



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

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WORKSHOP

Culturally Relevant Pedagogy in Engineering: Examining How Who We Are Informs How We Teach

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ABSTRACT

Engineering educators should consider how cultural identity mediates the formation of engineering identity. This workshop will help engineering educators examine their instructional practices and how their teaching is informed by their cultural identity. This self-reflection will help instructors better utilize the cultural capital students possess to enhance engineering learning and identity.

WORKSHOP MODE

Online only out of Perth business hours

OVERVIEW OF WORKSHOP

This workshop is designed to formulate a community of practice by bringing engineering educators together that aspire to improve their teaching by acknowledging and supporting the cultural knowledge students possess. At the conclusion of this workshop, participants will be able to: 1) Apply principles of critical self-reflection to their pedagogy, 2) Identify the tenets of Culturally Relevant Pedagogy (CRP), and 3) Locate socio-political considerations embedded in their course content and assessment procedures

ACTIVITIES

The first part of this workshop will consist of participants being guided through exercises that will help them think about their cultural identity, and the ways in which their identity shapes their teaching. Participants will have the opportunity to share their responses to the exercises with the entire group of workshop participants, and participate in collective and individual sensemaking activities. Next, we will present the tenets of CRP as defined by Dr. Gloria Ladson-Billings. Participants will be provided with time to share their initial reactions and perceptions of these tenets with a partner to process their thinking. Lastly, participants will be given time to think about where there are opportunities to implement CRP in their instructional practices for a particular course they currently teach or would like to teach. Participants will do this by identifying the social and political aspects of their curricular materials, learning objectives, teaching strategies, and/or methods of assessment for student learning.

TARGET AUDIENCE

Academics and graduate students (higher degree) who teach engineering students and are interested in learning about CRP.

OUTCOMES

This short workshop will serve as an initiation for further workshops, discussions, and inquiries on how our cultural identities shape our teaching, and the impact of supporting students' cultural knowledge and ways of being on engineering learning experiences.

KEYWORDS

Culturally relevant pedagogy, faculty development, undergraduate engineering education

PRESENTERS' BACKGROUNDS

Dr. Holly, Jr. is a Detroit, educator, and researcher focused on counteracting anti-Black racism in Science, Technology, Engineering, and Mathematics (STEM) education. Dr. Hira's scholarship is motivated by the fundamental question of how engineering and technology can support people in living

well in an increasingly engineered world. Dr. Murzi's research is on inclusive pedagogical practices, industry-driven competency development, global engineering education, and understanding barriers Latinx and Native Americans have in engineering. Dr. Coley's work aspires to elevate the experiences of marginalized populations, dismantle systemic injustices, and transform the way inclusion is cultivated in engineering through the implementation of novel technologies and methodologies in engineering education.