Dottorato Internazionale in Ingegneria Civile e Ambientale

AVVISO DI SEMINARIO

Imad L. Al-Qadi,
PhD, PE, Dist.M.ASCE

Giovedì 11 ottobre 2018 alle ore 14:30,
presso DIPARTIMENTO DI INGEGNERIA CIVILE E INDUSTRIALE
Sede di Ingegneria delle Infrastrutture, dei Trasporti e Geomatica
Aula A23
Terrà il seminario dal titolo:

Building Durable and Sustainable Pavements

Abstract: Sustainable transportation is vital to ensure a future that preserves all three aspects of the triple bottom line: environment, economy, and society. The transportation sector is responsible for approximately 28% of total energy consumption in the U.S. and 14% of global greenhouse gases emissions. While the majority of these environmental impacts are emitted from vehicles, infrastructure also plays a large role in the environmental footprint of the transportation sector with direct implications on the vehicles traversing it. The future of pavement engineering and sustainability must be holistic. Thus, the pursuit of a sustainable pavement system requires a life-cycle approach, where each life-cycle stage can be defined, evaluated, and optimized with respect to its engineering durability and environmental impacts. In this presentation, the life-cycle stages of pavement systems with emphasis on durability will be discussed, including the environmental impacts of using innovative techniques and more efficient processes at each stage to quantify and identify sustainable strategies. The pavement use stage is the most complex of the life-cycle stages and includes the relationship between tire characteristics, vehicle, and pavement. Building long-lasting pavement, its performance, and rolling resistance are directly related to fuel consumptions and resulted emission. The future of pavement engineering will also be discussed.

Imad L. Al-Qadi, PhD, PE, Dist.M.ASCE
Bliss Professor of Engineering
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Professor Al-Qadi, Bliss Professor of Engineering at the University of Illinois at Urbana-Champaign, is the Director of the Advanced Transportation Research and Engineering Laboratory (ATREL), the founding Director of the Illinois Center for Transportation (ICT), and founding Director of the Smart Transportation Infrastructure Initiative. Al-Qadi is also President of the Transportation Engineering Solutions and Technologies, Inc. (TEST). Prior to that, he was the Charles E. Via, Jr. Professor at Virginia Tech. A registered professional engineer, Al-Qadi has authored/ coauthored approximately 650 publications and has delivered more than 600 presentations including numerous keynote and distinguished lectures. He has led more than 120 research projects, with funding in excess of $100M, to completion. He has managed approximately 50 projects annually in his capacity as director of ICT since 2006.

Professor Al-Qadi has received numerous prestigious national and international honors and awards including the NSF Young Investigator Award, the quadrennial IGS Award, ASCE James Laurel Prize, ARTBA Steinberg Award, ASCE Turner Award, TRR of the National Academies D. Grant Mickle Award, French Limoges Medal, and several other teaching and research awards.

He is a Chapter Honorary Member of Chi Epsilon at the University of Illinois, an Honorary Member of the Societa Italiana Infrastructure Viarie, Emeritus Member of TRB Committee AHD25 on Sealants and Fillers for Joints and Cracks, and an Honorary Professor at several universities in Europe and China. He is also Past President of the ASCE T&DI Board of Governors and the Editor-in-Chief of the International Journal of Pavement Engineering. In 2010, he was elected as an ASCE Distinguished Member (the highest honor bestowed by ASCE). Dr. Al-Qadi holds a Ph.D. degree from Penn State University. His expertise focuses on highway and airfield pavement mechanics and evaluation, tire-pavement interaction, electromagnetic wave interactions with civil engineering materials and ground penetrating radar (GPR), asphalt rheology, geosynthetics, instrumentation, pavement sustainability, life cycle assessment, and forensic engineering and arbitration.

Pisa, 10 Ottobre 2018.

Il Referente della sede di Pisa

(*Prof. Ing. Massimo Losa*)