

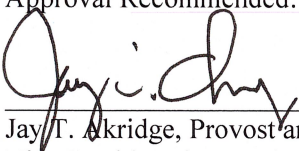
Mung Chiang
John A. Edwardson Dean of the College of Engineering

To: Jay T. Akridge, Provost and Executive Vice President for Academic Affairs and Diversity
From: Mung Chiang *MC*
Date: May 14, 2019
Subj: Recommendation for Named Professorship

I am pleased to recommend that Dr. Jan Olek be appointed James H. and Carol H. Cure Professor in Civil Engineering. Dr. Olek's case has unanimous support of Civil Engineering's nominating committee as well as of the Engineering Named Professorship Committee. Dr. Olek's full vita, recommendation letters, abbreviated vita, and a description of the source of funds for the professorship are enclosed for your review.

Prof. Jan Olek studies the properties and behavior of concrete and asphalt in applications for transportation infrastructure. His work has resulted in design specifications for FHWA, standard specifications for concrete bridge decks in Indiana, Section 500 of the Indiana Department of Transportation Standard Specifications, AASHTO T365 standard test, and numerous industry applications. He has 88 refereed articles and over a hundred refereed conference papers. He is also the co-author of two books and 6 edited proceedings. Prof. Olek received a total of about \$18.9M in research funding, of which ~\$13M can be attributed directly to him. His research has been supported by federal and state agencies, and private industries. In both undergraduate and graduate teaching, he emphasizes engineering judgement, independent thinking, class participation and cooperative learning. Prof. Olek has mentored 22 MS students (5 co-advised) 32 PhD students (8 co-advised) as well as about 30 post-doctoral research associates. Several of his students are currently holding faculty positions at various universities. Dr. Olek serves as the chair of the American Concrete Institute (ACI) Committee 552. He is an Associate member of the Civil Engineering Committee of the Polish Academy of Sciences. He was recognized as a Distinguished Alumnus by the Krakow University of Technology, Poland. He is a Fellow of ACI. His recognitions include Warrens Lectureship (2019), Della Roy Lectureship (2018), and Robert E. Philleo Award (2016).


Approval Recommended:



Jay T. Akridge, Provost and Executive
Vice President for Academic Affairs
and Diversity

5/20/19

Date



Mitchell E. Daniels, Jr.
President

5/29/19

Date

Enclosures

Cc: G.S. Govindaraju
A. Raman
J. Dietz

Mung Chiang

John A. Edwardson Dean of the College of Engineering

To: Jay T. Akridge, Provost and Executive Vice President for Academic Affairs and Diversity
From: Engineering Named Professorships Committee:
James Braun, Paul Griffin, Ed Delp, Stephen Heister, Michael Loui, Kumares Sinha, Haiyan Wang, Linda Wang, Mung Chiang, Chair
Date: April 30, 2019
Subject: ***Recommendation of Jan Olek for Cure Professorship***

The Engineering Named Professorships Committee unanimously recommends Professor Jan Olek the James H. and Carol H. Cure Professor in Civil Engineering. This recommendation is based on his studies about the properties and behavior of concrete and asphalt in applications for transportation infrastructure with a focus on durability, characterization of microstructure and sustainability of concrete as well as development of alternative, more degradation-resistant cementitious binders.

Dr. Olek's impact on the industry is profound. His research results in alkali-aggregate reaction (AAR), a reaction which can lead to extensive cracking and damage of affected concrete, were used to modify the Federal Aviation Administration (FAA) P-501 specification for airport pavements and were incorporated in the AASHTO PP65 stand for determination and prevention of the AAR.

Professor Olek's work has also resulted in the development of provisional standard specifications for concrete bridge decks in Indiana. Concrete is susceptible to damage by repeated freeze/thaw cycles due to the fact that its binding phase (hydrated cement paste) is inherently porous and can get saturated during the exposure to moist conditions. You can see examples of Dr. Olek's work on the SR-23 high performance concrete bridge deck near South Bend, IN and the reconstruction of many bridges on I-465 around Indianapolis.

The need to provide safe travel conditions on heavily trafficked pavements in the winter require an increased usage of deicers (such as calcium or magnesium chlorides) that are more effective at low temperatures than the traditional deicing salt (sodium chloride). Dr. Olek has provided seminal contributions in the area of mechanisms leading to concrete deterioration in the presence of the deicers, and this work led to changes in Section 500 of the Indiana Department of Transportation Standard Specifications. The work also led to the development of the AASHTO T365 standard test method for quantifying the amount of calcium oxychloride in cement paste exposed to deicing chemicals.

Please let us know if we can provide any additional information.