

48TH ANNIVERSARY SPECIAL

THE SHE LIST

INDIA TODAY



L-R:
Astrophysicist
Annapurni
Subramaniam,
media baroness
Riniki Bhuyan
Sharma, space
scientist Nigar
Shaji

TOP 100 WOMEN ACHIEVERS OF INDIA



SCIENCE & MEDICINE

SHOOTING FOR THE STARS

A SA CHILD, ANNA-PURNI SUBRAMANIAM would settle down to study for a couple of hours before dawn—the coolest time during the Palakkad summer. That was when she first got curious about the night sky. “I used to see the Milky Way every morning. I didn’t know what it was...it was a cloud patch in the same part of the sky every morning. That’s not possible, right? So, I knew it was not atmospheric. But there was nobody you could discuss this with,” she says.

Looking for a career in research after her master’s degree in Physics, Annapurni was always clear that she wanted to take up ‘anything to do with the sky’. That led her to the Indian Institute of Science (IISc), where she opted for an astronomy programme conducted jointly with the Indian Institute of Astrophysics (IIA), ISRO and the Raman Research Institute. The IIA later offered her a position as research fellow in 1990, and nearly three decades after that, in 2019, Annapurni became the first woman to head the institute. The IIA is India’s coordination centre for the Thirty Meter Telescope (TMT) project, a global partnership between the US, Canada, Japan, China and India.

ACCOMPLISHMENT

Annapurni Subramaniam, who in 2019 became the first woman director of the Indian Institute of Astrophysics, has broken gender barriers every step of the way in a field that has long been dominated by men

Annapurni’s research area is the evolution of stars. Astronomy, she explains, is a science dependent on models. “What you collect is the data. And without models, you can’t interpret the data.” An aperture as large as the TMT requires segment-

ed mirror technology—essentially, honeycomb-shaped mirrors that are patched together. The TMT will have 492 segments, each measuring 1.4 metre. “One of the major contributions from India are the polished mirrors, about 80 of them. We have to deliver them at the rate of two mirrors a month,” she says.

Annapurni is married with two kids, who are studying abroad. A trained violinist, she took after her parents, both of whom taught Carnatic vocal music. “My father was also a veena player,” she says. “I went to sleep listening to the veena and woke up to him singing.” Not out of place in Palakkad, a place with some legacy in music as well as science. At the local Victoria College, where she studied Physics, a professor, Sudarshana Kumar, particularly had an impact on her. “He would force us to think,” she recalls. “That motivated me and I knew I needed to continue Physics.” Music, she says, was always Plan B.

Growing up in an ‘agraharam’ also meant learning several other skills. Like drawing out a ‘kolam’. At the Bengaluru apartment she stays in today, Annapurni says she tries to draw a kolam at least twice a week. “I look at it as a morning puzzle,” she quips. ■

—Ajay Sukumaran

TENACITY PAYS

“Quitting has never been an option for me. Go slow, but don’t quit”

↘ **FAVOURITE HOLIDAY**
Driving to her hometown with family

↘ **COMFORT FOOD**
Kerala sadya, traditional sweets like payasam



**Annapurni
Subramaniam,**

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