Faculty of Engineering
Summer Research Program 2019-2020

Project Title: Building Information Modelling (BIM) for Underground Tunnelling in Melbourne

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Objective

This project is to incorporate BIM techniques into the ongoing mega projects in Victoria, such as West Gate Tunnel Project (WGTP), Melbourne Metro Tunnel Project (MMTP), and North East Link (NEL) for them to become the benchmark program demonstrating, upon successful application, the external benefits of BIM as enhancing collaboration and preventing information loss as well as its intrinsic values of reducing risks, improving safety and ameliorating overall project delivery. The experience gained and lessons learned while the project progresses, considering that the construction of WGTP, MMTP and NEL has just commenced, could fill the gaps of the managerial and technical knowledge in future projects engaging BIM.

Project Details

The Victoria State Government and Office of Projects Victoria (OPV) has recently published (February 2019) the Victorian Digital Asset Strategy (VDAS) for guiding the implementation of Digital Engineering (DE) and BIM in infrastructure projects to improve the interoperability and consistency of information management throughout the projects’ life cycle. Rooted in the building industry, BIM has slowly become vitalised in major underground infrastructure projects. The renowned Crossrail, for example, is the largest European transportation infrastructure adopting BIM across its entire project phases with a focus on the long-term cost savings by forming a centralised information model that links a million of CAD files.

Prerequisites

Familiar with Autodesk Software, such as AutoCAD, Revit or 3DS Max before the project.

Additional Information

Applicants may be required to attend an interview.