### Venue



1 rue de la Noë 44321 Nantes, France

Founded in 1919, Centrale Nantes is a French engineering school. Its undergraduate, Master and PhD programmes are based on the latest scientific and technological developments and the best management practices.



# **Application, Registration and Contact**

The language of the training school is English.

#### Important dates

- September 17, 2021: Deadline for application. <u>Submit your application online</u> (applications are reviewed on a rolling basis until the deadline).
- October 30, 2021: Deadline for registration.

**Registration fee**: €150

For more information, visit <a href="http://trainingschool.infrastar.eu/">http://trainingschool.infrastar.eu/</a> or email infrastar@univ-Eiffel.fr



Know more about the Infrastar project and visit the website.



# Stay tuned









http://trainingschool.infrastar.eu/



Infrastar Training School originates from Infrastar project that has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 676139.



The Infrastar Training School aims to provide lectures and hands-on trainings to Master and PhD students, early-stage researchers, young professionals on all aspects of asset management of civil infrastructures with respect to fatigue of materials. The participants will get additional knowledge about their own field but also about what is performed beforehand and afterwards.

### **SAVE THE DATE**

### 26 - 29 October 2021 at Centrale Nantes in France

The courses will provide multi-disciplinary and intersectoral basic concepts in three core fields, ranging from the design to the dismantling of the structures (bridges and wind turbines):

- 1. Monitoring and auscultation.
- 2. Structural and action models.
- 3. Reliability, risk and decision analyses.

A participant who successfully has taken part in the Infrastar Training School will be able to understand:

- 1. How to smarten the structures and its benefits.
- 2. How to model structural and material behaviours under loading.
- **3.** How to develop, perform and assess structural reliability, risks and the value of structural information.





In association with





# International scientific committee

### Monitoring and auscultation

Dr Odile Abraham (Université Gustave Eiffel), Pascal Collet (Total), Dr Ernst Niederleithinger (BAM), Dr Marc Thiele (BAM)

### Structural and action models

Prof. Jan Bien (Wroclaw University of Technology), Prof. Eugen Brühwiler (EPFL), Dr Franziska Schmidt (Université Gustave Eiffel)

### Reliability, risk and decision analyses

Prof. Franck Schoefs (University of Nantes), Prof. John Dalsgaard Sørensen (Aalborg University), Prof. Sebastian Thöns (Lund University)

# **Organising committee**

- Dr Odile Abraham and Dr Hakim Ferria (Université Gustave Eiffel)
- Prof. Ahmed Loukili (SPI Engineering sciences graduate school)

# The Infrastar Training School is coordinated by



The French institute of science and technology for transport, development and networks

With the support of



### **Endorsements**









### Course outline

#### **Keynote lecture**

 The Role of Behavior Psychology in Affecting the Perception of Risk in SHM Decision-Making

Prof. Michael Todd (University of California)

### 1. Monitoring and auscultation

- From sensors to useful signals for concrete evaluation and monitoring Dr Odile Abraham (Université Gustave Eiffel)
- From signals to useful parameters: combination and data fusion Probability of Detection (PoD), Receiver Operating Characteristic (ROC) Dr Ernst Niederleithinger (BAM)
- Demonstrations and exercises on advanced NDE (fibre optics and Coda Wave Interferometry).

#### 2. Structural and action models

- Assessment of extreme values of effects in structures Dr Franziska Schmidt (Université Gustave Eiffel)
- Computational methods for transient diffusion problems in concrete structures

Dr Boumediene Nedjar (Université Gustave Eiffel)

### 3. Reliability, risk and decision analyses

- Uncertainty and structural reliability assessment (lectures and exercises) Prof. John Dalsgaard Sørensen (AAU)
- Decision and structural information analyses (lectures and exercises) Assoc. Prof. Sebastian Thöns (Lund University)

### **Technical visits**

· More details coming soon.

