

Researchers at BITS Pilani Goa identify six potentially habitable planets outside the solar system

There are 60 potentially such habitable planets out of about 5,000 confirmed candidate planets

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VASCO: So far, the only habitable planet known is Earth within the solar system. But are there potentially habitable planets outside the Solar system?

In a quest to find answer to this question, researchers at BITS Pilani Goa Campus, in association with Indian Institute of Astrophysics, Bangalore have identified six potentially habitable exoplanets (planets outside the solar system), through an Artificial Intelligence (AI)-

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based algorithm developed here in BITS campus.

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an AI-based algorithm,” said Prof Snehanshu Saha, Associate Professor at the Department of Computer Science and Information Systems and the Center Coordinator-APPCAIR, BITS Pilani Goa Campus, who designed the research project.

Prof Saha was ably supported by two students from BITS Goa and Prof Santonu Sarkar, Professor at the Department of Computer Science and Information Systems and APPCAIR Goa.

The problem of habitability detection was jointly defined with Dr Margarita Safonova, Indian Institute of Astrophysics, Bangalore.

According to study, there are six potentially habitable planets out of about 5,000 confirmed, and nearly 8,000 candidate planets proposed.

Contd on Pg 14 >>

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The assessment is based on their close similarity to Earth. The underlying hypothesis of the research is based on the assumption that the Earth is an anomaly as it has so many

features which are distinctly different in comparison to other planets.

As such, the undiscovered potential habitable exoplanets might have similar characteristics like Earth.

“The anomaly hypothesis allows identifying planets that exhibit similar characteristics like Earth. It is currently being used to detect anomalous signals in Galaxy, quasars etc,” Prof Saha told Herald.

“Once a potential habitable candidate is identified, one can think of interstellar migration, think of setting up trade and commerce and maybe even utilise the resources of the newly discovered habitable planet. Distant reality? Not so much anymore,” the senior BITS faculty added.