**Job Description**

**Job Title: Research Associate in Medical Linacs (Cockcroft Institute)**

**Salary Range and Conditions: Grade 7, 12 month fixed term appointment**

**Department/Division: Engineering**

**Reports To: Graeme Burt**

**Job Purpose**

1. Design of an RF cavity for a medical linac in CST Studio Suite
2. Develop a tuning procedure for the cavity
3. Support multi-leaf collimator failure studies
4. Support a radiotherapy training event in Ghana

**Main Responsibilities**

1. Design of an RF cavity for a medical linac in CST Studio Suite
2. Create drawings, and liaise with technicians to build a test prototype
3. Develop tools and procedures to measure and tune the cavity
4. Test tuning procedures with a VNA
5. Perform beam dynamics simulations to define tuning tolerances in ASTRA
6. Support failure studies on multi-leaf collimators with FEA modelling
7. Analysis of statistical data on medical linac failures
8. Support the development of tools for training African technicians on identifying failures
9. Support medical linac simulation training
10. Support training school in Ghana as required
11. Support supervision of summer students
12. Taking part in high power cavity measurements at Daresbury

**People management:** As a people manager, you will be expected to actively support the wellbeing and development of your team. This includes conducting regular Performance and Development Reviews (PDRs) and providing ongoing guidance to help staff achieve their full potential. You will also be responsible for managing performance, ensuring clear expectations are set and met, and fostering a positive and supportive work environment.

**Job Hazards/Safety-Critical Duties and required Pre-employment Checks:** May involve visiting radiation test facilities.

**Physical Demands:** Lifting an aluminium cavity weighing 10-20 kg

**Values:** The University recognises and celebrates good employment practice undertaken to address all inequality in higher education whilst promoting the importance and wellbeing for all our colleagues.

We expect all staff to embrace our core values and work positively to support equality, diversity, and inclusion, ensuring that every team member contributes to a supportive, and respectful working environment.

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