

Position:	KTP Associate				
Based at:	Wärtsilä Defence Solutions Limited (WDSL)				
Salary:	£42k - £44k p/a (depending on qualifications and experience)				
Vacancy Ref:	UoG/WDSL	Application closing date:	31/10/2024	Interview date:	TBC in 3 rd week of 11/2024

An exciting opportunity has become available for a Masters/PhD level candidate to work on a project that leverages recent advancements in Imaging and Artificial Intelligence for material quality inspection to improve productivity in industrial practice. The aim of this project is to develop a data-driven image mechanics (D²IM) tool able to learn microstructural and mechanical properties of composites, providing WDSL with a technology to identify and distinct the nature of defects in composite materials (bio and non-bio) manufacturing.

This position is a 36-month fixed term contract, with a £2k per annum dedicated training budget tailored towards your personal development.

The role:

This is an exciting opportunity to help WDSL by transferring knowledge in imaging and artificial intelligence to reduce wastage of composite materials in shaft line seals and bearings, allowing the business partner to transition into the bio-based market with competitive and reliable material solutions.

You will be employed by the University of Greenwich, but be based within the Engineering Team in Havant (Hampshire) and developing technology with the R&D, Quality Assurance and Quality Control departments within WDSL.

Qualifications we require:

A minimum 2nd class MSc degree in Engineering, Materials Science, Artificial Intelligence or similar discipline.
A PhD (or working towards completion) in Imaging Technology (or similar area) and/or an understanding of large organisations in Materials Engineering would be desirable.

The successful candidate must have:

British or dual nationality, as for the nature of the role SC (Security Clearance) will be required. Other Nationalities are accepted from the following countries, NATO, the European Union, Australia, Japan, New Zealand, Switzerland only, a requirement is to have lived in the UK for 5 years consecutively.

One or more of the following technical skills:

- ◆ Experience with a wide range of industry standard technologies such as composite materials, design and manufacturing.
- ◆ Ability to investigate and analyse materials using imaging/microscopy techniques (e.g. XCT) and mechanical testing.

Experience in mathematical/engineering programming (e.g. Python, Matlab).

And the following attributes:

- ◆ An excellent 'can-do' attitude, showing enthusiasm, curiosity and a willingness to learn.
- ◆ Ability to work independently, and as part of a team.
- ◆ Ability to communicate effectively.
- ◆ Ability to cope with pressures and setbacks.

Responsibilities in this role include:

- ◆ Understanding the scope and technical complexity of the problem that this KTP seeks to address. This will involve talking to key stakeholders and familiarise with WDSL business.
- ◆ Developing project management skills within a fast-paced, world-leading commercial environment to manage own workload alongside the work to be done at WDSL.
- ◆ Communicating and managing senior managers' expectations, where project updates may be required at short notice.
- ◆ Assimilating knowledge with appropriate training in imaging, mechanics and artificial intelligence required for a successful delivery of the project.
- ◆ Developing an appropriate set of technical and analytical skills to design a D²IM framework, based on <https://www.sciencedirect.com/science/article/pii/S2352431624000828>, that can be tailored to composite materials.
- ◆ Working with the university and company experts to plan, automate and execute this D²IM framework, embedding this model as a tool in quality inspection procedures at WDSL.
- ◆ Disseminating the results in UK/international conferences, industrial showcases and peer-reviewed journals.
- ◆ Producing training materials and workshops to enable enthusiastic buy-in from other teams/divisions across the business, ensuring continuity and further development of the technology after the KTP.

Desirable skills:

- ◆ Entrepreneurial and commercial thinking.
- ◆ Clear leadership and project management skills.

<p>Desirable technical skills:</p> <ul style="list-style-type: none"> ◆ Experience in imaging-based techniques (e.g. digital image/volume correlation). ◆ Experience of Machine Learning/AI methods, particularly those applicable to image data. 	
<p>About KTP: This position forms part of the Knowledge Transfer Partnership (KTP) funded by Innovate UK. It's essential you understand how KTP works with business and the University, and the vital role you will play if you successfully secure a KTP Associate position. For more information please visit: www.ktponline.org.uk</p>	
<p>About Company: Wärtsilä Defence Solutions Limited (WDSL), as part of Wärtsilä corporation, is an original equipment manufacturer with expertise in designing, manufacturing, and servicing shaft line products for the marine sector (Merchant, Cruise, and Navy) with installations on over 30,000 vessels worldwide. Based in Havant, WDSL have a strong Engineering team, as well as big teams in Manufacturing, Operations and Test & Validation facilities.</p>	
<p>Find out more by visiting: https://www.wartsila.com/</p>	
<p>The opportunities available to you:</p> <ul style="list-style-type: none"> ◆ A £2k per year training allowance and 25 days holiday per annum plus statutory days. ◆ Attendance at 2 'one week' management residential training programmes. ◆ Full access to the University's Learning Resources. 	<p>Place of work: The position will be based at WDSL (Havant). However, some time throughout the project will be spent at the University of Greenwich Medway campus and any travel/accommodation will be covered by the funding budget of the project.</p> <p>Hours: 35 hours/week, flexible working is allowed in agreement with industrial and academic supervisor.</p>
<p>If you have questions about this KTP vacancy contact: KTP contact: Keith Casson E: k.casson@greenwich.ac.uk</p>	<p>To apply send your CV and covering letter to: Academic supervisor: Dr Peter Soar E: p.soar@greenwich.ac.uk</p>

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