RESEARCH OFFICER – DIGITAL SIGNAL PROCESSING
3 year 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 five years of design and development experience in embedded programming using C/C++ and experience programming FGPAs using a hardware description language (such as Verilog and/or VHDL).
- Experience with MATLAB, GnuRadio and Xilinx ISE or Vivado advantageous.
- Experience with embedded operating systems e.g. OpenWRT, ecos, ucLinux or QNX.
- Experience in Software Defined Radio (SDR) development is advantageous.
- Competence in research supervision and project management
- Ability to work on complex projects with uncertain or evolving requirements.
- Ability to find creative technical solutions to problems and think outside the box.

Responsibilities:
- Work in a team with other developers and researchers to develop components of software defined radio applications for Astronomy.
- Responsible for technical contribution in the form of embedded Digital Signal Processing building blocks written in VHDL / Verilog / C / C++, and scripting in Python.
- Work with the latest FPGA development environments (e.g., Xilinx ISE and Vivado).
- Assist with the supervision and training of research students including supervision of undergraduate final year BSc projects.

The annual cost of employment, including benefits, is R460 000.

To apply, please e-mail the below documents in a **single pdf file** to Ms Melanie Falken at recruitment03@uct.ac.za:

- UCT Application Form (download at http://web.uct.ac.za/depts/sapweb/forms/hr201.doc)
- Cover letter, 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 5764	**Website:**	www.ebe.uct.ac.za
Reference Number:	E15124	**Closing date:**	21 August 2015

UCT is committed to the pursuit of excellence, diversity and redress. Our Employment Equity Policy is available at
http://www.uct.ac.za/downloads/uct.ac.za/about/policies/eepolicy.pdf

UCT reserves the right not to appoint.