Approved by the Regents
May 21, 2020

PROMOTION RECOMMENDATION
The University of Michigan
College of Engineering
Department of Biomedical Engineering

Aileen Y. Huang-Saad, assistant professor of biomedical engineering, Department of Biomedical Engineering, College of Engineering and Medical School, is recommended for promotion to associate professor of biomedical engineering, without tenure, Department of Biomedical Engineering, College of Engineering and Medical School.

Academic Degrees:

M.B.A.	2010	University of Michigan, Business Administration, Ann Arbor, MI
Ph.D.	1996	Johns Hopkins School of Medicine, Biomedical Engineering, Baltimore, MD
B.S.E.	1991	University of Pennsylvania, Bioengineering, Philadelphia, PA

Professional Record:

2016-present	Assistant Professor, Department of Biomedical Engineering, University of Michigan
2013-2016	Clinical Associate Professor, Department of Biomedical Engineering, University of Michigan
2012-2014	Associate Director for Academic Programs, Center for Entrepreneurship, University of Michigan
2011-2013	Lecturer IV, Department of Biomedical Engineering, University of Michigan
2011-2014	Co-Director, Center for Entrepreneurship, University of Michigan
2007-2011	Lecturer III, Department of Biomedical Engineering, University of Michigan
2005-2006	Scientific Manager, Michigan Nanotechnology Institute for Medicine and Biological Science, University of Michigan
2003-2005	Director of Strategic Initiatives, NanoBio Corporation, Ann Arbor MI
1999-2002	Research Staff Member, Science and Technology Division, Institute for Defense Analyses, Alexandria, VA
1997-1998	Post-Doctoral Fellow, Research Imaging Center, University of Texas Health Science Center, San Antonio, TX

Summary of Evaluation:

Teaching: Professor Huang-Saad's teaching and mentoring accomplishments are exemplary. Her record as a lecturer, clinical, and tenure-track faculty include teaching a wide variety of courses, and the development of new courses, new curriculum development processes, and initiatives to define professional identity in BME. Her teaching evaluations are consistently high to very high and student letters laud Professor Huang-Saad's contributions. She currently mentors two Ph.D. students: one as chair and one as co-chair. She has also had extraordinary success mentoring post-doctoral fellows in her research lab, several who have gone on to academic positions. Professor Huang-Saad's influence is felt beyond her research lab as she advises a wide range of students across campus.

Research: The research area Professor Huang-Saad is pursuing, and in many ways is creating, combines engineering and entrepreneurship education. She has garnered abundant grant support, particularly from the National Science Foundation, and has established a robust and productive research program. Her publication record is very strong, with 13 peer-reviewed papers since 2016 in high quality engineering education and social science journals. Overall, her work in engineering education research is distinguished by its systematic, careful, and theoretically driven approach, and her clear desire to innovate. External reviewers speak highly of her and her work, noting she has established a reputation as an impactful and innovative scholar.

Recent and Significant Publications:

Ostrowski, A.K., Daly, S.R., Huang-Saad A.Y., Seifert, C.M., "Idea Generation Practices in a Biomedical Engineering Capstone Course," *IEEE Transactions on Education.* 2019: 1-8.

Cassandra Woodcock, Prateek Shekhar, Aileen Huang-Saad, "Examining Project Based Entrepreneurship and Engineering Design Course Professional Skills Outcomes," *International Journal of Engineering Education.* 2019; 35(2): 631-644 3.

Jin Woo Lee, Anastasia Ostrowski, Shanna R. Daly, Aileen Huang-Saad, Colleen Seifert, "Idea generation in biomedical engineering courses using Design Heuristics," *European Journal of Engineering Education*, 08/2018: 1-19 4.

Jin Woo Lee, Shanna R. Daly, Aileen Y. Huang-Saad, Colleen M. Seifert, Jacob Lutz, "Using design strategies from microfluidic device patents to support idea generation," *Microfluidics and Nanofluidics,* 07/2018; 22(7): 70 5.

Chinonye C. Nnakwe, Nisha Cooch, Aileen Huang-Saad, "Investing in Academic Technology Innovation and Entrepreneurship: Moving Beyond Research Funding through the NSF I-CORPS™ Program," *Technology & Innovation,* 06/2018; 19(4): 773-786.

Service: The level of service commitment that Professor Huang-Saad has demonstrated is exceptional. In her current appointment, she has been active on departmental, college, and university committees, as well as participating in paper and grant reviews for several external organizations. In addition, she serves as a faculty advisor for the very active MHEAL student group, and is becoming active in the national Bioengineering Division of ASEE.

External Reviewers:

Reviewer A: "…I see Dr. Huang-Saad continuing to be a strong contributor and a leader in the engineering education research community in the many years to come."

Reviewer B: "…Dr. Huang-Saad is an exceptional educator and a national leader of entrepreneurial and design education. Her efforts have been well published, garnered funding, and most importantly, have established programs that are highly successful at her institution, are emulated by others nationally, and produce a cadre of graduates who are equipped to change the world."

Reviewer C: "…Dr. Aileen Huang-Saad is an outstanding contributor to the biomedical engineering and engineering education communities. Her record exceeds that of others transitioning between the ranks of assistant and associate professor in all aspects other than the number of graduate students for whom she has served as primary advisor."

Reviewer D: "Dr. Huang-Saad has demonstrated considerable innovation and scholarship in her work, is well funded and is very productive."

Reviewer E: "Her contributions to the art and science of entrepreneurial engineering education is of particular importance. Her approach is influenced by her experience in biotechnology and bioengineering as a researcher, technologist and program manager."

Reviewer F: "... I have no reservation recommending Dr. Huang-Saad for promotion to the rank of Associate Professor at the University of Michigan. I have no doubt that she would be promoted to this rank at any peer institution."

Reviewer G: "...Dr. Aileen Huang-Saad has contributed very significantly to the area of engineering entrepreneurship education research, particularly in terms of connecting engineering entrepreneurship outcomes to learning theories. She is well known in the community as an effective researcher and I believe that Dr. Aileen Huang-Saad is very deserving of promotion to the rank of Associate Professor based on her research record."

Summary of Recommendation: Professor Huang-Saad has firmly established a reputation as an outstanding educator and researcher, and is on a trajectory to achieve even greater impact at the University of Michigan and in her field. It is with the support of the College of Engineering Executive Committee that we recommend Aileen Y. Huang-Saad for promotion to associate professor of biomedical engineering, without tenure, Department of Biomedical Engineering, College of Engineering and Medical School.

Alec Gallimore

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

Marschall S. Runge

Marschall S. Runge, M.D., Ph.D.
Executive Vice President for Medical Affairs
Dean, Medical School

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