



UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II

DIPARTIMENTO DI STRUTTURE PER L'INGEGNERIA E L'ARCHITETTURA

Dottorato in Ingegneria Strutturale, Geotecnica e Rischio Sismico

PROPOSTA SEMINARIO – OFFERTA FORMATIVA 2026

Titolo del seminario	Acoustic Emission for Monitoring Structural Integrity: Forecasting Structural Failure in Bridges
Docente proponente	Prof. Giuseppe Lacidogna Department of Structural, Geotechnical and Building Engineering, Politecnico di Torino, Corso Duca degli Abruzzi 24, Torino 10129, Italy College of Architecture and Energy Engineering, Wenzhou University of Technology, Wenzhou 325000, China
Argomenti trattati / Descrizione sintetica	The series of four seminars “Acoustic Emission for Monitoring Structural Integrity” provides a bird’s eye view of Acoustic Emission (AE) testing for structural integrity assessment, from fundamentals to applications. This seminar explores the use of the Acoustic Emission (AE) technique to monitor the structural integrity of bridges and forecast potential failures. It presents case studies and full-scale tests on prestressed concrete beams, demonstrating how advanced AE time-series analysis, such as b-value analysis, Natural Time analysis, and the Method of Critical Fluctuations (MCF-B), can detect damage progression and provide early warning of critical conditions.
Data	9 February 2026
Numero di ore totali	1 ora
CFU proposti	-
Modalità di erogazione	Il docente presenterà in presenza, trasmettendo in modalità blended.