POSITION DESCRIPTION

Research Associate

Position Summary
This Research Associate is part of ongoing research considering the hemodynamics of stenosed arteries. This project is aimed at advancing the fundamental understanding of flow instability, the transition to turbulence and the effect on wall shear stress, in a dynamically constricted tube flow. The Research Associate will conduct an experimental flow analysis, using tomographic particle imaging velocimetry and 3D laser doppler anemometry, conducted on an existing experimental model. We aim to resolve turbulence characteristics of the dynamic constriction allowing a link to be made between the complex fluid mechanics and resulting wall shear stress.

The role of Research Associate will report to Professor Tracie Barber, and has no direct reports.

Accountabilities
It is expected that the appointee will progress on a continual satisfactory and upward trajectory in their performance and specific performance expectations will be set individually with the Head of School/Supervisor.

Specific responsibilities for the role include:

- Conducts research in the area of experimental fluid dynamics 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 experimental fluid dynamics 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 using PIV (preferably stereo or tomographic) and/or LDA fluid dynamic measurement systems.
• 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.