Job description

**PhD scholarships** in the eLogistics Research Group, School of Technology, Environments & design (TED) are available for suitable candidates with interests and/or skills in Non-Destructive Evaluation (NDE) Techniques.

The PhD student will be based in Discipline of Information and Communication Technology (ICT), School of Technology, Environmental and Design (TED), College of Sciences and Engineering.

**Position Description** This is an opportunity for a talented student with first class (Hons) or MSc degree and with skills or interests in Non-Destructive Evaluation (NDE) techniques. The suitable candidate will join a multi-disciplinary team to develop, implement and deploy innovative and cost-effective engineering and IT solutions for complex problems in timber industry. This role will involve the candidate in direct ‘hands-on’ practical experimentation and will require an individual with the capacity to display attention to scientific detail and good computer programming skills. This is a full-time three year position in Hobart, Australia.

**Job Responsibilities**
- Development, implementation and deployment of nondestructive testing (NDT) techniques and procedures in support of timber manufacturing process development, engineering evaluations, fracture analysis, testing (development, qualification and acceptance) and assessment and processing of large standing trees.
- Preparation of nondestructive evaluation (NDE) techniques to provide innovative research solutions research and tools for production use in industry,
- Development of one or more mobile applications for nondestructive data capture, processing, assessment and output evaluation.
- Identification and management of projects to enhance NDE technologies, including research, equipment procurement, and multi-division collaboration.

**Qualifications We Require:** First Class (Hons) or Master of Science Degree in Mechanical/Electrical/Civil/Computer science or other related discipline from an accredited program with a Minimum of 1 year of experience in a manufacturing environment.
- Thorough understanding of NDE principles and techniques
- Demonstrated experience supporting new software/hardware development and mobile applications
- Minimum of 1 year of experience in at least 2 of the following test methods:, Ultrasonic, Magnetic Particle, Eddy Current, Shearography, or Thermography.
- Must have a couple of peer-reviewed publication in Q1/Q2 journals or conference proceedings
- Technical background in computational solid mechanics
- Experience with modeling and simulation tools
- Ability to assess tool capabilities and limitations when selecting and utilizing tools to perform simulations
- Proficiency with modern programming languages such as C++, Python, Matlab, or similar languages
• Good interpersonal skills as evidenced by a record of publication of results in peer-reviewed journals and external presentations at scientific conferences

**Qualifications We Desire**

• Willingness and ability to learn new programming or scripting languages
• Experience with parallel programming in high performance computing environments
• Experience with code development for complex computational tools

**Other Qualifications:** NDE Level 1, 2 and 3 Certification in predominant nondestructive inspection techniques.

**Locations:** Hobart, University of Tasmania, Tasmania, Australia.

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