# Sandip K. Chakrabarti

**Prof. Chakrabarti** earned his Ph.D. in Physics from the University of Chicago in 1985, following a B.Sc. degree from Narendrapur Ramakrishna Mission Residential College (University of Calcutta, where he was the topper in Physics), and an M.Sc. from the Indian Institute of Technology, Kanpur (First Division with Distinction). He subsequently held prestigious research positions including the R.C. Tolman Faculty Fellowship at the California Institute of Technology and a Senior Research Associateship at NASA Goddard Space Flight Center, among many others. Professor Chakrabarti has received numerous accolades in recognition of his

contributions to science, including an Honorary D.Sc. from the University of Gour Banga, the Banga Ratna award from the Government of West Bengal, and several national and international honors. He has authored over 1,200 scientific articles and books, as indexed by Google Scholar, with a citation count exceeding 14,400 and an h-index of 59. According to the annual Stanford University global ranking, he consistently ranks as the topmost astrophysicist in India. Over the course of his distinguished career, he has supervised 59 Ph.D. scholars and continues to contribute to academia as an Adjunct Faculty Member at the International Centre for Relativistic Astrophysics (ICRA), Italy. His research expertise spans a wide range of fields including black hole astrophysics, ionospheric physics, astrobiology and astrochemistry, as well as balloon-borne space exploration. In 1999, Prof. Chakrabarti founded the Indian Centre for Space Physics (ICSP), where he currently serves as Director and Distinguished Professor. Under his visionary leadership, the ICSP has established the Museum of Astronomy and Space Science—comprising over 1,200 rare and historical exhibits, many from his personal collection. He also spearheaded the development of the IERCOO observatory in West Medinipur, featuring a 24-inch optical telescope—the largest in Eastern India—and a 60-bed hostel. A dedicated balloon launch facility is also underway near Suri, further expanding the Centre's research capabilities.

### Sourav Palit



**Dr. Palit** earned his Ph.D. in Physics from the Indian Centre for Space Physics (ICSP) in affiliation with Jadavpur University in 2013. He subsequently conducted postdoctoral research at the Center for Radio Astronomy, Mackenzie Presbyterian University in São Paulo, Brazil, and at the Indian Institute of Technology Bombay. Since 2021, Dr. Palit has been serving as an Assistant Professor-II at ICSP. His research focuses on high-energy astronomy and astrophysics, with particular expertise in the development and evaluation of high-energy astrophysics missions

through advanced Monte Carlo simulations. He also investigates the effects of space radiation on Earth and other celestial bodies, contributing valuable insights into planetary and atmospheric sciences. Additionally, his work includes exploring the use of small rocket platforms in astronomical research, bringing a novel and practical dimension to observational astrophysics.

### Devendra Bisht



**Dr. Bisht** was awarded a Ph.D. degree in 2016 at Kumaun University/ARIES, Nainital, India. He held postdoctoral positions at Physical Research Laboratory (PRL), Ahmedabad, USTC, China, and Indian Institute of Astrophysics, Bangalore. On August 24, 2022, He began his role as a Scientist-C in the Optical Astronomy Department at ICSP Kolkata. Since March 2024, he has been an Assistant Professor-I. His research interests include Stellar Astronomy, Star Clusters, and Transiting

Exoplanets, etc. He has published 34 research articles in international refereed journals. Three students are registered for Ph.D. under his supervision (2) and joint supervision (1). He has mentored several BS-MS students. He's a life member of the Astronomical Society of India (ASI) and an individual member of the International Astronomical Union (IAU).

#### Tamal Basak



**Dr. Basak** is currently serving as an Assistant Professor-II at the Indian Centre for Space Physics (ICSP), Kolkata. Prior to this, he was an Assistant Professor at Amity University, Kolkata, where he taught a range of undergraduate and postgraduate physics courses. He obtained his M.Sc. in Physics from Presidency College, Kolkata, and completed his Ph.D. at the S.N. Bose National Centre for Basic Sciences, Kolkata. He later held a postdoctoral research position at the

University of Electro-Communications in Tokyo, Japan. In recognition of his contributions to radio science, he was awarded the *URSI - InRaSS Young Indian Radio Scientist Award* at the Asia Pacific Radio Science Conference in 2019. Dr. Basak specializes in the numerical modeling of lower ionospheric variability under the influence of solar energetic perturbations, with a focus on subionospheric Very Low Frequency (VLF) signal propagation effects. He has published extensively in international peer-reviewed journals and has presented his research at numerous international conferences in countries including the United States, Japan, Germany, the UAE, Portugal and Turkey. Currently, he is supervising a few doctoral research scholars and is a life member of the Calcutta Mathematical Society. In addition to his academic contributions, he plays a vital role in promoting space science and astronomy education among students and the broader community.

## Prantik Nandi



**Dr. Nandi** began his academic journey at Kishore Bharati, West Bengal, and went on to earn his B.Sc. in Physics from the University of Calcutta, followed by an M.Sc. from Presidency University, Kolkata. He completed his Ph.D. in 2022 under the supervision of Prof. Sandip K. Chakrabarti. Following his doctoral studies, he joined the Physical Research Laboratory (PRL) as a Postdoctoral Fellow, engaging in international collaborations. Since 2024, Dr. Nandi has been serving as a

Scientist-C at the Indian Centre for Space Physics (ICSP), Kolkata. Over the course of his research career, he has published numerous articles in internationally refereed journals. Dr. Nandi's research focuses on compact astrophysical objects, particularly supermassive black holes—among the brightest and most persistent sources of radiation in the universe. His work explores their critical role in galactic evolution over cosmological timescales. He specializes in analyzing high-energy photons and multiwavelength observations to study accretion processes around these objects, with a particular emphasis on X-ray variability in active galactic nuclei (AGN).

## **Debashis Bhowmick**



**Mr. Bhowmick** completed his Graduate-ship Examination (AMIETE) in June 2004 from the Institute of Electronics and Telecommunication Engineers (IETE) and has been an Associate Member of IETE since 2005. Since August 2007, he has been serving as Engineer-II and Estate Officer (Lab-In-Charge) for Instrumentation for Space Exploration at ICSP. From 2008 to 2009, he worked as a Visiting Scientist at the International Centre for Theoretical Physics (ICTP), Trieste, Italy, contributing

to the ICTP-INFN collaborative project on the X-ray Drift-Detector eXtra Large (XDXL). He brings extensive experience in embedded systems and instrumentation, with expertise in C/C++, MATLAB, LabVIEW, FPGA-VHDL, ARM9 processors, Arduino, AutoCAD, TrackMaker, LPKF CircuitPro, CircuitMaker, OrCAD, and electrical distribution systems. He is also proficient in civil engineering aspects such as CAD drawings, estimates, and painting. A key team member in the instrumentation efforts of the DIGNITY Balloon Missions, he has played a vital role in the development of GM counters, Si-PIN, CdTe, and PMT-based scintillator detectors, PHOSWICH detectors, communication systems, and AMU sensor payloads. Additionally, he has been actively involved in Very Low Frequency (VLF) instrumentation, telescope manufacturing, and the installation of telescopes and observatory domes at IERCOO.

## Kuldeep Belwal



**Mr. Belwal** holds a postgraduate degree in Physics from Kumaun University, Nainital. He brings valuable observational experience from his work with India's largest optical telescope—the 3.6-meter Devasthal Optical Telescope (DOT). He is currently based at the IERCOO campus of the Indian Centre for Space Physics (ICSP), where he is responsible for data acquisition using the Centre's 24-inch and 10-inch optical telescopes. His work includes data reduction and analysis in support of ongoing

astronomical research projects. Mr. Belwal has presented his findings at several national conferences and plays an active role in science outreach initiatives. He regularly conducts skywatching sessions and delivers educational talks aimed at engaging school and college students in astronomy and space science.

## Mohit Singh Bisht



**Mr. Bisht** holds a postgraduate degree in Physics from Kumaun University, Nainital, and qualified the GATE 2023 examination with an All India Rank (AIR) of 986. He has hands-on experience operating and conducting observations with the 3.6-meter Devasthal Optical Telescope (DOT), one of India's premier astronomical facilities. Currently, he is stationed at the IERCOO campus of the Indian Centre for Space Physics (ICSP), where he is engaged in data acquisition using the Centre's 24-inch

and 10-inch optical telescopes. His responsibilities include data reduction and analysis to support ongoing observational astronomy research. Mr. Bisht has presented his work at numerous national conferences and is actively involved in science outreach. He regularly organizes sky-watching sessions and delivers educational talks aimed at inspiring interest in astronomy and space science among school and college students.

#### Shraddha Biswas



**Ms. Biswas** completed her Post-Graduation from Central University of Chhattisgarh with 84.58% marks (University Second Rank). She has an expertise on TTV analysis in close-in exoplanets, using several ground based and space based surveys. Additionally, she does the photometric analysis of the observational data for the stars, with already discovered exoplanets, in Open Cluster Environments. She has been awarded the best poster presentation award entitled

"Probing the Transit Timing Variations in the TrES-2 system with TESS data" during MSMICFP-2023 held from November 22-24, 2023 organized by the University of Allahabad, India. She has mentored several B.Sc. and M.Sc. students in their project work.

## Abhrajit Bhattacharjee

Mr. Bhattacharjee is currently serving as a Junior Research Scientist (JRS) at the Indian Centre for Space Physics (ICSP), specializing in General Relativity and High-Energy Astrophysics. He holds both B.Sc. and M.Sc. degrees in Physics from the University of Delhi. His research primarily focuses on investigating the intricate mechanisms governing matter accretion in the extreme environments surrounding black holes. His work involves theoretical modeling and numerical simulations

aimed at advancing our understanding of black hole physics and the fundamental processes of highenergy astrophysical phenomena.