



## Candidate Information

<b>Position:</b>	ECIT Graduate Engineer
<b>School/Department:</b>	Centre for Secure Information Technologies
<b>Reference:</b>	23/110857
<b>Closing Date:</b>	Monday 8 May 2023
<b>Salary:</b>	£30,652 to £38,964 per annum
<b>Anticipated Interview Date:</b>	Week commencing 22 May 2023
<b>Duration:</b>	Available until 31 March 2026

### Job Purpose:

To undertake collaborative development projects with industrial partners exploiting research and innovation from the Centre for Secure Information Technologies (CSIT), with particular emphasis on the use of artificial intelligence (AI) for cyber security.

### SFIA competency level 3- Apply:

1. **Autonomy:** Works under general direction. Receives specific direction, accepts guidance and has work reviewed at agreed milestones. Uses discretion in identifying and responding to complex issues related to own assignments. Determines when issues should be escalated to a higher level. Plans and monitors own work (and that of others where applicable) competently within limited deadlines.
2. **Influence:** Interacts with and influences colleagues. May oversee others or make decisions which impact routine work assigned to individuals or stages of projects. Has working level contact with customers, suppliers and partners. Understands and collaborates on the analysis of user/customer needs and represents this in their work. Contributes fully to the work of teams by appreciating how own role relates to other roles.
3. **Complexity:** Performs a range of work, sometimes complex and non-routine, in a variety of environments. Applies a methodical approach to routine and moderately complex issue definition and resolution. Applies and contributes to creative thinking or finds new ways to complete tasks.
4. **Research/Innovation/Professional Skills:**
  - Demonstrates effective oral and written communication skills when engaging on issues with colleagues, users/customers, suppliers and partners.
  - Understands and effectively applies appropriate methods, tools, applications and processes.
  - Demonstrates judgement and a systematic approach to work.
  - Effectively applies digital skills and explores these capabilities for their role.
  - Learning and professional development — takes the initiative to develop own knowledge and skills by identifying and negotiating appropriate development opportunities.
  - Security, privacy and ethics - demonstrates appropriate working practices and knowledge in non-routine work. Appreciates how own role and others support appropriate working practices.
5. **Knowledge:** Has sound generic, domain and specialist knowledge necessary to perform effectively in the organisation typically gained from recognised bodies of knowledge and organisational information. Has an appreciation of the wider business context. Demonstrates effective application and the ability to impart knowledge found in industry bodies of knowledge. Absorbs new information and applies it effectively.
6. **Follows Engineering Team processes to deliver high quality outputs such as demonstrators, prototypes, technical reports, major component design specifications and project deliverables which successfully pass formal quality review procedures.**

Assists in raising funds to support further R&D activity, such as:

  - Supporting the definition of a work package for a project proposal.
  - Supporting the delivery of commercialisation activity (for example contract R&D activity directly sponsored by a company).
7. **Interacts with others including academic staff, and industry and government executives.**

Provides support to nominated ECIT research groups.

8. Contributes to:

- The Vision/Mission & Values of ECIT.
  - New initiatives which potentially influence ECIT strategic direction.
  - ECIT Engineering Team plans and objectives.
  - Mentoring and training of less experienced staff or students as appropriate for level.
  - Building links with industry and industry related bodies.
  - Technology transfer and ECIT Innovation Programme activities.
9. Continues professional development for instance with professional bodies, industry panels etc. Takes initiative to keep own skills up to date and to maintain awareness of developments in the industry.

**Essential Criteria:**

1. 2:1 Honours Degree or higher, or equivalent, in Electrical/Electronic Engineering, Computer Science or related discipline.
2. Proven and well developed software development skills in languages such as C, C++ / Java / Python / R / Rust.
3. Use of code configuration management toolsets.
4. Good understanding of cyber security.
5. Ability to communicate complex information clearly in both written and spoken English.
6. Evidence of strong presentation skills and ability to prepare clear and concise presentation materials.
7. A consummate team player who is open-minded and is prepared to work closely with other members of a large multidisciplinary research and development team.
8. Willingness to attend meetings and conferences nationally and internationally as requested, i.e. must be prepared to travel.

**Desirable Criteria:**

1. Meng, or MSc, or PhD. in a relevant area.
2. Experience of one or more of the following:
  - Industrial product development of outputs such as demonstrators or prototypes.
  - Delivery of technical reports in a research environment.
  - Artificial Intelligence and Machine Learning methodologies and tools.
  - Hardware development skills in languages such as VHDL, Verilog, SystemVerilog.
3. Experience of Agile development processes.
4. Contribution to research/ development funding applications.
5. Ability to interact with others including academic staff and industry and government executives.
6. Stable, hard-working personality with a strong drive to complete projects on time and to deliver the promised outcomes.