

# Programme, Tuesday 4 November 2014

Programme Director		Prof Norman Fitz-Coy
Time	Presenter	Topic
07:45	Registration and tea, coffee	<i>Early morning networking</i>
08:15	<b>Prof Japie van Zyl (guest speaker)</b> Director of Project Formulation Jet Propulsion Laboratories	<i>JPL interplanetary nanosatellite missions</i>
<b>08:45 - 09:40</b>	<b>Session 1: Industry perspectives</b>	<b>Chair: Siyabonga Copiso, SANSA</b>
08:45	<b>Robin Sampson</b> Clyde Space	
09:05	<b>Johan Erasmus</b> ISIS, South Africa	<i>RSA Collaboration on the QB50 pre-cursor launch campaign</i>
09:25	<i>General open floor discussion</i>	
<b>09:40 - 10:00</b>	<b>TEA/COFFEE BREAK</b>	
<b>10:00 - 11:10</b>	<b>Session 2: Development Process Management</b>	<b>Chair: Francois Visser</b>
10:00	<b>Prof Norman Fitz-Coy</b> Research Chair CPUT / University of Florida	<i>Introductory notes</i>
10:05	<b>Prof Mellet Moll</b> Head of Postgraduate Programme Department of Industrial and Systems Engineering CPUT	<i>Using Systems Engineering and Quality Management practices to develop a blueprint for a sustainable nanosatellite organisation at CPUT</i>
10:25	<b>Mr André Bester</b> Head of Department Department of Industrial and Systems Engineering CPUT	<i>An evolutionary approach to Cubesat manufacturing beyond rapid prototyping</i>
10:45	<b>Mr Jean-Claude Kabala</b> Postgraduate student Department of Industrial and Systems Engineering CPUT	<i>A systems engineering approach to quality management of a nanosatellite development life-cycle</i>
11:00	<i>General open floor discussion</i>	
<b>11:10 - 12:40</b>	<b>Session 3: Technology and Applications</b>	<b>Chair: Dr Noel Grand</b>
11:10	<b>Dr Mike Kosch</b> Chief Scientist SANSA Space Science	<i>Science with CubeSats</i>
11:30	<b>Prof Pierre Cillers</b> Senior Researcher SANSA Space Science	<i>HF DF Array and DOA estimation algorithms for the ZACUBE-1 HF Beacon</i>
11:50	<b>Ms Smita Francis</b> Programme Manager Namibian Institute of Space Technology Hosted by the Polytechnic of Namibia	<i>Joint SANSA/PoN/CPUT project on Remote Sensing of the Upper Ionised and Lower Neutral Atmosphere Using Signals from Global Navigation Satellite Systems and Satellite-borne Radio Beacons</i>
12:10	<b>Ms Doreen Agaba</b> Postgraduate student University of Cape Town	<i>Topside ionospheric sounder based on spaceborne MIMO radar with frequency division and code division</i>
12:30	<i>General open floor discussion</i>	
<b>12:40 - 13:15</b>	<b>LUNCH</b>	

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<b>13:15 - 14:20</b>	<b>Session 4: Technology and Applications</b>	<b>Chair: Laurent Dusseau</b>
13:15	<b>Mr Danie de Villiers</b> Development Engineer Africa Space Innovation Centre CPUT	<i>Nano-satellite in-situ monitoring: An adaptable approach to communication schemes through SDR-based technology</i>
13:30	<b>Mr Arno Barnard</b> Lecturer University of Stellenbosch	<i>Low Cost Fault Tolerant Techniques and Radiation testing for Nano/Pico-Satellite Applications</i>
13:50	<b>Mr Deon Coetzee</b> Radio amateur	<i>Development of a Spaceframe together with ancillary structures</i>
14:10	SOAP BOX	<i>5 minute presentations by individual students, or groups</i>
<b>14:20 - 15:25</b>	<b>Session 5: Operations</b>	<b>Chair: Dr Pierre Cilliers</b>
14:20	<b>Mr Leon Steenkamp</b> Development Engineer Africa Space Innovation Centre CPUT	<i>TshepisoSAT: One Year in Space</i>
14:40	<b>Riaan Greeff</b> Vaal University of Technology	<i>Development of remote groundstation capability from Vaal University of Technology</i>
15:00	<b>Johann Lochner</b> Spaceteq	<i>Demonstration</i>
<b>15:25 - 15:40</b>	<b>TEA/COFFEE BREAK</b>	
<b>15:40 - 16:30</b>	<b>Session 6: QB50</b>	<b>Chair: Arno Barnard</b>
15:40	<b>Mr M-A Kearney</b> ESL University of Stellenbosch	<i>ZA-AeroSat: A QB50 CubeSat demonstrator for multidisciplinary technology and scientific research</i>
16:00	<b>Prof Herman Steyn</b> Head of Computer and Control Systems Group University of Stellenbosch	<i>An Attitude Control System for ZA-AeroSat subject to significant Aerodynamic Disturbances</i>
16:15	<b>Mr Tristan Allain</b> Laboratoire Interuniversitaire des Systèmes Atmosphériques l'Université Paris-Est Créteil Val de Marne, Paris	<i>OGMS-SA: System overview of a 3U-CubeSat - platform and payload</i>
<b>16:30 - 17:20</b>	<b>Session 7: Technology and Applications (ADCS)</b>	<b>Chair: Prof Herman Steyn</b>
16:30	<b>Mr W Jordaan</b> ESL University of Stellenbosch	<i>ADCS of DeorbitSail and CubeSail</i>
16:45	<b>Mr J Gerber</b> ESL University of Stellenbosch	<i>CubeControl Design and Magnetometer Calibration</i>
17:00	<b>Mr C Groenewald</b> ESL University of Stellenbosch	<i>ADCS Demonstration with CubeComponents</i>
17:10	SOAP BOX	<i>5 minute presentations by individual students, or groups</i>
<b>17:20 - 18:00</b>	<b>Session 8: Regulatory matters</b>	<b>Chair: Prof Robert van Zyl</b>
17:20	<b>Ms Nomfuneko Majaja (guest speaker)</b> Chief Director: Advanced Manufacturing Department of Trade and Industry SA Council for Space Affairs	<i>South African regulatory landscape for the development, launch and operations of a satellite</i>
17:45	<b>Prof Norman Fitz-Coy</b> Research Chair CPUT / University of Florida	<i>Concluding remarks on sustainable use of space</i>
<b>18:00</b>	<b>(Informal) workshop dinner at the Pool House (CPUT)</b>	