

Apply here**Start date**

April 2022

Duration

6 months

Languages

Good spoken and written English levels are required (B2 onwards)

Location**North East England**

North East England has produced many brilliant people, ideas, inventions, and innovations that are responsible for changing the world. This area of England boasts more than just scenic panoramas and beautiful cities, it is home to some of the best companies, universities, and innovation centres in the country.

Are you eligible?

Are you a registered student?

Or

Are you eligible to participate in the Erasmus+ programme?

Benefits

See website for details of all ESPA benefits. For all internships over 6 months, additional benefits will be paid. Details available at interview.

Role

This is a fantastic opportunity for a software engineering student to gain hands on experience, at a world leader in ultra-low-cost flexible electronics. Mentored throughout, you will work on metrology projects within the process engineering department, to provide and develop accurate characterisation of critical integrated circuit (IC) fabrication processes. You will gain a deep insight into high-volume fabrication at the micro and nano-scale and develop an understanding of the challenges and fascination of manufacturing complex electronic devices.

Tasks

- Training in the use of a suite of metrology tools including Surface Profilometry, Scanning Electron Microscopy, Atomic Force Microscopy, Automated Optical Microscopy and Electrical Sheet Resistance.
- Examine the performance of one of the main functional thin layers in FlexICs within and between wafers.
- Determine how sheet resistance varies spatially, over time, with deposition parameters, and as the storage environment changes.
- Develop a method to routinely quantify the critical dimensions of micro-patterned ICs during fabrication, using an automated microscope
- Use Atomic Force Microscopy and Scanning Electron Microscopy to fully characterise a dry-etch process

Personal Skills

- Studying for a degree in Physics, Mechanics, Nanotechnology or other relevant degree
- Ability to learn quickly and adapt to programming and measuring with sophisticated microscopy

The Host Company

This award-winning host's novel products are being adopted by a growing base of global companies across diverse markets, including consumer goods, games, retail, pharmaceutical and security. With a billion-unit production facility, the host company's unique, patented technology platform opens up the opportunity to invent entirely new applications for electronics. Their mission is to create more connectivity, create more designs and create more devices. With staff from over a dozen countries, covering 5 continents, the company culture promotes an open and collaborative environment, committed to delivering a new generation of electronics to address real world issues.



ESPA

Process Engineering Internship (PRATE0712)
