

Position Description – Professor in Mechanical Engineering

Updated 24 March 2023

POSITION DETAILS	
College	College of Science and Engineering
Organisational Unit	Engineering
Supervisor	Dean, People and Resources (or Delegate)
Classification	Teaching and Research (Balanced) Level E
Employment Type	Continuing, full-time

POSITION SUMMARY
<p>Mechanical Engineering at Flinders University is based at the new state of the art Campus at Tonsley, see https://www.flinders.edu.au/campus/tonsley.html, and has been identified as an area of growth. The appointee will lead the research and teaching related activities in this area. While candidates from any branch of mechanical engineering will be considered, those working in one or more of the following fields are particularly encouraged to apply:</p> <ul style="list-style-type: none"> • Advanced manufacturing • Sustainable energy <p>The Professor, under broad supervision, will provide academic leadership in research, teaching and community engagement in the discipline of engineering. They will have a strong track record of winning research grants, either Category 1 or others, industry collaboration, teaching excellence and be willing and able to take significant leadership roles within the College of Science and Engineering.</p> <p>They will be able and willing to take a strong leadership role with early career researchers and middle career researchers. The Professor will promote the College as a centre of excellence in engineering education and research, both nationally and internationally, and with a particular focus in mechanical engineering.</p>

UNIVERSITY EXPECTATIONS AND VALUES
<p>All staff at Flinders are responsible for understanding their obligations and responsibilities as set out in the University's code of conduct and are expected to:</p> <ul style="list-style-type: none"> • demonstrate commitment to the University's values of Integrity, Courage, Innovation, Excellence and the underlying ethos of being Student Centred; • contribute to the efficient and effective functioning of the team or work unit in order to meet the University's objectives. This includes demonstrating appropriate and professional workplace behaviours, providing assistance to team members if required and undertaking other key responsibilities or activities as directed by one's supervisor; • promote and support an inclusive workplace culture which values diversity and embraces the principles of equal opportunity; • perform their responsibilities in a manner which reflects and responds to continuous improvement; and

familiarise themselves and comply with the University's Work Health and Safety, Injury Management and Equal Opportunity policies.

A National Police Certificate which is satisfactory to the University will be required by Flinders University before the successful applicant can commence in this position.

An up to date COVID-19 vaccination may be required as a condition of employment, in accordance with the Flinders University [COVID-19 Vaccination Policy \(2022\)](#). If required, any offer of employment will be subject to the successful candidate presenting their COVID-19 Digital Certificate as evidence of vaccination or showing evidence of a valid medical exemption, where relevant.

KEY POSITION RESPONSIBILITIES

The Professor in Mechanical Engineering is accountable for:

1. Leading and providing outstanding teaching using contemporary pedagogy, a range of delivery methods, and innovative delivery methods in the broad area of engineering but with specific focus on mechanical engineering.
2. Publishing high quality publications in mechanical engineering and associated areas recognised as such nationally and internationally.
3. Gaining external competitive research grants and contributing to the growth in Flinders' research income.
4. Supervising to completion Flinders research students including doctoral students in Engineering and growing the PhD cohort.
5. Mentoring more junior academic colleagues in the College, especially academic staff in Engineering, including co-publishing, co-supervision, and co-submission of external competitive grants.
6. Contributing to or leading research on designated College and/or University themes.
7. Providing administrative leadership as required including the engineering related Teaching Program or the engineering related Research Section.
8. Contributing to administrative tasks as sought by the College leadership including playing an active role in maintenance of academic standards and in the development of educational policy and curriculum within Engineering.
9. Providing leadership and expertise to foster collaborative links across the University, with industry/community and other institutions as appropriate.
10. Some out of hours work (including weekends) as well as rural SA, interstate, and overseas travel, may be required.
11. Any other responsibilities in line with the level of the position as assigned by the Supervisor and/or the University.

KEY POSITION CAPABILITIES

1. Completion of a PhD in an area related to mechanical engineering, or equivalent qualification.
2. Demonstrated evidence of a distinguished and active track record of teaching expertise in mechanical engineering at the tertiary level, including a leadership role in the national and international delivery of teaching programs.
3. Demonstrated evidence of innovation in teaching to support students in order to maximise their learning outcomes.
4. Demonstrated evidence of significant educational leadership relevant to teaching and learning in higher education and demonstrated experience leading innovation and inspiring excellence amongst colleagues.
5. Significant experience in curriculum development and teaching methodology for topics and programs of study, including reviews, e-learning and internal and external accreditation activities.
6. A distinguished international reputation for research in an area of mechanical engineering that complements existing College research strengths together with a compelling vision for how their research will evolve in the short, medium, and long terms.
7. A strong record of high-quality research publications and of successfully winning significant external research grants.
8. Strong existing industry links and the ability to develop new links within the Tonsley Innovation District or elsewhere.
9. Demonstrated excellence in the supervision of honours and research higher degree students with the clear ability to build and sustain a group of research students within the College.
10. Significant contribution to the discipline and/or profession within a relevant external professional domain and a wider community context at local, national, and international level.
11. A demonstrated strong track record of establishing effective research collaborations with external national and international academic and industry partners.
12. Demonstrated excellent oral and written communication skills and interpersonal skills, including the evidence of the ability to develop, establish and maintain effective relationships with staff, students and industry.
13. Demonstrated experience in one of the following:
 - Advanced manufacturing
 - Sustainable energy