

## Innovation in Lean Thinking to Achieve Rapid Construction

**Authors :** Muhamad Azani Yahya, Vikneswaran Munikanan, Mohammed Alias Yusof

**Abstract :** Lean thinking holds the potential for improving the construction sector, and therefore, it is a concept that should be adopted by construction sector players and academicians in the real industry. Bridging from that, a learning process for construction sector players regarding this matter should be the agenda in gaining the knowledge in preparation for their career. Lean principles offer opportunities for reducing lead times, eliminating non-value adding activities, reducing variability, and are facilitated by methods such as pull scheduling, simplified operations and buffer reduction. Thus, the drive for rapid construction, which is a systematic approach in enhancing efficiency to deliver a project using time reduction, while lean is the continuous process of eliminating waste, meeting or exceeding all customer requirements, focusing on the entire value stream and pursuing perfection in the execution of a constructed project. The methodology presented is shown to be valid through literature, interviews and questionnaire. The results show that the majority of construction sector players unfamiliar with lean thinking and they agreed that it can improve the construction process flow. With this background knowledge established and identified, best practices and recommended action are drawn.

**Keywords :** construction improvement, rapid construction, time reduction, lean construction

**Conference Title :** ICSECM 2016 : International Conference on Structural Engineering, Construction and Management

**Conference Location :** Singapore, Singapore

**Conference Dates :** November 21-22, 2016