



IRF
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Bridge Management & Inspection

Expert training by professionals, for professionals

Online Training
May 13-23, 2024



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Background

This online training workshop will cover the main technical issues regarding Road Bridge Management, Inspection, and Maintenance. The contents will be based on international standards as well as the hands-on experience of the course instructors. The workshop is addressed to highway agency executives and private sector contractors. The topics of the workshop go from the basic knowledge of Road Bridges and their main characteristics to the visual inspection activities, to the most up-to-date concepts of Bridge Asset Management.

Why Online?

- Expert training by professionals for Professionals: access IRF's unique curriculum and lectures developed by world-class specialists
- Accelerated learning processes: get up to speed and gain new insights in less time and with no travel constraints
- Full access to learning materials and session recordings
- Small classrooms & scheduled One-on One sessions between with instructors
- Interactive group projects and case studies
- Receive IRF Certification

Format

The Lectures will be taught over a 2 week period with live 2-hour online sessions held Monday through Thursday 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

- ✓ Better understand each of the aspects of Existing Bridge Inventory and Inspection and their related functions
- ✓ Recognize the main structural problems of bridges;
- ✓ Knowledge of the main techniques of structural investigation and structural monitoring;
- ✓ Understand the importance of good bridge inspection practices in order to achieve optimal bridge management target;
- ✓ Knowledge of the most up-to-date techniques of bridge inspection;
- ✓ Learn about bridge management optimization and tools for resource allocation;
- ✓ Understand bridge predictive maintenance and its possible applications.

Schedule

(12:00 PM– 2:00 PM US EST)

Session 1: May 13 BRIDGE MANAGEMENT DEFINITION AND CHARACTERISTICS	Session 1 learning objectives: <ul style="list-style-type: none">• What is Bridge Management and why it is important• Type of bridges• Bridge elements
Session 2: May 14 BRIDGE DESIGN AND VULNERABILITY	Session 2 learning objectives: <ul style="list-style-type: none">• Main design and construction rules• Bridge main defects and weaknesses• Bridge collapses
Session 3: May 15 EXISTING BRIDGE INVENTORY	Session 3 learning objectives: <ul style="list-style-type: none">• Bridge inventory standards• Bridge inventory rules and common practices
Session 4: May 16 DEFECTS AND PATHOLOGY (1)	Session 4 learning objectives: <ul style="list-style-type: none">• Existing bridge defect classification• Existing bridge pathologies• National and international standards
Session 5: May 20 DEFECTS AND PATHOLOGY (2)	Session 5 learning objectives: <ul style="list-style-type: none">• How to learn and recognize defects• Examples and case studies• Personnel certification
Session 6: May 21 DIAGNOSTIC TESTS AND STRUCTURAL MONITORING	Session 6 learning objectives: <ul style="list-style-type: none">• Main diagnostic tests for bridges• Main principles of structural monitoring• Examples
Session 7: May 22 NEW BOUNDARIES IN BRIDGE INSPECTION	Session 7 learning objectives: <ul style="list-style-type: none">• Limits of standard practices• New techniques and tools• Future developments
Session 8: May 23 BRIDGE ASSET MANAGEMENT & PREDICTIVE MAINTENANCE	Session 8 learning objectives: <ul style="list-style-type: none">• Bridge Management System• Bridge management practices• Prioritization• Management of single bridge• Management of stock of bridges• New boundaries and optimal resource allocation

Instructor



Michele Frizzarin is a structural engineer with 15 years experience in the field of analysis and verification of existing structures. In particular he gained expertise in the inspection and structural analysis of existing concrete, steel and masonry infrastructures, as well as historical buildings and monuments. He furthered his education in the study of the dynamic and seismic behavior of structures, and work constantly in universities for the organization of technical courses of construction and structural dynamics.

He is partner and R&D Manager of Franchetti Group, headquartered in Italy, branches in Brazil, Canada, and Expansions from 2020 in USA, India and Singapore. The company operates in the field of civil engineering and environmental engineering with the collaboration of more than 50 engineers.

Registration

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

Registration: <https://www.irf.global/event/brm24-online-training>

For any support, please contact 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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