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POSITION DESCRIPTION

Postdoctoral Fellow

Structure-Property Characterization of Metals and Alloys

Position Level	Level A
Faculty/Division	Engineering
Position Number	00092605
Original document creation	26/04/2021

Position Summary

The purpose of this role is to conduct research in the field of mechanical properties characterization of advanced metallic alloys.

The role of position reports to the Associate Professor Bernd Gludovatz, and has nil direct reports.

Accountabilities

Specific responsibilities for the role include:

- Conduct research in the area of mechanical properties of additive manufactured materials and high-entropy alloys 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.

- Align with and actively demonstrate the [UNSW Values in Action: Our Behaviours](#) and the [UNSW Code of Conduct](#).
- 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.

Skills and Experience

- PhD (or soon to be awarded) in mechanical engineering, materials science, or related area.
- 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 mechanical property research on metallic alloys (e.g., steels, Al alloys, superalloys, high entropy alloys, additive manufactured materials), including fracture toughness testing, fatigue testing, differential scanning calorimetry, x-ray diffraction, and advanced characterization of microstructures, processing induced mesostructures, and deformation substructures.
- An understanding of and commitment to UNSW's aims, objectives, and values in action, together with relevant policies and guidelines.
- Ability and capacity to implement required UNSW health and safety policies and procedures.

PRE EMPLOYMENT CHECKS REQUIRED FOR THIS POSITION

Verification of qualifications

About this document

This Position Description outlines the objectives, desired outcomes, key responsibilities, accountabilities, required skills, experience and desired behaviours required to successfully perform the role.

This template is not intended to limit the scope or accountabilities of the position. Characteristics of the position may be altered in accordance with the changing requirements of the role.