Position Description
Associate Professor, Mathematics

Details

<table>
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<tr>
<th>Details</th>
<th>Information</th>
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<tbody>
<tr>
<td>Area</td>
<td>Faculty of Science, Engineering and Built Environment</td>
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<tr>
<td>Team / School</td>
<td>School of Information Technology</td>
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<tr>
<td>Employment</td>
<td>Full-time, ongoing</td>
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<tr>
<td>Location</td>
<td>Waurn Ponds</td>
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<tr>
<td>Classification</td>
<td>Level D</td>
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<td>Manager Title</td>
<td>Head of School</td>
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Deakin

Deakin is a Victorian university with a global impact. We are agile and innovative, and committed to making a positive impact through our excellence in education and research and the contributions we make to the wider community.

Our reputation has been built on the dedication and expertise of our staff. We offer a dynamic, diverse and inclusive working environment with opportunities to grow and develop careers. We believe that a progressive, thriving culture will ensure people choose to come, and stay at Deakin and contribute to our ongoing success.

As one of Australia’s largest universities, Deakin has strong global linkages, world-class research and an education portfolio that blends the best of campus and digital delivery into a highly supportive and personalised student experience.

We offer outstanding education founded on the experience we create for our learners and guided by graduate outcomes for successful lives and careers. We undertake globally significant discovery research that benefits our communities through the innovative translation of our ideas into new services, products, policies and capabilities.

At Deakin we value diversity, embrace difference and nurture an inclusive, safe and respectful community. Deakin is an Employer of Choice for Gender Equality, a SAGE Athena SWAN Bronze Award holder, seeking gender equity for Women in STEMM, and a Silver Award holder in the Australian Workplace Equality Index for LGBTQ inclusion. We strongly encourage applications from Aboriginal and Torres Strait Islander people and people of all cultures, abilities, sexualities and genders.

Strategic Plan – Deakin 2030: Ideas to Impact

Benefits of working at Deakin
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Overview

The Associate Professor will provide outstanding leadership in research, teaching, and engagement in mathematical modelling with a particular focus on energy networks and new energy technologies. Understanding of the AEMO 2022 Integrated System Plan and the capability to use data and modelling to understand and solve problems in energy networks to enable effective and efficient operation of distributed energy resources within energy networks. The appointee will advance the data science, mathematical and network modelling disciplines with an energy focus within the school and within the academic, professional communities and state and federal energy agencies in Australia and internationally. The appointee will contribute to leadership of the school’s teaching, research, and industry engagement program development and service at national and international levels.

Responsibilities

Education and Employability

- Integrate industry and research practice to inform unit and course design across the discipline within the University
- Continually seek to improve academic standards and make a distinguished contribution to teaching and educational innovation in the University
- Provide leadership in curriculum development, course design, and innovation in teaching, including the provision of feedback and more general mentoring, taking account of national and international developments.
- Guide and assist less experienced colleagues to develop their teaching capacity and more generally in developing the careers of these junior staff.
- Lead teaching teams to develop courses and materials which influence teaching across discipline within the University, or across multiple disciplines in the area of data science, mathematical and network modelling as they form New Energy Technologies
- Facilitating inter- and cross-disciplinary collaborations between internal and external stakeholders, focusing on the impact of New Energy Technologies across multiple domains, with particular focus on teaching infrastructure (facilities, systems, platforms, computing) required to enable the delivery, outcomes and advancement of this discipline
- Lead innovation in curriculum design within the University
- Deliver learner-centric, research and industry-informed active learning practices across different levels / modes of delivery
- Work collaboratively with teaching teams across the School and University to improve student learning outcomes
- Lead review of units and courses across disciplines within the University and leads refinements
- Lead the development and coordinated integration of innovative teaching practices across disciplines within the University
- Provide clear assessment rubrics and timely feedback to learners to demonstrate learning outcomes
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- Lead moderation of assessment tasks at the discipline level and implements innovative practices to improve learning outcomes
- Apply leading industry and/or research practice into student learning experiences and resources
- Support diverse learners by designing accessible and inclusive learning experiences and resources at the discipline level
- Design collaborative learning opportunities that span the discipline within the School and involve learners, teachers and the community
- Provide academic support to students within units, courses and the disciplines relevant to New Energy Technologies
- Work collaboratively to improve student support services to optimize student outcomes
- Build effective unit, course and discipline teaching teams
- Lead systematic mentoring programs to improve teaching practices across a discipline
- Build a culture of collaboration and educational excellence across one or more disciplines
- Support collaboration with other education institutions
- Complete Graduate Certificate in Higher Education Learning and Teaching
- Build teaching and learning capability related to discipline or pedagogy, and leads the professional development of other academics
- Provide intellectual leadership within their specific fields/areas of teaching scholarship
- Recognised as a leader in teaching scholarship at national level

Research and Innovation

- Lead and develop productive, high-quality research teams to undertake significant research programs, scholarship and creative activities generating high impact outputs
- Provide leadership in their disciplines, fostering the research, scholarship and innovation of other individuals and groups within their School, Strategic Research Centre (SRC) or Institute, their discipline, and related disciplines.
- Develop and leads academic or other collaborations that enable novel research or creative activities recognised nationally
- Facilitating inter- and cross-disciplinary collaborations between internal and external stakeholders, focusing on the impact of New Energy Technologies across multiple domains, with particular focus on research infrastructure (facilities, systems, platforms, computing) required to enable the delivery, outcomes and advancement of this discipline.
- Widely communicates outputs to discipline(s), other sectors and the community, including nationally and internationally
- Ensure impact of academic activity in the field and the community
- Lead teams and succeeds in funding opportunities for research and creative activities, demonstrating sustained successes
- Demonstrate sustained and expanding national and international reputation amongst world leaders for substantial and growing body of work, recognized quality, excellence and impact
- Support the development and promotion of the School research collaboration agenda and priorities
- Lead development of intra- and inter-disciplinary research collaborations, to enable major breakthroughs in knowledge and understanding and solutions to complex problems
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- Develop and leads industry partnerships and collaboration to enable major breakthroughs, innovative solutions for future translation into real world impact
- Support and makes major contributions to development and delivery of the university’s industry partnership agenda and priorities
- Lead applications for external competitive and other funding with sustained effort and success
- Demonstrate sustained and expanding track record of timely delivery of outcomes for industry partners, with national and growing international recognition
- Develop and leads major projects of innovation and translation into policies, frameworks, strategy, priority setting and other outcomes to create positive impact
- Guide and assist less experienced colleagues to develop their capacity for research, and more generally develop their careers.
- Develop and leads major projects of innovation and translation into products, services, new ways of operating and other avenues to create positive impact
- Demonstrate timely and sustained delivery of commercialisation and translation outcomes
- Recruit and supervises Honours and HDR students with timely completions and productive, high-quality outcomes
- Ensure ECR and MCRs have Honours and HDR supervision opportunities particularly as principal supervisors
- Provide effective mentoring to research students, ECRs and MCRs to support professional and career development and employability
- Lead and develops initiatives that ensure widespread adoption of culture of research excellence, innovation and impact
- Develop and assists industry partnerships that provide HDRs, ECRs and MCRs with industry experience

University Citizenship and Engagement

- Lead the development and significantly contribute to citizenship activities and effectiveness as champion at local and university level
- Support the development of university’s strategic agenda at discipline/school and university
- Lead the implementation of the strategic agenda at discipline/School level
- Demonstrate delivery of material outcomes aligned with Deakin community engagement agenda through formal roles and/or informal initiatives
- Lead the development and significantly contribute to community engagement activities
- Support the development of the University’s community engagement agenda

Relationships

- Internal relationships: School-based Research Centres and Labs, Centre for Research in Assessment and Digital Learning (CRADLE), University Research Institutes
- External relationships: Institute of Analytics Professionals of Australia, Victorian Quantum Technology Network, Australian Computer Society, relevant industry and government partners
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Selection

Qualifications and experience

- PhD in a relevant discipline
- Distinguished scholarly learning and teaching in UG and PG programs, including innovative curriculum design and supervision to doctoral level
- Internationally recognised research reputation underpinned by publications in high quality journals, and exhibitions where relevant to the discipline
- Success in obtaining and timely completion of competitive external research grants and industry funded research
- Successful engagement with research, community, industry and government to enhance the national and international standing of the discipline
- Demonstrated success and passion for leadership of teaching, research and/or administration
- Excellent interpersonal skills and a proven ability to establish good working relationships with colleagues

Capabilities

1. **Environmental Scanning**: Seeks emerging trends; identifies issues within field of expertise and University context
2. **Planning and Organising**: Plans, analyses and co-ordinates the delivery of projects while balancing priorities and resources
3. **Inspiring Results**: Translates strategic priorities into operational reality; inspires outcomes through others
4. **Leading Teams**: Uses appropriate methods to support, develop, motivate, and guide the team to achieve successful outcomes
5. **Collaboration**: Proactively supports working together, shares ideas and provides constructive feedback; respects and values others
6. **Building Networks and Partnerships**: Identifies and invests in relationships essential for growth and positive outcomes

Special Requirements

- Infrequent travel between campuses will be required
- Working with Children Check (refer to Recruitment Procedure)

Note

The intention of the position description is to provide an outline of scope and responsibilities, at a point in time. Please note, responsibilities may evolve in accordance with organisational needs.