EUROPEAN ASSOCIATION ON QUALITY CONTROL OF BRIDGES AND STRUCTURES

TRAINING SCHOOL
PADOVA

1 September – 3 September, 2021
TRAINING SCHOOL PADOVA

EUROSTRUCT
EUROPEAN ASSOCIATION ON QUALITY CONTROL OF BRIDGES AND STRUCTURES

DATE OF EVENT
1–3 September 2021

University of Padova
Padova, Italy

ACTION CONTACTS

EuroStruct
Prof. José C. Matos,
Dr. Irina Stipanovic
Eng. Amir Kedar
imatos@civil.uminho.pt
i.stipanovic@utwente.nl
akedar@kedmor.co.il

Local organizer
Dr. Mariano Angelo Zanini
marianoangelo.zanini@dicea.unipd.it

Action websites
http://eurostruct.org

http://eurosstruct.org
1. Introduction ......................................................................................................................... 4
  1.1. About ............................................................................................................................... 4
2. Programme .......................................................................................................................... 6
  2.1. Day #1 .............................................................................................................................. 6
  2.2. Day #2 .............................................................................................................................. 7
  2.3. Day #3 .............................................................................................................................. 7
1. INTRODUCTION

1.1. ABOUT

The objective of the EUROSTRUCT Training School Padova is the exchange of knowledge and experience in quality control, to encourage awareness and responsibility of structural engineers towards the needs of society, and to encourage actions necessary for progress of quality control in bridges and structures.

The school aims at teaching the most recent developments on performance indicators and performance goals, focusing on the training on some contemporary topics around this field.

In this training school participants will be familiarized with some contemporary topics and will introduce them to a range of bridge management, inspection, performance indicators and assessment approaches along with a clear idea around the different aspects of risk. The summer school will provide targeted training for doctoral researchers in these topics, including hands-on problem-solving sessions. Participants will be able to use the knowledge and training for their research and are expected in future to influence how they interact with and contribute to the risk and management aspects of roadway bridges.

The event is organised by the EuroStruct association and University of Padova, Department of Civil, Environment and Architectural Engineering.

Venue: University of Padova, Padova, Italy
Time: 1 – 3 September 2021
Capacity: 10-25 trainees
Fee: 350 € per person

<table>
<thead>
<tr>
<th>Local Organizer</th>
<th>Co-Organizer</th>
</tr>
</thead>
</table>
| Mariano Angelo Zanini  
   University of Padova, Department of Civil, Environment and Architectural Engineering, Padova, Italy | José Matos  
   University of Minho, School of Engineering, Civil Engineering Department, Guimarães, Portugal |
| Flora Faleschini  
   University of Padova, Department of Civil, Environment and Architectural Engineering, Padova, Italy | Irina Stipanovic  
   University of Twente, Faculty of Engineering Technology, Enschede, Netherlands |
| Amir Kedar  
   Kedmor Engineers Ltd.  
   Ramat Gan, Israel | |

Trainers list of experts:
- Prof. José Matos, Department of Civil Engineering, School of Engineering, University of Minho, Portugal
- Prof. Joan Ramon Casas, Department of Civil and Environmental Engineering, Polytechnic University of Catalonia, Spain
- Dr. Irina Stipanović, Faculty of Engineering Technology, University of Twente, Netherlands
- Eng. Amir Kedar, Kedmor Engineers, Israel
- Dr. Roland Kromanis, Faculty of Engineering Technology, University of Twente, Netherlands
- Dr. Mariano Angelo Zanini, University of Padova, Department of Civil, Environment and Architectural Engineering, Padova, Italy
- Dr. Flora Faleschini, University of Padova, Department of Civil, Environment and Architectural Engineering, Padova, Italy
This workshop tries to harmonize a common decision-making framework through practical examples acknowledging the differences that may exist for practical implementation. The hands-on approach of the case studies and methodologies are expected to create an in-depth understanding around decision-making approaches for bridges and promote a healthy discussion around the needs, approaches and interpretation of information obtained from individual bridges and bridge networks. Rationalizing the process of arriving at safe and efficient management of bridge assets will also be focused on in this training school.

The training school attempts to:

- Provide practical and modern tools and impart them on the trainees
- Act as a formal platform for dialogue, discussion and consensus-development of bridge networks for trainees with diverse technical and experiential backgrounds
- Increasing the impact of research on policy makers, regulatory bodies and national decision makers as well as the private sector.

The training school addresses the core value of EUROSTRUCT by promoting tangible and meaningful interaction among engineers, owners, inspectors and researchers to arrive at an EU-wide approach for managing the performance and safety of its bridges and the connection of such approaches to how such maintenance and management is carried out at a global level.
2. PROGRAMME

NOTE: All times are as per CET Time.

2.1. DAY #1

Wednesday, September 1st, 2021

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00 – 09:30</td>
<td>Registration</td>
</tr>
<tr>
<td>09:30 – 09:45</td>
<td>Introduction and welcoming&lt;br&gt; by Jose Matos and Mariano Angelo Zanini</td>
</tr>
<tr>
<td>09:45 – 10:30</td>
<td>Introduction to performance-based assessment of bridges&lt;br&gt; Detailed Program&lt;br&gt; - COST Action TU 1406 - General issues, Motivation and Main Objectives and Need for a Quality Control Plan for European bridges&lt;br&gt; - Key outcomes from the Action&lt;br&gt; - Motivation of the Training School&lt;br&gt; by Joan Ramon Casas and Irina Stipanovic</td>
</tr>
<tr>
<td>10:15 – 11:00</td>
<td>Quality Control for Bridges&lt;br&gt; - Hierarchical levels of data&lt;br&gt; - Presentation of COST TU1406 Quality Control Framework&lt;br&gt; - Understanding data at a stock level&lt;br&gt; - Interpretation and analyses&lt;br&gt; by Amir Kedar</td>
</tr>
<tr>
<td>11:00 – 11:15</td>
<td>Coffee break</td>
</tr>
<tr>
<td>11:15 – 12:00</td>
<td>Dividing into groups (max. 4 groups) and presenting the Bridge Case Studies&lt;br&gt; by Trainers</td>
</tr>
<tr>
<td>12:00 – 13:00</td>
<td>Lunch break</td>
</tr>
<tr>
<td>13:00 – 14:00</td>
<td>Preparing for Bridge Case Studies&lt;br&gt; by Participants + Trainers</td>
</tr>
<tr>
<td>14:00 – 16:00</td>
<td>Implementation of Bridge Case Studies for each group&lt;br&gt; by Participants + Trainers</td>
</tr>
</tbody>
</table>
**2.2. DAY #2**

**Thursday, September 2\(^{nd}\), 2021**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
</table>
| 09:00 – 12:30 | Implementation of Bridge Case Studies for each group  
by Participants + Trainers |
| 12:30 – 13:30 | Lunch                                                                   |
| 13:30 – 14:00 | Local expert lecture on Bridge Management Practice in Italy  
The future of bridge inspection and management: the "Autostrade per l'Italia & Movyon" strategy  
by Marzia Malavisi |
| 14:00 – 16:00 | Implementation of Bridge Case Studies for each group  
by Participants + Trainers |
| 16:00 – 16:15 | Coffee Break                                                            |
| 16:15 – 17:00 | Analyses of case studies Implementation: Interpretation of Results  
by Participants + Trainers |

**2.3. DAY #3**

**Friday, September 3\(^{rd}\), 2021**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
</table>
| 08:30 – 9:45 | Preparation of workgroup report & live discussion  
by Participants + Trainers |
| 09:45 – 10:00 | Coffee Break                                                            |
| 10:00 – 12:30 | Workgroup presentations & discussions  
by Participants + Trainers |
| 12:30 – 13:00 | Snack Break                                                             |
| 13:00 – 14:00 | Summary and conclusions. Submittal of workgroup reports  
by Trainers |

Trainees will be requested to provide their reports at the end of the entire session or mail them over the next day.