**UNIVERSITY OF PORTSMOUTH – RECRUITMENT PAPERWORK**

1. **JOB DESCRIPTION**

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| **Job Title:** | KTP Associate – Graduate Programmer/Engineer |
| **Faculty/Centre:** | Faculty of Creative and Cultural Industries |
| **Department/Service:**  **Location:** | Institute of Industrial Research (IIR) |
| **Position Reference No:** | 10007103 |
| **Cost Centre:** | 42699 |
| **Responsible to:** | Dr Edward Smart |
| **Responsible for:** | N/A |
| **Effective date of job description:** | 06/12/12 |

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| **Purpose of Job:** |
| To work alongside company engineers in developing a prototype of a data acquisition unit, which will lead to full production. |

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| **Key Responsibilities:** |
| **Duties and responsibilities:**   * Literature review on current feature selection methods, digital signal processing methods and data acquisition units * Create a well-documented technical specification under a version control system * Regular and accurate reporting to academic and industrial supervisors * Taking initiative to monitor and manage agreed objectives * Ability to understand digital signal processing techniques for fault detection * Create mathematical models using Matlab * Ability to undertake experiments following scientific research principles * Work with the project team (academic and industrial) to develop a cost effective data acquisition unit which will integrate with their current products * Implement the findings of the experiments to develop a prototype * Working closely with the company engineers to develop production versions of the prototype * To work for extended periods of time at the IIR to develop simulations and conduct experiments * To produce a good quality conference paper during the project with the support from academic team * Carry out other duties as may be reasonably required by industry and academic supervisors |

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| **Working Relationships:** |
| The KTP Associate will be employed by the University of Portsmouth, as a member of the Institute of Industrial Research (IIR).  The KTP Associate should work closely with the academic team throughout the project.  The project itself will be overseen by a Local Management Committee which will include the Academic team and the Industrial team. |

1. **PERSON SPECIFICATION**

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| **No** | **Attributes** | **Rating** | **Source** |
| **1.** | **Specific Knowledge & Experience** |  |  |
|  | Experience in using Matlab | D | AF, S, P |
|  | Experience with creating mathematical models | D | AF, S, P |
|  | Understanding of digital signal processing techniques | D | AF, S, P |
|  | Experience in working with industry | D | AF, S |
|  | Experience in using Simulink | D | AF, S |
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| **2.** | **Skills & Abilities** |  |  |
|  | Strong computer programing skills (e.g. C code or equivalent) | E | AF, S, T |
|  | Demonstrate good attention to detail, including excellent numeric skills | E | AF, S |
|  | Ability to work to deadlines | E | AF, S |
|  | Good verbal and written communication skills | E | AF, S, P |
|  | Excellent report writing skills | E | AF, S |
|  | Ability to project manage and delegate | D | AF, S |
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| **3.** | **Education &/or Training** |  |  |
|  | Degree in Computer Science or Engineering (2.1 or above) | E | AF, S |
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| **4.** | **Other Requirements** |  |  |
|  | Experience of “hands-on” experimentation | D | AF, S, P |
|  | Self motivation and ability of working independently and within a team | D | AF, S, P |
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**Legend**

Rating of attribute: E = essential; D = desirable

Source of evidence: AF = Application Form; S = Selection Programme; T = Test; P = Presentation

**JOB HAZARD IDENTIFICATION FORM**

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| **Please tick box(s) if any of the below are likely to be encountered by the applicant.** | | | |
| International travel |  | Ionising radiation |  |
| Manual Handling |  | Asbestos, Lead |  |
| Human tissue/body fluids  EPP Worker (Exposure Prone Procedures) |  | Driving on University business Mini-bus, Van, bus, forklift truck |  |
| Genetically modified Organisms |  | Food Handling |  |
| Noise > 80 DbA |  | Substances to which COSHH applies |  |
| Skin irritants/sensitisors |  | Small print /colour coding (electrical) |  |
| Night Duty  between 2200 hrs and 0600 hrs |  | Working at heights / with drains / in confined spaces |  |
| Display Screen Equipment | X | Access to children |  |
| Repetitive tasks | | Stress (workplace/workload demands, changes within dept etc) |  |
| Other (please specify) | | | |
| Please give details of any of the above as necessary: | | | |

**Line Manager/Supervisor to sign below:**

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| **Signed** |  |
| **Name (block capitals)** | EDWARD SMART |
| **Date** | 06/12/12 |
| **Extension number** | 4447 |