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EDUCATIONAL IRISH RESEARCH SATELLITE - EIRSAT-1

Abstract

The Educational Irish Research Satellite, 'EIRSAT-1', is a collaborative space project, developed by students and staff of University College Dublin (UCD) and Queen's University Belfast (QUB), that aims to build, launch and operate the first ever Irish satellite. The project will provide hands-on training and education for undergraduate and graduate students at UCD QUB in all major aspects of satellite development, under expert guidance from academic and industry mentors. The project is supported by a number of industrial partners including Resonate Ltd, ENBIO, SensL, Parameter Space and MOOG. In previous years, both universities have focused on developing 1U CubeSats. The current team made a decision to upscale the educational challenge by including two different payloads on a 2U CubeSat. Both payloads contain technology from the industrial partners that will be flown in space for the first time, marking an important step in their space heritage. The project will have a significant impact on educational programs and future skills by placing space flight know-how into students' hands for the first time. There will be a wider societal impact, through an exciting outreach STEM program. The launch of an Irish CubeSat is a stated aim of the Irish Space Industry Group who have recognised the importance of developing heritage to enable growth in the space sector in Ireland, with a plan to double the workforce in that sector by 2020.