



Research Unit
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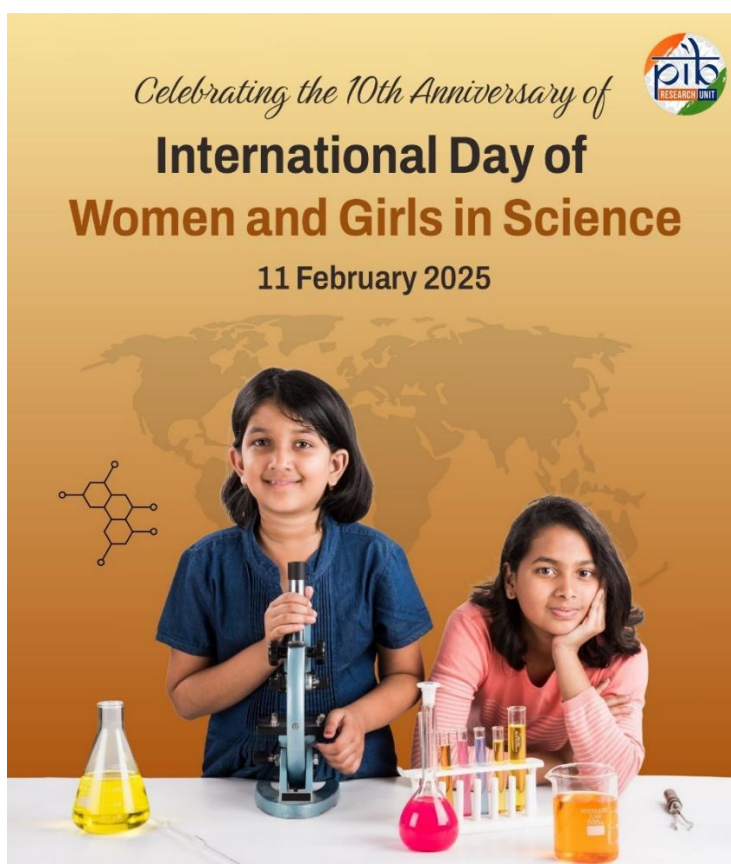
Celebrating a Decade of Progress

International Day of Women and Girls in Science

(Ministry of Science and Technology)

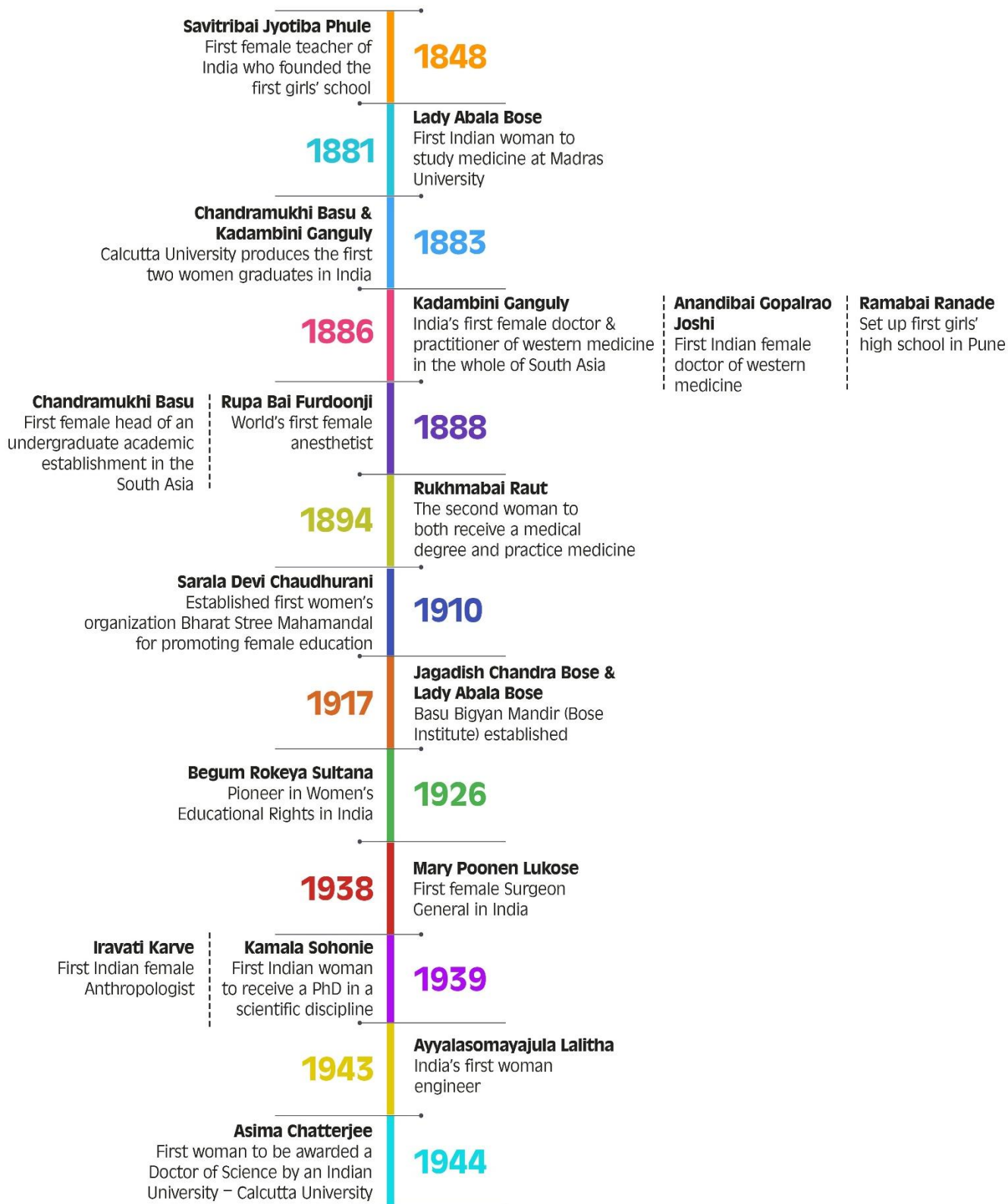
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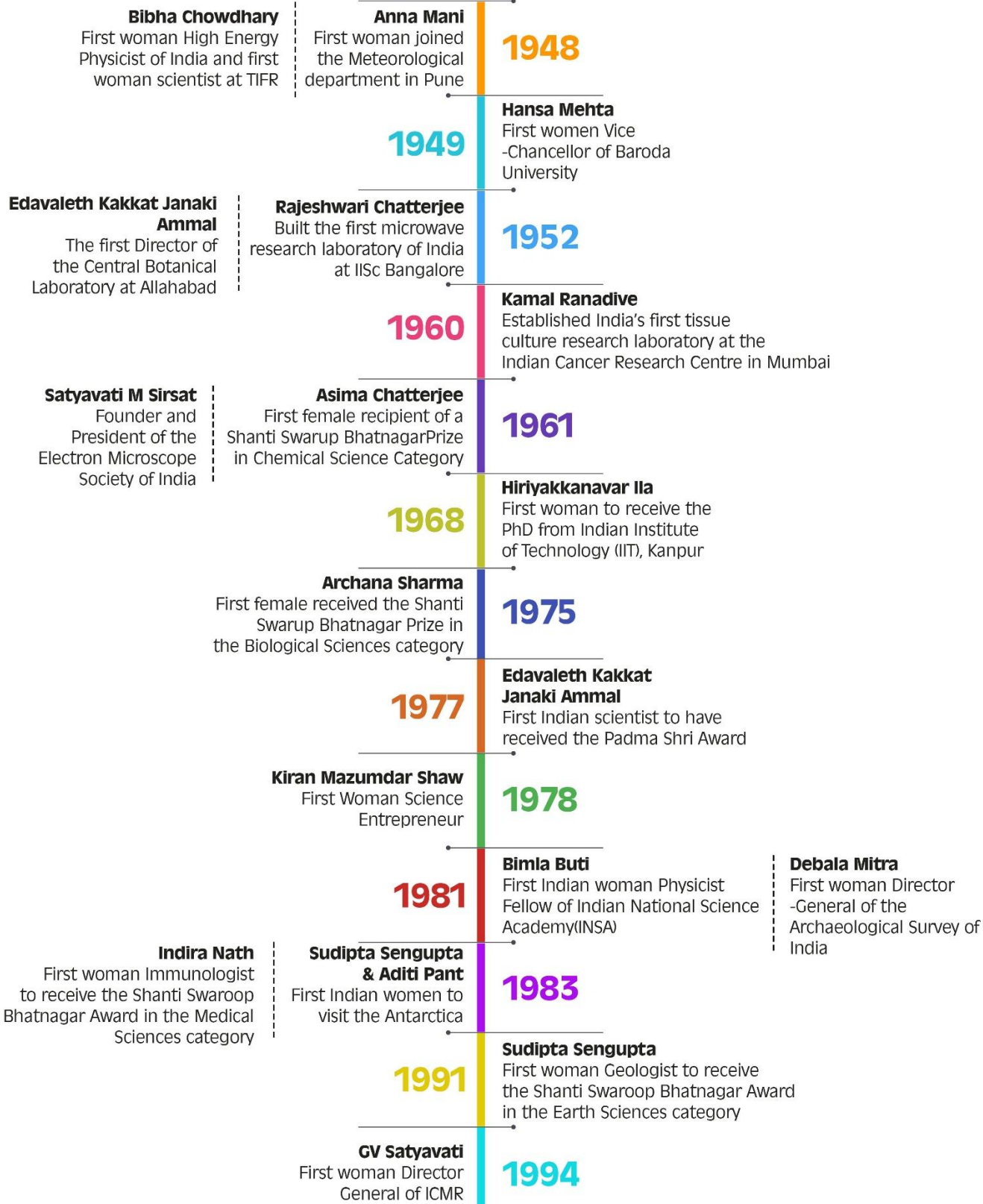
Women have played a pivotal role in shaping the world of science, making groundbreaking discoveries and driving innovation across various fields. With increasing efforts to promote gender equality in education and research, women are now leading scientific advancements, challenging stereotypes, and redefining the landscape of global science. In 2015, the United Nations General Assembly declared **11 February** as the **International Day of Women and Girls in Science**. The day serves as a global reminder of the **importance of gender equality in STEM fields**, and this year we celebrate its **10th anniversary**.

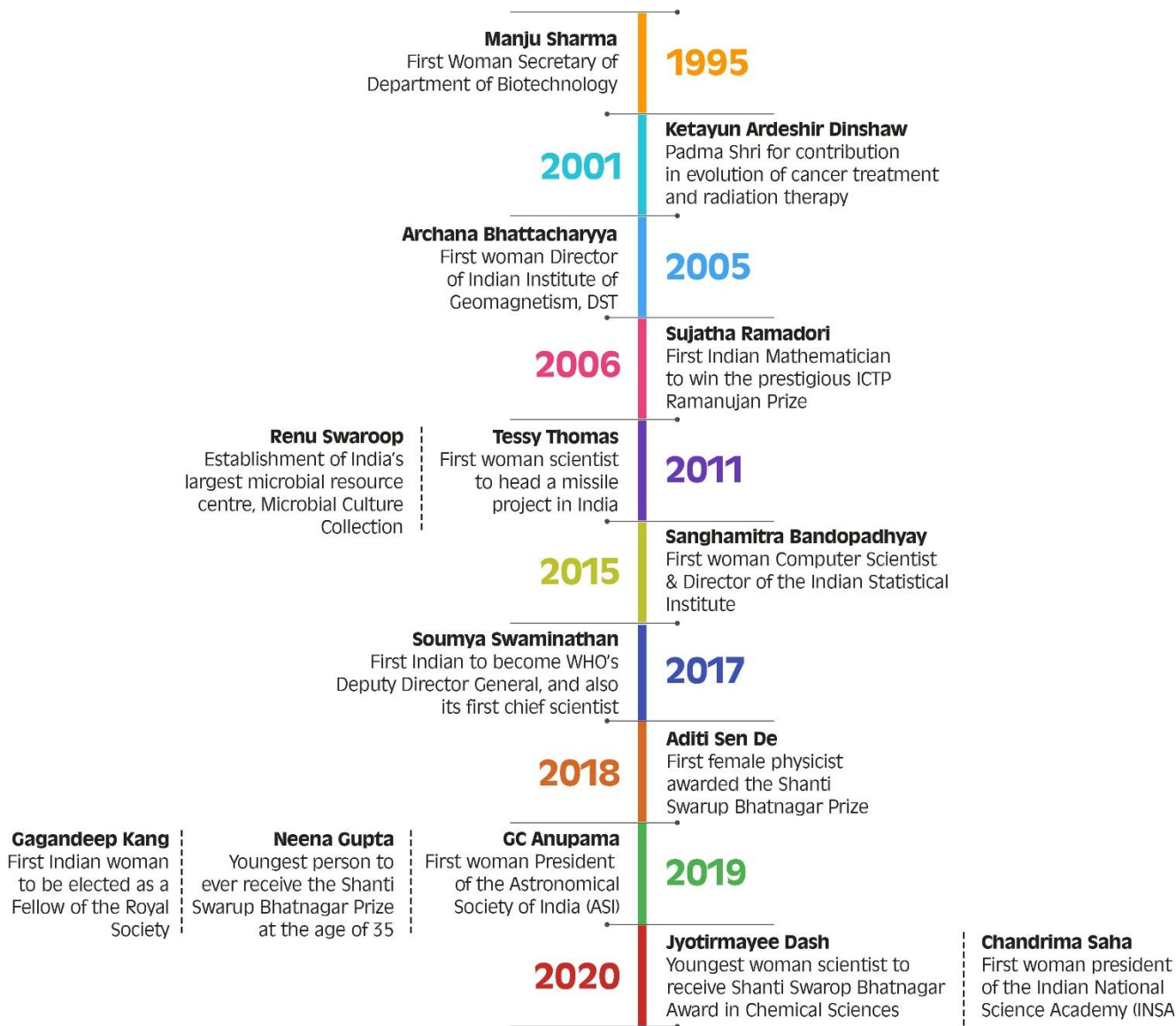




Milestones of Women in Indian Science







Bridging the Gender Gap in India

India has taken significant steps to promote gender parity in STEM. The **Department of Science and Technology (DST)** has recently implemented the **WISE-KIRAN (Women in Science and Engineering-KIRAN) scheme**, a comprehensive program designed to support women at various stages of their scientific careers. Under this scheme, government has launched initiatives like:

- **WISE-PhD:** The programme aims to provide support to women who want to pursue a Ph.D. in 5 subject areas of basic and applied sciences.
- **WISE Post-Doctoral Fellowship (WISE-PDF):** The programme aims to provide opportunity to women to continue research after Ph.D. in Basic and Applied Sciences through independent project grant.
- **Women's Instinct for Developing and Ushering in Scientific Heights & Innovations**

(WIDUSHI): WIDUSHI programme provides support to women scientists who are at the verge of retirement or retired from Government service and also to the women scientists who are not at permanent position but are active researchers and continuously excelling in research field.

- **WISE-SCOPE:** The programme encourages women scientists and technologists to address societal challenges through S&T interventions.
- **WISE Internship in Intellectual Property Rights (WISE-IPR)** – WISE-IPR programme provides one-year training to women in the area of Intellectual Property Rights in order to develop a core professional skill in this domain.
- **Women International Grant Support (WINGS):** The programme provides opportunities to Indian Women scientists to undertake research in the International research labs and academic institutions.
- **Consolidation of University Research for Innovation and Excellence (CURIE):** CURIE Programme provides support to women institutions for establishing State-of-the art research infrastructure to enhance research facilities and improving R&D activities in order to create excellence in Science & Technology (S&T) domain.
- **Vigyan Jyoti:** Vigyan Jyoti programme aims to encourage girls to pursue higher education and career in STEM (Science, Technology, Engineering and Mathematics) especially in the areas where women participation is low in order to balance gender ratio across the streams. Vigyan Jyoti (School Component) is in implementation in 250 districts of 34 States/UTs of the country.
- **Gender Advancement for Transforming Institutions (GATI):** GATI aims to develop an indigenous Charter for Gender Equity in STEMM (Science Technology Engineering Mathematics & Medicine), with a focus on bringing about transformational changes at Institutional level.

These efforts collectively aim to **bridge the gender gap, empower women in STEM, and create an inclusive scientific ecosystem** in India.

Shattering the Glass Ceiling

Throughout history, **women pioneers in science** have defied societal norms, challenged conventions, and made groundbreaking contributions to human knowledge. Let us remember the women who dared to dream beyond the societal norms and created a legacy that continues to inspire others!



Anandibai Gopalrao Joshi
(1865-1887)

First Indian female to study and graduate with a degree in western medicine from the United States (1886). She is believed to be the first woman to set foot on American soil from India

Women **PIONEERS**

Kadambini Ganguly
(1861-1923)

The first Indian woman to get admission to Calcutta Medical College (1884), becomes India's first female doctor & practitioner (1886) of western medicine in the whole South Asia



Mary Poonen Lukose
(1886-1976)

The first female Surgeon General in India, (1938). She became the first woman obstetrician of India



Edavaleth Kakkat Janaki Ammal
(1897-1984)

Renowned botanist & plant cytologist, made significant contributions to genetics, evolution, phytogeography and ethnobotany. First Director of the Central Botanical Laboratory at Allahabad, 1952

Kamala Sohoni
(1911-1998)

First Indian woman to receive a PhD in a scientific discipline. She discovered the enzyme 'Cytochrome C' which plays an essential role in the electron transport chain occurring in plants, human and animal cells for energy synthesis



Iravati Karve
(1905-1970)

First Indian female anthropologist. She founded the Department of Anthropology at the University of Pune in 1963. She also held the post of the Vice-Chancellor of SNDT University



Debala Mitra
(1925-2003)

First Indian archaeologist served as Director General of the Archaeological Survey of India, 1981. She explored and excavated several Buddhist sites



Rajeshwari Chatterjee
(1922-2010)

Woman Engineer who pioneered research in microwave engineering. She is the first woman engineer at IISc who joined the Department of Electrical Communication Engineering (ECE)

Anna Mani
(1918-2001)

First woman to join the Meteorological department in Pune, 1948. Her major contributions are in the field of solar radiation, ozone and wind energy instrumentation



Asima Chatterjee

(1917-2006)

The first woman to be awarded a Doctor of Science by an Indian University (Calcutta) in 1944. She was the first woman to be elected as the General President of the Indian Science Congress



Purnima Sinha

(1927-2015)

An Indian physicist who received a doctorate in physics under the guidance of Prof Satyendra Nath Bose. She did tremendous work in the field of x-ray diffraction crystallography of clay minerals



Kamal Ranadive

(1917-2001)

Established India's first tissue culture research laboratory at the Indian Cancer Research Centre in Mumbai, 1960. She was among the first to recognise the connection between cancer susceptibility and the interaction between hormones and tumour virus



Bibha Chowdhary

(1913-1991)

First woman high energy physicist of India and the first woman scientist at the TIFR (1948). The International Astronomical Union honored her by naming a white yellow dwarf star after her name



Conclusion: A Future of Equal Opportunities in Science

As we celebrate the 10th anniversary of the International Day of Women and Girls in Science, it is evident that women have made tremendous strides in STEM, overcoming barriers and reshaping the scientific landscape. India's dedicated efforts—through policies, programs, and institutional support have played a crucial role in increasing female participation in higher education, research, and innovation.

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