

**Faculty of Technology**

**School of Engineering**

**Business Edge Ltd Waterlooville Hampshire**

**KNOWLEDGE TRANSFER PARTNERSHIP (KTP) ASSOCIATE (MECHANICAL DESIGN ENGINEER)**

**ZZ003580**

**Information for Candidates**

# THE POST

Please see the attached job description and person specification.

**TERMS OF APPOINTMENT**

Salary of £25,000 - £33,000 per annum, plus £4,300 training budget, paid into a bank or building society monthly in arrears.

Although an employee of the University of Portsmouth’s, you will be working at Business Edge Ltd.

The Appointee will be entitled to join the Local Government Pension Scheme. The scheme's provisions include an index-linked pension with an option to exchange some pension for a lump sum on retirement together with dependants’ benefits. Contributions by the employee are subject to tax relief.

There is a probationary period of six months during which new staff are expected to demonstrate their suitability for the post.

There is a comprehensive sickness and maternity benefits scheme.

**All interview applicants will be required to bring their passport or full birth certificate and any other 'Right to Work' information to interview where it will be copied and verified.** The successful applicant will not be able to start work until their right to work documentation has been verified.

Under the University’s Insurance Policy we will take up references for candidates called for interview. Your current employer reference must be your current line manager. It is also a requirement of this policy that we take up references to cover the previous three years of your employment or study.

The successful candidate will need to bring documentary evidence of their qualifications to Human Resources on taking up their appointment.

To comply with UKVI legislation, non-EEA candidates are only eligible to apply for this post if it has been advertised for a total of 28 days.

If the position has a requirement for Disclosure and Barring Service check (DBS), this will be stated in the advert. The DBS Application Form will be provided once the selection process has been completed.

All applications must be submitted by Midnight (GMT) on the closing date published.

**UNIVERSITY OF PORTSMOUTH**

1. **JOB DESCRIPTION**

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| **Job Title:** | KTP Associate |
| **Faculty/Centre:** | Faculty of Technology |
| **Department/Service:****Location:** | School of Engineering |
| **Position Reference No:** | ZZ003580 |
| **Cost Centre:** | 11103 |
| **Responsible to:** | Dr. Mariana Dotcheva  |
| **Responsible for:** | N/A |
| **Effective date of job description:** | 23/08/2016 |

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| **Purpose of Job:** |
| Working in collaboration with Business Edge Ltd on the design process of a new family of oil-free compressor products |

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| **Key Responsibilities:** |
| * To review Business Edge’s current capabilities and the requirements for ongoing compressor development
* Mechanical design and SolidWorks 3D modelling of compressor components and supporting systems for refrigeration and air conditioning applications
* Mechanical design of sheet metal casings, frames, component fixings, rotating components, bearings, gear or belt drives, etc.
* A clear understanding of the capabilities and limitations of machining and folding processes to ensure the products you design can actually be produced and assembled
* Stress analysis / FMEA / Materials Evaluation
* System scaling for larger compressor development
* Report writing and recommendations
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| **Working Relationships:** |
| The KTP Associate will be employed by the University of Portsmouth, as a member of the School of Engineering. The KTP Associate will work closely with the academic team, Business Edge and an existing associate throughout the project. Key contacts will be:* Dr. Jim Buick – Lead Academic (UoP)
* Dr. Mariana Dotcheva – Main academic supervisor (UoP)
* Prof. Nick Bennett – Academic supervisor (UoP)
* Dr. Ivan Popov – Academic team (UoP)
* Mike Creamer – Managing Director (Business Edge Ltd)
* Peter Talman – Technical Consultant (Business Edge Ltd)
* Brett Dewar – KTP Associate
* Stephen Woodhouse – Regional KTP Advisor

The project 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** |  |  |
|  | Knowledge of materials and properties (tensile strength, coefficient of expansion, machinability, etc.) | E | AF, S, P |
|  | Understanding of machining processes (turning, milling, grinding, and casting/moulding) | E | AF, S, P |
|  | Experience in mechanical design and conversant with 3D modelling software (SolidWorks desirable) | E | AF, S, P |
|  | Knowledge of software to conduct FEA, stress calculations, pressure and strain calculations | E | AF,S,P |
|  | Experience/knowledge of gears, bearings, high speed rotating machinery, torque | D | AF,S,P |
|  | Understanding of electrical circuitry and components (isolators, relays, contactors) and control logic | D | AF,S,P |
|  | Knowledge of rotor-dynamics and prior experience a distinct advantage | D | AF,S,P |
|  | Knowledge of Directives such as the Pressure Equipment Directive (PED) and Low Voltage Directive | D | AF,S,P |
|  | Experience of working in industry | D | AF, S, P |
| **2.** | **Skills & Abilities** |  |  |
|  | Demonstrate good attention to detail, including excellent numerical and practical 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 |
| **3.**  | **Education &/or Training** |  |  |
|  | Recent Masters Degree in Mechanical Engineering or equivalent | E | AF, S |
| **4.** | **Other Requirements** |  |  |
|  | Ability to deal confidently with a variety of people at all levels | E | AF, S |
|  | A sound Engineering background | E | AF, S |
|  | Relevant period of industrial experience  | D | AF, S |

**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 in this role. This is in order to identify potential job related hazards and minimise associated health effects as far as possible. Please use the** [**Job Hazard Information**](http://www.port.ac.uk/departments/services/humanresources/occupationalhealthservice/jobhazardinformation/filetodownload%2C164407%2Cen.doc) **document in order to do this.**  |
| 1. International travel/Fieldwork  | X | 13. Substances to which COSHH regulations apply (including microorganisms, animal allergens, wood dust, chemicals, skin sensitizers and irritants)  | X |
| 2. Manual Handling (of loads/people)  | X | 14. Working at height |  |
| 3. Human tissue/body fluids (e.g. Healthcare workers, First Aiders, Nursery workers, Laboratory workers) |  | 15. Working with sewage, drains, river or canal water  |  |
| 4. Genetically modified Organisms  |  | 16. Confined spaces |  |
| 5. Noise > 80 DbA  |  | 17. Vibrating tools  |  |
| 6. Night Working(between 2200 hrs and 0600 hrs) |  | 18. Diving |  |
| 7. Display screen equipment (including lone working) | X | 19. Compressed gases |  |
| 8. Repetitive tasks (e.g. pipette use, book sensitization etc)  |  | 20. Small print/colour coding |  |
| 9. Ionising radiation/non-ionising radiation/lasers/UV radiation  | 21. Contaminated soil/bioaerosols |  |
| 10. Asbestos and lead  | 22. Nanomaterials  |
| 11. Driving on University business (mini-bus, van, bus, forklift truck etc)  | 23. Workplace stressors (e.g. workload, relationships, job role etc)  |
| 12. Food handling  | 24. Other (please specify)  |

**Completed by Line Manager/Supervisor:**

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| **Name (block capitals)** | Mariana Dotcheva |
| **Date** | 14/7/2016 |
| **Extension number** |  |

Managers should use this form and the information contained in it during induction of new staff to identify any training needs or requirement for referral to Occupational Health (OH).

Should any of this associated information be unavailable please contact OH (Tel: 023 9284 3187) so that appropriate advice can be given.