

ALEXANDER LIN (Dr)

PhD (Structural Engineering, Mechanics and Materials) UC Berkeley, MSc (Structural Engineering, Mechanics and Materials) UC Berkeley, BSc (Civil Engineering) National Taiwan University



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ACADEMIC QUALIFICATIONS:

- Ph.D. (Structural Engineering, Mechanics and Materials) (2017), Department of Civil and Environmental Engineering, University of California at Berkeley (UC Berkeley)
- Master of Science (Structural Engineering, Mechanics and Materials) (2013), Department of Civil and Environmental Engineering, UC Berkeley
- Bachelor of Science (2012), Department of Civil Engineering, National Taiwan University

EMPLOYMENT RECORDS:

- Senior Lecturer, Department of Building, School of Design & Environment, National University of Singapore (NUS) (May 2019 – Present)
- Research Fellow, School of Design & Environment, NUS (Mar 2019- Apr-2019)
- Research Fellow, NUS Environmental Research Institute (March 2018- Feb-2019)
- Graduate Student Researcher, Department of Civil & Environmental Engineering, UC Berkeley (2013- Dec 2017)
- Graduate Student Instructor, Department of Civil & Environmental Engineering, UC Berkeley (Spring-2016, Fall-2016 and Fall 2017)

ADMINISTRATIVE LEADERSHIP:

- 2014~2017: Student Representative, Safety Committee, UC Berkeley

PROFESSIONAL/CONSULTING ACTIVITIES:

- Lectures, Course name: Engineering Risk Analysis (CIV ENG 193), Davis Hall 544, UC Berkeley (29 Aug 2017, 28 Sep 2017 and 19 Oct 2017)
- Oral presentation, topic: Multi-scale Pull-Out Resistance of Steel Reinforcing Bar embedded in Hybrid Fiber Reinforced Concrete (HyFRC), Fibre Concrete 2017 International Conference, Hotel DAP, Prague, Czech Republic (15 Sep 2017)

- Oral presentation, topic: Synergy between Hybrid Fiber Reinforced Concrete (HyFRC) and Rebar, Federal Highway Administration meeting, Davis Hall 542, UC Berkeley (23 Jan 2015)

TEACHING:

- Structural Systems
- Advanced Measurement
- Advanced Building Materials and Structures

RESEARCH INTERESTS:

- Construction 3D printing
- High performance construction materials
- Offshore structures
- Shape and topological optimization of novel structures

SELECTED PUBLICATIONS:

- Afroughsabet V, Geng G, **Lin A**, Biolzi L, Ostertag CP, Monteiro PJ. The influence of expansive cement on the mechanical, physical, and microstructural properties of hybrid-fiber-reinforced concrete. *Cement and Concrete Composites*. 2019 Feb (Vol. 96, pages 21-32).
- **Lin A**, Ostertag CP. Multi-Scale Pull-Out Resistance of Steel Reinforcing Bar Embedded in Hybrid Fiber Reinforced Concrete (HYFRC). *InOP Conference Series: Materials Science and Engineering 2017 Sep* (Vol. 246, No. 1, p. 012022). IOP Publishing.
- **Lin A**, Goel A, Chung J, Pang SD, Wang CH, Taylor H, Kua HW. Modular design of compressive load-dominated mortar components for rapid fabrication and assembly. *Automation in Construction*. (Submitted)
- Li X, **Lin A**, Young CH, Dai Y, Wang CH. Energetic and economic evaluation of hybrid solar energy systems with heat insulation solar glass in a residential net-zero energy building (NZEB): A case study in the tropical climate. *Applied Energy*. (Submitted)
- **Lin A**, Taylor H, Wang CH, Pang SD, Chung J, and Kua HW. Laminate composite formed by mortar enhance with waste materials and novel reinforcements developed for construction 3D-printng. *Composite Structures*. (Under preparation)
- **Lin A** and Ostertag CP. Interaction between High Performance Fiber Reinforced Cement-based Composite and Steel Reinforcement. *Engineering Structures*. (Under preparation)
- **Lin A**, Barthes C and Ostertag CP. Investigation of Bond Behavior between Steel Reinforcing Bar and Hybrid Fiber Reinforced Concrete (HyFRC) with a Rebar Pull-out Test Program Supported by Digital Image Correlation (DIC) and Vibration Tests. *Composite Structures*. (Under preparation)
- **Lin A** and Ostertag CP. Synergy between Macro and Micro Fibers in Cement Composite. *Construction and Building Materials*. (Under preparation)

AWARDS:

- Popert Fellowship, University of California, Berkeley (2014)
- Presidential Awards (Three times) (Academic 5%), National Taiwan University (Fall-2010, Fall-2011, Spring-2012)
- Chinese Institute of Civil and Hydraulic Engineering Scholarship (2011)