Candidate Information

Position:	Electronics Technician
School/Department:	School of Electronics, Electrical Engineering and Computer Science
Reference:	19/107990
Closing Date:	Monday 6 January 2020
Salary:	£28,331 to £32,817 per annum
Anticipated Interview Date:	Wednesday 15 January 2020

JOB PURPOSE:

To provide specialist technical services in support of research and teaching projects. The post whilst primarily based at ECIT will also provide support to the Ashby based Power Lab.

MAJOR DUTIES:

1. Supervise and perform day-to-day management of laboratory facilities within the Centre for Wireless Innovation and the Ashby Power Lab.
2. Manufacture and assembly of microwave prototype circuits to a high level of accuracy, using hybrid assembly techniques.
3. Provide detailed technical information, guidance and support to relevant staff as appropriate within the workshop in the design, development, construction and modification of microwave through sub-millimetre wave assemblies and apparatus using the following specialist techniques: manual and/or automatic surface mount component placement, precision soldiering.
4. Programming and operation of microwave measurement instruments, including spectrum analyser, vector network analyser, anechoic chamber, signal sources and high frequency oscilloscopes.
5. Procure and set-up specialised equipment and apparatus for use by academics, postdoctoral researchers and students in practical experiments in CWI and Power Laboratories.
6. Construction and assembly of apparatus in house & off-site, if required.
7. Prepare and carry out procedures for tests/experiments and collate record and tabulate data for interpretation, e.g. the preparation of reports.
8. Maintain, test, fault-finding and repair equipment/apparatus to ensure it is safe to use and complies with relevant statutory safety regulations. Ensure general workshop services tidiness.
9. Maintain inventory of workshop equipment and components. Compliance with relevant statutory safety regulations. Responsible for general workshop tidiness and best practice in connector handling including developing custom documentation.
10. Allocation of tasks to technical staff if required to do so and follow up to ensure work is completed to required standards and timescales.
11. Compliance with Health and Safety procedures affecting self and others.
12. Any other duties which are appropriate to the post as may be reasonably requested by the supervisor/line manager.

Planning and Organising:

1. Prioritise own work within a general plan to meet deadlines.
2. Plan layout of the laboratory as well as assessing requirements and resources needed in advance.

Resource Management Responsibilities:

1. Take delegated responsibility for ensuring instrument connectors and cables are fit for purpose prior/post to measurement.
2. Allocate/delegate work to others for specific activities.
3. Support student learning through the development and demonstration of standard equipment and techniques.
4. Where appropriate carryout some training of junior staff.

Internal and External Relationships:

1. Daily contact with work colleagues, academic staff and students.

2. Liaison with external contacts when required.
3. Regular liaison with supervisor/line manager.

ESSENTIAL CRITERIA:

1. HND/HNC, NVQ level 4 in Electrical Engineering (or equivalent) discipline and/or Apprenticeship in a microwave industrial / academic environment.
2. Evidence of lab supervision and management experience.
3. Experience of and ability to understand, conceptualise and interpret the technical requirements of staff, students and other clients.
4. Four years technical experience in a relevant role to include experience of high frequency electronics, fabrication and test of microwave assemblies to include experience in the following specialist techniques;
   • manual and/or automatic surface mount component placement;
   • precision soldering;
   • RF measurement using Vector Network Analysers, Spectrum analysers, signal sources and high frequency oscilloscopes
5. Experience of training staff/students on routine fabrication and measurement techniques.
6. Working knowledge of the broader activities of the school.
7. Project and time management skills,gained through carrying out a range of tasks to time and quality requirements with minimal direct supervision.
8. Must be able to develop best practice laboratory documentation.
9. Well developed understanding of relevant regulations and procedures including Health and Safety requirements and the implication of non-compliance on other users.
10. Good communication and interpersonal skills.
11. Ability to develop and demonstrate standard procedures processes and techniques in relation to engineering laboratory practice.
12. Ability to prioritise own work within a general plan to meet deadlines.
13. Independent problem solving skills.
14. Must be willing to additional hours during peak periods needed. Occasional travel to partner sites or specialised offsite training.

DESIRABLE CRITERIA:

1. Have or be working towards a relevant degree in Electrical and Electronic Engineering, Computer Science or Physics.
2. Experience of antenna measurement, nearfield or farfield.
3. Experience of on-chip measurement.
4. Experience of PCB manufacturing techniques, wet etching/milling.
5. Experience of themosonic wire bonding such as wedge and ball bonding.
6. Practical experience of electronic equipment repair and maintenance.
7. Willingness to work in a team as well as own initiative.