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Assistant Professor, Department of Civil Engineering, National Taiwan University
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學歷 EDUCATION

美國密西根大學土木工程博士、航太工程碩士

University of Michigan, Ann Arbor, MI

Ph.D. in Civil Engineering 2019/05

Dissertation: "Seismic Collapse Resilience of Buildings with Steel Moment Resisting Frames"

M.S.E. in Aerospace Engineering 2018/04

國立臺灣大學結構工程碩士、土木工程學士

National Taiwan University, Taiwan

M.S. in Structural Engineering 2010/06

Thesis: "Research and Application of RC Structures Using Equivalent Linear System"

B.S. in Civil Engineering 2008/06

經歷 FULL-TIME EMPLOYMENT

國立臺灣大學土木工程學系·助理教授

Assistant Professor, Department of Civil Engineering, National Taiwan University, Taiwan 2019/08-Present

中興工程顧問股份有限公司·結構工程師

Structural Engineer, Sinotech Engineering Consultants Co, Ltd., Taiwan 2012/03-2014/05

潤弘精密工程股份有限公司·實習工程師

Engineer Intern, Ruentex Engineering & Construction Co., Ltd., Taiwan 2008/07-2008/08

研究專長 RESEARCH INTERESTS

鋼結構耐震設計 Seismic Design of Steel Structures

結構崩塌模擬 Structural Collapse Simulation

建築物震災韌性評估 Seismic Loss Assessment

專業證照 CERTIFICATIONS

中華民國結構工程技師 Structural Engineer, Taiwan 2012/03

獲獎 HONORS and AWARDS

Raymond C. Reese Research Prize, American Society of Civil Engineers 2019/04

Rackham International Student Fellowship, University of Michigan, Ann Arbor 2015–2016

Government Scholarship to Study Abroad, Taiwan Ministry of Education 2015–2017

Engineering and Technology Scholarship, China Engineering Consultants, Inc., Taiwan 2009

Tseng Yang-Fu Scholarship, Chinese Institute of Civil & Hydraulic Engineering, Taiwan 2007

著作發表 PUBLICATIONS AND PRESENTATIONS

期刊論文 Journal Publications

- Wu, T.-Y., El-Tawil, S., and McCormick, J. (2020). "Influence of Seismic Design Evolution on the Seismic Collapse Behavior and Losses of Prototype Steel Buildings with Moment Resisting Frames." *J. Struct. Eng.*, 146 (9): 04020177. [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0002743](https://doi.org/10.1061/(ASCE)ST.1943-541X.0002743)
- Sediek, O. A., Wu, T.-Y., McCormick, J., and El-Tawil, S. (2020). "Collapse Behavior of HSS Columns Under Combined Axial and Lateral Loading." *J. Struct. Eng.*, 146 (6): 04020094. [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0002637](https://doi.org/10.1061/(ASCE)ST.1943-541X.0002637).
- Wu, T.-Y., El-Tawil, S., and McCormick, J. (2019). "Effect of cyclic flange local buckling on the capacity of steel

members.” *Eng. Struct.*, 200. <https://doi.org/10.1016/j.engstruct.2019.109705>.

- **Wu, T.-Y.**, El-Tawil, S., and McCormick, J. (2018). “Seismic collapse response of steel moment frames with deep columns.” *J. Struct. Eng.*, 144 (9): 04018145. [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0002150](https://doi.org/10.1061/(ASCE)ST.1943-541X.0002150).
- **Wu, T.-Y.**, El-Tawil, S., and McCormick, J. (2018). “Highly ductile limits for deep steel columns.” *J. Struct. Eng.* 144 (4): 04018016. [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0002002](https://doi.org/10.1061/(ASCE)ST.1943-541X.0002002).
- Fogarty, J., **Wu, T.-Y.**, and El-Tawil, S. (2017). “Collapse Response and Design of Deep Steel Columns Subjected to Lateral Displacement.” *J. Struct. Eng.*, 143 (9): 04017130 [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0001848](https://doi.org/10.1061/(ASCE)ST.1943-541X.0001848).

研討會論文 Conference Publications and Oral Presentations

- Chang, F.-H., **Wu, T.-Y.** (2020). “Evolution of Seismic Resilience of Steel Buildings in Taipei Basin.” In *Conference on Theoretical and Applied Mechanics, CTAM 2020*. Yilan, Taiwan.
- Chang, T.-H., **Wu, T.-Y.**, Sediek, O. A., El-Tawil, S., and McCormick, J. (2020). “Influence of geometric initial imperfection on seismic collapse capacity of steel special moment frames with deep columns.” In *15th National Conf. on Structural Engineering and 5th National Conf. on Earthquake Engineering*. Tainan, Taiwan.
- **Wu, T.-Y.** (2020). “Collapse Behavior of Steel Buildings with Deep Columns under Horizontal and Vertical Ground Motions.” In *17th World Conf. on Earthquake Engineering*. Tokyo: International Association of Earthquake Engineering.
- **Wu, T.-Y.**, El-Tawil, S., and McCormick, J. (2019). “Influence of seismic design code evolution on the seismic losses and resilience of steel buildings.” In *International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake*. Taipei, Taiwan: National Center for Research of Earthquake Engineering.
- **Wu, T.-Y.**, El-Tawil, S., and McCormick, J. (2019). “Seismic capacity of deep steel columns and their influence on the collapse response of steel special moment frames.” In *International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake*. Taipei, Taiwan: National Center for Research of Earthquake Engineering.
- Sediek, O. A., **Wu, T.-Y.**, McCormick, J., and El-Tawil, S. (2019). “Seismic Behavior of HSS Columns Under Lateral Loading.” In *International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake*. Taipei, Taiwan: National Center for Research of Earthquake Engineering.
- **Wu, T.-Y.**, El-Tawil, S., and McCormick, J. (2018). “Ensuring highly ductile behavior for deep steel columns.” In *11th National Conf. on Earthquake Engineering*. Oakland, CA: Earthquake Engineering Research Institute.
- **Wu, T.-Y.**, El-Tawil, S., and McCormick, J. (2018). “Experimental study of cyclic flange local buckling.” In *Structures Congress 2018*, 49–57. Reston, VA: ASCE.
- **Wu, T.-Y.**, El-Tawil, S., and McCormick, J. (2018). “Seismic collapse response of a four-story steel special moment frame with deep columns.” In *Structures Congress 2018*, 213–221. Reston, VA: ASCE.
- **Wu, T.-Y.**, El-Tawil, S., and McCormick, J. (2017). “Effect of drift loading history on the collapse capacity of deep steel columns.” In *Structures Congress 2017*, 485–494. Reston, VA: ASCE.
- **Wu, T.-Y.**, El-Tawil, S., and McCormick, J. (2017). “Behavior of steel moment frames with deep column sections under seismic loading.” In *16th World Conf. on Earthquake Engineering*. Tokyo: International Association of Earthquake Engineering.