



**IRF**  
GLOBAL

# Advances in Pavement Design, Analysis & Construction

Online Training  
March 7 – 30, 2023



## Online Training

16 Professional Development Hours



## **Advances in Pavement Design, Analysis and Construction**

### **March 7 – 30, 2023**

### **Online Training**

#### **Background**

This on-line training course is designed to provide a comprehensive knowledge of the basic concepts and recent advances related to pavement design, analysis and construction. Participants will be guided through various interactive course modules to develop skills and knowledge to employ standard guidelines and specifications related to both flexible and rigid pavements. Throughout this course, the sustainability considerations for design and construction of pavements will be discussed. Innovations and advances in pavement engineering with regards to design, analysis and construction, will also be addressed through dedicated modules for each topic.

#### **Format**

The Lectures will be taught over a four-week period with live 2-hour online sessions held on Tuesdays and Thursdays of each week. Upon completion of the training program, the IRF will administer an online knowledge test. IRF will work with each individual participant to ensure they pass the examination.

#### **Learning Objectives**

- ✓ Understand the basic concepts of different pavement structures
- ✓ Become familiar with local standards and specifications regarding the design and construction of pavements
- ✓ Understand the basic concepts of pavement structures and their functional properties
- ✓ Understand the process for design of pavement system using both empirical and mechanistic approaches
- ✓ Become familiar with different materials used in the pavement structures and their fundamental properties
- ✓ Learn about the advances and innovations in pavement construction



IRF Global is now recognized as an approved training provider by the Chartered Institution of Highways and Transportation (CIHT), a respected professional body that provides transportation professionals with recognition, support and business insights to accelerate their careers and influence the future of the sector.

## Target Audience

- ✓ Road Authorities & Operators
- ✓ Road Design Consultants
- ✓ Road Contractors
- ✓ Maintenance Personnel
- ✓ Pavement design engineers
- ✓ Geotechnical engineers
- ✓ Materials engineers

## Speakers



### **Mehran Mazari, Ph.D.**

**Assistant Professor, California State University Los Angeles**

*Dr. Mehran Mazari* is an Assistant Professor in the Department of Civil Engineering at Cal State LA, specializing in Transportation Infrastructure, Materials and Applied Data Science, Artificial Intelligence (AI) and Machine Learning (ML). He is the faculty director of Sikand Center for Sustainable and Intelligent Infrastructures (SITI-Center) and founder of Sustainable Infrastructure Materials Research Lab (SIM-Lab) at Cal State LA. His research interests include sustainable and resilient transportation infrastructure, transportation infrastructure materials, and non-destructive evaluation of transportation infrastructure. He is member of technical committees at the Transportation Research Board of National Academies of Science and Engineering and co-chair of the LTPP subcommittee of the Highway Pavement Committee of the American Society of Civil Engineers (ASCE). Dr. Mazari has published more than 60 peer-reviewed journal and conference papers. He has been actively involved in several national and state research projects, including the National Highway Cooperative Research Program (NCHRP) and Federal Highway Administration (FHWA), among others.

# Schedule

Tuesdays & Thursdays (12:00 PM – 2:00 PM US EST)

**Tuesday March 7, 2023**

Introduction and Background  
Pavement Types (Rigid and Flexible)  
Pavement Design Methods

**Thursday March 9, 2023**

Empirical Pavement Design Methods  
Mechanistic-Empirical Design Approach  
Advances in Pavement Structural Design and Analysis

**Tuesday March 14, 2023**

Pavement Materials (Rigid and Flexible)  
Material Properties and Testing (Laboratory and Field)  
Specifications and Local Standards

**Thursday March 16, 2023**

Mix Design Approaches  
Performance Based Mix Design  
Advances in Mix Design and Evaluation

**Tuesday March 21, 2023**

Review of Pavement Construction Methods  
Construction Specifications and Guidelines  
Quality Control and Quality Assurance

**Thursday March 23, 2023**

Innovations and Advances in Pavement Construction  
Performance Monitoring and Evaluation  
Maintenance and Rehabilitation

**Tuesday March 28, 2023**

Special Topics in Pavement Engineering  
Non-Destructive Testing and Evaluation  
Advances in Pavement Research

**Thursday March 30, 2023**

Advances in Sustainable Design and Construction  
Recycled Materials  
Sustainability Rating for Pavements

## Registration

- 1,400 USD IRF Members / Groups of 3 or more
- 1,700 USD Non IRF Members
- 1,000 USD IFIs, SARF, Canadian & US State DOTs & City Officials

Registration: <https://www.irf.global/event/a-pvmt23-online-training>

For any support, please contact [melabyad@irf.global](mailto:melabyad@irf.global)

## System Requirements

### Computer Requirements

#### Operating System

*Windows 7 - Windows 10, Mac OS X 10.9 (Mavericks), macOS Catalina (10.15), Linux, Google Chrome OS, Android OS 5 (Lollipop) - Android 9 (Pie), iOS 10 - iOS 12, Windows Phone 8+, Windows 8RT+*

#### Web browser

Google Chrome (most recent 2 versions)

Mozilla Firefox (most recent 2 versions)

Internet Explorer v11 (with Adobe Flash if running Windows 7)

Apple Safari (most recent 2 versions)

Microsoft Edge (most recent 2 versions)

#### Internet connection

1 Mbps or better (broadband recommended)

#### Hardware

2GB of RAM (minimum), 4GB or more of RAM (recommended)

Microphone and speakers (USB headset recommended)

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## **International Road Federation**

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Nairobi, Kenya | Kuala Lumpur, Malaysia

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Alexandria, VA USA | Dubai, UAE | Zagreb, Croatia

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