

PROMOTION RECOMMENDATION

The University of Michigan

A. Alfred Taubman College of Architecture and Urban Planning

Tszyan Ng, assistant professor of architecture, is recommended for promotion to associate professor of architecture, with tenure, A. Alfred Taubman College of Architecture and Urban Planning.

Academic Degrees:

M.Arch.II	2001	Cornell University, Architecture, Ithaca, NY
M.Arch.	1998	State University of New York at Buffalo
B.P.S.	1996	State University of New York at Buffalo

Professional Record:

2015 – present	Assistant Professor of Architecture, A. Alfred Taubman College of Architecture and Urban Planning, University of Michigan
2008 – 2015	Lecturer I and II, A. Alfred Taubman College of Architecture and Urban Planning, University of Michigan
2007 – 2008	Walter B. Sanders Fellow, A. Alfred Taubman College of Architecture and Urban Planning, University of Michigan
2004 – present	Principal, Tsz Yan Ng Design, Ann Arbor, MI

Summary of Evaluation:

Teaching: Professor Ng has demonstrated a strong record in teaching effectively connecting research, teaching, mentorship, and critical social sensibility. Beginning from a broad and versatile base, rising into a distinctive specialty with consistently improving results, and demonstrating social awareness and individual impact through mentorship, teaching has been core to the work of Professor Ng. She teaches the graduate architecture thesis studios and seminars with a unique emphasis on the craft of iterative prototyping. In a college that is known for its digital fabrication expertise and resources, students attest to the exceptional opportunity that Professor Ng provides for putting those into action. While she has also taught in a variety of other contexts, from introductory undergraduate courses to theory seminars to robotics to spring travel studios, her ongoing teaching in the master of architecture thesis year has few equals in terms of consistency, specialization, or external engagement.

Research: Professor Ng works in computational design and digital fabrication, a field of architectural research in which Taubman College has long held prominence. Building from the resources and community of practice here, she has come to be one of its leaders, in which her own contribution is unique, timely, and both socially and technically adept. Professor Ng showcases her combination of technical skills, material research, collaboration and artistic expression through three innovative bodies of research: robotic 3d-printing of concrete, textile fabrication through robotic needle felting, and concrete casting with the use of knitted textile formwork. Her work has received numerous awards, has been disseminated in a strong stream of publications, and has a good record of funding through sponsor gifts and nationally competitive grants. Through leadership in the academic and research association ACADIA (Association for

Computer Aided Design in Architecture, which is by far the most prominent in this field), through innovative collaborations and outreach, through perennially ambitious work in the master of architecture thesis program, and in her writings and editorial and exhibit projects, Professor Ng has consistently advanced a new position, and with it the continuing leadership of the college in this increasingly fundamental domain.

Recent and Significant Publications:

Ng, Tsz Yan. *ARCC New Researcher Award 2020. Architectural Research Centers Consortium*

Ng, Tsz Yan, Wes McGee, and Asa Peller. "Robotic Needle Felting." Shortlisted for *Dezeen Award 2019*, category Workplace Design.

Ng, Tsz Yan, Wes McGee, and Asa Peller. "Robotic Needle Felting." *Faculty Design Award 2019*, Honorable Mention, ACSA, Association of Collegiate Schools of Architecture, 2019.

Ng, Tsz Yan, and Peggy Deamer, eds. *WORK, JAE Journal of Architectural Education*, 73:2, October 2019.

Ng, Tsz Yan, Wes McGee, and Asa Peller. "Robotic Needle Felting." *Citation for R+D Awards 2018*, Architect Magazine.

Wes McGee, Tsz Yan Ng, and Asa Peller. "Hard + Soft: Robotic Needle Felting for Nonwoven Textiles." *Young Potential Best Paper Award Runner-up*, Kuka Robotics and Rob|Arch (Association for Robots in Architecture), 2018.

Ng, Tsz Yan, Mehrdad Hadighi, and Marc Neveu, editors. *Twisted: Lafayette 148 New York Shantou Building*, contributors: Mark Linder, Brian Carter, and Nina Rappaport. Actar Publishing, 2018.

Service: Professor Ng's record of service in and beyond the college is highlighted by contributions in diversity, equity, and inclusion, conference planning, and mentoring. She is a sought after peer reviewer of papers for a range of organizations. She currently serves on the ACADIA board of directors, and was previously the chair of its Scientific Committee. Professor Ng also fosters industry connections through symposiums such as From Lab to Site (2020) for which she was a lead planner. Committee roles within the college have included fellowship search, admissions, and recruitment. She has been consistently involved in equity innovation, not only through the college-level DEI committee, but also as a member of the Equity in Architectural Education Consortium and in ACADIA, where working with the National Organization of Minority Architects she helped to develop the ACADIA/NOMA Awards.

External Reviewers:

Reviewer A: "...Professor Ng has been incredibly active in the critical dissemination of her work in academically important and well-respected venues. The quality and quantity of work presented establish a rigorous and intentionally crafted record of accomplishment of someone who has initiated a national reputation in her area of specialization."

Reviewer B: "Professor Ng's research and creative practice has been awarded, honored and mentioned 7 times including most recently the Architectural Research Centers Consortium (ARCC) New Researcher Award in 2020 for the *Robotic Needle Punching* where Ng was the Primary Investigator. Also in 2019 Ng was awarded the ACSA Faculty Design Awards Honorable Mention for the *Robotic Needle Punching* project. I consider these to be outstanding

research/creative endeavor projects. These awards are indicative of the excellent quality of Professor Ng’s research/creative works...”

Reviewer C: “In both quality and quantity, the impact of her work is tangibly evident through a wide array of design research projects, awards, exhibitions, lectures, and publications which have established her as one of the leading innovators within this particular genre of architectural discourse. It should be noted that this work includes a staggering number of publications in some highly respected venues, as well as multiple built projects and three patents for novel fabrication processes. The patents are a unique achievement that distinguish her from many of her peers working in similar capacities and illustrate the connection between her scholarly work and the potential applications of her work in the real world.”

Reviewer D: “Prof. Ng is at the top of the field nationally in computational design and fabrication. This is proven by her long list of publications, exhibitions, and projects (many funded at significant levels). The work is comparable to much of the work coming out of top international institutions such as the University of Stuttgart or the ETCh Zurich, which have far larger teams and funding sources.”

Reviewer E: “I have had the pleasure of getting to know Professor Ng’s work through peer review paper presentations and published research projects through international conferences proceedings and journals, professional awards and publications, and related professional networks and can attest to her exceptional technical skills and creative thinking within computational design, materials, and digital fabrication. Prof. Ng is considered by her peers in the international computational and fabrication design community to be an emerging new researcher, educator, and leader in these established areas.”

Reviewer F: “Her main contribution is though on material practise and design. In collaboration with a series of different peers she is developing her out- standing material practices on casting, felting, knitting. This work is widely recognized and truly unique.”

Summary of Recommendation: Professor Ng is a productive architecture scholar who has made significant contributions to the field. She is an excellent teacher and mentor and she provides important internal and external service. It is with the support of the Executive Committee that I recommend Tszyan Ng for promotion to associate professor of architecture, with tenure, A. Alfred Taubman College of Architecture and Urban Planning.



Jonathan Massey
Dean and Professor
A. Alfred Taubman College of Architecture and Urban Planning

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