



RESEARCH OFFICER – DIGITAL SIGNAL PROCESSING 18 Month Contract

Department of Electrical Engineering
Faculty of Engineering and the Built Environment

The Radar and Remote Sensing Group (RRSG) in the Department of Electrical Engineering at the University of Cape Town is seeking to appoint a researcher in the area of advanced signal processing.

Requirements:

- A PhD (or, substantial progress towards a PhD) degree in a relevant and related field (e.g. computer engineering, electronic engineering) with relevant practical experience.
- At least three years of design and development experience in using C/C++ and experience programming FPGAs using a hardware description language (such as Verilog and/or VHDL).
- Excellent writing skills suited for publication in peer-reviewed journals
- Experience in digital signal processing
- Competence in research supervision and project management
- Ability to work on complex projects with uncertain or evolving requirements.

Advantages:

- Experience in Software Defined Radio (SDR) signal processing is highly advantageous.
- Experience with MATLAB, GnuRadio and Xilinx ISE/Vivado (or Altera/Intel Quartus).
- Experience with embedded operating systems, e.g. OpenWRT, eCOS, uLinux or QNX.

Responsibilities:

- Responsible for technical contribution in the form of embedded Digital Signal Processing building blocks written in VHDL / Verilog / C / C++, and scripting in Python.
- Co-authoring of peer-reviewed journal and conference papers.
- Work with some of the latest heterogeneous computing platforms and FPGA development tools.
- Assist with training workshops / specialist short course and the supervision and training of research students.

The gross monthly salary is R41,000, total cost of employment for the 18 month contract is R738,000.

To apply, please e-mail the below documents in a **single pdf file** to Janine.Buxey@uct.ac.za

- UCT Application Form (download at <http://forms.uct.ac.za/hr201.doc>)
- Motivational letter showing the reasons for your interest in this position, and
- Curriculum Vitae (CV)

Please ensure the job title **"Research Officer: DSP"** and **reference number** are indicated in the subject line.

An application which does not comply with the above requirements will be regarded as incomplete. Only shortlisted candidates will be contacted and may be required to undergo a competency test.

Telephone: 021 650 4534 **Website:** www.ebe.uct.ac.za
Reference Number: E70907 **Closing date:** 16 October 2017

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UCT reserves the right not to appoint.