Karandikar co-founded and incubated Eisodus Networks (2002) in IIT Bombay's business incubator. Currently, he is serving as the Secretary to the Government of India in the Department of Science and Technology, Government of India. Karandikar has worked to promote innovation in technology for rural broadband through his research program- Gram Marg. His team setup India’s first TV White Space test-bed in seven villages and rural broadband pilot in twenty five villages covering hundred square kilometre in Palghar district in Maharashtra. His Gram Marg solution for Rural Broadband was the winner of Mozilla Open Innovation challenge in 2017.

38. Karthikeyan, Ganesan (*b* 07.12.1970), MBBS, MD, DM, Executive Director, Translational Health Science and Technology Institute, Ministry of Science & Technology, Govt of India, Faridabad.

As a practicing clinical cardiologist with a strong orientation towards hypothesis driven research, he has made significant contributions in areas of rheumatic heart disease (RHD), mechanical heart valve thrombosis, anticoagulation, genetics and epigenetics of coronary artery disease in Indians, and indigenous coronary stents. His research brought to light the presence of subclinical inflammation in patients with chronic RHD and led to a new hypothesis in understanding the pathogenesis of RHD. The largest randomized trial in RHD for stroke prevention conducted by the nominee, led to change in the clinical practice in the use of anticoagulants for patients with RHD. The nominee was instrumental in performing the preclinical and clinical work required for the approval of an indigenous coronary stent.

39. Khatoon, Naima (*b* 1961), PhD, Vice-Chancellor, Aligarh Muslim University, Aligarh.

Professor Naima Khatoon is the Vice Chancellor of the Aligarh Muslim University. She is the first female Vice Chancellor in the history of the University. She has authored/co-authored/edited six books and published a number of papers in the Journals of National and International repute. She has supervised fifteen PhD theses and a large number of dissertations. Her area of specialization is in the feld of Clinical, Health, Applied Social and Spiritual Psychology. She also served as the Deputy Coordinator of UGC assisted Special Assistance Program on Spiritual Psychology in the Department of Psychology, AMU. Apart from academics,

Professor Khatoon has vast experience in Educational Administration. She also served as Deputy Director, Residential Coaching Academy and Deputy Proctor of AMU.

40. Kumar, Dhiraj (*b* 01.03.1978), PhD, Group Leader, Cellular Immunology Group, International Centre for Genetic Engineering and Biotechnology, New Delhi.

He is an immunologist and has been working on the frontier areas of innate immunity to understand the pathogenesis of tuberculosis. He employs cutting edge technologies to unravel the host-bacteria cross talk across the spectrum of cellular and molecular scales. His work on autophagy and inflammation highlights the need to balance inflammatory and metabolic aspects while developing novel host-directed therapeutics against tuberculosis. His studies showed that *Mtb* infection results in altered RNA splicing in the host, and while delineating the mechanism behind this process, revealed details on the bacterial interventions on host physiological processes.

41. Kumara, Honnavalli Nagaraj (*b* 20.05.1972), PhD, Principal Scientist, Conservation Biology, Salim Ali Centre for Ornithology and Natural History, Coimbatore.

Dr. H N. Kumara has significant work on the ecology, behavior and conservation of a number of species in the Indian forests. His contributions to basic wildlife science include the study of social systems, behavioral development, niche selection among sympatric species, intergroup interaction process in wild mammals, and adaptations through behavioral plasticity to drastically altering habitats. His work has influenced the state policy, and based on his research and advice several sanctuaries/Protected Areas for wildlife have been established by the south Indian states.

42. Mahajan, Meena Bhaskar (*b* 03.05.1965), PhD, Professor 'I', The Institute of Mathematical Sciences, Chennai.

- Determinant computation using closed walks
- Algebraic complexity theory

43. Manna, Tapas Kumar (*b* 06.09.1975), PhD, Professor, School of Biology, Indian Institutes of Science Education and Research (IISER)-Thiruvananthapuram, Thiruvanathapuram.

Dr. Tapas Manna is recommended for his work on how chromosome segregation occurs by the association of microtubules with kinetochores, through the force-generating motor proteins on microtubules.

44. Maulik, Ujjwal (*b* 03.08.1965), PhD, Professor, Department of Computer Science and Engineering, Jadavpur University, Kolkata.

Professor Ujjwal Maulik has made outstanding contributions to single and multi-objective clustering, as well as the integration of machine learning and data science algorithms across various real-world applications, including healthcare, IoT, and

autonomous vehicles, showcasing his versatility in multiple domains. His research focuses on improving the accuracy and efficiency of methods used in critical application areas, offering significant practical value. He has also made pioneering contributions in the applications of data sciences in biomedical engineering, particularly in the development of novel computational models and techniques for understanding complex biological systems and diseases, enhancing diagnostic and therapeutic strategies.

45. Mishra, Vimal (*b* 15.01.1979), PhD, Vikram Sarabhai Chair Professor, Indian Institute of Technology-Gandhinagar, Gandhinagar.

He developed hydrological framework and real time drought monitoring and forecasting that are being used in India.

46. Mitra, Rahul (*b* 08.05.1966), PhD, Professor (HAG), Department of Metallurgical and Materials Engineering, Indian Institute of Technology-Kharagpur, Kharagpur.

Professor Rahul Mitra has made significant contributions to the field of materials science, particularly in the areas of metal and ceramic matrix composites, high-temperature materials, and nanomaterials. His research has focused on the mechanical behaviour, microstructure, and processing of these materials, aiming to enhance their performance in demanding applications. Additionally, Prof. Mitra has worked on the development of thin film processing techniques, contributing to advancements in the fabrication and characterization of nanostructured materials. His work has critical implications for various industries, including aerospace, energy, and defence, where high-performance materials are crucial.

47. Mohanty, Ajit Kumar (*b* 11.10.1959), PhD, Secretary, Department of Atomic Energy, Mumbai.

As Director, BARC, which is a mission-oriented multidisciplinary R&D center, Dr Mohanty is coordinating research in physics, chemistry, biology, nuclear-agriculture, radiation, health-sciences, materials science, engineering sciences. The important achievements of Dr Mohanty include installation of large telescope (MACE) at Hanley for gamma ray astronomy research, which is the Largest (21 m diameter) telescope in the Asia and second largest in entire northern hemisphereand utilization of APSARA_U reactor for Cu-64 isotope production. Recent development of Ru-106 based plaques and Y-90 based Bhabha-sphere for eye cancer and liver cancer treatments are just representative examples of self-reliance in nuclear medicine. Other important high-end technologies which matured during his tenure are Low Energy High Intensity Proton Accelerator which is the most powerful proton accelerator developed in the country, indigenous x-ray baggage scanner, Dual energy LINAC based full body Indian Cargo scanner, Electron Beam Welding and Melting machines. He initiated several projects on green hydrogen production, notable among them are metallic closed loop of I-S thermo-chemical process.

48. Mondal, Tapan Kumar (*b* 03.01.1968), PhD, Principal Scientist, ICAR-National Institute for Plant Biotechnology, New Delhi.

Prof. Tapan Mandal has made significant contributions in the breeding and biotechnology of tea and wild species of rice. His work on tea genome sequencing provided evidence for its independent origin in India. His research on genetic improvement of tea using biodiversity and genetic engineering is exemplary. He is the first to discover the existence of C4 photosynthetic pathway in wild rice, *Oryza coarctata.*

49. Mukherjee, Ashis Kumar (*b* 10.07.1970), DSc, Director, Institute of Advanced Study in Science and Technology, Guwahati.

Prof. Ashis K. Mukherjee has characterized Indian snake and scorpion venom toxins to understand geographical variation in venom composition and its effect on bite pathophysiology, commercial antivenom safety and quality assessment, new techniques of antivenom production, diagnosis of snake and scorpion bites, and drugs from natural resources.

50. Mukherjee, Partha Sarathi (*b* 11.02.1973), PhD, Professor, Inorganic and Physical Chemistry Department, Indian Institute of Science, Bengaluru.

Contribution on caged compounds.

51. Panigrahi, Prasanta Kumar (*b* 26.06.1958), PhD, Director, ITER, Siksha 'O' Anusandhan University, Bhubaneswar.

Prashanta Panigrahi has established himself as a high impact physicist over numerous decades. His work range widely over matters of intense current interest, for example quantum information, entanglement and teleportation, and nonlinear waves, including rogue waves in optics. In the process he has trained a very large number of students at both Masters and doctoral levels, at some of India’s best institutions. In his effort to reach out to large number of audience and popularizing one of the recent trend in area of Quantum physics, He has organised Summer School on Quantum Information and Quantum Computing, involving many leading workers from all over the world as speakers and several hundreds of students as participants, benefitting a large audience. Given the importance of quantum science and the emerging quantum technologies world over and India’s Quantum Mission, Panigrahi can continue to play important role in training and developing programs needed for India’s quantum mission.

52. Parthasarathy, Narayanaswamy (*b* 02.06.1959), PhD, Former Professor, Department of Ecology and Environmental Sciences, School of Life Sciences, Pondicherry University, Kalapet.

Professor N. Parthasarathy’s biodiversity inventories from Western, Eastern Ghats, Andamans, dry evergreen forests generated Asian tree and liana meta-data; besides individual publications contributed to Global Tree and Liana database for pantropical, global syntheses. Demonstrated increasing liana abundance from wet to dry forests. Filled scientific gap on biodiversity/ecology of endangering dry

evergreen forests.

53. Prasad, Kalika (*b* 08.07.1974), PhD, Associate Professor, School of Biology, Indian Institute of Science Education and Research-Pune, Pune.

Dr. Kalika Prasad has made a seminal contribution in generating knowledge on how plant tissues regenerate after wounding. His research addressed the fundamental question of how a differentiated cell is converted to a pluripotent stem cell state, assemble the gene regulatory network, and give rise to a regenerative organ.

54. Radhakrishna, Munukutla (*b* 01.10.1961), PhD, Professor, Department of Earth Sciences, Indian Institute of Technology-Bombay, Mumbai.

He addressed basic questions using flexural gavity and multiscale potential field modeling that provided implication on structure and rheology of Indian continental margin and contiguous regions.

55. Ramachandran, Ravishankar (*b* 02.07.1970), PhD, Chief Scientist, CSIR-Central Drug Research Institute, Lucknow.

Pioneered structural elucidation of Mycobacterium tuberculosis proteins, facilitating targeted drug design. His work led to the identification of novel inhibitors against essential bacterial enzymes, advancing tuberculosis therapeutics.

56. Ramamurthi, Bhaskar (*b* 17.04.1959), PhD, Professor Emeritus, Department of Electrical Engineering, Indian Institute of Technology Madras, Chennai.

Professor Bhaskar Ramamurthi's research work is in Wireless Networks, Modulation, Wireless Data, and Audio and Video Compression. He heads the Centre of Excellence in Wireless Technology, located at the IIT-M Research Park, which is focused on emerging wireless standards and technologies. He is a holder of several patents related to 4G and 5G technologies and was the national co-ordinator for the project to build an end-to-end 5G Test Bed. His research interests are on topics in modulation and coding for mobile communications, wireless communication networks and design and implementation of wireless local loop systems. He is one of the founding members of the Telecommunications and Computer Networking Group (TeNeT) group at IIT Madras.

57. Ramaswamy, Mythily (*b* 06.06.1954), PhD, Senior Faculty Associate, ICTS-TIFR, Bengaluru.

Control Theory, moving plane method.

58. Rangwala, Sadiqali Abbas (*b* 10.07.1970), PhD, Professor II, Raman Research Institute, Bengaluru.

Sadiq Rangwala is one of the early pioneers in the field of cold ion-atom hybrid trap experiments. He has discovered two novel collisional cooling mechanisms between trapped atoms and ions. One of his major contributions is the realisation that irrespective of the mass ratios, the dynamically trapped ions are effectively cooled

by the laser cooled atoms, which was against earlier theoretical expectations. This single shot, resonant charge exchange cooling is experimentally shown to be highly effective as compared to elastic collisions. These results changed longstanding paradigms for the cooling of trapped ions held in the community, and fertilised a flurry of further research worldwide. He has recently started work in the field of precision measurements and clock development, and has built a trapped-ion optical clock based on calcium ions, which will be used for the Optical Atomic Clock project under the National Quantum Mission. He has also setup a spin-off company with a former student to produce locally precision laser systems and related high-end scientific equipment.

59. Rawat, Diwan S (*b* 01.01.1970), PhD, Vice Chancellor, Kumaun University, Nainital.

Excellent work in medicinal chemistry.

60. Ray, Samit Kumar (*b* 10.05.1961), PhD, Institute Chair Professor and Professor (HAG), Department of Physics, Indian Institute of Technology-Kharagpur, Kharagpur.

Professor Samit Kumar Ray has significantly advanced the field of semiconductor nanostructures, pioneering the development of mid-infrared Ge quantum dot photodetectors and strained SiGe heterostructures for silicon photonics applications. His research encompasses the fabrication of two-dimensional materials and hybrid nanostructures for multifunctional optoelectronic devices, including UV photodetectors, gas sensors, and flexible solar cells. His unique contributions on nanofabrication and characterization of optoelectronic devices have enabled the establishment of exclusive facilities for multidisciplinary and translational research of high impact.

61. Reddy, Benjaram Mahipal (*b* 01.03.1957), PhD, Senior Professor Emeritus, Department of Chemistry, Birla Institute of Technology & Science (BITS) Pilani, Hyderabad.

Contribution in heterogenous catalysis.

62. Sawant, Samir Vishwanath (*b* 22.10.1972), PhD, Chief Scientist and Professor in AcSIR, Plant Molecular Biology and Biotechnology Division, CSIR-National Botanical Research Institute, Lucknow.

Dr. Samir V. Sawant has made seminal contributions to the area of cotton biotechnology. He unravelled gene expression regulatory network underlying fibre development, length, and strength. Enhancement of cotton yield by the application of anacardic acid, a novel growth-promoting molecule, is another major contribution to agriculture. He also developed a novel male sterility system with high potential to use in future breeding program in cotton.

63. Seth, Pankaj (*b* 10.03.1968), PhD, Scientist VII and Senior Professor, Molecular and Cellular Neuroscience, Neurovirology Section, National Brain Research Centre, Gurugram.

Dr. Pankaj Seth's research holds significant clinical relevance in advancing the understanding of neurological impacts in HIV/AIDS patients, Zika virus induced microcephaly and Post-acute sequelae of COVID-19 in Long-COVID patients. He is the sole researcher in India to establish human fetal brain derived neural stem cells, neurons & glia for neuroscience research. His pioneering development of iPSC-derived human brain organoids with microglia at NBRC marks a major advancement, and an innovation that greatly enhances India's capacity for personalized neuroscience and translational medicine.

64. Sharma, Shilpi (*b* 16.03.1977), PhD, Professor, Department of Biochemical Engineering and Biotechnology, Indian Institute of Technology-Delhi, New Delhi.

Dr. Shilpi Sharma has contributed to understanding plant-microbe interactions. She has developed a few microbial consortia-based formulations for plant growth promotion and stress tolerance. Some of her formulations hold a strong promise as demonstrated in early trials in farmers' fields.

65. Shetty, Devi Prasad (*b* 08.05.1953), MBBS, MS, Chairman, Narayana Hrudayalaya Limited, Narayana Health City, Bengaluru.

A cardiac surgeon of repute and a successful entrepreneur, Dr Shetty is a highly respected luminary for his ingenious ideas for reforms in the healthcare sector. His visionary leadership to make quality healthcare affordable for all has drawn global recognition. A strong advocate of technology for efficient healthcare delivery, Dr.Shetty takes deep interest in creating and developing software products and applications to achieve time and cost efficiency while minimizing clinical errors in healthcare delivery. Dr Shetty pioneered pediatric cardiac surgery in India. Under his stewardship, Narayana Health has recently ventured into a unique Health Insurance model - to be both a healthcare provider and a health insurer.

66. Shrivastava, Aradhana (*b* 08.11.1968), PhD, Scientific Officer (H), Nuclear Physics Division, Bhabha Atomic Research Centre, Mumbai.

Dr. Aradhana Shrivastava is proposed for the INSA fellowship for her outstanding contribution in identifying the origin of fusion hindrance observed at energies deep below the Coulomb barrier. This work in the area of nuclear physics that has important astrophysical implications related to the production of light-elements in stellar-environments was made possible due to her use of an innovative approach in selecting an asymmetric projectile-target system and a novel off-beam measurement technique. Further, her precise measurement of fusion and transfer cross-section with neutron-rich radioactive Helium revealed that the low-density neutron matter is stabilized by pairing correlations, which has relevance to the composition of neutron stars. Several of her measurements involved the use of the India based Pelletron + LINAC facility at TIFR. She has also made significant contributions to the study of the nuclear structure of 124Sn, a nucleus being used to

study the neutrino-less double beta decay which has implications in the field of neutrino physics. She has also made a commendable contribution to the national programme of nuclear waste disposal by measuring the age of ground water by looking for the presence of 36Cl using the Atomic Mass Spectrometry techniques.

67. Singh, Dheer (*b* 14.06.1966), PhD, Principal Scientist (Professor) & Director, Animal Biochemistry Division, ICAR-National Dairy Research Institute, Karnal.

Dr. Dheer Singh's significant work in the animal biotechnology to address reproductive problems in cattle and buffaloes which causes loss of 20-30 million tons of milk annually, by elucidating regulation of buffalo Cyp19A1 gene that controls estrogen (E2) production and ovulation. He has developed methods for addressing bovine health and disease. His novel research on milk exosomes entrapping miRNA/ curcumin/antibiotics demonstrated the therapeutic potential of milk exosomes.

68. Singh, Jayant Kumar (*b* 03.02.1975), PhD, Poonam and Prabhu Goel Chair Professor, Department of Chemical Engineering, Indian Institute of Technology-Kanpur, Kanpur.

Professor Jayant K. Singh has made significant contributions to the field of chemical engineering, particularly in molecular simulations and thermodynamics. His research focuses on the development of porous materials for applications such as carbon capture and conversion, selective adsorption, and separation processes. He has also worked extensively on the development of molecular simulation tools and machine learning techniques to study complex systems, including surfactants, preservatives, and specialty chemicals. Additionally, Prof. Singh has been involved in the development of devices and sensors, such as soil sensors and oral cancer early detection tools, showcasing the practical applications of his research.

69. Sinha, Aninda (*b* 31.03.1977), PhD, Professor, Centre for High Energy Physics, Indian Institute of Science, Bengaluru.

Aninda Sinha has made pioneering contributions to the subject of Quantum field theory, specifically Conformal field theory, and String theory: these include the following. (a) Aninda has established a way of characterizing RG flows between conformal field theories in odd dimensions in terms of entanglement entropy, (b) he has introduced new analytic techniques to the conformal bootstrap program (a program to search and characterize conformal field theories in various dimensions) - notably his introduction of the Mellin space approach which he successfully applied to analytically compute anomalous dimensions and operator product expansion coefficients for quantum field theory at the Wilson-Fisher fixed point, going beyond what was possible before using other techniques, (c) established a connection between the Bieberbach conjecture in Mathematics and crossing symmetry of amplitudes in quantum field theory, (d) established a new property of string amplitudes which led to the discovery of a remarkable one-parameter family of series representations of pi. All these above works, each of which led to new and continuing developments, were initiated by Aninda, mostly in collaboration with his PhD students.

70. Sinha, Rajiv (*b* 15.01.1965), PhD, Professor (HAG), Department of Earth Sciences, Indian Institute of Technology-Kanpur, Kanpur.

Integrated geomorphic investigation with the chronostratigraphic and sediment provenance data and provided implications for the sustenance of large rivers.

71. Sinha, Sumant (*b* 12.02.1965), MBA, Chairman and CEO of ReNew Power's Founder, New Delhi.

Sumant Sinha is the Founder, Chairman, and CEO of ReNew, one of the largest clean energy companies listed on Nasdaq. Under his leadership, ReNew has developed a diverse clean energy portfolio, including solar, wind, and battery solutions, with an overall pipeline of 24 GW. The company offers comprehensive solutions across the entire decarbonisation spectrum, from solar manufacturing to carbon markets and green hydrogen. Sumant is the founding co-chair of the Bharat Climate Forum, which is playing an integral role in positioning India as a global leader in clean tech manufacturing. He is also a member of the Indian government's Ministry of Power committee charged with accelerating the clean energy deployment. In 2022–23, Sumant served as President of the Associated Chamber of Commerce and Industry of India (ASSOCHAM) and previously chaired CII's Northern Region Council.

72. Sreenivasan, Binod (*b* 29.07.1972), PhD, Professor, Centre for Earth Sciences, Indian Institute of Science, Bengaluru.

For his fundamental contribution to our understanding of vortex diagnosis and magnetic field stability in planetary earth dynamo stability.

73. Srianand, Raghunathan (*b* 01.02.1969), PhD, Director, Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune.

Raghunathan Srianand is one of the world's leading scientists in the field of astrophysical cosmology in his generation, as indicated by his exceptionally high scientometric indices. His expertise is in doing high-redshift spectroscopy of distant objects (such as quasars) to study the evolution of the Universe. Since light started from these objects when the age of the Universe was a fraction of its present age, the data about these high-redshift objects (z ~ 2-3) can be analyzed to find out how some important parameters have changed with time. Srianand's group showed that the temperature of the cosmic background radiation measured in this manner indicated a decrease with the expansion of the Universe in accordance with the standard cosmological model. Because of the care and precision with which this analysis was carried out, this work is regarded as a landmark contribution in this field. His group also succeeded in establishing that the electromagnetic coupling constant did not vary with time while the Universe expanded. Using detailed cosmological radiative transport, Srianand and his student have provided a solution to the so-called "Photon Underproduction Crisis" in which the ionizing light from known sources appeared to be much less than what was inferred from observations of the intergalactic medium.

74. Srivastava, Saurabh (*b* 04.03.1946), MBA, Former Chairman of NASSCOM and Founder Chairman of Indian Angel Networks (IAN), New Delhi.

Saurabh Srivastava is one of India's leading entrepreneurs, investors and institution builders. Apart from founding three successful IT companies and possibly India's first private sector VC Fund, he co-founded and Chaired key institutions of modern India focussed on IT and entrepreneurship such as NASSCOM; IVCA; TIE Delhi NCR and the Indian Angel Network. He has invested in over 100 startups and mentored 100s of entrepreneurs. His contribution to public service has included being a member of the PM's National Innovation Council, National Startup Advisory Council, PM's Empowered Committee for Awards on Excellence in Public Administration, Committee on Digital Competition Law, SEBI Committee on AIFs, Bombay Stock Exchange Hi-Tech Advisory Panel, Telecom Centre of Excellence, Railway Expert Committee and the National Expert Advisory Committee on Innovation, Incubation and Technology Entrepreneurship.

75. Srivathsa, Rohini (*b* 14.09.1969), PhD, Chief Technology Officer, 1 Microsoft Way, Redmond, Washington, United States.

Dr Rohini Srivathsa is the chief technology officer for Microsoft India and South Asia. In her role, she is responsible for driving tech innovation and growth across industry and the government. Rohini began her career in R&D at AT&T Bell Laboratories and has published over 25 technical and business papers. She has also worked at the Boston Consulting Group and IBM Global Business Services in strategy consulting roles across emerging markets. Previously, Rohini served as the chief technology officer of Janalakshmi Financial Services (now Jana Small Finance Bank), where she was responsible for driving tech-driven business transformation for financial inclusion among the urban underserved.

76. Sujith, Raman Pillai Indusekharan Nair (*b* 11.05.1967), PhD, Institute Professor and D Srinivasan Chair Professor, Department of Aerospace Engineering, Indian Institute of Technology–Madras, Chennai.

Professor Sujith has made pioneering contributions to the study of thermoacoustic instability in turbulent combustors by applying dynamical systems and complex systems theory to understand and mitigate these phenomena. His research has uncovered that combustion noise exhibits deterministic chaos and multifractality, which diminish as the system approaches instability, providing early warning indicators for critical transitions. By introducing concepts such as chimera states, amplitude death, and phase-flip bifurcations, he has offered novel insights into the nonlinear dynamics of combustion systems. His work has significantly influenced both theoretical understanding and practical applications in aerospace propulsion and energy systems.

77. Swarup, Renu (*b* 1960), PhD, Former Secretary, Department of Biotechnology, Ministry of Science & Technology, Govt. of India, New Delhi.

Dr Renu Swarup, Chairperson, Biotechnology Industry Research Assistance Council (BIRAC), is an Indian geneticist and former Secretary, Government of India, formerly heading the Department of Biotechnology (DBT), Ministry of Science and

Technology. Renu Swarup has served in the Department of Biotechnology for nearly 29 years. She was instrumental in formulation of the Biotechnology Vision in 2001, National Biotechnology Development Strategy in 2007 and Strategy II, 2015–20 as the Member Secretary of the Expert Committee. She has been a supporter of women scientists and has been involved in several initiatives that encourage participation of women in scientific and technological research. She initiated a DBT scheme called Biotechnology Career Advancement for Women Scientists (BioCARe).

78. Yadav, Sudesh Kumar (*b* 02.01.1976), PhD, Director, CSIR-Institute of Himalayan Bioresource Technology, Palampur.

Dr. Sudesh Yadav has made significant contributions to the area of metabolic engineering for crop improvement and bioprocess technology for turning agri-waste to wealth. Some of these technologies have been licensed to industry for commercialization.