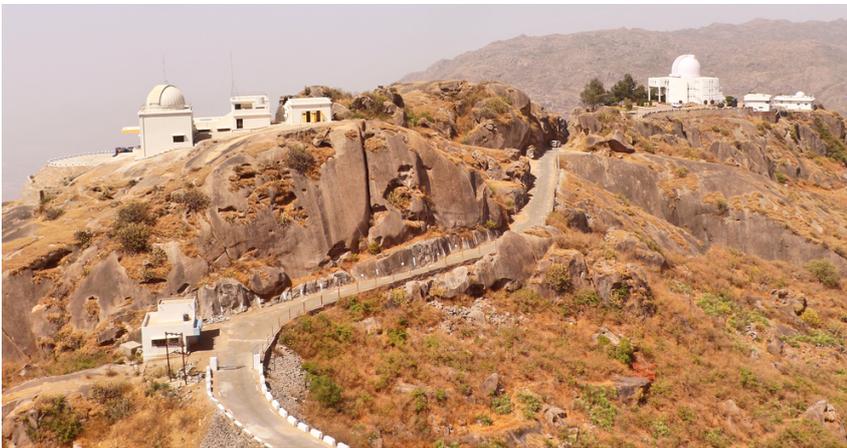


A Historic Moment for the Indian Space Program: Scientists discover an exoplanet

Just last week, scientists discovered 3 newly formed planets orbiting a star that is 4 times the size of the sun! The newborn planets that are also known as “protoplanets” were discovered using a giant telescope in the Atacama Desert in Chile.

For the first time in history, India also announced its discovery of an exoplanet.

What are exoplanets? These are planets that orbit a star outside the solar system. They come in a wide variety of sizes, from gas giants larger than Jupiter to small, rocky planets about as big as Earth or Mars.



Mount Abu Observatory; Editorial credit: / Shutterstock.com

A team of Indian scientists led by Abhijit Chakraborty from the Physical Research Laboratory (PRL) in Ahmedabad discovered the new exoplanet, called EPIC- 211945201b or K-236b.

They used a special spectrograph integrated with a telescope at the Mount Abu Observatory to conduct their research. The instrument measures the slight wobble of a host star as it is tugged by orbiting planets. Using this data they deduce the mass and orbit of the planet. With spectroscopy, one can see the effects of the planet, but can't actually, see an image of the planet.

So what do we know about this new exoplanet?

Distance From Earth	600 *light years away from Earth
Size	6 times the radii of Earth
Mass	27 times greater than Earth's mass
Surface Temperature	600 degree Celsius As opposed To Earth's 15 degree Celsius

Distance from its Star	7 times less than the distance between Earth and the Sun
Revolution	19.5 Earth days to revolve around its Sun-like star

****What's a light year?** A unit of measurement of distance in space. Specifically, it is the distance that light travels in one year. This approximates 10 trillion km!

India is now part of a select few countries that have discovered exoplanets. The team of scientists in Ahmedabad now aim to detect exoplanets closer to Earth's mass (2 to 10 Earth masses). We wish them luck in their search for planets and life outside the solar system!

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