

Indian Scientist

Dr. Meghnad Saha



(06 October 1893 – 16 February 1956)

Great discoveries sometimes begin in the most unexpected places. **Meghnad Saha**, one of India's greatest physicists and astrophysicists, was born on **6 October 1893** in a small village called **Sheoratali** in present-day Bangladesh. He came from a poor family and faced many challenges while growing up, but his curiosity and determination helped him pursue science.

Saha developed a deep interest in mathematics and physics as a student. His passion for learning eventually led him to become a professor at the **University of Allahabad** and later at the **University of Calcutta**, where he taught and conducted important research.

His most famous contribution is the **Saha Ionization Equation**, developed in **1920**. This equation explains how atoms become ionized at very high temperatures inside stars. When scientists observe light coming from stars, they see patterns called **spectra** - lines that reveal which elements are present. Saha's equation helped astronomers understand why these spectral lines appear and what they tell us about the **temperature, pressure, and chemical composition of stars**.

Because of this discovery, scientists could better study **stellar atmospheres** and classify different types of stars. His work became a foundation of **modern astrophysics** and is still used by astronomers today.

Saha also believed that science should help build a nation. He played an important role in strengthening scientific research in India. He helped establish the **Saha Institute of Nuclear Physics** in Kolkata and encouraged scientific education across the country.

In recognition of his contributions, Saha was elected a **Fellow of the Royal Society** in **1927**, one of the highest honors for a scientist. He also served as the **President of the Indian Science Congress**.

Think Like a Scientist

When you look at the night sky, remember that every star sends light filled with information.

Ask yourself:

- What secrets are hidden in starlight?
- How can science help us understand distant objects we cannot touch?

Meghnad Saha showed that with curiosity, mathematics, and imagination, even the light of distant stars can tell us their story.

