

THE LAUNCH OF A CAN SATELLITE (CanSat) IN GHANA

Date: 15 May 2013

Time: 11:00 am – 1:00 pm

Venue: All Nations University College Main Campus, Koforidua – Ghana

Launching Method: Weather Balloon

Dignitaries: Director of the Ghana Space Science and Technology Institute, Dr Kofi Ashilivi; the Head of Computer Science Department of the Kwame Nkrumah University of Science and Technology (KNUST), Dr K. O. Boateng, and representatives of other tertiary institutions, Prof. Emeritus. Oti Boateng, and the President of ANUC, Dr Samuel H. Donkor and representatives from the government.

Audience: The launching of the CanSat brought together almost 1200 people which comprise of workers from the industries, lecturers students etc

Press: International press (BBC, APTV, Reuters, AFP, DW TV, VOA, Nigerian and Ivorian Press) and Local press (GTV, TV3, TV Africa, NET2 TV, eTV, Metro TV, and host of Radio Stations)

Event:

The All Nations University College space and satellite programme has a seven (7) team member which forms the lab currently. It was established in February 2012 prior to the first space science workshop held by ANUC, which was due to the university's decade celebration of innovative, excellent and quality higher education.

On the 15 of May 2013 marked the day the long awaited CanSat was launched. The CanSat launched made history worldwide since it is the first ever satellite (CanSat) to be launched in Sub Saharan Africa by a Ghanaian university (ALL NATIONS UNIVERSITY COLLEGE).

The event being one of its kind in sub Saharan Africa really created the awareness of the public and attracted personnel from diverse background such as student, industrial personnel's and international and local press to the launching grounds prior to the 2nd space science and satellite technology workshop (20th to 21th of March 2013) which pointed out the need for Ghana to go to space and a CanSat which was going to be launched.

The president of the university, Dr. Samuel H. Donkor spoke on the benefits of space and satellite technology and what it can do to help address some social challenges of Ghana such

as telecommunication, navigation and weather predictions and also to improve the economy of the Sub Saharan Africa.

With our weather balloon filled with the helium gas, the ground station (to receive telemetry from the CanSat) and the control station (to sent an uplink command to the deployment unit) together with the two CanSats (the YANKEY and ROSAM) all setup and ready to be launched by the team.

The two CanSats, the YANKEY and the ROSAM were all launched together in our two compartment deployment (which was used as our launching vehicle) unit fixed to the weather balloon which took it to a height of 172 meters void of our expected height of 220 m which was due to a heavy rainfall on that very hour.

The launching of the two deployable CanSat was successful despite the heavy downpour which prevented us from reaching an expected height of 220 meters. The atmospheric pressure and the temperature readings were transmitted to the ground station as the telemetry and a video of the environment was captured which together defined the mission for the CanSats.

The telemetry was projected unto a live screen for the audience to see how information are received from satellite and how it can be used for our daily lives benefits.

Conclusion

We had a very successful launching as everybody that was at the launching ground including the press, invited guest, the Team as well as the audience were very happy about the launching of Ghana's ever deployable CanSat.

Appreciation

My sincere gratitude goes UNISEC for given me the training on CanSat, Prof. Miyazaki and his students, and Prof. Van Zyl

Prepared By: Manfred Quarshie

Picture Gallery:





