



AMSAT SA

Presents

Symposium on Software Defined Radio

22 April 2017

Cape Peninsula University of Technology Bellville

Programme

8:30 Registration

9:00 Welcome

Rassie Erasmus, SARL Councillor

9:15 Introduction: What is Software Defined Radio

Deon Coetzee

A summary of the various hardware levels at which the functions of a radio communication system can be implemented employing digital methodology.

10:00 GNU Radio Software Platform for developing a SDR

Georg Lerm

An overview will be given of the software package, GNU Radio, and its application in developing a software receiver on a PC.

10:45 nSight and Aerosat. How Radio Amateurs can get involved.

Lourens Visagie

A discussion of the SDR-based ground station software for nSight and AeroSat, including the (freely available) software to decode and display nSight and Aerosat beacon data. Downlink specification and the data format will also be discussed

11:30 Tea/Coffee

12:00 Implementation of SDR employing RTL Dongle

Johan le Roux

A practical application employing a SDR dongle for the reception and decoding of weather satellite information will be presented.

12:45 The Southern African Large Telescope

Janus Brink

The Southern African Large Telescope - The talk provides an overview of the operational concept and design aspects of the telescope and its control system. The current scientific instrument suite is described and a preview of future instruments and telescope enhancements is presented.