THE UNIVERSITY OF MICHIGAN

Regents Communication

ACTION REQUEST

Subject: **Report of Faculty Retirement**

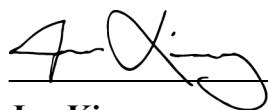**Action Requested:**   **Adoption of Retirement Memoir**

Thomas J. Downar, Ph.D., professor of nuclear engineering and radiological sciences in the College of Engineering, retired from active faculty status on June 30, 2024.

Professor Downar received his B.S. degree (1974) from the United States Military Academy, West Point where he was a distinguished graduate. In 1975, he received an M.S. degree in nuclear engineering from the Massachusetts Institute of Technology (MIT). Following his service that included instruction at West Point, Professor Downar returned to MIT as a Hertz Fellow and received his Ph.D. degree in 1984. Shortly after, he joined the faculty in the School of Nuclear Engineering at Purdue University (1984-2006) becoming a professor in 1998. While at Purdue, he served as the director of Computation Science and Engineering Program (2000-2005) and co-director of the Computer Research Institute (2005-2007). After a brief time as professor in the Department of Nuclear Engineering at the University of California, Berkeley (2007-2008), he joined the University of Michigan Nuclear Engineering and Radiological Sciences department in 2008.

Professor Downar's research focused on computational nuclear reactor physics with a focus on fuel management, multiphysics simulation, and neutronics. He was responsible for the development and maintenance of the U.S. Nuclear Regulatory Commission's advanced reactor core simulator (PARCS); an independent tool used by regulators for commercial reactor licensing. Professor Downar also oversaw the development of the Michigan Parallel Characteristics Transport (MPACT) code which was central to a R&D100 award (2016) and the Ted Kennedy Faculty Team Excellence Award (2017). He has published over 100 journal articles, 77 conference proceedings, co-authored one book, and contributed to another. Professor Downar was chair or co-chair for 36 Ph.D. students and oversaw 27 master's students. Seven of his former Ph.D. students are now faculty in nuclear engineering at universities in the U.S., Europe, and South Korea. He is a fellow of the American Nuclear Society (2002), and the recipient of Best Teacher Award at both the U.S. Military Academy (1980) and Purdue University's School of Nuclear Engineering (1989, 1990, 1992). Professor Downar eschewed administrative roles and the shift key. He is best known by his students for his exceptional mentorship, and his colleagues for not taking himself too seriously, but the work very seriously.

The Regents now salute this distinguished faculty member by naming **Thomas J. Downar, professor emeritus of nuclear engineering and radiological sciences**.

Requested by:

Jon Kinsey
Vice President and Secretary of the University   **June 2024**