

To: Patrick J. Wolfe, Provost and Executive Vice President for Academic Affairs and Diversity

From: Arvind Raman, John A. Edwardson Dean of the College of Engineering

Date: May 04, 2024

Subject: **Recommendation of Shirley Dyke to Donald A. and Patricia A. Coates Professor of Mechanical and Civil Engineering**

I am pleased to recommend Dr. Shirley Dyke as the Donald A. and Patricia A. Coates Professor of Innovation in Mechanical Engineering.

Dr. Dyke is world-renowned in the fields of structural dynamics and control, smart infrastructure systems, and resilient systems engineering. Specifically, her significant contributions are in developing and advancing Real-time Hybrid Simulation (RTHS), Smart Damping Technology, and Structural Health Monitoring (SHM) via computer vision, which utilizes AI to analyze image data from disaster scenes.

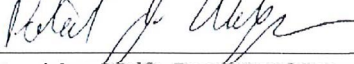
Dr. Dyke is the recipient of the NSF Career Award (1998), later selected for the NSF Presidential Early Career Award in Science and Engineering (PECASE). She is the recipient of the ASCE 2022 George W. Housner Structural Control and Monitoring Medal for her work on smart damping technology. Dr. Dyke is the recipient of the College of Engineering Faculty Excellence Award for Research (2023) at Purdue University and the SHM Person-of-the-Year Award (2021) for her contributions to the theory, analysis, application, and education of SHM methods. She has published over 149 refereed journal publications, (with hundreds to 3000+ citations) with an h-index of 57, making her one of the most highly cited scholars in the field.

Dr. Dyke has secured more than \$35M in funded research. She is PI of the \$15M NASA-funded Resilient ExtraTerrestrial Habitats institute (RETHi). The center develops next-generation technological advances to overcome the grand challenge of deep space habitation while incorporating cutting-edge technologies. Under Dyke's leadership, the RETHi team has developed the CyberPhysical Testbed (CPT) at the Ray W. Herrick Laboratories. She also served as Co-Leader for IT and Education at the Mid-America Earthquake Center (a \$25M NSF-supported ERC), was involved in managing NEEShub and served as the Co-Leader for IT of the NEES Ops Center (a \$105M NSF-supported Large Facility, from 2009 to 20215).

She has supervised 26 PhD students (10 now in academic positions), 27 MS students, 30 visiting scholars, 15 postdocs, 8 high school students, 5 high school teachers, and 75+ undergraduate researchers.

The Engineering Named Professor Committee (ENPC) has expressed its unanimous support for Dr. Dyke's nomination of a named professorship with a vote of 6-0 in favor. I wholeheartedly endorse Dr. Dyke without reservation.

Approval Recommended:

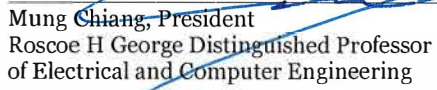


Patrick J. Wolfe, Provost and Executive Vice President
For Academic Affairs and Diversity

07/24/2024

Date

Approved:



Mung Chiang, President
Roscoe H George Distinguished Professor
of Electrical and Computer Engineering

7.24.2024

Date

Cc:

Luna Lu
Brittany Vestal
Eckhard Groll
Amanda Van Meter