

Indian Scientist

Prem Shanker Goel

Padma Shri (2001)



(BORN ON 20 APRIL 1947)

Prem Shanker Goel is an Indian space scientist, former secretary at the Department of Ocean Development, Ministry of Earth Sciences, Government of India, and former director of the Indian Space Research Organisation. In recognition of his contributions, the Government of India honored him with the Padma Shri, the nation's fourth-highest civilian award, in 2001.

Scientific Contribution:

- Spin axis orientation systems for Bhaskara I & II and magnetic control for Rohini satellites.
- Momentum-biased 3-axis control for APPLE.
- Zero-momentum biased control for IRS
- Configuration-biased attitude control for INSAT-II.
- Agile "step-and-stare" control for TES
- Re-entry guidance for the SRE mission.

Government and Scientific Leadership:

He retired from ISRO in 2005 but continued to be involved in scientific and educational initiatives. Served as Secretary, Department of Ocean Development.

Oversaw its transformation into the Ministry of Earth Sciences by integrating the ocean, atmosphere and geosciences departments.

Became the **first Chairman** of the global **Earth Commission**. Currently serves in advisory and academic roles.

Honorary Distinguished Professor at ISRO HQ

Awards

- **Padma Shri (2001)** One of India's highest civilian honors, awarded by the Government of India for distinguished service in science and engineering.
- **Vikram Sarabhai Research Award** for excellence in space science and technology.
- **Om Prakash Bhasin Award for Science and Technology Honoured** for his pioneering innovations and leadership in engineering sciences.
- **Vasvik Industrial Research Award** for achievements in electrical and electronic sciences.

Academic Legacy:

Dr Prem Shanker Goel played a key role in developing satellite control systems, several major ISRO missions, including Aryabhata, INSAT and IRS, by developing indigenous technologies that made India self-reliant in space science. As Director of the ISRO Satellite Centre and later as Secretary of the Department of Ocean Development, he contributed to the creation of the Ministry of Earth Sciences, integrating ocean, atmospheric and climate research.