**Role Profile**

**Job Title:** Sir Peter Mansfield Imaging Centre Specialist Technician

**School/Department:** Physics & Astronomy

**Job Family and Level:** Technical Services Level 4

**Contract Status:** Permanent

**Hours of Work:** Full Time (36.25)

**Location:** School of Physics & Astronomy (SPMIC)

**Reporting to:** School Technical Manager

**The Purpose of the Role:**

The role is responsible for the management of the Sir Peter Mansfield Imaging Centre (SPMIC) technical workshop and for the provision of specialist technical support to the teaching and research teams at the SPMIC. The role utilises specialist knowledge and techniques to design and fabricate items (metallic and non-metallic) that are used to support experiments across a range of imaging modalities including MRI, MRS, EEG and MEG.

**Main Responsibilities:**

1. Provide specialist biomedical-imaging-compatible technical support to students, staff and academics. Designing and manufacturing of experimental research equipment to ensure project objectives are met. To explain what can be achieved with the resources available and show novel design solutions using various fabrication techniques, C.N.C. and manual machine tools.

2. To advise students and staff of the properties of a wide range of materials available to be used in their projects taking into account their composition and characteristics, the environment they will be used, whether at very high or low magnetic field or at extremes of temperature. Provide training staff and students to ensure safe use of the workshop.

3. To provide ongoing analysis of equipment and procedures to help improve the acquisition and interpretation of results. Helping staff and students with grant applications by offering technical advice.

4. Design and development of new manufacturing techniques, procedures and equipment to support research projects.

5. Researching, sourcing, obtaining quotes then ordering through Agresso, materials, components and equipment as required by staff and students.

6. Prioritising work programme for the Centre to assure project deadlines are met.

7. Assist with the Magneto Encephalography (M.E.G.) scanner helium fill and maintenance of fill
Planned maintenance of facility equipment, Completion of risk assessments, C.O.S.H.H. assessments and the maintaining of up to date records ensuring that the department complies with health and safety legislation.

Demonstrating to students and staff the safe use, handling & storage of compressed cylinder gases. Demonstrate safe use of mechanical equipment to staff and students. Locate and prepare various pieces of equipment in the S.P.M.I.C for external contractors to inspect and maintain.

### Knowledge, Skills, Qualifications & Experience

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<th>Essential</th>
<th>Desirable</th>
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<td><strong>Qualifications/ Education</strong></td>
<td>Minimum HNC or equivalent, plus substantial work experience in a relevant role or Proven track record &amp; extensive work experience in a relevant engineering, technical or scientific role.</td>
<td>Recognised qualification / training accreditation in the use of C.N.C. equipment and techniques.</td>
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<td><strong>Skills/Training</strong></td>
<td>High level of engineering proficiency and experience specifically including CAD-CAM (computer aided design – computer aided machining) systems and CNC (computer numerically controlled) systems. General mechanical engineering and workshop skills (milling, turning, etc.). Proven analytical and technical problem solving skills. Excellent oral and written communication skills, to enable the identification and understanding of staff/student requirements. Ability to assess and organise resource effectively recognised from previous project management experience. Proven ability to work accurately in order to provide quality technical support with the ability to work effectively under pressure. Ability to adopt a methodical approach to prioritising work in order to achieve deadlines.</td>
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<td><strong>Experience</strong></td>
<td>Wide ranging knowledge and experience of manual machining techniques and general fabrication. Working knowledge of high vacuum systems.</td>
<td>Knowledge and understanding of the specialised scientific work carried out by the SPMIC with regard to the very specific properties of the materials and magnetic fields used (range of scientific techniques including MRI,</td>
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| **Personal Attributes**       | A positive attitude to customer care and general approachability.  
|                              | Being able to communicate well with students and colleagues both internally and externally.  
|                              | Ability to build effective working relationships and collaborate with others both internally and externally. |
| **Statutory/Legal**          | Understanding of the Health and Safety at Work Act and attendant regulations and procedures to ensure good practice and compliance within the department. |