INSA MEDAL FOR YOUNG SCIENTISTS- 2014

1. **Dr Sanjib Kumar Agarwalla** (b 08.04.1980), PhD, Institute of Physics, Sachivalaya Marg, Sainik School Post, Bhubaneswar 751005.

   For making significant contributions in addressing some fundamental issues related to neutrino mixing and oscillations, in particular the type of neutrino mass hierarchy and the presence of CP violating phase in the neutrino.

2. **Dr Suryasarathi Bose** (b 06.04.1980), PhD, Department of Materials Engineering, Indian Institute of Science, Bengaluru 560012.

   Contributions in the processing of nano-particles dispersed conducting co-polymer composites.

3. **Dr Sayan Chakraborti** (b 16.07.1984), PhD, Junior Fellow, Society of Fellows, Harvard University, 78 Mount Auburn Street, Cambridge, MA 02138, USA.

   For his significant contribution leading to uncovering of a new class of mildly relativistic supernovae which straddle the gap between ordinary supernovae and ultra-relativistic gamma ray bursts.

4. **Dr Vineeth Chandrasekharan Nair** (b 02.05.1980), PhD, Scientist /Engineer SD, Space Physics Laboratory, Vikram Sarabhai Space Centre, Indian Space Research Organization (ISRO), Trivandrum 695022.

   For his outstanding contribution to understanding equatorial upper atmospheric coupling processes.

5. **Dr Abhijit Chatterjee** (b 01.12.1979), PhD, Department of Chemical Engineering, Indian Institute of Technology Bombay, Mumbai 400076.

   Notable contributions in material Informatics in energy systems and catalytic reactions.

6. **Dr Soumya Das** (b 14.09.1981), PhD, Department of Mathematics, Indian Institute of Science, Bengaluru 560012.

   Dr Soumya Das has made impressive contributions to the study of Fourier coefficients of modular forms. His most important work characterizes cusp forms in terms of the growth of their Fourier coefficients.

7. **Dr Rohini Garg** (b 19.09.1982), PhD, INSPIRE Faculty Fellow, National Institute of Plant Genome Research (NIPGR), Aruna Asaf Ali Marg, New Delhi 110067.

   Has made outstanding contributions in the area of plant genomics, epigenomics and transcriptomics leading to the identification of development and stress related genes of plants.
8. **Dr June Ghosh** (b 19.06.1980), PhD, CSIR- Indian Institute of Chemical Biology, Infectious Diseases and Immunology Division, 4, Raja SC Mullick Road, Jadavpur, Kolkata 700032.

She has made valuable contributions in the field of Leishmaniasis and revealed the understanding of molecular pathogenesis.

9. **Dr Neena Gupta** (b 24.11.1984), PhD, INSPIRE Faculty, Statistics and Mathematics Unit, Indian Statistical Institute, 203, BT Road, Kolkata 700108

Dr Neena Gupta has solved a famous problem which was open for almost seven decades, known as Zariski Cancellation Conjecture for affine spaces. This is one of the best works in Algebraic Geometry in recent years done anywhere.

10. **Dr Amit Pratap Hogadi** (b 24.05.1979), PhD, Department of mathematics, Indian Institute of Science Education and Research (IISER), Dr Homi Bhabha Road, Pashan, Pune 411008.

Dr Amit Hogadi has made seminal contributions to the study of fundamental groups of algebraic varieties. He has proved a conjecture of J. Kollar that the fundamental group of a quotient singularity is the same as that of its desingularization.

11. **Dr Sukanta Jash** (b 26.11.1979), PhD, Post Doctoral Fellow, Centre for Regenerative Medicine, Richard B Simches Research Center- MGH, Harvard Medical School, Harvard Stem Cell Institute, Harvard University, 185 Cambridge St. Boston, Massachussets 02114, USA.

Has made notable contribution in modulation of mitochondrial function by RNA delivery.

12. **Shri Mani Krishna Venkata Karri** (b 04.07.1980), M.Tech, MSD, Mod Lab, Bhabha Atomic Research Centre, Trombay, Mumbai 400085.

Has been working on phase transformations and deformation of h.c.p materials. A unique feature of his work is the combination of experiment and computer simulations to address issues that are of both academic and industrial significance.

13. **Shri Ashutosh Kumar** (b 26.03.1984), M.Sc, PhD (Thesis submitted), Institute of Life Sciences, Ahmedabad University, Opposite University Bus Stop, University Road, Navrangpura, Ahmedabad 380009.

He has developed tools to evaluate the toxicity of nano-particles and establish the toxicity (intracellular) of Titanium based nanoparticles.
14. **Dr Mahesh Kumar** (b 18.06.1980), PhD, Assistant Professor, Indian Institute of Technology Jodhpur, Old Residency Road, Ratanada, Jodhpur 342011.

Has worked on thin films of polar and non-polar Group III Nitrides as grown by Molecular Beam Epitaxy. This work has led to the fabrication of blue emitting InGaN/GaN multiple quantum well LEDs. More recently he has initiated a program on ZnO thin films and nano structures for sensors.

15. **Dr Charu Lata** (b 14.12.1981), PhD, Scientist, Division of Plant Microbe Interactions, CSIR-National Botanical Research Institute, Rana Pratap Marg, Lucknow 226001.

The candidate has done involved work on Foxtail Millet. Genomic resources and markers will help in Millet breeding.

16. **Dr Debabrata Maiti** (b 10.12.1980), PhD, Assistant Professor, Department of Chemistry, Indian Institute of Technology Bombay, Powai, Mumbai 400076.

For his outstanding contribution in metal mediated organic transformation.

17. **Dr Rajneesh Misra** (b 15.08.1980), PhD, Department of Chemistry, Indian Institute of Technology Indore, M-Block, IET Campus, (DAVV) Khandwa Road, Indore 452017.

For his excellent contribution in donor-acceptor molecular synthesis for photonic and electronic applications.

18. **Dr Animesh Mukherjee** (b 21.12.1979), PhD, Department of Computer Science and Engineering, Indian Institute of Technology Kharagpur, West Bengal 721302.

Significant contributions in language dynamics in cognition and perception.

19. **Dr Santanu Mukherjee** (b 15.04.1980), PhD, Department of Organic Chemistry, Indian Institute of Science, Bengaluru 560012.

For his outstanding contribution in organo catalytic approach to control stereochemistry at the quaternary center.

20. **Dr Vijay Pal** (b 18.09.1979), PhD, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi 110067.

For his contributions to our understanding of the molecular mechanism underlying retrotransposition in *Entamoeba histolytica*. 
21. **Dr Mithun Palit** (b 29.09.1979), PhD, Scientist ‘D’, Advanced Magnetics Group, Defence Metallurgical Research Laboratory, Kanchanbagh, Hyderabad 500058.

Has worked towards a comprehensive understanding of solidification, texture and phase transformations and magnetostrictive properties of Tb-Dy-Fe and Fe-Ga alloys. His work covers both theoretical as well as experimental investigation. These fundamental studies have culminated in a practical transducer device.

22. **Dr Gayathri Pananghat** (b 30.01.1980), PhD, Indian Institute of Science Education and Research (IISER) Pune, Sairtrinity Complex, Sutarwadi, Pashan, Pune 411021.

She has made significant contributions on the structure and function studies of non-structural proteins of viruses particularly Sesbania Mosaic virus.

23. **Dr Vimlesh Pant** (b 04.01.1979), PhD, Centre for Atmospheric Sciences, Indian Institute of Technology-Delhi, Hauz Khas, New Delhi 110016.

For demonstrating that marine aerosol number density does not linearly increase with wind speed and for the impact of this discovery in the field.

24. **Dr Mahalakshmi Radhakrishnan** (b 08.04.1980), PhD, Department of Biological Sciences, Indian Institute of Science Education and Research, Transit Campus: ITI (Gas Rahat) Building, Govindpura, Bhopal 462023.

She has made outstanding contributions in the field of membrane protein biophysics.

25. **Shri Prakash Chandra Rout** (b 07.07.1979), M.Sc, PhD (Thesis submitted), Nuclear Physics Division, Bhabha Atomic Research Centre, Trombay, Mumbai 400085.

For his significant contribution in developing a large area scintillator detector for the measurement of fast neutrons using the time of flight technique and for his studies on the damping of nuclear shell effect in the doubly magic $^{208}$Pb region.

26. **Dr Ram Pratap Singh** (b 05.07.1981), PhD, Scientist & Endeavour Fellow, Avian Physiology and Genetics Division, Salim Ali Centre for Ornithology and Natural History, Akaikatty 641108, Coimbatore.

The candidate has published extensively and his work on Quail can be of significance for enhancing incomes of farming communities.
27. **Dr Sunil Kumar Singh** (b 06.07.1980), PhD, Department of Biotechnology, Motilal Nehru National Institute of Technology (MNNIT), Allahabad 211004.

Dr Singh’s finding that Graphene and its derivatives specifically induces aggregation of platelets has significant relevance for his medical application.

28. **Dr Ashish Kumar Srivastava** (b 03.11.1983), PhD, Nuclear Agriculture and Biotechnology Division, Bhabha Atomic Research Centre, Mumbai 400085.

His work emphasizes that thio urea supplementation upregulates the expression of sulphate transporters that improve sulphur assimilation associated with redox signaling.

29. **Shri Gaurav Verma** (b 01.05.1983), M.Sc, Lab-211, CSIR- Institute of Genomics and Integrative Biology, Near Jubilee Hall, Mall Road, Delhi 110007.

He has made outstanding contribution in JNK mediated mitochondrial cross-talk in pancreatic β cell death.

30. **Dr Ranjani Viswanatha** (b 06.02.1979), PhD, Faculty Fellow, International Centre for Materials Science, Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bengaluru 560064.

For her outstanding contribution to the role of defects and impurity in electronic structure and application in nanomaterials.