Homi Bhabha National Institute

HBNI SPECIAL WEBINAR SERIES

Special Webinar at HBNI

Nobel Prizes 2026: Breakthroughs Shaping Science and Society

2nd November 2026, Monday **14:30 hrs**

HRDD Conference Hall, 1st Floor, New Training School Complex, Anushaktinagar, Mumbai, India

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Distinguished Speakers



Prof. Mohammed Rameez

Department of High Energy Physics, TIFR

Prof. Mohamed Rameez earned his Ph.D. in particle physics from the University of Geneva in 2016 and received the CHIPP Prize for his work on IceCube neutrinos. He contributed to IceCube's real-time alert system at the Niels Bohr Institute. He is currently a Reader in High Energy Physics at TIFR. His research focuses on astroparticle physics and cosmology, including the Cosmic Dipole Anomaly.



Dr. Raghunath Chowdhury

Bio-Organic Division, BARC

Dr. Raghunath Chowdhury joined the Bio-Organic Division, BARC, in 2006 after graduating from the 49th BARC Training School batch and earned his Ph.D. from HBNI in 2012. He received the prestigious Lise Meitner Postdoctoral Fellowship at Johannes Kepler University, Austria. His research focuses on asymmetric organocatalysis, photoredox catalysis, and deuterated molecules.



Prof. Khageswar Sahu

Laser Biomedical Applications Division

Prof. Khageswar Sahu joined RRCAT in 2003 after graduating from the 46th BARC Training School batch and earned his Ph.D. from HBNI in 2016. His research in biophotonics led to the commercialisation of NASOLIGHT™ and EAROLIGHT™ devices for treating nasal and ear infections. His awards include the Homi Bhabha Science and Technology Maanpatra (2024) and the Scientific and Technical Excellence Award (2021).

Abstract

The HBNI Special Webinar Series, "*Nobel Prizes 2026: Breakthroughs Shaping Science and Society*" will explore the remarkable discoveries recognised by the 2026 Nobel Prizes in Physics, Chemistry, and Physiology or Medicine. Through three engaging sessions, the webinar series will highlight the fundamental principles, scientific significance, and broader implications of these breakthroughs for a general audience.

The Physics session will explore high-energy astrophysical neutrinos and how their detection through the IceCube Neutrino Observatory is opening new windows into the distant and extreme universe. **The Chemistry session** will examine nonlinear effects and autocatalysis in asymmetric organic synthesis, illuminating how molecules with specific mirror-image structures can be formed and amplified. **The Physiology or Medicine session** will introduce optogenetics, a transformative technology that uses light to control cellular activity, revolutionising neuroscience and opening promising avenues for biomedical research and therapeutic applications.

Together, these sessions will demonstrate how fundamental scientific discoveries deepen our understanding of the universe, matter, and living systems, while opening new possibilities for technological innovation, healthcare, and society.