Accelerated Pavement Testing
6th international conference
Contribution of Accelerated Pavement Testing to transport infrastructure innovation
04 - 06 avril 2022 Nantes FRANCE
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Workshop on Sunday April 3, 2022 - La Cité Nantes Congress 14:00 – 17:00

Workshop 2: APT Program Data for Efficient Present and Future Use

Chairs: Jeremy D. Lea / Rongzong Wu

Dr. Jeremy Lea is a Professional Research Engineer and co-Principle Investigator at the University of California Pavement Research Center. His focus areas are pavement design and management, particularly in data analysis, performance models, accelerated pavement testing, and spatial variability. He as more than 25 years of experience in pavement engineering. His current projects include the ongoing support and development for the Caltrans pavement management system (PaveM), and development of the CalME design method.

Dr. Rongzong Wu is a Project Scientist at the University of California Pavement Research Center. His research focuses on pavement design, mechanistic modeling of pavement failure mechanisms, FWD back-calculation, and accelerated pavement testing and data analysis. He current projects include field calibration of mechanistic empirical design procedures and performance related specification for pavement materials.

Scope

This workshop will focus on methods of managing the large quantities of data obtained from an APT program, the processes and procedures for validating and reducing the data to manageable quantities for analysis, and linking the data to associated laboratory and field tests. It will also discuss tying together the entire program's data to advance pavement engineering beyond simple performance evaluation and product validation, such as for calibration of mechanistic-empirical design methods.

Objectives:

- Outline a full framework for analysis, including roles and responsibilities
- Overview of database principles, population procedures, data cleaning and data reduction
- First level analysis: Understanding individual section data
- Second level analysis: Making engineering conclusions from an experiment (multiple sections), including lab testing results and using ME design to normalize sections
- Third level analysis: M-E calibration, combining multiple experiments and field data to make recommendations for broader applications