



Apply here

Start date

February/March 2021

Duration

6 months

Languages

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

Location

Nottingham, England

Nottingham is a city steeped in history and folklore. It's best known for the legend of [Robin Hood](#) the famous outlaw who lived in the magnificent [Sherwood Forest](#). Alongside the old architecture is a bustling modern commercial area, with a plethora of shops, eateries, clubs and pubs to enjoy.

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 role for a self-motivated, software engineering, student to gain practical experience within this fascinating, 'intelligent textiles' host company, currently developing a smart textile joint angle sensor. Mentored throughout, you will assist in the creation of a custom Inertial Measurement Unit (IMU) by contributing to the development of a sensor fusion algorithm. Further responsibilities include the adaptation of an algorithm to be used alongside the host's smart textile sensor. Finally, you will have the opportunity to assist in any further development and testing of the smart textile sensor. So, if you want to be part of a revolutionary and proprietary process for manufacturing smart fabric using nano-scale interactions, this is the internship for you and will be a valuable addition to your CV.

Tasks

- To create an IMU sensor fusion algorithm in Python
- Integrate algorithms into existing libraries and applications
- Design novel sensor fusion algorithms to include FHL sensors
- Create and run testing regimes on the FHL smart textile sensors

Desired Skills

- Studying a course within the Electrical/ Electronic Engineering discipline
- Proficient in Python programming language
- Acquisition and processing of real-time sensor data
- Create and format formal reports and documents
- Experience in the use and design of basic control systems
- Experience in the design, write-up, and performance of test protocols
- Experience in project planning and effective time management

The Host Company

The host company was founded by an award-winning chemist, who moved the company to the UK in 2015 bringing many years of experience of intelligent textiles. Rapidly growing, it is positioned to become a leader in the provision of smart textiles, for a diverse range of applications, in a global market that is increasingly demanding intelligent fabrics. The host's technology can be exclusively customised, has the potential to measure mechanical stress in composite structures and currently measures tensile and compressive forces and temperature. With additional functionality being explored, their technology provides new opportunities and creates uniquely durable, safe and comfortable fabrics with sensing textiles that have the potential to deliver a wealth of data to improve health and other outcomes. They are actively seeking resources and commercial partners in its market application areas including health, sports, rehabilitation, aged care, aerospace and automobile industries.

