



APT Program Data for Efficient Present and Future Use

Sunday April 3, 2022, 14:00 – 17:00 local time

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

Program

Time	Presentation title	Speaker
14:00	Overview of APT data best practices	Jeremy Lea (<i>in-person</i>), University of California Pavement Research Center
14:20	Feedback from DSPS	Eshan Dave (<i>in-person</i>), University of New Hampshire
14:35	Breakout discussion: What can we do with APT data?	Jeremy Lea (<i>in-person Moderator</i>)
15:05	APT database structure	Rongzong Wu (<i>online</i>), University of California Pavement Research Center
15:35	<i>Break</i>	
15:45	MnRoad data	Michael Vrtis (<i>online</i>), Minnesota Department of Transportation
16:00	Modern databases	Jeremy Lea (<i>in-person</i>), University of California Pavement Research Center
16:10	Breakout discussion: Best Practices for APT data	Jeremy Lea (<i>in-person Moderator</i>)
16:40	Summary, wrap-up, and next steps	Jeremy Lea (<i>in-person</i>), University of California Pavement Research Center

Chairs: Jeremy D. Lea / Rongzong Wu



Dr. Jeremy Lea is a Professional Research Engineer and co-Principal 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 has 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. His current projects include field calibration of mechanistic empirical design procedures and performance related specification for pavement materials.