



Bridge Management

Expert training by professionals, for professionals

Washington, DC USA
August 8 – 12, 2022



Workshop



Bridge Management & Inspection

August 8-12, 2022

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Background

Bridges are some of a road agency's most expensive assets to build and maintain. However, too often their maintenance needs are neglected and/or deferred which can have disastrous consequences, as we have witnessed recently with several high profile bridge failures around the world. That's why it is essential for road agencies to have a robust bridge management and inspection program in place that ensures the safety of the traveling public and maximizes the value of these vital assets.

This course presents best practices and state of the art methods for effective bridge maintenance, management and inspection. A major part of the course focuses on bridge repair and rehabilitation issues; bridge management systems, needs of highways agencies, and bridge related safety and risk issues. The other part addresses best practices for bridge inspections and how to utilize new technologies for accurate results in a timely and cost efficient manner.

The contents of the course are based on international standards as well as the hands-on experience of the course instructors.

Learning Objectives

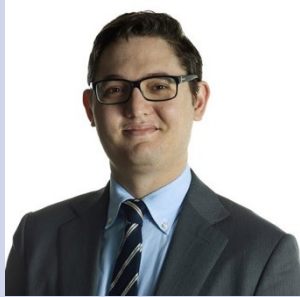
- ✓ Better understand each of the aspects of Existing Bridge Inventory and Inspection and their related functions
- ✓ Recognize the main structural problems of bridges;
- ✓ Gain knowledge of the main techniques of structural investigation and structural monitoring;
- ✓ Understand the importance of good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

Schedule

Monday to Friday (9:00 AM – 4:30 PM)

Session 1: August 8 (9:00 AM – 12:00 PM) 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: August 8 - Afternoon 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: August 9- (9:00 AM – 12:00 PM) EXISTING BRIDGE INVENTORY	Session 3 learning objectives: <ul style="list-style-type: none">• Bridge inventory standards• Bridge inventory rules and common practices
Session 4: August 9- Afternoon DEFECTS AND PATHOLOGY	Session 4 learning objectives: <ul style="list-style-type: none">• Existing bridge defect classification• Existing bridge pathologies• National and international standards• Examples and case studies• How to learn and recognize defects• Personnel certification
Session 5: August 10 - (9:00 AM – 12:00 PM) DIAGNOSTIC TESTS AND STRUCTURAL MONITORING	Session 5 learning objectives: <ul style="list-style-type: none">• Main diagnostic tests for bridges• Main principles of structural monitoring• Examples
Session 6: August 10 - Afternoon NEW BOUNDARIES IN BRIDGE INSPECTION	Session 6 learning objectives: <ul style="list-style-type: none">• Limits of standard practices• New techniques and tools• Future developments
Session 7: August 11- (9:00 AM – 12:00 PM) BRIDGE ASSET MANAGEMENT	Session 7 learning objectives: <ul style="list-style-type: none">• Bridge Management System• Bridge management practices• Prioritization
Session 8: August 11- Afternoon PREDICTIVE MAINTENANCE	Session 8 learning objectives: <ul style="list-style-type: none">• Management of single bridge• Management of stock of bridges• New boundaries and optimal resource allocation
Session 9: August 12 – (9:00 AM – 4:00 PM) FIELD TRIP/SITE VISIT	Session 9 learning objectives: <ul style="list-style-type: none">• Bridge inventory application• Bridge inspection application• Examples of bridge defects

Instructor



Michele Frizzarin is a structural engineer with 16 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 India. The Company operates in the field of civil engineering and asset management with the collaboration of more than 70 engineers.

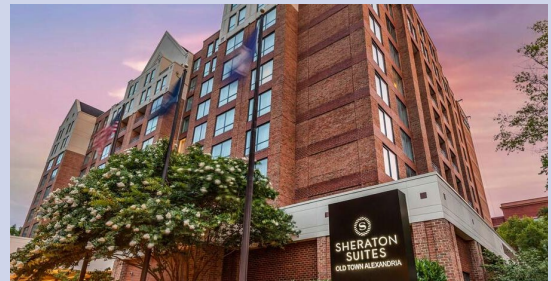
Registration (hotel accommodation not included)

- 2,000 USD IRF Members
- 2,500 USD Non IRF Members
- 2,000 USD IFIs, SARF, Canadian/ US State DOTs & City Officials

For groups for 3 or more please contact Magid Elabyad: melabyad@irf.global for additional group discounts.

Seminar Hotel:

Sheraton Suites Old Town Alexandria
801 North Saint Asaph Street,
Alexandria, Virginia 22314 USA
Tel: +1 703 836 4700



Registration: <https://www.irf.global/event/brm22-ws-august-dc/>

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