PROFESSOR OF COMPOSITE MATERIALS

Faculty/Institute/Division
Institute for Frontier Materials (IFM)

Classification
Level E, Research

Responsible to
Institute Director

Hours of Duty
Full-time and continuing

Location of Work
Geelong Waurn Ponds Campus

Vacancy closes
Sunday 17 January, 2016

Vacancy reference number
150735

More information
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LIFE AT DEAKIN

Deakin University is proud to be recognised as an organisation that offers a friendly and supportive working environment. Our staff are committed to genuinely making a difference to thousands of people's lives by contributing to excellence in their education. We acknowledge the importance of providing a dynamic and diverse working environment and strive to offer variety in day-to-day roles as well as various career and professional development opportunities to assist staff to grow and progress their careers. Deakin University staff have the opportunity to interact with colleagues from a diverse range of cultures and professional backgrounds, all who share a common interest in lifelong learning. Furthermore, our staff enjoy the physical location and natural surrounds of our working environments, which they report as enhancing their job satisfaction.

Alongside our international and Australian partners, Deakin University operates on four main campuses; Melbourne Burwood Campus, Geelong Waurn Ponds Campus, Geelong Waterfront Campus, and the Warrnambool Campus. We also have a location in the Melbourne and Warrnambool CBDs as well as learning centres across regional Victoria.

The University may require staff to work at other locations outside their primary place of work. The primary place of work for this position is Geelong Waurn Ponds campus, where the Institute for Frontier Materials (IFM) is located.

WHY WORK FOR OUR UNIVERSITY?

Institute for Frontier Materials
Benefits of working at Deakin
LIVE the Future – Deakin University Strategic Plan
IFM is the largest materials research institute in Australia, with over 300 people working on a range of materials. IFM’s research has received the highest research excellence (ERA) ranking score of 5 in Australia, in both Materials Engineering and Macromolecular and Materials Chemistry.

**POSITION PURPOSE**

The appointee will provide outstanding academic and research leadership in the area of composite materials and associated manufacturing processes and product design and promote the Institute within relevant academic and professional communities in Australia and internationally.

This area is an integral part of IFM’s carbon fibre and composite research program, supported by our $34 million cutting edge, globally unique Carbon Nexus facility (www.carbonnexus.com.au), located in the Geelong Technology Precinct (GTP) on Deakin University’s Geelong Waurn Ponds campus. Many highly innovative companies, such as Carbon Revolution and Quickstep Automotive, are also co-located in the precinct.

The appointee is expected to provide leadership in the research and the development of research culture of the Institute for Frontier Materials and is accountable for enhancing the research profile.

This is a *continuing appointment* funded strategically.

**ORGANISATIONAL CONTEXT**

The appointee will report to the Director of the Institute. The appointee will provide strategic research leadership and conduct independent research as well as lead a research program / team within the Institute.

**ORGANISATIONAL RELATIONSHIPS**

The appointee will provide leadership in research, consulting, industry partnerships, and professional activities and mentor more junior academic colleagues. The position requires supervision of honours and research students in the field of composite materials, manufacturing processes and product design. The position requires close interaction with the Director of the Carbon Nexus within IFM for the use and development of facilities, and with other IFM research leaders in the composites field. It is expected the appointee will build a research portfolio in the field of composite materials and manufacturing processes which complements the research portfolios of other composites research leaders within IFM. The appointee will also interact regularly with other staff within the University, their peers in other universities, both nationally and internationally, and with community, professional and industry organisations at an executive level.

**PRINCIPAL ACCOUNTABILITIES**

The appointee is responsible for:

- The provision of research leadership and the development of a research portfolio in the field of composite materials and product design
- Fostering research activities in the composite materials, manufacturing processes and product design area across the Institute and University, and in so doing contribute to scholarly publication, the generation of research and commercial funding and the supervision of honours and postgraduate research students
- Promoting the discipline of fibre reinforced composites by forging strong relationships with professional groups, government and non-government organisations, overseas institutions, other academics, industry and the wider community.
- Contributing significantly to (or leading) the discipline by conducting research and engaging in scholarly publication.

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Being involved in professional activities, including promoting research links with outside bodies, and attendance at conferences and seminars in his/her field of expertise.

Developing a vibrant research team, including supervising, training and guiding other research academic staff.

TYPICAL DUTIES

The duties and responsibilities of this position include, but are not limited to:

Research
- Supervise and advise staff in undertaking experimental design and operation of advanced laboratory and technical equipment or conduct of advanced research procedures.
- Produce conference and seminar papers and publications from research undertaken.
- Remain up to date with current literature and methods relevant to the area of expertise.
- Undertake high level research related administrative and leadership functions.
- Write and submit proposals for competitive research grant funding and industry-based commercial funding, coach more junior researchers in proposal writing and review their proposals.
- Supervise honours and postgraduate students and other research fellows who are working on projects within the Principal Research Fellow’s field of expertise, ensuring timely completions and quality of results.
- Supervise research support staff involved in the staff member’s research and ensure implementation of all relevant University policies, in particular those relating to equal opportunity, Occupational Health and Safety, staff development, and staff performance planning and review.
- Promote the activities of the University, particularly those relating to research and research training, within academic and professional communities in Australia and internationally.
- Be responsible for the oversight and financial management of grants.
- Attend meetings associated with the research project(s) with which the researcher is involved, and the Institute / Centre / Faculty /School meetings and play a major role in planning and committee work.

Service
- Attaining recognition at an international level in the composite materials discipline
- Contributing to the management of research within the Institute and University
- Developing and strengthening strong and on-going links with industry and professional groups as well as establishing new partnerships both within Australia and internationally
- Promoting the Institute and University to prospective students and relevant professional, industry and government bodies in Australia and Internationally
- Attending appropriate staff development courses as the need arises and participating in the University's Performance Planning and Review program
- Ensuring compliance of areas of responsibility with all legislative requirements and University policies including equity and equal opportunity
- Undertaking mentoring of more junior academic staff
- Carrying out other duties as requested by the Director of the Institute

Occupational Health and Safety
- Promoting and providing a safe working environment for students, staff and visitors with attention to the requirements of relevant Occupational Health and Safety, Workers Rehabilitation and Compensation, and Equal Opportunity Acts

SELECTION CRITERIA – ESSENTIAL

The appointee must enthusiastically embrace Deakin University’s Mission and Core Commitments; he or she must share the University’s values. The appointee must show a willingness to undertake leadership roles within the Institute and the wider University.
The appointee must have an outstanding record in the following areas:

**Qualifications**

- PhD in a relevant field (or equivalent).

**Academic Leadership**

- Demonstrable academic leadership and professional expertise in the field of composite materials, processing and design, with a focus on carbon fibre reinforced composites.
- Evidence of recognition as a leader in the field of composite materials
- Evidence of ability to work collaboratively and constructively with colleagues, and with leading industry partners
- Demonstrable written and verbal communication skills and interpersonal skills in establishing and maintaining effective working relationships with students, the staff of the Institute, University and the wider community

**Teaching**

- Proven experience in supervision of Higher Degree by Research (HDR) students
- Understand and respond to the current trends within composite materials, processing and design sciences and technologies and the opportunities available to persons working in this area
- Demonstrated leadership in the maintenance of research/academic standards

**Research**

- Internationally recognised research and scholarly publication in the field of composite materials, processing and design in relevant specialist journals.
- Evidence of significant domestic and international research linkages, particularly linkages with industry
- A proven capacity to encourage and support research by junior colleagues and an ability to build and lead a research team, including mentoring junior staff in their research, with a particular emphasis on high quality publications and obtaining research grants
- Success in securing competitive research and/or commercial funding, particularly national competitive (eg. ARC) or equivalent grants, and pursuing opportunities to secure research funding
- Capacity to lead a successful research team
- A proven record of attracting and successfully supervising Honours, Masters and PhD students

**Service (internal and external)**

- Evidence of ability to build partnerships with professional, industry and government organisations to further relevant educational, research and entrepreneurial activities
- Ability to engage in local and international student recruitment activities
- Strong professional networks in biomedical field and an understanding of industry workforce needs
- Proven experience in the effective promotion and representation of the Institute and/or University, within a University environment and externally

**Management**

- Evidence of ability to work effectively as part of a senior management team
- Evidence of ability to work collaboratively and effectively within university systems, committee and board structures and decision making processes
- Proven experience in the efficient administration of academic teaching and research programs
- Demonstrable compliance and commitment to Equal Opportunity principles and practices and Occupational Health and Safety
SELECTION CRITERIA – DESIRABLE

It is desirable for the appointee to have:

- A sound understanding of the research-industry nexus, the associated challenges, and the opportunities for development both nationally and internationally
- Demonstrated leadership in the maintenance of academic standards and/or the development of curriculum/programs of study
- A record of achievement in providing leadership in integrating technology-enhanced learning and teaching strategies across curricula, activities and assessments delivering improved student outcomes
- Developing and delivering teaching, research and community programs that respond to the University’s distinctive commitments to lifelong learning, distance education and rural and regional Australia
- Experience of developing and maintaining partnerships with domestic and overseas educational institutions
- An understanding of the present difficulties and challenges faced by Australian Universities
- An understanding of current trends within the other disciplines embraced by the Institute for Frontier Materials and of the opportunities available to them
- An understanding of the needs and interests of rural and regional Australia.

SPECIAL REQUIREMENTS

- Experience with initiating and managing large collaborative research projects, including the financial management of such programs.