DIPARTIMENTO DI INGEGNERIA CIVILE, EDILE E AMBIENTALE - I C E A
DEPARTMENT OF CIVIL, ENVIRONMENTAL AND ARCHITECTURAL ENGINEERING

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SEMINAR ANNOUNCEMENT

Monday June 9th, 2025, **10:00 a.m.**, **room R**, Dept. ICEA, Via F. Marzolo 9, Padova

Invited lecturer

Daniel Castillo

Dept of Civil Engineering, Michigan State University, Michigan, United States

On road agencies, data, and how they connect

Abstract

In the context of developing projects and research, it is commonplace for researchers and engineers to communicate and interact with transportation/infrastructure agencies. This presentation will describe, among other topics, how this communication takes place from the perspective of academic work. Overall, the lecture will show: some aspects related to the data provided by infrastructure agencies; how discussions on data may arise, and what the agencies may want to use it for; examples of condition metric measurements for road structures; what they mean, why they are relevant, and how they are used.

The results of a case study will be illustrated briefly, where such data was provided by transportation agencies and further analyzed and processed. The result of this study was a smart methodology for projecting road conditions, considering road deterioration and maintenance plans.

Short bio

Daniel is a Civil Engineer, with a PhD from Universidad de Los Andes (Colombia). He worked as a Research Associate with Michigan State University (USA), developing research projects with the Department of Transportation of the state of Michigan as well as the Federal Highway Administration (USA). Previously, he held research positions in Finland (Aalto University), the University of Illinois at Urbana-Champaign (USA) and research collaborations with Texas A&M University.

He worked also in the analysis of road condition metrics, mechanical modeling of heterogeneity, and the development of computational tools for the evaluation of variability in granular and recycled infrastructure materials.