

Position Description

Postdoctoral Fellow

Position Number: 00069815
Position Title: Postdoctoral Fellow
Date Written: 10 Jan. 2019

Faculty / Division: Engineering
School / Unit: Civil and Environmental Engineering
Position Level: Level A

ORGANISATIONAL ENVIRONMENT

UNSW is currently implementing a ten year strategy to 2025 and our ambition for the next decade is nothing less than to establish UNSW as Australia's global university. We aspire to this in the belief that a great university, which is a global leader in discovery, innovation, impact, education and thought leadership, can make an enormous difference to the lives of people in Australia and around the world.

Following extensive consultation in 2015, we identified three strategic priority areas. Firstly, a drive for academic excellence in research and education. Universities are often classified as 'research intensive' or 'teaching intensive'. UNSW is proud to be an exemplar of both. We are amongst a limited group of universities worldwide capable of delivering research excellence alongside the highest quality education on a large scale. Secondly, a passion for social engagement, which improves lives through advancing equality, diversity, open debate and economic progress. Thirdly, a commitment to achieving global impact through sharing our capability in research and education in the highest quality partnerships with institutions in both developed and emerging societies. We regard the interplay of academic excellence, social engagement and global impact as the hallmarks of a great forward-looking 21st century university.

To achieve this ambition we are attracting the very best academic and professional staff to play leadership roles in our organisation.

VALUES IN ACTION: OUR UNSW BEHAVIOURS

UNSW recognises the role of employees in driving a high-performance culture. The behavioural expectations for UNSW are below.



Delivers high performance and demonstrates service excellence.



Thinks creatively and develops new ways of working. Initiates and embraces change.



Works effectively within and across teams. Builds relationships with internal and external stakeholders to deliver on outcomes.



Values individual differences and contributions of all people and promotes inclusion.

Treats others with dignity and empathy. Communicates with integrity and openness.

OVERVIEW OF RELEVANT AREA AND POSITION SUMMARY

The School of Civil and Environmental Engineering is the largest School in the Faculty of Engineering with over 3,300 students and an operating budget of over \$23 million. The School has 48 full time academic staff, 30 professional and technical staff and 80 research only appointments. The School's mission is to develop well-educated graduates with the essential skills, attributes and knowledge that will enable them to practice as professional civil or environmental engineers; and to conduct research and development of international distinction to meet the needs of the discipline, industry and society. For further information about the School, please visit <http://www.civeng.unsw.edu.au/>

The post-doctoral fellow will conduct research into hybrid construction utilising seawater, sea sand concrete, industry waste and fibre reinforced polymers/stainless steel.

The role of post-doctoral fellow reports to Professor Xiao Lin (Joshua) Zhao with a dotted reporting line to the Head of School.

RESPONSIBILITIES

Specific responsibilities for this role include:

- Conducts research in the area of structural engineering independently and as part of a team.
- Contribute to the writing of scientific papers and reports for international journals and progress reporting to other researchers and industry partners.
- Assist with the coordination of research activities and actively contribute to research outputs to meet project milestones.
- Contribute to the preparation of research proposal submissions to funding bodies and actively seek collaboration with industry partners as appropriate.
- Participate in and/or present at conferences and/or workshops relevant to the project as required.
- Assist with the supervision of research students in the research area where required.
- Cooperate with all health and safety policies and procedures of the university and take all reasonable care to ensure that your actions or omissions do not impact on the health and safety of yourself or others.

SELECTION CRITERIA

- PhD in structural engineering related to seawater, sea sand concrete, fibre reinforced polymer and stainless steel.
- Demonstrated ability to conduct independent research with limited supervision.
- Demonstrated track record of publications and conference presentations relative to opportunity.
- Demonstrated ability to work in a team, collaborate across disciplines and build effective relationships.
- Strong interpersonal skills with demonstrated ability to communicate and interact with a diverse range of stakeholders and students.

- Experience in mixing concrete, preparing concrete-filled tubes, conducting compression and tension testing, using environmental chamber and SEM facility, and developing theoretical models for concrete-filled elements.
- Knowledge of health and safety responsibilities and commitment to attending relevant health and safety training.

It is not the intention of the position description to limit the scope or accountabilities of the position but to highlight the most important aspects of the position. The aspects mentioned above may be altered in accordance with the changing requirements of the role.