Approved by the Regents
May 20, 2021

PROMOTION RECOMMENDATION
The University of Michigan
College of Engineering
Department of Material Science and Engineering

Anish Tuteja, associate professor of materials science and engineering, with tenure, Department of Materials Science and Engineering, associate professor of macromolecular science and engineering, without tenure, Macromolecular Science and Engineering Program, and associate professor of chemical engineering, without tenure, Department of Chemical Engineering, College of Engineering, is recommended for promotion to professor of materials science and engineering, with tenure, Department of Materials Science and Engineering, professor of macromolecular science and engineering, without tenure, Macromolecular Science and Engineering Program, and professor of chemical engineering, without tenure, Department of Chemical Engineering, College of Engineering.

Academic Degrees:

Ph.D.	2006	Michigan State University, Chemical Engineering and Materials Science and Engineering, Lansing, MI
B.E.	2001	Panjab University, Chemical Engineering, Chandigarh, India

Professional Record:

2019 – present	Associate Professor (without tenure), Department of Chemical Engineering, University of Michigan
2015 – present	Associate Professor (with tenure), Department of Materials Science and Engineering, University of Michigan
2015 – present	Associate Professor (without tenure), Macromolecular Science and Engineering Program, University of Michigan
2009 – 2015	Assistant Professor, Department of Materials Science and Engineering, University of Michigan
2009 – 2015	Assistant Professor, Macromolecular Science and Engineering Program, University of Michigan

Summary of Evaluation:

Teaching: Professor Tuteja has taught a broad range of undergraduate and graduate courses to support the teaching efforts of the department. The undergraduate courses he has taught over the years include Principles of Engineering Materials (MSE 250), The Structure of Materials (MSE 350, Materials Processing and Design (MSE 489), and Materials and Engineering Design MSE 480. His graduate courses include MSE 512 –Polymer Physics, and MSE 593 –Surface and Interfacial Engineering, a new course he taught in winter 2020. Professor Tuteja has also taught a graduate course on the Mechanical properties of Polymers (MSE 515) in fall 2020 (his first time teaching this course). In addition to teaching these courses, Professor Tuteja has supervised seven post-doctoral researchers, 13 Ph.D. students, 14 Master's students, and over 30 undergraduate students and visiting graduate students.

Research: Professor Tuteja's research is focused on applying surface and interfacial science to address some of the key challenges in the areas of renewable energy, public safety, and environmental science. This is an exciting research area and can impact virtually every surface around us from shoes, clothes, carpets, display screens, cooking pans, packaging, ovens, refrigerators, air conditioners to antimicrobial and antiviral coatings for everything we touch. Since starting at the University of Michigan in 2009, his group has published numerous manuscripts in some of the most prestigious, interdisciplinary journals, including a 2019 publication in *Scienc*e. He has significant financial resources to support his research group. He has developed close to $17M in collaborative and individual research funding (with his group's share ~$7M) from a wide range of different funding agencies. His group's current funding sources include the Department of Energy, the Office of Naval Research, and the National Science Foundation. To foster a diverse working environment, Professor Tuteja has actively recruited women and underrepresented minorities.

Recent and Significant Publications:

Kevin Golovin, Abhishek Dhyani, M. D. Thouless, Anish Tuteja, "Low Interfacial Toughness Materials for Effective Large-Scale De-Icing," *Science*, 2019; 364(6438): 371-375.

Kevin Golovin, Anish Tuteja, "A predictive framework for the design and fabrication of icephobic polymers," *Science Advances*, 09/2017; 3(39).

Kevin Golovin, Sai P. R. Kobaku, Duck Hyun Lee, Edward T. DiLoreto, Joseph M. Mabry, Anish Tuteja, "Designing Durable Icephobic Surfaces," *Science Advances*, 03/2016; 2(3).

K Golovin, M Boban, JM Mabry, Anish Tuteja, "Designing Self-Healing Superhydrophobic Surfaces with Exceptional Mechanical Durability," *ACS Applied Materials & Interfaces*, 2017; 9(12): 11212-11223.

Arun K. Kota, Gibum Kwon, Wonjae Choi, Joseph M. Mabry, Anish Tuteja, "Hygro-responsive membranes for effective oil-water separation," *Nature Communications*, 2012; 3.

Service: Professor Tuteja served as the Ph.D. graduate chair for the Materials Science and Engineering department from 2019 –2020. He served on the MSE Faculty Search Committee from 2018 – 2020. He has served on the Lurie Nanofabrication Facility (LNF) Executive Council within the college since 2017. He has served on the Center for Entrepreneurship Faculty Committee (CFE FC) since 2018. Professor Tuteja has been working on promoting diversity more broadly within the department, as well as within the university. Over the last four years, he has served as the graduate chair for the Department of Materials Science and Engineering. Recruiting a diverse cohort of Ph.D. students has been at the forefront of MSE's admissions process every year. Professor Tuteja also serves as the College of Engineering representative on the curriculum committee for the minor in entrepreneurship. He has participated twice in the "NextProf" workshops organized by the College of Engineering with the goal to interact with, provide advice, and encourage underrepresented minority students and postdocs to take up careers in academia.

External Reviewers:

Reviewer A: "In short, along with being a rising leader in Materials Science and Engineering, he is doing everything else (quite well) expected of a candidate for promotion to Professor. In my department… I have no doubt Prof. Tuteja would be promoted with enthusiasm to Professor at this stage of his career."

Reviewer B: "It appears abundantly clear on paper that Anish has already paid back your institution's commitment to his tenured position and it seems that he will continue to do so - many times over - through his commitments to his students, department, university and professional community."

Reviewer C: "… I believe Dr. Tuteja's case satisfied the University of Michigan's criteria for promotion from the rank of Associate Professor with Tenure to the rank of Professor with Tenure… and strongly support the case put forwards [sic]."

Reviewer D: "…I would like to recommend with emphasis and without any hesitation Dr. Anish Tuteja for a tenured position as full professor at the University of Michigan. He will be an excellent choice for such a position. For me an important question is always, whether we would promote such a candidate at our university to a comparable position. I am very safe that I can answer this question in a positive way without any hesitation."

Reviewer E: "…Anish is an internationally-recognized leader in the area of surface and interfacial science. He has also demonstrated important contributions in education and service. I enthusiastically support his promotion to Full Professor at University of Michigan."

Summary of Recommendation: Professor Tuteja is an accomplished leader in the field of Surface and Interfacial Science. It is with the support of the College of Engineering Executive Committee that I recommend Anish Tuteja for promotion to professor of materials science and engineering, with tenure, Department of Materials Science and Engineering, professor of macromolecular science and engineering, without tenure, and professor of chemical engineering, without tenure, Department of Chemical Engineering, College of Engineering.

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

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