

# Varsity students build satellite to boost climate change study

The 3U Cubesat Satellite will be launched 400 kilometres into the air to collect data for research on numerous topics such as climate change and wildlife movement

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**Dar es Salaam.** Students at St. Joseph University of Tanzania (SJUIT) are working on an ambitious project to build a satellite in order to increase data collecting for study on topics such as climate change and wildlife movement.

The \$250,000 project was created by three second-year students seeking Bachelor's degrees in Computer Science and Engineering.

According to SJUIT Vice Chancellor Prof Eliab Opiyo, Steven Makunga, David Seng'enge, and Doris Ndaki were carefully overseen by their lecturer, Dr Amani Bura.

"So far, actual development of the satellite has reached 50 percent, and we anticipate that it will be sent into space by the end of this year or early next year (2024) to offer information on a variety of topics," Prof Opiyo told journalists yesterday.

The 3U Cubesat Satellite will be launched 400 kilometres into the air to collect data for research on numerous topics such as climate change and wildlife movement.

According to Prof Opiyo, the actual design of the satellite began two years ago, and they are currently creating a prototype of the satellite and testing it.

"Upon being launched, it will help us collect various information to boost the work of institutions and researchers," he said.

The SJUIT, in partnership with its Department of Innovation and Techno-Preneurship Acceleration Facility (ITAF), is financing the project through the purchase of equipment, but negotiations are still being conducted to involve researchers and other interested parties.

"The talks are for the purpose of engaging researchers from foreign colleges and research institutions so they can help with their expertise and more technical training.

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PROF OPIYO | SJUIT VICE CHANCELLOR

They can also help us in the actual service of putting the satellite into space," said Prof Opiyo.

Having reached 50 percent of

its design, the satellite can now collect information, according to one of the students involved in the project, Mr Steven Makunga.

He said that the instrument would help in obtaining weather information and communication in areas that have not yet been reached.

By collecting weather information, the equipment will thus be helpful in providing agricultural information to farmers about the crops to be planted and the development of their crops in general.

"It can also be helpful in the education sector through the dissemination of content in rural areas where there is no internet infrastructure or telephone services. It can also facilitate communication in the health sector," said Mr Makunga.

He said it can also be of help when major disasters like fire and floods occur by providing emergency information to people going to evacuation sites.



A student from St. Joseph University of Tanzania (SJUIT) describes their innovative idea, which is expected to advance climate change research in Dar es Salaam yesterday. PHOTO | COURTESY