

ChatGPT vs Engineering Education: A Pathway to Becoming an Everyday Tool

Sasha Nikolic^a, Sarah Grundy^b, Scott Daniel^c, Rezwanul Haque^d, Ghulam Mubashar Hassan^e

University of Wollongong^a, The University of New South Wales^b, University of Technology Sydney^c, University of the Sunshine Coast^d, University of Western Australia^e

Corresponding Facilitator's Email: sasha@uow.edu.au

WORKSHOP MODE

This workshop will be facilitated **in-person**.

OVERVIEW OF WORKSHOP

ChatGPT and other AI technologies have generated much commotion and confusion within academic circles. Many academics still need to understand the risk such technologies pose on current assessment practices and how students can use them for improved grades/outcomes. Unfortunately, most studies are very generic, don't go into much detail, and are outside of the engineering education context.

The workshop's facilitators have completed one of the most comprehensive studies to date regarding ChatGPT's impact on engineering education assessment (Nikolic et al., 2023). While strengths, weaknesses and opportunities were outlined, it is only the starting point for much-needed conversations. This workshop aims to introduce ChatGPT. It will guide and engage the community through interactive activities to help them consider the changes they must contemplate over the next 12-24 months.

ACTIVITIES

1. A 20min welcome and introductory presentation on the strengths, weaknesses and opportunities associated with ChatGPT.
2. Participants will engage in 70mins of interactive sessions where they will explore a range of themes, including prompting, academic integrity & brainstorming.

TARGET AUDIENCE

This session aims to provide a basic introduction to the strengths, weaknesses and opportunities afforded by artificial intelligence tools and consider a pathway for their integration. *It is recommended that you BYOD and create a ChatGPT account before the workshop to gain the best interactive experience.*

OUTCOMES

Participants will:

1. Gain an understanding of ChatGPT's strengths and weaknesses in relation to assessment integrity.
2. Identify and discuss the positives and negatives of integrating AI with learning.
3. Share examples of the opportunities AI can bring to learning.
4. Establish a pathway of changes required in the coming 12-24 months.

REFERENCES

Nikolic, S., Daniel, S., Haque, R., Belkina, M., Hassan, G.M., Grundy, S., Lyden, S., Neal, P., Sandison, C. (2023). ChatGPT versus Engineering Education Assessment: A Multidisciplinary and Multi-institutional Benchmarking and Analysis of this Generative Artificial Intelligence Tool to Investigate Assessment Integrity. *European Journal of Engineering Education*, 48 (4), 559-614. Doi: <https://doi.org/10.1080/03043797.2023.2213169>

KEYWORDS

Artificial Intelligence, Assessment Integrity, ChatGPT

PRESENTERS' BACKGROUNDS

Sasha Nikolic is a Senior Lecturer of Engineering Education at the University of Wollongong.

Sarah Grundy is an education-focused Senior Lecturer in Chemical Engineering at the University of New South Wales.

Scott Daniel is a Senior Lecturer in Humanitarian Engineering at the University of Technology Sydney.

Rezwanul Haque is a Senior Lecturer specialising in Manufacturing Technology at the University of the Sunshine Coast.

Ghulam Mubashar Hassan is a Senior Lecturer in the Department of Computer Science and Software Engineering at The University of Western Australia.