

Activity Report

UNISEC-local: Namibian Chapter
POC: Dr. Smita Francis
Email: sfrancis@nust.na
URL: www.nust.na

Overview

Namibia University of Science and Technology (NUST) in collaboration with the University Space Engineering Consortium Global (UNISEC), Japan and JM Corporation, Tokyo Japan organised a three-day intensive training workshop for the Faculty of Engineering Students at NUST. UNISEC was represented by Prof Kim Sangkyun.

The CANSAT training workshop was facilitated by Prof Kim Sangkyun and Dr Smita Francis, Collaborator of the Namibia Institute of Space Technology (NIST)

The participants at this workshop were mainly from the Department of Electrical and Computer Engineering. The participants were introduced to the concept of the CANSAT design and testing. The participants at the workshop were taken through the complete process of a satellite system design using the CANSAT. The systems on the CANSAT included an Electrical power supply (Li-ion rechargeable battery), On board computer, a communication system; a camera Board and a GPS board

The participants students from 3rd year, 4th year and final year were divided into two groups. Each group assembled and tested the functioning of each sub system of the CANSAT. On the final day the participants demonstrated the functioning and testing of the CANSAT by adopting the parachute drop test.

The Workshop daily activities were

- Day1(17April):
The construction of the structure and Hardware of the CanSat, mainly focusing on soldering and assembly work
- Day2:
The Software and Operation of the CanSat, programming and data logging.
- Day3:
The Testing procedures and Group Presentations

Date and Venue

Announcement Date

Event Date: 17 – 20 April 2018

Venue: Namibia University of Science and Technology, Department of Electrical and Computer Engineering (DECE)



Figure 1 : Participants discussing Cansat Design

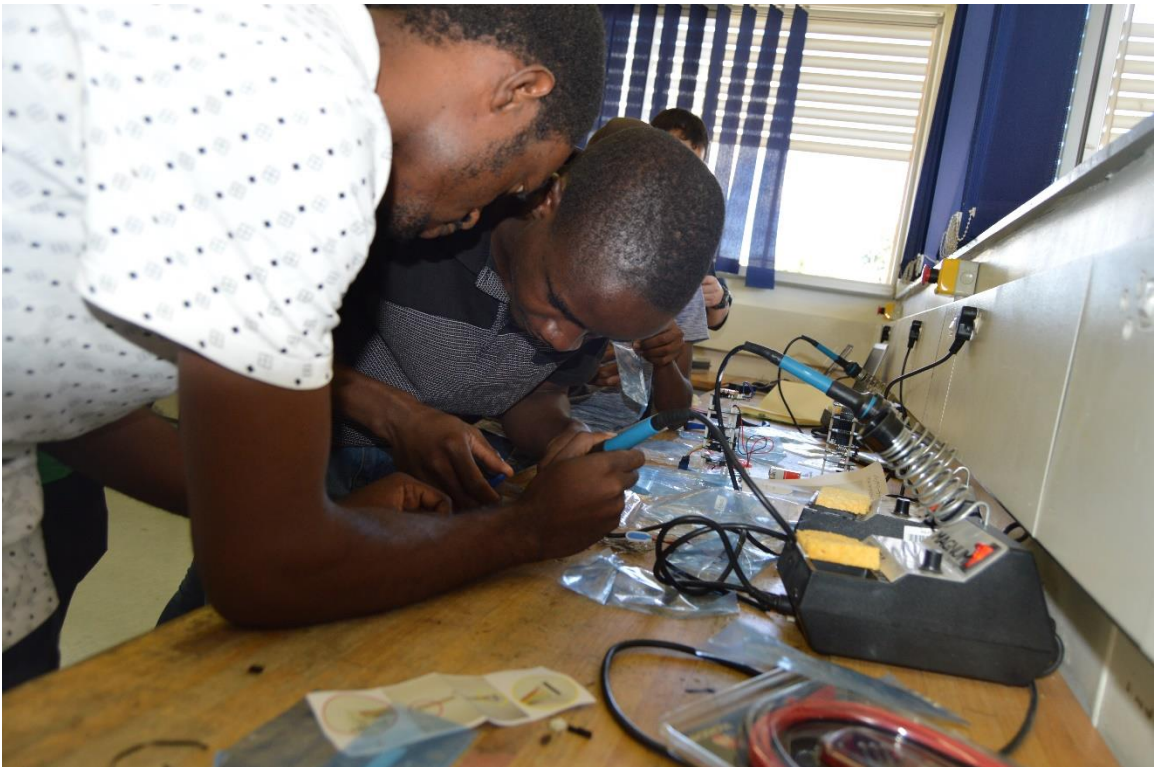


Figure 2: Participants busy assembling the cansat in the laboratory

Participants Group Photo

Total number of participants						
Category of Participants		Students		Engineers/Instructors	2	Both
International Participants	X	16		Yes		
If yes, how many international participants were attended the activity?						

Sponsors



Results and Conclusion

The CanSat is primarily for educational purposes whereas, the more complex CubeSat or the large satellite which are used for more practical purposes. The workshop was focused on the design, assembling and operation of a CanSat. The students were grouped, thence all the groups managed to assemble, program, test and obtain data from the CanSat. Presentations were prepared by the students on the learning outcomes achieved and as well as recommendations and opinions on the workshops

The workshop was a great success with exceptional aptitude. This type of platform offers a very tangible and practical approach to a subject that before may have seemed abstract to the students, thus reducing the learning curve exponentially.

