



THE UNIVERSITY OF
WESTERN AUSTRALIA

Achieving International Excellence

RESEARCH ASSISTANT PROFESSOR (Computational Biomechanics) (REF: 3096)
INTELLIGENT SYSTEMS FOR MEDICINE LABORATORY
SCHOOL OF MECHANICAL ENGINEERING

- 3 year appointment
- Salary range: Level B \$76,356 - \$90,674 p.a. plus 17% superannuation
- Closing date: Friday, 7 May 2010

The appointee to this position will work with a large research group on a research grant in computational biomechanics of soft tissues (meshless algorithms for soft tissue failure/damage modelling). The intelligent Systems for Medicine Laboratory is one of the world-leading laboratories in computational biomechanics of soft tissues including real-time computations using non-linear finite element algorithms. More information about our research group can be found at <http://school.mech.uwa.edu.au/ISML/>

The appointee's key responsibility will be conducting research in meshless methods of computational solid mechanics for soft tissue failure/damage modelling. The position may include travel to the USA to conduct collaborative research with our partner investigators.

We are seeking people with:

- Commitment to high-quality research
- Interest and experience in computational methods of continuum mechanics

Benefits include generous superannuation and leave provisions with salary packaging available. Some assistance with relocation expenses (if applicable) may be negotiated.

For further information regarding the position please contact Associate Professor Adam Wittek on +61 8 6488 7362 or email adwit@mech.uwa.edu.au (when using email please use "Meshless Tissues" in the subject line to ensure that your email gets attention).

APPLICATION DETAILS: The position description follows. Written applications quoting the reference number, personal contact details, qualifications, experience and a list of publications along with contact details of three referees should be sent to Director, Human Resources, The University of Western Australia, M350, 35 Stirling Highway, Crawley WA 6009 or emailed to jobs@uwa.edu.au by the closing date.

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THE UNIVERSITY OF WESTERN AUSTRALIA

POSITION DESCRIPTION

POSITION IDENTIFICATION

| | |
|------------------------------------|--|
| Faculty: | Engineering, Computing and Mathematics |
| School/Admin Department: | School of Mechanical Engineering |
| Centre: | |
| Section: I | Intelligent System for Medicine Laboratory |
| Position Number: | |
| Position Title: | Level B |
| Supervisor Title: | Associate Professor Adam Wittek |
| Supervisor Position Number: | |

SPECIFIC WORK CAPABILITIES (SELECTION CRITERIA): (Minimum requirements to perform the duties of the position, e.g. PhD).

PhD in mechanical engineering, civil engineering, biomechanics, physics, mathematics, or related discipline, or equivalent industrial experience

Knowledge of:

- Mathematical and numerical methods of continuum mechanics
- Finite-deformation continuum mechanics

Skills in:

- Development and/or application of computational methods of continuum mechanics in particular finite element method and meshless methods.
- Good oral and written communication skills

Demonstrated abilities in:

- Development of computational methods of continuum mechanics in particular finite element method and/or meshless methods. This can include development of user subroutines for commercial codes, development of in-house and industrially applied codes.
- Conducting research using computational methods of continuum mechanics as demonstrated by publication track record in high-quality journals and/or industrial applications
- Proven ability to work in a team environment with minimum supervision

Experience:

A minimum of 4 years experience working in development and/or application of computational methods of continuum mechanics (including biomechanics) or relevant field. This can include PhD research but preference will be given to candidates with postdoctoral work experience in academia and/or industry.

Positions directly supervised:

Number of positions for which responsible:

PLEASE COMPLETE AND SUBMIT WITH YOUR APPLICATION.

PRIVACY AUTHORISATION

I _____ hereby authorise The University of Western Australia to contact the referees nominated by me below for the purpose of confirming my employment history, work skills and abilities and other information to assist in the assessment of my application for employment.

Signed

Date

Nominated Referees

Referee Name: _____

Position: _____

Company: _____

Telephone No: _____

Email Address: _____

Referee Name: _____

Position: _____

Company: _____

Telephone No: _____

Email Address: _____

Referee Name: _____

Position: _____

Company: _____

Telephone No: _____

Email Address: _____

The University of Western Australia will treat all information obtained in a strictly confidential manner and will not release any information to any other party unless authorisation to do so has been obtained from the applicant.

HOW DID YOU FIRST HEAR ABOUT THE VACANT POSITION?

Please indicate how you heard about the position (tick one)

| Source | Code |
|--|------|
| <input type="checkbox"/> Word of mouth from UWA staff | 13 |
| <input type="checkbox"/> Professional network (<i>please specify</i>) | 14 |
| <input type="checkbox"/> Web – jobs.uwa.edu.au | 10 |
| <input type="checkbox"/> Web – seek.com.au | 15 |
| <input type="checkbox"/> Web – UniJobs.com.au | 11 |
| <input type="checkbox"/> Web – professional careers site (<i>please specify</i>) | 16 |
| <input type="checkbox"/> Web – other Please specify | 20 |
| <input type="checkbox"/> Print – West Australian Newspaper | 01 |
| <input type="checkbox"/> Print – A WA Community Newspaper | 17 |
| <input type="checkbox"/> Print – Other WA newspaper/newsletter (<i>please specify</i>) | 09 |
| <input type="checkbox"/> Print – The Australian Newspaper | 02 |
| <input type="checkbox"/> Print – Other national newspaper (<i>please specify</i>) | 08 |
| <input type="checkbox"/> Print – International newspaper (<i>please specify</i>) | 07 |
| <input type="checkbox"/> Print – Journal (<i>please specify</i>) | 18 |
| <input type="checkbox"/> Recruitment Agency (<i>please specify</i>) | 12 |
| <input type="checkbox"/> Other. Please specify | 19 |