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An Overview About the Small Satellites Projects of the ITA Space Center

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The ITA Space Center (CEI, “Centro Espacial ITA” in Portuguese) is a complete teaching space engineering facility of the Brazilian Aeronautics Institute of Technology (ITA) for the concept, design, development, assembly, integration, tests and operation of small satellites, enabling the students to participate in all phases of the space mission. Currently, many space players have invested in CubeSats which is a type of miniaturized satellite composed of cubic 10 x 10 x 10 cm modules. The miniaturization, modularization and standardization are key changes that differentiate the New Space from the Legacy Space approach. At the end of 2018, ITA Space Center has launched its first academic 6U CubeSat, called ITASAT-1, which had the main objective of training human resources for space applications in universities and research institutes. The students involved in that project had the opportunity to work on system engineering, assembly integration and test (AIT), software development, ground segment and satellite operation. Currently, CEI has been working in a professional and sophisticated CubeSat to meet the Scintillation Prediction Observation Research Task (SPORT) mission. This project is a cooperation among the National Aeronautics and Space Administration (NASA), American universities, the Brazilian National Institute for Space Research (INPE) and ITA.

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