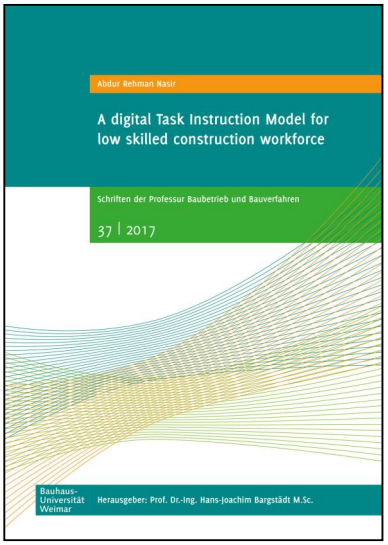
A digital Task Instruction Model for low skilled construction workforce

The on-site management of construction projects involves a great amount of verbal communication and paper based systems. This isolated sequential process creates many barriers for effective collaboration and has often resulted in costly rework on the site. Delivering task instructions to construction workers on site is one such example where a worker is instructed verbally for execution of a certain construction activity. The ineffective communication between the supervisor and the worker often results in various inefficiencies on site. Especially, when a low-skilled worker is instructed in this very manner, chances of comprehending instructions reduce to a much larger extent due to the inability of many workers to visualize the task, understand a construction operation and the language spoken on site.

This research study has developed a digital construction task instruction model capable of covering the gap lying under the traditional methodology of instructing low-skilled construction workers on site. The proposed task instructional model, with the application of BIM based knowledge management, encompasses animated video tutorials of construction tasks in order to formulate a digital instruction and learning environment.



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