INDIAN NATIONAL SCIENCE ACADEMY

Bahadur Shah Zafar Marg, New Delhi – 110002

Minutes of the General Body Meeting of the Indian National Science Academy held on 12 October, 2018 in the CBMR, SGPGIMS, Lucknow.

The following Fellows were present:

Professor Ajay K Sood	President
Professor Kankan Bhattacharyya	Vice-President
Professor Gadadhar Misra	Vice-President
Dr Chandrima Shaha	Vice-President
Professor Anurag Sharma	Vice-President
Professor JK Bera	
Professor Rajendra Bhatia	
Dr Madhu Dikshit	
Dr Kunal Ghosh	
Professor Aparna Dutta Gupta	
Professor Chanda J Jog,	
Dr GP Pandey	
Professor SK Satheesh	
Professor Shobhona Sharma	
Professor VK Singh	

At 10.00 hrs – 13.30 hrs

Lectures by: Prof. (Dr.) Kameshwar Prasad, AIIMS, New Delhi on *Dealing with Second Biggest Killer and Most Disabling Disease, Stroke: a Scientific Approach*, Dr. Madhu Dixit, Ex. Director, CDRI on *Journey of a Drug: Discovery to Market*, Prof. Sandeep Shukla, IIT Kanpur on *Cyber Space: the Next Frontier* and Dr. VP Kamboj, Ex. Director, CDRI on *Exciting Science at Lucknow Based Biomedical Research Institutes* were delivered during a specially organized interactive meeting with school / college students of Lucknow. Over 300 students along with their science teachers participated in this session.

Annual General Meeting

At 04.30 hrs onwards

Professor Ajay K Sood, President, INSA welcomed all the Fellows to the General body meeting. Thereafter, the regular agenda items were taken up.

1. Condolence at the passing away of the distinguished Fellows and Foreign Fellows.

The sad demise of Professor Predhiman Krishan Kaw, Dr Arcot Ramachandran, Professor Mushi Santappa, Professor M.A.L. Thathachar, Professor S.S. Katiyar, Professor Paul Hagenmuller, Professor Alla Genrikhovna Massevitch and Professor Robert Ghormley Parr distinguished Fellows and Foreign Fellows of the Academy was reported. The obituary

notes were read by the President, INSA and all those present stood in silence for a minute as a mark of respect to the deceased.

2. Confirmation of minutes of General Body Meeting held on 25 July, 2018.

The minutes of the General Body Meeting held on 25 July, 2018 were read by Professor Anurag Sharma, Vice-President. These minutes were already uploaded on INSA website. No comment were received. Thereafter, the minutes were confirmed.

3. Announcement of result of scrutiny of voting papers for election of Officers and Members of the Council for the year 2019.

President, INSA thanked Dr Chandrima Shaha and Professor Kankan Bhattacharyya who were appointed as scrutineers for counting the votes for the election of Fellows, Foreign Fellows and INSA Council for 2019. On receipt of the result of the counting of voting papers for election of Officers and Members of the Council for the year 2019, Professor Anurag Sharma announced names of those elected as Vice-Presidents and as members of the Council as per ***Annexure-I***.

4. Announcement of result of scrutiny of voting papers for election of Fellows and Foreign Fellows.

Professor Anurag Sharma, Vice-President announced names of those elected as Fellow and Foreign Fellow of INSA and read their citations as per ***Annexure-II*****.**

5. Announcement of name of recipients of the INSA Teachers Award 2018.

INSA Teachers Award, instituted in the year 2012, is an annual award intended to recognize excellence in teaching, providing guidance, inspiration and mentoring students in all disciplines of Science and Technology, within the purview of the Academy, including Medical & Engineering Sciences. The maximum number of awards is 12 per year.

Professor Anurag Sharma, Vice-President announced the names of the twelve outstanding Teachers (***Annexure-III***) as recipient of the INSA Teachers Award for the year 2018 :

6. Announcement of name of recipient of the INSA Young Historian of Science Award 2018.

Professor Anurag Sharma, Vice-President announced the name of the INSA Young Historian of Science Awardee for the year 2018:

Dr Aparajith Ramnath, Assistant Professor, Humanities and Languages, School of Arts and Sciences and Amrut Mody School of Management, Ahmedabad University, Ahmedabad. Dr Ramnath will receive a certificate, medal and a cash prize of Rs.25,000/- in the Anniversary meeting in

Ahmedabad. Like all other young scientist awardees, the honorarium amount will be raised to Rs.50,000/- w.e.f. 2019.

7. Announcement of names of representatives of Cooperating Academies and the Govt. of India on the Council of INSA for the year 2019.

Professor Anurag Sharma announced the names of Dr Kunal Ghosh, Professor R Ramamurthi, Professor GC Mishra and Professor V Ramgopal Rao as representatives of The Asiatic Society, The Indian Science Congress Association, The National Academy of Sciences (India) and the Govt. of India, Department of Science & Technology, respectively.

8. To announce the voting results on amendments of INSA Rules: 14, 15 and 16.

Professor Anurag Sharma, Vice-President informed to Fellowship that Academy had circulated proposal to amend Rules 14, 15 and 16. Over 88% of Fellows voted in favour of the amendment. The Rules, thus, stands amended.

The revised rule envisages that the Fellows, Foreign and Pravasi Fellows will have the same rights and privileges from the Academy. The revised Rule will be reflected in the Year Book 2019.

9. Submission of the list of Fellows corrected up-to-date.

Professor Anurag Sharma, Vice-President informed that the number of Fellows as on 12 October, 2018 stood at 912. A list of Fellows corrected up to date is available at www.insaindia.res.in.

10. To read as required under Rule 40(c) the name of nominees for election as INSA Fellow / Foreign Fellow from 11 July, 2018 to 25 September, 2018.

Professor Anurag Sharma, Vice-President, INSA read out the names of those whose nominations have been received for election as Indian Fellows.

11. Presentation of Annual Report of the Academy for the year 2017-18, as per Rule 30(f).

Professor Anurag Sharma, Vice-President presented the highlights of the Annual Report (2017-18) to the Fellowship. The soft copy of the Annual Report is available on the website and printed Annual Report will be sent to Fellows on requirement basis.

12. Review of work of the Academy by the President, INSA.

The highlights of the activities taken up by the Academy in the past one year (i.e. 1 October 2017 to 30 September 2018) were presented by the President,

INSA. The Fellows present in the general body meeting noted the report of the activities.

13. Any other item.

After taking the regular agenda items, President, INSA discussed the following issues which were decided by the Council earlier in the day:

President, INSA informed the Council that we will honour the ongoing projects of the young scientist awardees as per our commitments. However, any new project will be considered only if additional funds are received from DST. He mentioned that INSA has already projected its additional funds requirement if all the young scientists projects are to be operated.

The fellows present in the general body meeting were again informed that from 2019 onwards, the project, international travel and interim fellowship will not be a part of the award. The award will consist of a certificate, a medal and a cash prize of Rs.50,000/-.

The voting for the election of fellows, foreign fellows and council from now onwards will be in the electronic form. The council also decided that the rule regarding replacing a proposed candidate with an alternative name should be dispensed with. Such alternative names receive mostly one or two votes and rarely more than three to four votes. This is a practice which was following till now and in the present times it required to be relooked. The revised Rule 25(iv) has been modified as follows:

The modified Rule 25 (iv) and Regulation 10 & 12 as approved are given below:

Election of the Council

Rule 25 (iv)

The list of names recommended by the Council for election for the ensuing year shall be sent in the form of electronic ballot paper to each Fellow of the Academy at least one month before the date of Annual General Meeting of the Academy. Each of the Fellows may then exercise their right to vote online up to a week before the date fixed for the Annual General Meeting.

Election of Fellows

Regulations 10 & 12

10.Communication of the Selected Names to Fellows: Soon after selection by the Council, an electronic circular-letter shall be sent to every Fellow as a e-voting paper enclosing a list of the selected persons.

12.Election Procedure: Each Fellow then may tick the names of those (s)he wishes to be elected and cross the names of those (s)he does not wish to be elected.

The fellows agreed to this decision of the council and agreed that Rule 25(iv) should be sent to all fellows for voting and Regulations 10 and 12, which does not require voting process, will be included in the year book 2019.

After all these items, the floor was open to all the fellows. Professor Vinod K Singh suggested that INSA should reconsider the decision about reimbursement for non-air India travels at least in a limited way where there is no direct flight or saving of enormous time of a fellow. President INSA agreed and suggested that he will get the matter reviewed after discussing with DST.

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

Annexure-I

Election of Officers and Members of the Council for 2019

President (1) :
AK Sood (Bengaluru)

Vice-Presidents (6):
V Chandrasekhar (Hyderabad)

NR Jagannathan (New Delhi)

JP Khurana (New Delhi)

Gadadhar Misra (Bengaluru)

Anurag Sharma (New Delhi)

AK Singhvi (Ahmedabad)

Members (20):
Manju Bansal (Bengaluru)

Rajendra Bhatia (New Delhi)

PP Chakrabarti (Kharagpur)

Madhu Dikshit (Jodhpur)

Aparna Dutta Gupta (Hyderabad)

Chanda Jayant Jog (Bengaluru)

Rentala Madhubala (New Delhi)

HK Majumder (Kolkata)

R Narasimhan (Bengaluru)

Sourav Pal (Mumbai)

GP Pandey (Lucknow)

Kapil Paranjape (Mohali)

GVR Prasad (Delhi)

SK Satheesh (Bengaluru)

Abhijit Sen (Gandhinagar)

Shobhona Sharma (Mumbai)

Yashwant Singh (Varanasi)

RV Sonti (New Delhi)

MG Watve (Pune)

GD Yadav (Mumbai)

Annexure-II

Fellows Elected 2018
(Effective from January 1, 2019)

1. **Agrawal, Anurag** (*b* 17.02.1972), MBBS, MD, DM, PhD, Director, CSIR-Institute of Genomics & Integrative Biology, Delhi.

Dr Anurag Agrawal has shown that obesity or Air pollution related cellular stress precipitates asthma by affecting the cellular metabolism of Air way epithelial cells. He has shown how donation of mitochondria by stem cells can correct the cellular functions. His contribution to eHealth would enhance health care delivery.

2. **Agrawal, Madhoolika** (*b* 01.05.1958), PhD, Head & Professor, Department of Botany, Banaras Hindu University, Varanasi.

Dr Agrawal has made significant research contributions on global environmental change including effect of O_3 and UV-B on agricultural crops under field conditions.

3. **Bhargava, Balram** (*b* 21.07.1961), MD, DM, Director General, Indian Council of Medical Research, New Delhi.

Professor Balram Bhargava is an outstanding cardiologist and one of the foremost leaders in biomedical innovation, public health and medical education//research. He has pioneered a number of medical innovations, of which some are approved for human use. His research and innovation on Indian stents, cardiac compression devices, interosseous needles etc. have influenced health care.

4. **Chakrabarti, Soumen** (*b* 14.04.1969), PhD, Professor, Computer Science, Indian Institute of Technology Bombay, Mumbai.

Professor Chakrabarti has made stellar contributions to conceptualization and development of powerful algorithms for web search, right from the early days of the Internet. An outstanding contribution of his is *focused crawling* which is a part of current day search engines and rigorously combines text-based search spectral analysis of the web graph. He has pushed the frontier of search far beyond just web page lonks to directly interpreting and answering questions.

5. **Chengalur, Jayaram Narayanan** (*b* 13.06.1965), PhD, Senior Professor, National Centre for Radio Astrophysics-TIFR, Pune.

For his pioneering work at GMRT, in particular for his very challenging 21 cm radio observations of gas in galaxies at different stages of evolution that had a major impact on our understanding of star formation.

6. **Das, Amita** (*b* 03.08.1965), PhD, Senior Professor, Institute for Plasma Research, Gandhinagar.

For her foundational contributions in the field of laser plasma interactions emphasising the role of self-generated magnetic fields.

7. **Dasgupta, Maitrayee** (*b* 27.12.1959), PhD, Professor, Department of Biochemistry, Calcutta University, Ballygunge Science College, Kolkata.

Professor Dasgupta has made outstanding contribution in the field of root nodule symbiosis (RNS), particularly delineating the role of symbiosis and cytokinin signaling in developing RNS in crack-entry legumes like *Arachis.*

8. **Gaur, Deepak** (*b* 18.09.1972), PhD, Associate Professor, School of Biotechnology, Jawaharlal Nehru University, New Delhi.

Dr Deepak Gaur for making significant contributions in understanding molecular mechanism of red cell invasion by malaria parasite, and his elucidation of novel candidates for malaria vaccine development.

9. **Gourinath, Samudrala** (*b* 16.04.1972), PhD, Professor, Structural Biology Lab, School of Life Sciences, Jawaharlal Nehru University, New Delhi.

Samudrala Gourinath has established a strong structural Biology group to study structure-function relation in the infectious microrganisms *Entamoeba histolytica* and *Helicobacter pylori*. He has elucidated the function of Calcium-binding proteins involved in *E. histolytica* phagocytosis. His work has revealed novel features of cysteine biosynthetic enzymes in *E. histolytica* and DNA replication protein in *H. pylori*.

10. **Gupta, Anil Kumar** (*b* 1952), PhD, Secretary, Gujarat Grassroots Innovations Augmentation Network (GIAN), Ahmedabad.

Professor Gupta has opened new, creative, innovative and entrepreneurial bottom-up paths of progress for millions of creative, inclusive, generous minds of not only India but the world at large. He spawned the inclusive frugal grassroots innovation movement thirty years ago through the Honey Bee Network. It has created institutions some of which became part of national polity (such as SRISTI, GIAN and NIF) but these also redefined the concept of National Innovation systems.

11. **Jain, Neeraj** (*b* 08.12.1960), PhD, Professor and Scientist VII, National Brain Research Centre, Manesar.

Dr Neeraj Jain's work has increased our understanding of organization and informrganation processing in sensorimotor areas of the mammalian brain. His work on adult brain plasticity and post injury reorganization has direct relevance to human disease.

12. **Kanjilal, Dinakar** (*b* 20.02.1955), PhD, Director, Inter-University Accelerator Centre (IUAC), New Delhi.

For his path-breaking development of high temperature superconducting electron cyclotron resonance ion source and for significant contributions to

controlled modification of material-properties through high energy ion irradiation.

13. **Lahiri, Goutam Kumar** (*b* 01.01.1960), PhD, Professor, Department of Chemistry, Indian Institute of Technology-Bombay, Mumbai.

Dr Lahiri has made seminal contributions in the area of electron transfer in multi-metal complexes to understand biological processes and several organometallic catalytic reactions.

14. **Maiti, Souvik** (*b* 30.09.1971), PhD, Senior Principal Scientist, CSIR- Institute of Genomics and Integrative Biology, New Delhi.

Souvik Maiti has comprehensively studied thermodynamics basis of RNA quadraplexes to understand their role in gene expression. He has used integrated chemical biology approaches by modifying and designing small molecules that can modulate miRNA levels.

15. **Mandal, Mahitosh** (*b* 01.01.1963), PhD, Professor, School of Medical Science and Technology, Indian Institute of Technology Kharagpur, Kharagpur.

Dr Mandal has made outstanding contributions to cancer biology, studying the role of both natural and synthetic inhibitors that impact survival and stress related signaling cascades and inhibit tumor growth. He has also innovatively applied the use of nanocomposites loaded with chemo therapeutics to overcome chemo-resistance.

16. **Mitra, Sushmita** (*b* 19.12.1962), PhD, Professor, Machine Intelligence Unit, Indian Statistical Institute, Kolkata.

Dr Mitra has made pioneering contributions in the area of neuro-fuzzy computing, pattern recognition, and machine intelligence. She is a pioneer in neuro-fuzzy rule generation which led to the development of neuro-fuzzy expert systems. Her contributions in the use of soft computing in bioinformatics has opened many avenues for the mining of high-dimensional gene expression data.

17. **Nandicoori, Vinay Kumar** (*b* 01.03.1969), PhD, Staff Scientist VI, Signal Transduction Lab1, National Institute of Immunology, New Delhi.

Dr Vinay Kumar Nandicoori has made seminal contributions towards understanding signaling and survival mechanisms of *Mycobacterium tuberculosis*, and developing technologies to study the pathogen towards translational objectives.

18. **Pati, Swapan Kumar** (*b* 07.12.1968), PhD, Professor, Theoretical Sciences Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru.

Dr Pati has made significant contributions to the understanding of novel properties of molecules and materials systems using computational methods

19. **Prasad, NG** (*b* 16.08.1974), PhD, Associate Professor, Indian Institute of Science Education and Research Mohali.

Dr Prasad has made outstanding contributions to our understanding of the role of immunity and sexual selection in evolution. This work has important implications for speciation.

20. **Ramasubramanian, K** (*b* 1969), PhD, Professor, Department of Humanities and Social Sciences, Indian Institute of Technology Bombay, Mumbai.

Professor K Ramasubramanian is a prominent historian of classical Indic science with a strong grounding in the physical sciences as well as Sanskrit. He has done important research on the history of Indian astronomy, and his scholarly translations of the works of the Kerala School of Mathematics constitute a major contribution to an authentic assessment of the remarkable advances made in India foreseeing the development of calculus in Europe a few centuries later.

21. **Rao, Nittala Venkata Chalapathi** (*b* 23.05.1969), PhD, Professor, Centre of Advanced Study in Geology, Banaras Hindu University, Varanasi.

Dr. Rao`s cutting edge research on kimberlites, lamproites, lamprophyres, their entrained xenoliths and mafic dykes has significantly enhanced our understanding of the geodynamic evolution of the Indian lithosphere. He has established a world-class school of deep mantle petrology.

22. **Ravindran, Vajravelu** (*b* 09.10.1965), PhD, Professor H, Institute of Mathematical Sciences, Chennai.

For his critical work on the computation of the Higgs boson cross-section and properties that contributed significantly to its discovery.

23. **Ray, Krishanu** (*b* 16.12.1964), PhD, Professor-H, Department of Biological Sciences, Tata Institute of Fundamental Research, Mumbai.

Dr Ray has contributed significantly towards establishing a role for motor proteins in axonal transport, in particular specific cargo motor interactions. He has also provided key insights into the mechanisms that control sperm release in fruit fly. His work on F actin dynamics has key implications for the ability of animal cells to repel microbial invasion.

24. **Sabu, Mamiyil** (*b* 31.05.1959), PhD, Professor, Department of Botany, University of Calicut, Kerala.

Professor Sabu has contributed significantly on the taxonomy of families Zingiberaceae and Musaceae. Besides taxonomical aspects of palynology and cytology of these two families, he has published four monographs and established the largest germplasm collections of Zingiberaceae in India.

25. **Sankaran, Parameswaran** (*b* 04.06.1959), PhD, Professor H, Institute of Mathematical Sciences, Chennai.

Sankaran is a versatile mathematician who has made significant contributions to topology, group theory, representation theory and algebraic groups. His work on equivariant Schubert calculus has been especially influential. The techniques and ideas of Sankaran proved to be crucial in the construction of Littelmann's bases. His results explicitly describing classical cohomology theories for toric manifolds have influenced works on higher algebraic K-theory and cobordism as well as equivariant compactifications.

26. **Sharma, Yogendra** (*b* 02.01.1959), PhD, Chief Scientist and Group Leader, CSIR-Centre for Cellular and Molecular Biology, Hyderabad.

Yogendra Sharma has discovered novel calcium binding protein superfamily of βγ-crystallins. Through his work he has established this family as the second most prevalent family of calcium binding proteins after EF-hand family.

27. **Singh, Ashok Kumar** (*b* 01.07.1962), PhD, Head, Division of Genetics, Indian Agricultural Research Institute, New Delhi.

He has made outstanding contributions in basic and applied research on rice genetics and molecular breeding, and developed 14 basmati rice varieties and hybrids.

28. **Singh, Maya Shankar** (*b* 06.02.1960), PhD, Professor of Organic Chemistry, Department of Chemistry, Institute of Science, Banaras Hindu University, Varanasi.

Dr Maya Shankar Singh has contributed to the development of selective one-pot reactions employing simple and easily available synthons leading to various important intermediates.

29. **Singh, Sunil Kumar** (*b* 16.03.1971), PhD, Professor, Geosciences Division, Physical Research Laboratory, Navrangpura, Ahmedabad.

Dr Sunil Singh's outstanding research on particle-water interaction and submarine groundwater discharge have provided new insights into regulating the flux and distribution of trace elements and isotopes to the ocean. His work on Re-Os chronometry of black shales enabled direct dating of sedimentary sequences in the country. He has made fundamental contributions on the Himalayan erosion and its linkage to climate and tectonics.

30. **Sinha, Alok Krishna** (*b* 05.08.1969), PhD, Staff Scientist VI, National Institute of Plant Genome Research, New Delhi.

Dr Sinha has made significant contribution towards understanding the MAPK cascade in plants. His research on regulation of SUB1A1 by MPK3 during submergence has led to understanding the underlying mechanism of submergence tolerance in rice. Blue light dependent regulation of MYC2 by

MPK6 during *Arabidopsis* seedling development is another significant contribution.

Foreign Fellows Elected 2018
(Effective from January 1, 2019)

1. **Bhadeshia, Harshad Kumar Dharamshi Hansraj** (b. 1953), Tata Steel Professor of Metallurgy, Materials Science and Metallurgy, University of Cambridge, 27 Charles Babbge Road, Cambridge CB3 0FS, UK.

Professor Bhadeshia has carried out important work on the theory of solid-state phase transformations, in particular the prediction and verification of microstructural development in multicomponent steels. He has made a major contribution to the understanding of the complex bainitic transformation to show that different modes of transformation have measurable influences on the final microstructure. This has impacted steel manufacturing industry.

2. **Buckler, Edward S** (b. 1970), Research Geneticist, USDA-ARS, Institute for Genomic Diversity, Cornell University, 159 Biotechnology Bldg, Ithaca, NY 14853-2703.

Professor Edward Buckler has made outstanding contribution to understand the genetic basis of trait variation, and to use this natural variation to improve crops. He is the pioneer leader in unifying quantitative genetics with genomics, and then applying these technologies and approaches to a wide range of crops.

3. **Cheetham, Anthony Kevin** (b. 1946), Goldsmiths' Professor of Materials Science Emeritus, Department of Materials Science and Metallurgy, University of Cambridge, Cambridge CB0 3FS.

Professor Anthony K Cheetham is one of the world's leading materials chemists. His principal achievements have been in four distinct areas: Structural properties of materials, especially with neutron and synchrotron X-ray methods; Catalysis with zeolites and other materials; Oxides for solid-state lighting and Metal-Organic Frameworks (MOFs).

4. **Payne, David Neil** (b. 1944), Director, Optoelectronics Research Centre, University of Southampton, Southampton, SO17 1 BJ, United Kingdom.

Professor Payne's contributions in fibre fabrication in the 70's resulted in almost all of the special fibres in use today. He led the team that in 1985 first announced the silica fibre laser and the Erbium-Doped Optical Amplifier (EDFA), the device that fuelled an explosive growth in the internet through its ability to transmit and amplify vast amounts of data. The fibre laser is now also undergoing rapid growth for application in manufacturing and defence.

5. **Sachdev, Subir** (b. 1961), Department Chair and the Herchel Smith Professor of Physics, Department of Physics, Harvard University, Cambridge,

MA 02138, USA.

Professor Subir Sachdev is a world renowned condensed matter theorist, with many seminal contributions to the theory of strongly interacting condensed matter systems. He is a pioneer in the study of systems near quantum phase transitions. He has also pioneered the exploration of the connection between physical properties of modern quantum materials and the nature of quantum entanglement in their many-particle state, elucidating the diverse varieties of entangled states of quantum matter.

Annexure-III

INSA Teachers Awardee 2018

1. **Dr Javed Ali** (b 17.07.1972), Department of Pharmaceutics, School of Pharmaceutical Education and Research, Jamia Hamdard, New Delhi

   Dr Ali is a compassionate and enthusiastic academician who has mentored a large number of well qualified and competitive students in the field of Pharmaceutics.

2. **Dr Urmi Bajpai** (b 30.09.1969), Acharya Narendra Dev College, University of Delhi, New Delhi

   Dr Bajpai has contributed significantly to the growth of Biomedical Science as a teaching program at under-graduate level and has been a role model for a large number of students and faculty colleagues.

3. **Professor Amartya Kumar Dutta** (b 28.02.1966), Theoretical Statistics and Mathematics Unit, Indian Statistical Institute, Kolkata

   Professor Dutta motivated a large number of students, through his teaching and research publications in Mathematics to take academic careers while his popular and public lectures greatly helped popularisation of Mathematics in public at large.

4. **Professor Nazir Ahmad Ganai** (b 12.05.1965), Faculty of Veterinary Sciences and Animal Husbandry, Sher-e-Kashmir University of Agricultural Sciences and Technology, Srinagar

   Professor Ganai, an inspirational teacher and a capable researcher, has trained many students in Veterinary Science and motivated them to take up research as a career.

5. **Professor Rajesh Ramachandran Iyer** (b 29.04.1966), Department of Physics and Electronics, St. Xavier's College, Ahmedabad

   Professor Iyer is an outstanding teacher-mentor who has inspired generations of students to take up successful research career.

6. **Professor Prafulla Kumar Jha** (b 02.02.1966), Department of Physics, Faculty of Science, The M.S. University of Baroda, Vadodara

   Professor Jha is an accomplished teacher renowned for his effective mentorship and guidance of students.

7. **Professor Vijaya Kumar Kopparapu** (b 14.01.1963), School of Earth Sciences, SRTM University, Nanded

Professor Kumar, an outstanding teacher in Geology, has motivated a large number of students to take up research in Petrology and Pre-Cambrian Geology.

8. **Professor Ashis Kumar Mukherjee** (b 10.07.1970), Department of Molecular Biology and Biotechnology, Tezpur University, Tezpur

   Professor A K Mukherjee has significantly contributed to development of innovative teaching programs in Molecular Biology, Biotechnology, Nanoscience and five year integrated M. Sc. programme in Bioscience and Bioinformatics which have benefited a large number of students in north-east India.

9. **Professor Achintya Mukhopadhyay** (b 04.04.1968), Department of Mechanical Engineering, Jadavpur University, Kolkata

   Professor Mukhopadhyay has educated and inspired a large number of students to become successful engineers, researcher and academicians.

10. **Dr Sivaraman R** (b 10.04.1975), Department of Mathematics, DG Vaishnav College, Chennai

    Dr Sivaraman motivated and supported a large number of students to take up career in Mathematics through his teaching, self-help books and articles in magazines and newspapers. His academic and financial help to needy and physically challenged students is especially noteworthy.

11. **Professor Vasudeva R** (b 20.06.1964), Department of Forest Biology and Tree Improvement, University of Agricultural Sciences, Dharwad, College of Forestry, Sirsi

    Professor Vasudeva is an excellent teacher and an involved researcher, who has been an inspiration to students in the area of tree biology and forestry.

12. **Professor Srabani Taraphder** (b 31.07.1969), Department of Chemistry, Indian Institute of Technology Kharagpur, Kharagpur

    Professor Taraphder's unique method to teach Statistical Mechanics through theory followed by advanced computer programming and her research, has inspired many students to reach successful academic careers.