Approved by the Regents May 15, 2014

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

Dimitrios Zekkos, 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.	2005	University of California at Berkeley, Civil and Environmental Engineering. Berkeley, CA
M.S.	2002	University of California at Berkeley, Civil and Environmental Engineering, Berkeley, CA
Ptychion	2001	University of Patras, Civil Engineering, Patras, Greece

Professional Record:

2008-present	Assistant Professor, Department of Civil and Environmental Engineering, University of Michigan
2005-2008	Engineer, Geosyntec Consultants, Oakland, CA
2002-present	Managing Director, Geoengineer.org

Summary of Evaluation:

Teaching: Professor Zekkos is a superb educator. He has taught four different undergraduate and graduate courses including CEE 549 Geoenvironmental Engineering, which he newly introduced to the geotechnical curriculum in his department. His course evaluations have been stellar, averaging 4.76 for Q1 and 4.90 for Q2. Showing his dedication to undergraduate education, he established a new Geoenvironmental Engineering Laboratory, and added new state-of-the-art testing equipment, data acquisition systems, and audiovisual tools that allowed him to design new laboratory sessions and an enhanced learning experience for undergraduates. He also added an on-line platform to his new CEE 549 graduate course so the student term projects could be uploaded and reviewed by practitioners from around the world. In recognition of his outstanding teaching he received the 2012 Great Lakes District of Chi Epsilon James M. Robbins Excellence in Teaching Award and the 2013 CEE Faculty Excellence Award.

Research: Professor Zekkos has conducted pioneering research in geoenvironmental engineering with emphasis on dynamic properties of municipal solid waste (MSW). Such research is imperative for the analysis of the seismic response of landfills. He created the University of Michigan Geoenvironmental Engineering Laboratory where he is studying the long-term time-dependent changes to engineering properties of MSW as they degrade. He was the first to conduct full-scale seismic field tests to obtain *in-situ* properties of MSW and to develop analytical models for such complex materials. He is also developing improved methods for selecting and correcting seismic records and exploring research in information technology. Professor Zekkos' funding has come from traditional public sector sources including the National Science Foundation and the Michigan Department of Transportation as well as private institutions and corporations. He has consistently published in the top journals in geotechnical engineering. He has 17 journal papers and 37 conference proceedings. Approximately half of his publications are co-authored with his Ph.D. and M.S.E. students at Michigan. He has delivered invited keynote lectures and submitted papers to topical publications. Professor Zekkos has been recognized for

his outstanding research by the American Society of Civil Engineers (ASCE) Casagrande Early Career Award and ASCE Middlebrooks Awards for most outstanding paper in the premiere geotechnical journal of ASCE.

Recent and Significant Publications:

Zekkos, D., Kabalan, M. and Flanagan, M. (2013), "Lessons Learned From Case Histories of Dynamic Compaction of Municipal Solid Waste Sites," *Journal of Geotechnical and Geoenvironmental Engineering*, Va., 139(5), 738-752.

Zekkos, D., Sahadewa, A., Woods, R. D. and Stokoe, K. II (2013), "Shear Wave Velocity of Municipal Solid Waste," *Journal of Geotechnical and Geoenvironmental Engineering,* ASCE, Va., 10.1061/(ASCE)GT.1943-5606.0001017 (published online July 31, 2013).

Fei, X., Zekkos. D. and Raskin, L. (2013), "A Laboratory Landfill Simulator for Physical, Geotechnical, Chemical, and Microbial Characterization of Solid Waste Biodegradation Processes," *Proceedings, Symposium on Coupled Phenomena in Environmental Geotechnics*, Politecnico di Torino, Torino, Italy, July 1-3, 2013, 321-328.

Zekkos, D., Carlson, C., Nisar, A. and Guisbert, S. (2012), "Effect of Ground Motion Modification Technique on Seismic Geotechnical Engineering Analyses," *Earthquake Spectra*, 28 (4), 1643-1662.

Bray, J. D., Zekkos, D., Kavazanjian, E., Jr., Athanasopoulos, G. A. and Riemer, M. F. (2009), "Shear Strength of Municipal Solid Waste," *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Va., 135 (6), 709-722.

Service: Professor Zekkos has performed exceptional service to his profession and within the university. He founded an innovative free access journal that is now an official journal of the International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE). He developed the most widely visited internet site for geotechnical engineering: geoengineer.org. There is no other such resource of this magnitude in the geotechnical engineering industry anywhere else in the world. Professor Zekkos also organized the most highly attended GeoCongress in the history of the ASCE's GeoInstitute. Partly in recognition of his professional service, the ISSMGE awarded him with the 2013 Outstanding Innovator Award. At the university, he co-created the Rackham-funded Network of Women in Civil and Environmental Engineering (NeWinCEE), an organization that promotes the recruitment and retention of women in Civil and Environmental Engineering.

External Reviewers:

Reviewer A: "...Dr. Zekkos has published important papers in the top journals of our discipline, has been successful at grantsmanship from NSF and other agencies, has a pipeline of students that he is mentoring..."

Reviewer B: "...Professor Zekkos has tremendous professional visibility, both at the national and international levels. I believe he [is] the best known geotechnical engineering professor [of his cohort] in the U.S., and perhaps in the world."

Reviewer C: "[Professor Zekkos] has developed research areas that will have long-term impact on our profession...I would rank him as one of the most outstanding faculty [of his cohort] in our field."

Reviewer D: "A review of the CV indicates everything I expect for promotion and tenure at a major institution such as the University of Michigan, including a high number of papers in leading journals, excellent teaching, good student mentoring, strong service at the national level, a healthy level of research funding, and awards of true distinction, including the Casagrande and Middlebrooks awards from ASCE...Considering the overall record, I would consider Dr. Zekkos to be in the top few percent relative to his peers."

Reviewer E: "...Dr. Zekkos has carried out the most comprehensive research on geotechnical properties of MSW and published several papers which have become standard publications for practitioners to select the properties...for design. His papers are published in reputed journals, highly cited, and received prestigious awards...His accomplishments far exceed to those who have been promoted to Associate Professor with tenure at my university."

Reviewer F: "I would place Prof. Zekkos within the top 10% of professors at this stage of his career with regards to scholarship and research. However, with respect to innovative service and leadership within his professional activities, I know of no other professor [of his generation] having a greater impact."

Reviewer G: "I would rank Professor Zekkos in the top 5% of his peers."

Reviewer H: "His research has had unquestionably significant impact on our geoenvironmental infrastructure and puts Dr. Zekkos in the upper echelons of those who are at the same stage in their careers."

Summary of Recommendation: Professor Zekkos is a leading scholar in the civil geotechnical engineering profession. He has made pioneering contributions to geoenvironmental engineering and geotechnical earthquake engineering. He is a superb teacher, mentor and developer of outreach programs. When it comes to professional service and visibility, he is regarded as being at the top of his peer group. It is with the support of the College of Engineering Executive Committee that I recommend Dimitrios Zekkos 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