

X-SAT beams images back to Singapore

May 24 2011

Singapore's first locally-built micro-satellite in space, X-SAT, has started to transmit images back to Singapore.

Nanyang Technological University (NTU) embarked on the X-SAT project, in collaboration with DSO National Laboratories, to promote academic interest in engineering research and development among the youth.

"We hope that the success we have achieved with X-SAT will attract more students to do engineering, in particular [satellite](#) engineering," said Professor Er Meng Hwa, NTU's Vice President-Designate and Senior Associate Provost, who was responsible for starting NTU's initial satellite engineering programme in the early 1990s.

X-SAT is being monitored and commanded by a team of scientists, researchers and students from the mission control station at NTU's Research Techno Plaza.

The first set of imagery data was received on 5 May 2011 after the satellite was commanded from NTU to capture the image, about two weeks after the experimental micro-satellite was launched into orbit on 20 April 2011.

"These [satellite images](#) will be used for research associated with earth [remote-sensing](#)," said Professor Er.

"Our students now have the rare opportunity to work on a satellite in

space. We hope that this opportunity to carry out research in [satellite technology](#) will inspire a new generation of students and researchers to focus on engineering R&D."

Over the next few months, the X-SAT team will perform a series of in-orbit tests on the satellite to continue its imaging experiments and to carry out other scientific missions.

X-SAT will [orbit](#) for three years at a height of 800 kilometres and take photographs which will help scientists to measure soil erosion and environmental changes. It can also capture data for monitoring forest fires and oil pollution at sea.

The satellite carries three payloads, namely an imaging system, an advanced navigation experimental set-up, and a parallel processing unit for image processing.

The imagery data is beamed to the 13m X-band antenna at the Centre for Remote Imaging, Sensing and Processing.

Provided by Nanyang Technological University

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