

Taehoon Kim

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EDUCATION

Korea University, Seoul, Korea

PhD in Civil, Environmental and Architectural Engineering, College of Engineering, February 2013.

- Thesis: "Advanced system formwork and construction planning model for tall building construction", Advisor: Prof. Kyung-In Kang

Korea University, Seoul, Korea

Master of Engineering in Architectural Engineering, February 2008.

- Thesis: "Optimization of the formwork selection process in tall buildings", Advisor: Prof. Kyung-In Kang

Korea University, Seoul, Korea

Bachelor of Science in Architectural Engineering, February 2006.

RESEARCH AND TEACHING INTERESTS

Automation in construction

Construction technology and management for tall buildings

Production management

Big data analysis and Machine learning techniques

PUBLICATION(2015-present)

Journal papers

"Predicting the Monetary Value of Office Property Post Renovation Work", *Journal of Urban Planning and Development*, 144(2), 04018007-1~9, 2018

"Advanced planning model of formwork layout for productivity improvement in high-rise building construction", *Automation in Construction*, 85, 232~240, 2018

“Identifying construction engineering tasks at the design phase for enhancing constructability in high-rise building construction: focused on temporary work”, *Journal of the Korea Institute of Building Construction*, 17(5), 452~463, 2017

“Economic analysis of USN-based data acquisition systems in tall building construction”, *Sustainability*, 9(8), 2017

“Effects of half-precast concrete slab system on construction productivity”, *Sustainability*, 9(7), 2017

“Simulation-based planning model for table formwork operation in tall building construction”, *Journal of Asian Architecture and Building Engineering*, 16(1), 115~122, 2017

“Case study of the core structure succeeding method for tall building construction”, *Journal of Construction Engineering and Management, ASCE*, 142(12), 05016017-1~6, 2016

“Real estate appraisal method for the remodeled office building: focusing of income capitalization method”, *Journal of the Architectural Institute of Korean Structure & Construction*, 32(7), 57~63, 2016

“Model for determining an economical volume of vertical extension remodeling work: focused on commercial buildings”, *Journal of Advanced Engineering and Technology*, 9(2), 111~119, 2016

“Floor-level layout planning optimization model using jump point search for improving productivity of tall building construction”, *Journal of Advanced Engineering and Technology*, 9(2), 143~150, 2016

“Factors determining the price of remodeled multi-family housing”, *Korean Journal of Construction Engineering and Management*, 17(3), 13~22, 2016

“Inclined construction hoist for efficient resource transportation in irregularly shaped tall buildings”, *Automation in Construction*, 62, 124~132, 2016

“Customer earned value: performance indicator from flow and value generation view”, *Journal of Management in Engineering, ASCE*, 32(1), 04015017-1~7, 2016

“Advanced power supply of construction hoists for supertall buildings”, *Automation in Construction*, 59, 48~58, 2015

“Statistical analysis of embodied carbon emission for building construction”, *Energy and Buildings*, 105, 326~333, 2015

TEACHING/EDUCATIONAL EXPERIENCE

- **Chosun University**
Assistant Professor at the School of Architecture, 2015-Present
- **Korea University**
Research Professor at the Research Institute of Engineering and Technology, 2013-2015
- **University of Washington**
Research Scholar at the Department of Construction Management, 2013-2014
- **Korea University, Bucheon University**
Part-time lecturer, 2012-2013

RESEARCH EXPERIENCE

November, 2015 – Construction Process Management Method for Efficient
October, 2018 Construction Automation System, Supported by Ministry of
Education, Korea (Chief of research)

July, 2016 – Construction Engineering Technology for Reflecting
December, 2018 Constructability at the Design Phase, Supported by Ministry
of Land, Infrastructure and Transport, Korea (Chief of
research)

September, 2012 – Developing for Low-carbon Urban Planning System,
February, 2015 Supported by Ministry of Land, Infrastructure and Transport,
Korea (RA/Researcher)

February, 2009 – Advanced Construction Technology Development, Supported
February, 2015 by Ministry of Land, Infrastructure and Transport, Korea
(RA/Researcher)

June, 2011 – Development of Tunnel, Bridge, and Construction
June, 2012 Management Technology based on Real-time Integrated
Management System on Construction Site, Supported by
Ministry of Land, Infrastructure and Transport, Korea (RA)

- December, 2010 – Planning for Smart Green City Creation Technology,
February, 2011 Supported by Ministry of Land, Infrastructure and Transport,
Korea (RA)
- June, 2010 – Development of Energy-Regenerative Construction Lift,
May, 2011 Supported by Small&Medium Business Administration,
Korea (RA)
- March, 2010 – Man-made Disaster Prevention Research Center, Supported
February, 2011 by National Emergency Management Agency, Korea (RA)
- October, 2007 – Development of Design for Automation (DFA) for
August, 2011 Automatic Assembly of the Steel Frames in High-Rise
Buildings, Supported by Ministry of Land, Infrastructure and
Transport, Korea (RA)
- March, 2006 – Development of the slab form for tall buildings in Korea,
December, 2007 Supported by Ministry of Land, Infrastructure and Transport,
Korea (RA)

