

SUCCESS: Ventspils University of Applied Sciences participates in the European Space Agency mission Juice



The probe "Juice" of the European Space Agency made a flyby of the Moon, on the night of August 20 to 21, it made a flyby of the Earth. Such a flyby is the first such maneuver in the history of space exploration and is an important step on the way for Juice to the Jupiter system, which is planned to reach in 2031. In order to successfully carry out the mission, Ventspils University is part of the "Juice" team.

The Juice interplanetary probe was launched in April 2023 and will reach its destination in July 2031, where it will spend several years studying Jupiter and its three large icy moons: Ganymede, Europa and Callisto. The mission will study possible habitable environments around gas giants, as well as the Jupiter system as a model for many of the giant planets now known to orbit other stars. Juice will be the first interplanetary probe to orbit a planetary moon in the outer solar system, Ganymede.

The "Juice" mission is an international collaboration in which institutions from all over the world participate, including

Ventspils University of Applied Sciences and its Institute of Engineering "Ventspils International Radio Astronomy Center".

"Ventspils International Radio Astronomy Center" is a partner in the "Juice" Planetary Radio Interferometry and Doppler Experiment (PRIDE), which is an astronomical experiment stationed on Earth. Also, Ventspils University of Applied Sciences is part of the team of scientists in the "Radio & Plasma Wave Investigation" instrument, which is one of the ten scientific instruments on the "Juice" probe.

Participation in "Juice" significantly strengthens the role of Ventspils University of Applied Sciences in international space research.

"Ventspils International Radio Astronomy Center" participation in PRIDE started this year and it was possible thanks to "Ventspils International Radio Astronomy Center" skills in radio astronomy and deep space communications. PRIDE uses the very long baseline interferometry technique, while the Ventspils International Radio Astronomy Center manages the Irbene radio telescopes, which are part of the international very long baseline interferometry network. PRIDE provides precise measurements of the position and velocity of the Juice spacecraft, data essential to understanding the dynamics of Jupiter's icy moons and its complex environment.

Photo: Ventspils University of Applied Sciences