



Research in Engineering Education Symposium & Australasian Association for Engineering Education Conference

5 – 8 December, 2021 - Perth, WA



WORKSHOP

Developing intersectional inclusion capability in engineering students

Nick Brown^a, Eva Cheng^b, and Karen Whelan^c

RMIT University^a, University of Technology Sydney^b, Queensland University of Technology^c

Corresponding Facilitator's Email: nick.brown@rmit.edu.au

WORKSHOP MODE

In hybrid mode during Perth business hours

OVERVIEW OF WORKSHOP

To tackle the world's biggest challenges, the engineering profession needs to reflect the diverse make up of society. This workshop won't debate the need for intersectional inclusion (the why), but will share practice to enable an inclusive learning environment (the how). Few existing Australasian university student initiatives address inclusion at the classroom level or address a minority in the room rather than the cohort as a whole. The facilitators are developing an approach where engineering students develop 'inclusion capability' through participation in learning experiences which both model inclusion best practice and integrate intersectional inclusion capability building. This project has received a 2021 Engineering Education Grant from AAEE. The workshop will use a co-design approach to share and strengthen the preliminary inclusion model developed, with open discussions around challenges faced by participants in the classroom and developing improved practices to address these challenges.

ACTIVITIES

The facilitators will create a safe and respectful space where all backgrounds, experiences, and opinions are welcomed. The workshop will be an opportunity for participants to:

- Hear a short overview of the inclusion project to date along with the inclusion concepts that inform the model
- Reflect on the inclusion concepts and share insights and feedback using their experiences
- Identify diversity and inclusion challenges and successes they experience
- In facilitated small groups, work through the inclusion model to case studies, with a view to creating new designs for classroom practices that address intersectional inclusion

TARGET AUDIENCE

No prior knowledge is needed to participate in the proposed activities. Whilst relevant to all with an active interest in strengthening the engineering profession through inclusive practices, this workshop will most benefit academics researching or actively teaching in problem-based learning or large groupwork courses, as these match the pilot courses under study for the parent research project.

OUTCOMES

Those participating in the workshop will come away with ideas and a preliminary inclusion model for enhancing inclusion in their courses. Additionally, participants will be contributing to a collaborative project to develop inclusion best practice in engineering education.

KEYWORDS

Inclusion; diversity; equity; intersectionality

PRESENTERS' BACKGROUNDS

Karen Whelan (she/her), is the Associate Dean Learning and Teaching at QUT and a member of the AAEE Executive whose research focusses on inclusion. Eva Cheng (she/her) is a Senior Lecturer and Director of Women in Engineering and IT at UTS with expertise in gender equity and building inclusive communities. Nick Brown (he/him) coordinates large courses at RMIT on professional practice and social justice whose research covers diversity and inclusion in engineering education.