

Position Title	PhD Researcher in Digitally Assisted Analog Circuits - development of digital circuit blocks to improve the performance of high-speed RF D/A converters
Project	<p>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 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. In this role, the researcher will be responsible for the development of digital circuit blocks to improve the performance of high-speed RF D/A converters. The researcher should have an interest in pursuing a PhD in the area of digital signal processing techniques to improve the performance of D/A converters.</p> <p>Role and Responsibilities:</p> <p>The candidate will carry out research on the topic of RF high-speed D/A conversion and must have good knowledge of the IC cycle from algorithm development, modelling and simulation, RTL coding, design and verification. Specifically, the CSRC is looking for a candidate to carry out the following responsibilities;</p> <ul style="list-style-type: none"> • Digital Signal Processing algorithm development from specification to implementation. • Algorithm analysis using MATLAB and Simulink. • CMOS circuit development including modeling and test bench development. • FPGA design and testing. • Interface with other mixed-signal IC researchers. • Write technical reports and Journal and Conference Publications.
Faculty	Science and Engineering

CONNECT

Centre for Future Networks

Entry Requirements	<p>A minimum 2.1 honours degree in Electronic Engineering or MEng/MSC qualification with a VLSI background is necessary.</p> <p>The candidate will also meet the following requirements;</p> <ul style="list-style-type: none"> • Strong background in digital/mixed-signal design and signal processing. • Excellent communication skills. • Working knowledge of MATLAB and modeling tools such as spice simulators. <p>Proficient use of digital RTL and Industry standard IC design tools.</p>
Funding/Stipend	<p>The funded project will cover student fees and offer an attractive stipend.</p> <p>Funding Notes</p> <p>This research is conducted with the financial support of Science Foundation Ireland (SFI) under Grant Number 13/RC/2077 and has been part funded by the European Regional Development Fund through the SFI Research Centres Programme.</p>
Closing Date	30 th June, 2017
Contact	<p>Dr. Brendan Mullane & Dr. Tony Scanlan</p> <p>Brendan.Mullane@ul.ie & Tony.Scanlan@ul.ie</p> <p>See http://ulsites.ul.ie/csrc/vacancies-2</p>
Additional Information	<p>Preferred Skills:</p> <p>Strong consideration will be given to candidates that also meet the following requirements;</p> <ul style="list-style-type: none"> • Signal processing algorithm development, particularly for data converter error correction. • A good knowledge of FPGA design tools. • Industrial expertise working in a team environment and project examples that showcase these skill requirements. <p>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</p>

