Approved by the Regents May 15, 2014

PROMOTION RECOMMENDATION
University of Michigan
College of Engineering
Department of Civil and Environmental Engineering

SangHyun Lee, assistant professor of civil and environmental engineering, Department of Civil and Environmental Engineering, College of Engineering, is recommended for promotion to associate professor of civil and environmental engineering, with tenure, Department of Civil and Environmental Engineering, College of Engineering.

Academic Degrees:

Ph.D.	2006	Massachusetts Institute of Technology, Construction Management Information Technology, Cambridge, MA
M.S.	2003	Massachusetts Institute of Technology, Civil Engineering, Cambridge, MA
B.E.	2000	Dong-A University, Architectural Engineering, Busan, Korea

Professional Record:

2011 – Present	Adjunct Assistant Professor, Department of Civil and Environmental Engineering, University of Alberta
2010 – Present	Assistant Professor, Department of Civil and Environmental Engineering, University of Michigan
2007 – 2010	Assistant Professor, Department of Civil and Environmental Engineering, University of Alberta, Edmonton, Canada
2007	Visiting Lecturer, Department of Civil and Environmental Engineering, Massachusetts Institute of Technology, Cambridge, MA
2006 – 2007	Associate, Charles River Associates International, Boston, MA

Summary of Evaluation:

Teaching: Professor Lee is an excellent educator, both inside and outside of the classroom. He has taught a range of courses, from a large fundamental course on construction contracting that is required for all undergraduates in civil engineering, to an upper-level undergraduate/graduate course on construction scheduling, and an advanced graduate course on computer-integrated construction that involves a challenging term-long project. He has also introduced and taught a unique, professional-practice oriented class on construction best practices. His performance in the classroom has yielded high student evaluation scores, with a Q1 average of 4.37, and Q2 average of 4.61. Professor Lee is also an outstanding mentor; he successfully co-chaired to graduation four Ph.D. students prior to his arrival to the University of Michigan. Three of these are now assistant professors. At Michigan he has recruited five Ph.D. students with the first expected to graduate in 2014. He has also mentored 18 M.S. students (five from Michigan), and 10 undergraduates (eight from Michigan). Professor Lee has demonstrated good judgment and effectiveness in all his roles as a classroom instructor, advisor, and mentor.

Research: Professor Lee is a nationally and internationally recognized leader in the field of dynamic project management. When he came to Michigan in 2010, he had already established himself as one of the leading researchers in understanding and managing construction dynamics in large-scale construction projects. At Michigan, he has successfully initiated new research projects including the automatic monitoring of worker behavior and posture for fundamental analysis of construction fatalities and injuries, and feedback between individual worker absence behavior and organizational absence culture. His work on interface management in large, multi-disciplinary project teams and on disaster

preparedness in the context of facility management are both emerging as particularly influential in the field. Professor Lee is an extraordinarily prolific researcher in his academic career so far. He has published approximately 100 papers in journals and strongly refereed conferences. Moreover, the quality of these papers is very high, with four winning best paper prizes and others being nominated for awards. He has also obtained two patents. For his research, Professor Lee has successfully acquired funding totaling $1.54 million as the PI or co-PI out of which $825,000 has been obtained after coming to Michigan in 2010. He has co-established and is leading the University of Michigan Construction Industry Alliance Program, which is helping to accelerate the transition of technologies developed at the university to industrial practice in construction engineering and management.

Recent and Significant Publications:

Ahn, C. and Lee, S., "Importance of Operational Efficiency to Improve Environmental Performance of Construction Operations," *Journal of Construction Engineering and Management*, 139(4), pp. 404-413, 2013.

Ahn, C., Lee, S. and Peña-Mora, F., "Construction Equipment Activity Recognition from Accelerometer Data for Monitoring Operational Efficiency and Environmental Performance," *International Conference on Construction Engineering and Project Management*, Anaheim, CA, 2013. (Best Paper Award.)

Han, S., Lee, S. and Peña-Mora, F., "A Machine-Learning Classification Approach to Automatic Detection of Workers' Actions for Behavior-based Safety Analysis," *ASCE International Workshop on Computing in Civil Engineering*, Reston, VA., 2012. (Best Paper Award.)

Sichani, M. S., Lee, S. and Robinson Fayek, A., "Understanding Construction Workforce Absenteeism in Industrial Construction," *Canadian Journal of Civil Engineering*, 38(8), pp. 849-858, 2011. (Stephen G. Revay Award.)

Lee, S. and Peña-Mora, F., "Understanding Iterative Error and Change Cycles in Large-Scale Design and Construction," *System Dynamics Review*, 23(1), pp. 35-60, 2007.

Service: Professor Lee has an extensive record of professional service, and been an exemplary member of his research community. He serves as an associate editor for two international journals, and as a specialty editor for a third. Professor Lee has served multiple times in leadership roles for several leading conferences in his field and, has served in multiple leadership roles within the American Society of Civil Engineers over the last few years, including as the current chair of its construction research council and as a member of the construction institute's board of governors. Internally he has been a member of his department's Honors and Awards Committee, Curriculum Committee, as well as the Graduate Admissions Committee, and he has served as an advisor for the undergraduate student organization Building Information Modeling Special Interest Group.

External Reviewers:

Reviewer A: "I would place him among the top two when compared to his peers at similar levels of experience."

Reviewer B: "...Dr. Lee is a very valued member of the construction research community and a leader in system dynamics based construction research."

Reviewer C: "It is my unequivocal assessment that Dr. Lee's dossier is *extraordinary* in all respects."

Reviewer D: "He has a very strong track record of research, teaching and service accomplishments that can earn him promotion to Associate Professor with tenure in any major research university in the USA."

Reviewer E: "Prof. Lee is a well accomplished individual and is one of the emerging leaders in construction engineering and project management…"

Reviewer F: "With Dr. Lee's credentials, he will have absolutely no problem in satisfying the promotion criteria for an Associate Professor with tenure at any major research university…He represents those very qualities that any high caliber institution will desire in a faculty member."

Reviewer G: "Dr. Lee's work gives me the impression of a clear intellect grappling with a range of significant issues. My summary is quite simple: I consider Professor Lee to be a researcher who has demonstrated high competence, leadership, and impact."

Summary of Recommendation: Professor Lee is a prominent and productive civil engineer who has made significant scholarly contributions to construction engineering and management in the area of dynamic project management. He is an excellent teacher and mentor, and has played an instrumental role in the education of his students who wish to pursue a career in the construction engineering and management field. His national and international service leadership assignments are significant and unusual for someone at his career stage. It is with the support of the College of Engineering Executive Committee that I recommend SangHyun Lee for promotion to associate professor of civil and environmental engineering, with tenure, Department of Civil and Environmental Engineering, College of Engineering.

David C. Munson Jr.

David C. Munson, Jr.
Robert J. Vlasic Dean of Engineering
College of Engineering

May 2014