



## WORKSHOP

# Aboriginal Perspectives in Engineering Education Practice and Research: Barriers and Enablers for Building Student Understanding and Cultural Intelligence through Remote Project-Based Learning

George Goddard<sup>a</sup>, Juliana Kaya Prpic<sup>b</sup>, Grace Roberts<sup>c</sup>  
*Engineers Without Borders Australia<sup>a,c</sup>, University of Melbourne<sup>b</sup>*  
Corresponding Facilitator's Email: [g.goddard@ewb.org.au](mailto:g.goddard@ewb.org.au)

## WORKSHOP MODE

Hybrid mode during Perth business hours

## OVERVIEW OF WORKSHOP

Increasingly Australian Universities are seeking to embed a consideration of Aboriginal and Torres Strait Islander perspectives across curricula for all degrees and disciplines. This is an encouraging move, one recognised as important by the Australian Council of Engineering Deans (ACED, 2018). However not all engineering educators necessarily have the skills and relationships required to engage with Aboriginal and Torres Strait Islander communities and perspectives appropriately nor meaningfully in their teaching. Building on the other workshop in this series, Aboriginal Perspectives in Engineering Education Practice and Research – Understanding and Appreciating Relationships, this workshop explores how engineering educators can and have been leveraging remote project-based learning content, like the EWB Challenge which has had an explicit focus on remote Indigenous homelands in 2020 and 2021, and publicly available content to build safe spaces where students can build their cultural intelligence and learn from Aboriginal and Torres Strait Islander perspectives.

## ACTIVITIES

With a strong focus on participant knowledge sharing we will:

- Understand what materials and strategies participants are using to meaningfully bring Aboriginal and Torres Strait Islander Perspectives into the classroom
- Map the barriers to doing this in curricula
- Co-create/share strategies for overcoming these barriers
- Establish next steps for ongoing mutual learning

## TARGET AUDIENCE

- Teaching staff who already engage with EWB project-based learning resources, specifically the EWB Challenge
- Teaching staff interested in introducing Aboriginal and Torres Strait Islander perspectives in engineering curricula but who don't necessarily hold the relationships to support this

## OUTCOMES

Participants will have a better understanding of how they can use existing content to support safe spaces where students can understand and celebrate Aboriginal and Torres Strait Islander perspectives, building cultural competence while managing risk to communities.

## REFERENCES (OPTIONAL)

Include any relevant references for the workshop. If references are included please use APA referencing style.

## KEYWORDS

Indigenous Perspectives, project-based learning, communities of practice.

## PRESENTERS' BACKGROUNDS

George Goddard is a development practitioner, educator and researcher with 13 years of experience in the International Development and Environmental sectors. In his current role as Research, Learning and Influence Specialist at EWB George has a focus on supporting engineering students and the professional sector to adopt approaches which will enable the creation and application of technologies that benefit All. He believes Reconciliation, celebrating and learning from Australia's First Engineers are critical to this mission.

<https://ewb.org.au/team-showcase/george-goddard/>

A/Professor Juliana Kaya Prpic is an educator and researcher at the University of Melbourne. She is exclusively focused on engaging with Aboriginal communities around Australia to collaboratively explore western engineering knowledge and Indigenous knowledge systems, and integrating Indigenous perspectives and ways of knowing into the engineering curriculum.

<https://findanexpert.unimelb.edu.au/profile/189827-juliana-prpic>

Grace Roberts is a development practitioner and education facilitator with 7 years of experience in not-for-profits supporting meaningful inclusion of marginalised communities through education initiatives. Grace currently coordinates the EWB Challenge across Australia and New Zealand. She is interested in participatory approaches and helping engineers recognise and navigate the complex social world they influence through technology. She believes this starts with actively learning from deep knowledge and perspectives shared by First Nations peoples.

<https://ewb.org.au/team-showcase/grace-roberts-2/>