Job title: Research Fellow in Integrated Circuit Design
Location: University College London, Stanmore campus
Salary: £35,965- £43,470 per annum (Research Associate)
Hours: Full time
Contract type: Fixed-term/contract
Duration: 15 months
Closing time: Open until we find a suitable candidate
Line manager: Dr Sara Ghoreishizadeh
Start date: January 2021 or shortly afterwards.

Job Summary:

The position is a part of the EPSRC-funded ENOM (Electrochemical Analyser Microchip with Monolithic integration of Nanoelectrode Array and Instrumentation) project. The project aims to create a core biomolecule analyser system based on semiconductor technology that is scalable, low-cost, long-lasting, and autonomous. The post holder will join the Biomarkers., Biosensors & Bioelectronics team led by Dr Sara Ghoreishizadeh and with overall responsibility of CMOS technology integration – including design and prototyping test devices, sensor interface circuits and systems, and co-ordinating/supporting the tape outs within the team. The post holder will be working closely with other team members working in Biosensor design, biomarkers research, and integrated circuit design. Technical Research Duties. Technical Research Duties are

- To design, prototype, test/characterise and document Integrated Circuits and systems that allow the fabrication, readout, and characterisation of an array of electrochemical biosensors.
- To lead and co-ordinate tape out processes from the team in Multi Project Wafer (MPW) and mini ASIC runs through Europractice.
- To work with and support Integrated Circuit design tools for the team.

General Research Duties

- To contribute to the timely production of project deliverables.
- To work together with and/or co-manage/co-supervise research staff and/or research students (PhD and MSc).
- To write progress reports and prepare results for publication, presentations and the web.
- To contribute to bids for research grants.

The post holder will carry out any other duties as are within the scope, spirit and purpose of the job as requested by the line manager or Head of Department/Division. The post holder will actively follow UCL policies including Equal Opportunities policies. As duties and responsibilities change, the job description will be reviewed and amended in consultation with the post holder.

The Biomarkers, Biosensors & Bioelectronics team is within the UCL Aspire Centre for Rehabilitation Engineering and Assistive Technology (Aspire CREATe). Aspire CREATe is part of a UCL Faculty of Engineering Sciences and UCL Faculty of Medical Sciences which is located in the Royal National Orthopaedic Hospital (RNOH), the largest orthopaedic hospital in the UK.

Key requirements

The successful candidate must have a PhD (or equivalent professional experience) in electronics engineering. They should have proven experience in design and test of analogue/mixed-signal Integrated Circuit design, Printed Circuit Boards (PCB). They should have proven ability to analyse and write up data, design and implement research and demonstrate excellent interpersonal, oral and written communication skills.

The post holder will be registered with UCL and will be based at the UCL RNOH Stanmore campus. The post holder may also need to work at UCL Bloomsbury and Royal Free campuses for the purpose to access specialised facilities (e.g. wirebonding).

The start date of the post will be January 2021 or shortly afterwards.

Application process

Our preferred method of application is online via our website (TBC).

For informal enquiries about the post please contact Dr Sara Ghoreishizadeh s.ghoreishizadeh@ucl.ac.uk quoting the complete job title.