

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

Jason P. McCormick, associate professor of civil and environmental engineering, with tenure, Department of Civil and Environmental Engineering, College of Engineering, is recommended for promotion to professor of civil and environmental engineering, with tenure, Department of Civil and Environmental Engineering, College of Engineering.

Academic Degrees:

Ph.D.	2006	Georgia Institute of Technology, Civil Engineering, Atlanta, GA
B.S.	2005	Georgia Institute of Technology, Civil Engineering, Atlanta, GA
B.C.E.	2001	Catholic University of America, Civil Engineering, Washington, DC
B.A.	2000	Saint Anselm College, Engineering Physics, Manchester, NH

Professional Record:

2014 – present	Associate Professor (with tenure), Department of Civil and Environmental Engineering, University of Michigan
2008 – 2014	Assistant Professor, Department of Civil and Environmental Engineering, University of Michigan
2006 – 2007	Post-Doctoral Fellow, Disaster Prevention Research Institute, Kyoto University, Kyoto, Japan

Summary of Evaluation:

Teaching: Professor McCormick's teaching contributions have demonstrated a sustained record of excellence in teaching contributing to CEE's educational mission as evidenced by the excellent teaching evaluations across a broad range of courses he has taught for several years. These courses range from sophomore level to senior, and to highly specialized graduate level subject areas. He developed a brand new graduate level "Passive Control of Structural Systems" course and introduced major revisions to CEE 413 Design of Metal Structures, CEE 513 Plastic Analysis and Design of Frames, and CEE 402 Professional Issues and Design. One of his teaching innovations was the use of virtual reality for students to understand complex deformation phenomena, winning him the 2014 Provost's Teaching Prize. He restructured laboratory sessions through a CRLT grant (2015) in order to better connect structural member design with different structural systems and provided construction site tours for students to gain a real world perspective in the CEE 413 course. Professor McCormick is seen as an exceptional role model for his advisees. His efforts have been recognized by being named an Arthur F. Thurnau Professor and winning the 2014 College of Engineering Outstanding Student Organization Advisor Award.

Research: Professor McCormick's work involves the use of large-scale experimental testing and computational modeling to investigate the performance of structures facing severe natural hazards. Focusing in particular on steel structures, his overarching research objective is to utilize novel structural components made of non-traditional materials in combination with steel to

achieve enhanced structural resilience to natural hazards. Professor McCormick's work on steel structures addresses two general topics for which he has achieved national prominence. The first addresses the use of hollow structural steel (HSS) members and the second pertains to deep steel columns, both of which are used in regions of high seismic risk. His work is recognized by the awards that he has received, including the NSF CAREER Award, the Early Career Award from the American Institute of Steel Construction (AISC), AISC's Milek Fellowship, and the Raymond Reese Prize from the American Society of Civil Engineers (ASCE). These are all national level awards given by different organizations, and strongly suggest that Professor McCormick has achieved broad national respect.

Recent and Significant Publications:

Sediek, O.A., El-Tawil, S., McCormick, J., "Dynamic Modeling of In-Event Interdependencies in Community Resilience," *Journal of Structural Engineering*, ASCE, 06/2020, accepted, in press.

Fogarty, J., McCormick, J., El-Tawil, S., "Improving Student Understanding of Complex Spatial Arrangements with Virtual Reality," *Journal of Professional Issues in Engineering Education and Practice*, 2018; 144(2): 04017013.

Fan, X., McCormick, J., "Characterization of the Behavior of Steel Bridge Bearings under Cyclic Load Reversal," *Structures and Infrastructure Engineering*, 2015; 11(6): 744-760.

Fadden, M., Wei, D., McCormick, J., "Cyclic Testing of Welded HSS-to-HSS Moment Connections for Seismic Applications," *Journal of Structural Engineering*, ASCE. 2015; 141(2): 04014109.

Carlson, C., Zekkos, D., McCormick, J., "Impact of Time and Frequency Domain Ground Motion Modification on the Response of a SDOF System," *Earthquakes and Structures*, 2014; 7(6): 1283-1301.

Service: Professor McCormick is both a consummate advisor to several student organizations and at the same time, a respected leader of faculty as evidenced by his being elected and serving on the CEE Department's Executive Committee. He is the structural engineering group leader and director of the Structural Engineering Laboratory. Among his college activities, Professor McCormick has been a member of the CEE Chair Search Committee and the Honors and Awards Committee. He is the faculty advisor to the Engineering Honors Program. At the university level, he has been a member of the Thurnau Review Committee. Professor McCormick has been deeply involved with DEI activities and now serves on CEE's DEI committee. Professionally, Professor McCormick is among the most sought-after committee members and leaders in several societies including the American Institute of Steel Construction and the American Society of Civil Engineers. He is an associate editor of the *ASCE Journal of Structural Engineering* and an editorial board member of the *International Journal of Earthquakes and Structures*, and the *International Journal of Steel Structures*.

External Reviewers:

Reviewer A: "His research and teaching have enhanced the excellent reputation of the educational, research and professional programs in the Department of Civil and Environmental Engineering..."

Reviewer B: “I consider Dr. McCormick to be an outstanding researcher and an established leader in the field of seismic behavior and design of steel structures.”

Reviewer C: “Prof. McCormick has established himself as an expert in the field of seismic behavior and design of steel structures, with a major focus on applications of hollow structural sections (HSS). He pioneered the study of cyclic response in HSS-to-HSS connections, and his work has created opportunities for new structural configurations that did not previously exist.”

Reviewer D: “Dr. McCormick’s service contributions are numerous: to the university (Director of Structural Engineering Laboratory; Faculty Advisor of the Engineering Honors Program), to institutions (ASCE Committees; ASCE JSE Associate Editor) and to industry (American Welding Society D1 Committee on Tubulars, NASCC, Steel Tube Institute and AISC) ... I have observed that he is a diligent committee member, ‘does his homework’ and takes all these roles conscientiously.”

Reviewer E: “I think that Prof. McCormick’s professional standing is at the pinnacle of his class. He is one of the topmost and preeminent academics (Associate-Full Professors) in the field of steel structures in the US and the world.”

Summary of Recommendation: Professor McCormick has an international reputation for research quality and excellence. He is widely considered to be a leader in the seismic design of steel structures. He has achieved excellence in teaching and his service activities have been exceptional in breadth and depth, both internally and externally. It is with the support of the College of Engineering Executive Committee that I recommend Jason P. McCormick for promotion to professor of civil and environmental engineering, with tenure, Department of Civil and Environmental Engineering, College of Engineering.



Alec D. Gallimore, Ph.D.
Robert J. Vlasic Dean of Engineering
College of Engineering

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