

Special session proposal for IJCIEOM 2025 conference SPS2

1. Session title:

Educational Development for a Digital and Circular Transition

2. Session objectives:

Digital technologies (e.g., Internet of Things, Big Data, Artificial Intelligence) are recognized in academic literature as enablers of the circular economy (CE). In this context, sociotechnical systems are transitioning, which encompasses both digital advancements and the adoption of practices aimed at fostering a more sustainable future (i.e., Twin Transition). However, the field of education and training should follow these advancements, as for the green and digital transition to truly bring benefits and promote the use of technologies in favour of circularity, it is essential that professionals acquire the necessary skills. Besides, new educational courses should be developed to align with these principles, contributing to the education and training of future experts. Therefore, the main objective of this Special Session is to stimulate the debate on the development of educational curricula, courses, teaching and training opportunities in agreement with current transformations. The twin transition requires constant alignment of qualifications and skills, often combining technical skills (e.g. circular product design, reverse logistics, and operations management) and behavioural skills (e.g. creativity, leadership, teamwork). These abilities need to be fostered by developing courses that meet market demands and, therefore, be encouraged in the educational environment, not only in higher education (HE) but also in Vocational Educational Training (VET) programs. This special session seeks empirical or theoretical papers considering the following topics of interest, but not limited to the exploration of courses and educational programs for the circular and/or digital transition; and studies that investigate emergent skills to be addressed within this context.

3. Organizer(s):

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