## Position Summary

The **Reseach Associate (Level A)** will be responsible for developing and optimising novel construction material mix designs and testing their performance and durability in comparison with traditional concretes made from Portland cement.

The **Reseach Associate** will be working closely with the project leader and the team to transfer the knowledge to the industry partners of the project and will work proactively in seeking their feedback for continuous improvement of the products.

## The role of Reseach Associate in Sustainable Construction Materials reports to A/Prof Hajimohammadi 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:

* Conduct research on sustainable construction materials (e.g., geopolymers, rubberised concrete, Low-CO2 concrete technologies) independently and as part of a team.
* Write and present the research outcomes in regular meetings and reports.
* Contribute to the writing of scientific papers and reports for international journals and progress reporting to other researchers and industry partners.
* Assist with coordinating research activities and actively contribute to research outputs to meet project milestones.
* Contribute to preparing research publications and 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.
* Assist with teaching-related duties like course materials improvements, demonstration and marking.
* Align with and actively demonstrate the [UNSW Values in Action: Our Behaviours](https://unsw.sharepoint.com/sites/values-in-action) and the [UNSW Code of Conduct](https://www.gs.unsw.edu.au/policy/documents/codeofconduct.pdf).
* 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

* A PhD (or soon to be awarded) in construction materials, alkali-activated materials or related areas.
* 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.
* Demonstrated ability and publications showing successful experimental research on construction materials testing and characterisation.
* Excellent oral and written communication skills and ability to liaise effectively with other staff and external providers.
* Demonstrated ability in collaborations with industry to meet project milestones **(desirable, not mandatory).**
* Demonstrated ability and publications in making successful mix designs for alkali-activated materials and geopolymers **(desirable, not mandatory).**
* Demonstrated ability and publications showing the research on the durability of construction materials **(desirable, not mandatory).**
* 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.