PhD Research Position Vacancy

Error Correction Algorithms for High-Speed (RF) Digital to Analog Converters

The Circuits and Systems Research Centre (CSRC: www.csrc.ie) at the University of Limerick, Ireland is a partner in the SFI CONNECT centre (www.connectcentre.ie) for Networks/Internet of Things and has a 4-year funded vacancy for a PhD researcher. The CSRC is a leading centre for microelectronics research with activities in data converters, power management and signal processing. The team is involved in a number of projects collaborating with industrial and research partners to develop innovative solutions in a variety of applications areas.

Job Description:

Role and Responsibilities:

In this role, the researcher will be responsible for the development and circuit implementation (on FPGA) of algorithms to improve the performance of high-speed RF D/A converters. The candidate will carry out research on the topic of RF high-speed D/A conversion and must have good experience and knowledge of data conversion and signal processing algorithm development. The candidate must be capable of implementing the developed algorithm on an FPGA platform.

Specific responsibilities:

- Signal processing algorithm development using MATLAB and Simulink.
- Signal processing algorithm implementation using Xilinx FPGA.
- Interface with other mixed-signal IC researchers.
- Write technical reports and journal/conference publications.

Qualifications and Education Requirements:

A minimum 2.1 honours degree in Electronics Eng or MEng/MSC qualification with a VLSI background is necessary. The candidate will also meet the following requirements;

- Strong background in mixed-signal design and signal processing.
- Excellent communication skills.
- Working knowledge of MATLAB and modeling tools such as spice simulators.
- Proficient use of digital RTL and industry standard IC design tools.

Preferred Skills:

Strong consideration will be given to candidates that also meet the following requirements;

- Strong Industrial or Research expertise in the area of data conversion (or analog/mixed signal design) and signal processing algorithm development.

Application: Please send your CV/Resume and a cover letter in support of these requirements to Brendan.Mullane@ul.ie and Tony.Scanlan@ul.ie