

**FELICITATION  
of  
INTERNATIONAL OLYMPIAD MEDALLISTS OF 2025  
in the sciences and mathematics**

**Monday, December 22, 2025**

SCIENTIFIC PROGRAMME: 09.30 to 11.30 hrs  
*Expository lectures by eminent scientists*

AWARD CEREMONY: 12.00 to 13.30 hrs

An event organized by HBCSE (TIFR) in association with  
the Infosys Foundation & the TIFR Endowment Fund.

**Homi Bhabha Centre for Science Education  
Tata Institute of Fundamental Research**

V. N. Purav Marg, Mankhurd, Mumbai – 400 088

<http://www.hbcse.tifr.res.in>



## **OLYMPIADS IN MATHEMATICS, SCIENCES AND INFORMATICS**

The International Olympiads in Mathematics, Physics, Chemistry, Biology, Astronomy and Astrophysics, Junior Science, Earth Science and Informatics are annual academic competitions to stimulate and challenge bright young pre-university students. The aims of the International Olympiads are to promote academic excellence and also to foster friendship among students and teachers of different countries. India started participating in International Olympiads in Mathematics from 1989, in Physics, Chemistry, Biology, Astronomy and Informatics about a decade later, followed by participation in the Earth Science and the Junior Science Olympiads. India has hosted the International Mathematical Olympiad (1996), International Chemistry Olympiad (2001), International Astronomy Olympiad (2006), International Biology Olympiad (2008), International Earth Science Olympiad (2013), International Junior Science Olympiad (2013), International Physics Olympiad (2015) and International Olympiad on Astronomy and Astrophysics (2016 and 2025).

Homi Bhabha Centre for Science Education (HBCSE), Tata Institute of Fundamental Research (TIFR) is the nodal agency for implementing the Olympiad programme in Mathematics, Physics, Chemistry, Biology, and Astronomy and Astrophysics. The Olympiad programme in the four science subjects is overseen by a National Steering Committee. The Indian Olympiad programme typically involves three stages of selection. The first stage selects a few hundred students from among tens of thousands who appear for the preliminary examinations all over the country. The first stage of the science Olympiads is carried out by the Indian Association of Physics Teachers (IAPT) with support from teacher associations of chemistry and biology. In the mathematics Olympiads carried out under the aegis of the National Board of Higher Mathematics (NBHM), the first stage is conducted by the Mathematics Teachers' Association, India (MTAI) and the second stage is decentralised.

The higher stages in the four science subjects and mathematics are carried out by HBCSE with support from teachers and scientists nationwide. The second stage (third stage for mathematics) is the Indian National Olympiads – the most challenging contests in mathematics and sciences at the pre-college level held in the country. Between 40 and 50 national Olympiad winners in each subject undergo training and testing every summer at HBCSE, after which the Indian teams are selected to represent the country at the International Olympiads.

The Earth Science Olympiad programme is carried out by the Geological Society of India (GSI), the camp being held at Bengaluru or Chennai. The Junior Science Olympiad is conducted by IAPT. The Junior Astronomy Olympiad is under the supervision of the National Council of Science Museums (NCSM) with the training camp being held at NCSM centres. The Informatics Olympiad programme is carried out by the Indian Association for Research in Computing Science (IARCS), the training camp being held at The International School, Bengaluru.

The Science Olympiad programme in India is funded by the Board of Research in Nuclear Sciences (BRNS) of the Department of Atomic Energy (DAE), the Department of Science and Technology (DST) and the Ministry of Education (MoE). The Mathematics Olympiad programme is funded by NBHM (DAE) and MoE. The Astronomy Olympiad programme is funded by the Department of Space (DOS), DAE, and NCSM. The Informatics Olympiad is funded by Indian Association for Research in Computing Science (IARCS), Sasken Technologies Ltd, TCS iON (a division of Tata Consultancy Services), CodeChef (a not-for-profit educational initiative of Unacademy) and Chennai Mathematical Institute. The Earth Science Olympiad programme is funded by the Ministry of Earth Sciences (MoES).

### *Felicitations of International Olympiad Medallists of 2025*

Indian students have been doing consistently well at the International Olympiads. In 2025 the performance was: Mathematics – 3 Gold, 2 Silver, 1 Bronze; Physics – 3 Gold, 2 Silver; Chemistry – 2 Gold, 2 Silver; Biology – 2 Gold, 2 Silver; Astronomy and Astrophysics – 4 Gold, 1 Silver; Junior Science – 2 Gold, 4 Silver; Astronomy and Astrophysics (Junior) – 2 Gold, 1 Silver; Informatics – 1 Silver, 2 Bronze, 1 H.M; Earth Science – 1 Gold, 4 Silver, 2 Bronze. Out of 41 students who participated in various Olympiads, 40 won either a gold, silver or bronze medal. Our Olympiad students are comparable with the best in the world and we are justifiably proud of them.

### **ACKNOWLEDGEMENTS**

In 2002, the Infosys Foundation instituted awards to Indian medallists in the International Olympiads. The awards consist of a cash prize of Rs 15000, the grant for which has been given to the TIFR Endowment Fund. HBCSE (TIFR) expresses its deep gratitude to the Infosys Foundation for its spontaneous and generous response to the Institute's request for this support. We also thank the TIFR Endowment Fund for their proactive interest in the Olympiad programme.

The Government of India has been generously supportive of the Olympiad programme through its various agencies as listed above. We are thankful for this support and for the support for the Informatics Olympiad by the agencies listed. Finally, it is a pleasure to thank the Indian Association of Physics Teachers, the Association of Teachers in Biological Sciences, the Association of Chemistry Teachers, the Mathematics Teachers' Association (India), Indian Physics Association, National Council of Educational Research and Training, IARCS, GSI, NCSM and the large number of scientists and teachers from different institutions across the country for their enthusiastic collaboration in this exciting activity.

**Arnab Bhattacharya**  
Chair, National Steering Committee  
for Science Olympiads.

## **Morning Session**

### **Expository Lectures by Eminent Scientists**

#### **Lecture 1 (9:30 to 10:30 hrs)**

#### **Dr. Neeraj Kayal**

Microsoft Research Lab, Bengaluru



## **Learning Without Answers: The Unsolved Mathematical Puzzles in Unlabeled Data**

How can an intelligent system extract meaning and "understanding" from vast datasets when given no correct answers or labels? Unsupervised Learning (UL) is the mathematical field dedicated to solving this fundamental challenge.

Initially we will survey conceptual ideas underlying recent breakthroughs in this area, analyzing the two main "games" models play to teach themselves: Generative Prediction (learning context by filling in the blanks) and Contrastive Learning (learning similarity by forcing mathematical representations of similar objects together). These methods, coupled with the availability of massive data and powerful GPU-based computation, have led to significant progress. Still, many fundamental mathematical, algorithmic and scientific problems remain unsolved.

In the second part, we present and explore a complementary approach. We begin by examining the algorithmic problem of subspace clustering—a challenge that mathematically models the learning of certain scientific laws. We then hypothesize that complex data structure is built from the iterated combination of a few basic, reusable structural patterns. We illustrate this approach with examples like character recognition and shape recognition, highlighting its potential to create AI that is more robust, learns continuously, and shares understanding with greater ease.

### **About the Speaker**

Dr. Neeraj Kayal is currently a Principal Researcher at the Microsoft Research lab in Bengaluru, where he has worked since 2008. Dr. Kayal works in the areas of complexity theory, algorithms, and related areas of theoretical computer science. He was born in Guwahati, India. As an undergraduate student at IIT Kanpur, Dr. Kayal in joint work with his advisor Prof. Manindra Agrawal and Dr. Nitin Saxena, discovered the first deterministic polynomial time algorithm for primality testing. Their work won the authors the Godel Prize (2006) and the Fulkerson Prize (2006).

Neeraj Kayal received his Ph.D. from IIT Kanpur and has held postdoctoral positions at the Institute for Advanced Study, Princeton and at DIMACS (Rutgers University). In 2012 he was awarded the Young Scientist Award from Indian National Science Academy (INSA). Dr. Kayal's recent work has been focused on algorithms and lower bounds in algebraic complexity theory.

He was awarded Infosys Prize in Mathematics for 2021 for his outstanding contributions to Computational Complexity.

## **Morning Session**

### **Expository Lectures by Eminent Scientists**

#### **Lecture 2 (10:30 to 11:30 hrs)**

#### **Prof. L. S. Shashidhara**

National Centre for Biological Sciences (NCBS), Bengaluru



### **Evolution - the science of life**

The talk traces 3.75 billion years of life on Earth: from the origin of the current cellular form of life to the evolution of our ability to experience ourselves (self awareness). The talk ends with a discussion on how our ability to understand “self” triggered cultural evolution, which in turn enabled us to understand the universe beyond our own sensory perception.

#### **About the Speaker**

Prof Shashidhara specializes in Genetics, Molecular Biology and Evolutionary Biology. His group has identified key mechanisms that specify organ development and regulate growth control during embryonic development using *Drosophila* as a model system. They have also expanded their study to examine the status of these evolutionarily conserved mechanisms in epithelial cancers in human.

Prof Shashidhara is recognized with CSIR SS Bhatnagar and Technology and Prizes and JC Bose National Research Fellowship. He is a Fellow of all three Science Academies of India, and has served in the past as Vice-President of Indian National Science Academy (INSA). In 2018, he was elected as Associate member of European Molecular Biology Organization (EMBO). He is one of the founding academic members of Indian Institute of Science Education and Research (IISER) Pune and Ashoka University. Prof Shashidhara was the Secretary General and of the International Union of Biological Sciences (IUBS), and later being the first Indian to be elected as IUBS President. During this time, he commissioned and edited, an anthology on Impact of Science in Independent India and conceived and initiated the TROPICSU project, which is an international project on Climate Change Education.

Prof Shashidhara has served/is serving as chair/co-chair/member of various apex committees of Government of India and S&T organizations, particularly those dealing with education, basic/applied/translational research, innovation, policy, international relations, and outreach. In addition, Prof Shashidhara has organized several alternate career workshops for scientists, particularly women scientists, in science journalism, science policy, administration and management.

**Afternoon Session (12:00 – 13:30 hrs.)**

**Address & Award distribution by**

**Prof. Shrikrishna G. Dani**

Distinguished Professor,  
UM-DAE Centre for Excellence in Basic Sciences, Mumbai



**About the Chief Guest**

Prof. Dani had a long and fruitful career at the Tata Institute of Fundamental Research (TIFR), Mumbai, from August 1969 until June 2012, when he retired as Distinguished Professor. Subsequently he was affiliated with the Indian Institute of Technology (IIT) Bombay for five years, and since July 2017 has been with the UM-DAE Centre for Excellence in Basic Sciences, Mumbai, and is currently the Chair of the School of Mathematical Sciences of the Centre. He has made extensive research contributions in many areas of Mathematics, and published well over 100 papers in international journals. He has also written many articles on history of mathematics in India, both ancient and recent.

Awards received by him include the Mathematical Sciences Prize of TWAS (the World Academy of Sciences), the Shanti Swarup Bhatnagar Prize, and the Srinivasa Ramanujan Medal of the Indian National Science Academy. He is a Fellow of TWAS and all the three national academies of science in India. He is an Honorary Fellow of the Tata Institute of Fundamental Research. He was a Member of the National Board of Higher Mathematics from 1996 to 2015, and its Chair during 2006-11. He has also served on various academic and administrative bodies. He has been on the Editorial Boards of several international journals and was the Editor of the Proceedings of the Indian Academy of Sciences (Math. Sci.) during 1987-2000, and of *Ganita Bharati*, the Bulletin of the Indian Society for History of Mathematics, since 2010, until recently.

**INDIAN DELEGATION TO THE  
66<sup>th</sup> INTERNATIONAL MATHEMATICAL OLYMPIAD 2025**

The Following team represented India at the 66<sup>th</sup> International Mathematical Olympiad held at Sunshine Coast, Australia from July 10 to July 20, 2025.

Sr. no.	Students	Medals	
1	<b>Aarav Gupta</b> Delhi Public School, Faridabad	<b>Gold</b>	
2	<b>Adhitya Mangudy</b> Sri Chaitanya Techno School, Pune	<b>Gold</b>	
3	<b>Kanav Talwar</b> Delhi Public School, Faridabad	<b>Gold</b>	
4	<b>Abel George Mathew</b> Creative School, Bengaluru	<b>Silver</b>	
5	<b>Aadish Jain</b> Heera Lal Public School, New Delhi	<b>Silver</b>	
6	<b>Archit Manas</b> Delhi Public School, Faridabad	<b>Bronze</b>	

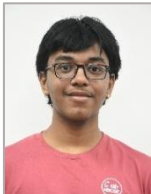






**Leaders and Scientific Observers**



1	<b>Prof. Shanta Laishram</b> Indian Statistical Institute, Delhi	Leader	
2	<b>Dr. Mainak Ghosh</b> Indian Statistical Institute, Bengaluru	Deputy Leader	
3	<b>Mr. Atul Shatavart Nadig</b> BS Student, MIT, USA	Observer A	
4	<b>Dr. Rijul Saini</b> Independent Consultant, Delhi	Observer B	

**INDIAN DELEGATION TO THE  
55<sup>th</sup> INTERNATIONAL PHYSICS OLYMPIAD 2025**

The following team represented India at the 55<sup>th</sup> International Physics Olympiad 2025 held at Paris, France from July 18 to July 24, 2025.

<b>Sr. no.</b>	<b>Students</b>	<b>Medals</b>	
1	<b>Kanishk Jain</b> Maa Bharti Senior Secondary School, Kota	<b>Gold</b>	
2	<b>Riddhesh Anant Bendale</b> Rankers International School, Indore	<b>Gold</b>	
3	<b>Snehil Jha</b> Small Wonder Senior Secondary School, Jabalpur	<b>Gold</b>	
4	<b>Aagam Jignesh Shah</b> RMG Maheshwari English School, Surat	<b>Silver</b>	
5	<b>Rajit Gupta</b> Maa Bharti Senior Secondary School, Kota	<b>Silver</b>	

**Leaders and Scientific Observers**




1	<b>Prof. Sitikantha Das</b> Indian Institute of Technology Kharagpur	Leader	
2	<b>Mr. Vinayak Katdare</b> Formerly, D. G. Ruparel College, Mumbai	Leader	
3	<b>Dr. Amruta Sadhu</b> St. Xavier's College, Mumbai	Scientific Observer	
4	<b>Dr. Vivek Lohani</b> Robert Bosch GmbH, Germany	Scientific Observer	

**INDIAN DELEGATION TO THE  
57<sup>th</sup> INTERNATIONAL CHEMISTRY OLYMPIAD 2025**

The following team represented India at the 57<sup>th</sup> International Chemistry Olympiad 2025 held at Dubai, UAE, from July 5 to July 14, 2025.





Sr. no.	Students	Medals	
1	<b>Devesh Pankaj Bhaiya</b> L. H. Patil English Medium School, Jalgaon	<b>Gold</b>	
2	<b>Sandeep Kuchi</b> Narayana Junior College, Hyderabad	<b>Gold</b>	
3	<b>Debadatta Priyadarshi</b> Maa Bharti Senior Secondary School, Kota	<b>Silver</b>	
4	<b>Ujjwal Kesari</b> Birla Vidya Niketan, Delhi	<b>Silver</b>	

**Leaders and Scientific Observers**

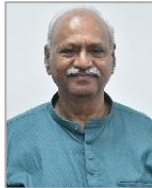




1	<b>Prof. Ankush Gupta</b> Homi Bhabha Centre for Science Education, Mumbai	Head Mentor	
2	<b>Prof. Seema Gupta</b> Acharya Narendra Dev College, Delhi	Mentor	
3	<b>Dr. Neeraja Dashaputre</b> Indian Institute of Science Education and Research, Pune	Scientific Observer	
4	<b>Dr. Amrit Mitra</b> Govt. General Degree College, Singur (WB)	Scientific Observer	

**INDIAN DELEGATION TO THE  
36<sup>th</sup> INTERNATIONAL BIOLOGY OLYMPIAD 2025**

The following team represented India at the 36<sup>th</sup> International Biology Olympiad 2025 held at Quezon, Philippines from July 20 to July 27, 2025.






<b>Sr. no.</b>	<b>Students</b>	<b>Medals</b>	
1	<b>Rudra Kaushikbhai Pethani</b> Innovative International School, Rajkot	<b>Gold</b>	
2	<b>Vedant Sujit Sakre</b> Nirmala Memorial Foundation College of Science and Commerce, Mumbai	<b>Gold</b>	
3	<b>Bhavyaa Gunwal</b> Narayana E-Techno School, Jaipur	<b>Silver</b>	
4	<b>Subhrojit Paul</b> Aditya Academy Senior Secondary, Dum Dum (Kolkata)	<b>Silver</b>	

**Leaders and Scientific Observers**

1	<b>Prof. Purushottam G. Kale</b> Formerly, R. Jhunjhunwala College, Mumbai	Leader	
2	<b>Mr. Vikrant Ghanekar</b> Homi Bhabha Centre for Science Education, Mumbai	Leader	
3	<b>Dr. Mayuri Rege</b> Homi Bhabha Centre for Science Education, Mumbai	Scientific Observer	
4	<b>Dr. Saurabh Mahajan</b> Atria University, Bengaluru	Scientific Observer	
5	<b>Mr. Sachin Rajgopalan</b> St. Xavier's College, Mumbai	Scientific Observer	

**INDIAN DELEGATION TO THE 18<sup>th</sup> INTERNATIONAL OLYMPIAD ON  
ASTRONOMY AND ASTROPHYSICS 2025**

The following team represented India at the 18<sup>th</sup> International Olympiad on Astronomy and Astrophysics 2025 held at Mumbai, India from August 11 to August 21, 2025.

<b>Sr. no.</b>	<b>Students</b>	<b>Medals</b>	
1	<b>Aarush Mishra</b> Maa Bharti Senior Secondary School, Kota	<b>Gold</b>	
2	<b>Akshat Srivastava</b> Narayana E-Techno School, Gurugram, Haryana	<b>Gold</b>	
3	<b>Banibrata Majee</b> Narayana Junior College, Hyderabad	<b>Gold</b>	
4	<b>Panini</b> Lakshya International Academy, Vaishali, Bihar	<b>Gold</b>	
5	<b>Sumant Gupta</b> New Sainik Senior Secondary Public School, Noida	<b>Silver</b>	







**Leaders and Scientific Observers**




1	<b>Prof. Jasjeet Bagla</b> Indian Institute of Science Education and Research, Mohali	Leader	
2	<b>Prof. Harvinder Kaur Jassal</b> Indian Institute of Science Education and Research, Mohali	Leader	
3	<b>Prof. Kinjalk Lochan</b> Indian Institute of Science Education and Research, Mohali	Scientific Observer	
4	<b>Prof. Pankaj Kushwaha</b> Indian Institute of Science Education and Research, Mohali	Scientific Observer	
5	<b>Prof. Jaswant Yadav</b> Central University of Haryana, Haryana	Scientific Observer	
6	<b>Prof. Mamta Gulati</b> Thapar Institute of Engineering and Technology, Patiala	Scientific Observer	

**INDIAN DELEGATION TO THE  
18<sup>th</sup> INTERNATIONAL EARTH SCIENCE OLYMPIAD 2025**

The following team represented India at the 18<sup>th</sup> International Earth Science Olympiad held at Jining, People's Republic of China from August 8 to August 16, 2025.

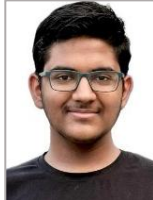





<b>Sr. no.</b>	<b>Students</b>	<b>Medals</b>	
1	<b>Rayansh Gupta</b> Sat Paul Mittal School, Ludhiana	<b>1 Gold, 1 Silver</b>	
2	<b>Charuvrat Bains</b> MGN Public School, Kapurthala	<b>2 Silver, 1 Bronze</b>	
3	<b>Apam Nidhi Pandey</b> PM SHRI K.V. No. 1, Jaipur	<b>1 Silver</b>	
4	<b>Priyanshi Ghanghas</b> MD Indraprastha Senior Secondary Public School, Delhi	<b>1 Bronze</b>	

**Leaders and Scientific Observers**


1	<b>Prof. Hema Achyuthan</b> Centre for Environmental Studies, Anna University, Chennai	Mentor	
2	<b>Prof. Devesh Walia</b> North-Eastern Hill University, Shillong	Mentor	
3	<b>Dr. Jagvir Singh</b> Ministry of Earth Sciences, Government of India, New Delhi	Scientific Observer	

**INDIAN DELEGATION TO THE  
22<sup>nd</sup> INTERNATIONAL JUNIOR SCIENCE OLYMPIAD 2025**

The following team represented India at the 22<sup>nd</sup> International Junior Science Olympiad held at Sirius, Russia from November 23 to December 2, 2025.

<b>Sr. no.</b>	<b>Students</b>	<b>Medals</b>	
1	<b>Aadish Jain</b> RPS Public School Narnaul	<b>Gold</b>	
2	<b>Anmol Kumar</b> Manu Vatika Day Boarding Senior Secondary School, Budhlada	<b>Gold</b>	
3	<b>Asmi Inamdar</b> Narayana CO School, Mumbai	<b>Silver</b>	
4	<b>Sai Sravan Muvvala</b> Narayana High School, Hyderabad	<b>Silver</b>	
5	<b>Ruhan Mohanty</b> DAV Public School, Bhubaneswar	<b>Silver</b>	
6	<b>Tejas Sivakumar Vijayalakshmi</b> Surajkund International School, Faridabad	<b>Silver</b>	

**Leaders and Scientific Observers**


1	<b>Dr. Shirish Pathare</b> Homi Bhabha Centre for Science Education, Mumbai	Leader	
2	<b>Prof. Vedavyasa Tayalur Venkobarao</b> St Joseph's University, Bengaluru	Leader	
3	<b>Dr. Aravinda Subrayashastry</b> Indian Institute of Science, Challakere	Leader	
4	<b>Dr. Geetha R. S.</b> Formerly, Vijaya College, Bengaluru	Scientific Observer	

**INDIAN DELEGATION TO THE 4<sup>th</sup> INTERNATIONAL OLYMPIAD ON  
ASTRONOMY AND ASTROPHYSICS (JUNIOR) 2025**

The following team represented India at the 4th International Olympiad on Astronomy and Astrophysics (Junior) held at Piatra-Neamt, Moldova, Romania from October 18 to October 25, 2025.





<b>Sr. no.</b>	<b>Students</b>	<b>Medals</b>	
1	<b>Nishit Kalani</b> Narayana E-Techno School, Jodhpur	<b>Gold</b>	
2	<b>Aaron Hitesh Thakkar</b> Swami Vivekanand High School, Mumbai	<b>Gold</b>	
3	<b>Swara Srujal Patel</b> School of Excellence, Wadhwan	<b>Silver</b>	

**Leaders and Scientific Observers**

1	<b>Mr. Shaik Rafi</b> National Science Centre, Delhi	Leader	
2	<b>Dr. Rakesh Mazumder</b> Birla Industrial & Technological Museum, Kolkata	Leader	

**INDIAN DELEGATION TO THE  
37<sup>th</sup> INTERNATIONAL OLYMPIAD IN INFORMATICS 2025**

The following team represented India at the 37th International Olympiad in Informatics held at Sucre, Bolivia from July 27 to August 3, 2025.

Sr. no.	Students	Medals	
1	<b>Samik Goyal</b> DAV Public School, Patiala	<b>Silver</b>	
2	<b>Naveen Kulkarni</b> Heera Lal Public School, Delhi	<b>Bronze</b>	
3	<b>Archit Manas</b> Delhi Public School, Faridabad	<b>Bronze</b>	
4	<b>Yash Thakker</b> Garodia International Centre of Learning, Mumbai	<b>Honourable Mention</b>	

**Leaders and Scientific Observers**

1	<b>Prof. Madhavan Mukund</b> Chennai Mathematical Institute, Chennai	<b>Leader</b>	
2	<b>Mr. Arjun Arul</b> Independent Consultant, Bengaluru	<b>Deputy Leader</b>	

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