

Dr. Mila Mitra

Co Founder and Academic Head, STEM & Space, India

Astronomy educator and Science Communicator

Dr. Mitra is the Co founder and Academic Head of an innovative company, STEM & Space, based in India that aims to foster interest and skills in Science Technology, Engineering and Math (STEM) in education, through the exciting domain of astronomy and space. After working with prominent missions at NASA as a support scientist, she has become an active space educator and communicator.



Education:

BSc in 1984 from St. Stephen's College in New Delhi, India

PhD in Astronomy in 1991 from Rice University, Houston, Texas, USA

Work Experience:

Dr. Mitra is an astrophysicist who has worked for more than 20 years at NASA Goddard and NASA AMES on various satellite missions. She is fortunate to have had the experience of working on the COBE (Cosmic Background explorer) project while at NASA, which won the Nobel prize in Physics in 2008. She has worked with several other Astronomy, Earth Science and Remote Sensing satellite missions, including the SOFIA airborne observatory at NASA AMES and the GLAST mission at Stanford University Linear Accelerator Center. She has won NASA and Goddard Space Flight Center group achievement awards for these projects.

Role as an Astronomy Educator:

On her return to India, she became actively involved in Astronomy education and as a science communicator. As Co-founder at STEM & Space, she has been leading efforts to initiate Astronomy and Space into the school education system in India. She has initiated many new workshops and space clubs to bring Astronomy to the community as well as to students. Under her initiative, workshops such as Astrobiology, Astrocomputing and most recently 'Celebrating Chandrayaan 2' and 'JWST' were launched, which has been attended by more than 1000 students! During the pandemic, the organization successfully conducted many online sessions and spread their reach to all parts of India as well as UAE.

Role in Citizen Science:

- She has been the national coordinator for prominent international Astronomy programs such as the All India Asteroid Search Campaign, in collaboration with IASC, Harding Simmons University, and Pan Starrs Observatory, Under her guidance more than 3000 students have participated in programs to search for asteroids with more than 50 Provisional discoveries of asteroids
- She has been country coordinator for programs such as 'Asteroid Day' and Global Astronomy Month
- She has conducted many mass public outreach events in Astronomy including Annular Solar Eclipse observation in 2010 and Venus Transit in 2012

- She frequently interacts with the public and media and writes a regular astronomy column in national media. She is called as an expert on TV news to address space news and missions

Promoting STEM

- Dr. Mitra promotes STEM as a career in schools and in the community. She has conducted leadership lectures in STEM careers for several schools and conducted a series of 'A day in the Life' interviews with different scientists to highlight what astronomers in different fields really do
- She has given popular science lectures to the public to interest them in Astronomy
- She believes strongly in empowering young students, especially girls with science skills and knowledge and mentors them towards higher careers in these fields.
- She regularly mentors a large number of students and even adults through whatsapp groups and guides them in Citizen science projects. During the pandemic, this was a lifesaver and many webinars, online photo exhibitions and skill building sessions were organized.
- She is also active in the Nehru Planetarium in Delhi and gives lectures and conducts workshops

Achievements in Astronomy Education:

- The organization has been awarded giant moon and Mars maps from the Buzz Aldrin foundation and Sherespace for their education efforts based on a proposal submitted by her
- A proposal written by her - 'Sky on a Bike', to carry a telescope on a bicycle to rural parts of India to promote sky observations and dispel myths won International Astronomical Union funding.
- The Indian Space Research Organisation recently signed the organization as official space educators
- Dr. Mitra has been an invited speaker at Conferences such as International Astronomy and Astronautics Conference in Brazil in 2019 and 2021, to talk about Astronomy education in India
- She has conducted astronomy workshops at Global Hands on Universe International Conference in 2021, 2022
- She was selected and funded as an educator to attend COSPAR 2022 in Greece in 2022
- She was selected as a member of the board for IAU AstroEdu, a collection of peer approved education material maintained by IAU (International Astronomical Union)

CONTACT

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