

Associazione Nazionale Costruttori Edili - Palermo



Workshop Machine Learning and Bituminous Materials

Palermo, 21 September 2022

under the patronage of:



Università
degli Studi
di Palermo

Introduction

The Workshop will focus on the application of novel machine learning for the investigation of bituminous materials. The Workshop will take place on the final day of the three days of international events organized by the University of Palermo, during which academia, researchers and industry from all over the world will meet to share knowledge and experiences about the advancement in research and the innovations in the field of transport infrastructures.

Program

CHAIRS:
Dr. **Gaspare Giancontieri**, Dr. **Chiara Mignini**
University of Palermo

	Presentation & Speaker
15:30	Welcome & Registration
16:00	Welcome Notes Dr. Davide Lo Presti & Dr. Ramon Botella
16:20	Using Machine Learning to Estimate the Degree of Activation (DoA) of RAP Dr. Ramon Botella
16:40	Stiffness and Mechanical Properties of Asphalt Concretes: Predictive Modeling by Machine Learning Dr. Nicola Baldo
17:00	The Use of Dropout Neural Networks for Estimation of Indirect Tensile Strength of RAP Samples Dr. Marko Oreskovic
17:20	Self-Validating Ensemble Modelling (SVEM) Technique to Reliably use Limited Data for Model Training: Applications to Asphalt Materials and Pavements Dr. Eshan Dave
17:40	A Shared Database for Asphalt Test Results: Are You In? Dr. Martins Zaumanis
18:00	Discussion, Conclusions & Closure

Other sponsors



Local organizing committee

Event chair

Prof. Davide Lo Presti

Logistic support - SMARTilab UNIPA

Dr. Gaspare Giancontieri
Dr. Chiara Mignini
Dr. Patricia Hennig Osmari
Gabiella Buttitta
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Contacts (organizing secretary)

Davide Lo Presti: davide.lopresti@unipa.it
Chiara Mignini: chiara.mignini@unipa.it

Registration and Website:

<http://rilem2022.unipa.it>

Confirmed speakers



Dr. Ramon Botella,
Universitat Politècnica de Catalunya, Spain

Ramon Botella is a principal investigator at the Universitat Politècnica de Catalunya – BarcelonaTech. He has spent most of his career studying the mechanical characterization methods for asphalt materials for pavements.



Dr. Nicola Baldo,
Università degli Studi di Udine

Nicola Baldo received is Associate Professor at the University of Udine. His research mainly focuses advanced constitutive modeling of asphalt concrete, predictive modeling of asphalt concrete's performance by machine learning methods, driver's behavior study by virtual car driving simulator, road safety analysis.



Dr. Marko Orešković,
University of Belgrade, Serbia

Marko Orešković is Assistant Professor at the University of Belgrade. His primary area of expertise is related to the use of alternative and recycled materials in asphalt mixtures, including their life cycle assessment analysis.



Dr. Eshan Dave,
University of New Hampshire, US

Eshan Dave is Associate Professor in the University of New Hampshire. Eshan's research interests include performance evaluation of pavements and paving materials, development and implementation of performance-based specifications, resilient design of transportation infrastructure, climate variability impacts on infrastructure longevity, life cycle assessment, and cold regions pavement operability and performance.



Dr. Martins Zaumanis,
Empa, Switzerland

Martins Zaumanis is an asphalt researcher at Empa. His research focuses in sustainable road pavements through recycling, warm mix asphalt, and use of waste materials in asphalt production. He is collaborating with road construction companies and road administrations to expedite the adaption of these technologies in practice.

Location

The workshop will be kindly hosted by the Local Association of Buidling Contractors “**ANCE – Palermo Associazione Costruttori Edili di Palermo e Provincia**”, at Conference Hall “Francesco Florio”, Salita Santi Romano, 30 o, Foro Italico Umberto I

