

系統化技術創新流程(STIP) 應用於道路人手孔工法之創新

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摘要

This paper presents a Systematic Technology Innovation Process (STIP) to speed up the technology innovation in construction engineering. The STIP method integrates the Body of Knowledge of International Research & Development Project Management with several computer aided innovations tools to form a methodology of fast innovation. Details of the proposed STIP method are described. The construction technology for road man-hole work is selected for case study. A step-by-step application of the proposed STIP method to the selected construction technology is demonstrated. An innovative design of a new man hole repairing technology is developed. Verification and testing of the developed innovative technology is also conducted to ensure its feasibility. It is concluded that the proposed STIP method does not only provide the construction engineers a systematic methodology for development of innovative construction technologies, it can also be applied to innovations of other construction methods and materials.

關鍵字：Construction industry, construction methods, technology innovation, computer aided innovation, road manhole technology