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RadSat-U

MSU researchers have been working for the past eight years on a computer system that is tolerant to ionizing radiation for space applications. In order to quantify the amount of radiation experienced by the computer, the RadSat-U team is developing a photovoltaic radiation sensor. RadSat-U, a 3U satellite designed to carry the radiation tolerant computer into space, is the ideal test platform. The experiment consists of a fully integrated solar cell and signal conditioning circuit designed to fit within RadSat-U. RadSat-U will then carry both the radiation tolerant computer and solar cell experiment into orbit where the space radiation environment will test the limitations of both systems. A full scale test will elevate this new technology to the highest NASA standard for emerging technology, allowing it be used in future missions.