

Job Title	RF & Microwave Intern
Grade	£25,552.80
Location	Newport
Employment Type	☐ Permanent ☒ Fixed Term ☐ Agency/Contract
Hiring Manager	Senior RF & Microwave Engineer
Direct Reports	Principal Team Lead

Job Summary:

As an RF & Microwave intern, you'll be working within a team of talented engineers to deliver live projects. The Internship will last one year and throughout that year you will be expected to develop and learn whilst laying the foundations for a successful career in engineering.

The intern is expected to have a good general knowledge of electronics design including software and hardware. They will be expected to work on test and implementation in the lab at Catapult's Innovation Centre with opportunities to develop their skill. The Engineer will also be expected to contribute to STEM outreach activities throughout the year.

The intern will report to and support the Principal RF Engineer and will exemplify the behaviours and values of the Catapult of collaboration, innovation, and trust. They should have excellent team working skills, working collaboratively and cooperatively with colleagues, and should be able to communicate to other team members in an encouraging and supportive way.

Key Responsibilities:

- Work on projects working closely with the Project Manager and Technical Authority (TA) to deliver tasks on time and to scope
- Capture and document design requirements and specifications
- Create Schematics of designs
- Create PCB layout and assist with manufacture
- Create and develop embedded software and graphical user interface
- Perform test and implementation activities in the labs at CSA Catapult's Innovation Centre
- Technical reporting to project team and wider audience to demonstrate regular progress
- Adhere to the company's design standards
- Developing automated control interfaces for instruments using Python

Accountability:

- Ensure that technical deliverables are on time and to scope. This is achieved in close partnership with the Project Technical Lead and Project Manager.
- Ensure technical deliverables on projects and research activities are of high-quality working closely with the Project TA. Deliverables should be evidenced, and progress reported regularly to a Senior Engineer.
- Ensure appropriate risk assessments have been completed for the technical tasks and lab work that the Engineer is working on, before passing on to a Senior Engineer.

Experience

Expected Experience

- Practical knowledge of debugging and implementing design in the lab using testing equipment (such as oscilloscopes, power supplies, waveform generators etc.)
- A desire to learn and develop.
- Enthusiasm, drive, commitment: manage your own workload and use your initiative.

Desirable Experience

- Experience in multi-disciplinary engineering activities including design, test, manufacture, and instrumentation development
- Knowledge of analogue and digital hardware design at PCB. E.g. circuit design, schematic capture, simulation, PCB assembly design & debug.
- Experience of prototyping designs using breadboards/veroboards
- Understanding of Photonics, Power and RF applications
- History of translating research output into working prototypes
- Proficient in Microsoft Office products
- Knowledge of embedded software design with C/C++ and python
- GUI development using python or equivalent

Qualifications:

Undergraduate studying a degree in electronics engineering or equivalent in related engineering or science field.

Managerial & Supervisory:

The intern will be offered mentorship throughout their internship.

The intern will work alongside other engineers and lab technicians as part of an integrated project team to deliver technical work packages.

Key relationships

Internal Relationships

- Report to and support the Senior RF& Microwave Engineer – reporting project progress and supporting capability development
- Project Manager –deliver tasks to the PM to ensure projects are on time, quality, and cost
- Engineering and Technology Team – work alongside other engineers in a collaborative and supportive way

External Relationships

- On collaborative Research & Development programmes the intern will develop close working relationships with the respective TAs from the programme lead company

Autonomy:

Perform technical activities whilst in close consultation with the Project Technical Lead and Head of Technology

Pressure and Working Environment

- Work is of technical nature that requires high levels of effort and concentration
- Project deadlines may mean extra time and effort is required at key moments
- Work is split between the office and the lab with a higher effort expected in the lab. The Engineer may work from home depending on workload and in line with company policy
- The intern may be required to work on multiple projects at once maintaining progress and quality

Authority and Risk:

- Provide technical inputs on projects to the Project Technical lead and Head of Technology to ensure quick and accurate decision making
- Ensure risk assessments have been completed for the technical tasks and lab work that the Engineer is overseeing before passing onto a Senior Engineer

Behaviours

- Demonstrate the Catapult behaviours by being inclusive, challenging, and supportive.
- Exemplify the Catapult values of collaboration, innovation, and trust.

