Social Change Symposium

Candidate: Lizhi Shen

School: Property, Construction and Project Management

Presentation: Confirmation of Candidature, May 2023

Title: The organisational behavior aspect of fostering Design for Manufacturing and Assembly (DfMA) adoption in the construction sector.

Abstract: There is a consensus among industry leaders and scholars that the construction sector will lose its competitive advantages if its lethargy to adopt Industry 4.0 technologies continues. As a response, the construction industry has been advocating the more extensive use of the Design for Manufacturing and Assembly (DfMA) in projects. Research studies on this topic mainly reported technological advancement but rarely addressed the fact that the adoption of DfMA is a behavioural matter. This PhD study aims to use the Construal Level Theory (CLT) as a theoretical basis to synthesise elements critical for the organisations' adoption of DfMA in projects. The specific interest of this study is in examining the factors that lead to the development of positive organisational behaviour towards the implementation of DfMA. A mixed approach with a questionnaire survey and the interviews will be adopted to achieve the research aims. The findings will shed light on DfMA adoption on behavioural aspects, and the developed conceptual model can serve as a roadmap for global DfMA adoption in the construction industry.