CIVIL AND ENVIRONMENTAL ENGINEERING

Ateneo - Monitoring, diagnosis, and seismic improvement of architectural heritage

Funded By	Politecnico di TORINO [P.iva/CF:00518460019]
Supervisor	CERAVOLO ROSARIO - rosario.ceravolo@polito.it
Contact	
Context of the research activity	- Earthquake Engineering - Heritage structures - Structural Health Monitoring - Innovative retrofitting systems
Objectives	The program aims to develop new approaches for monitoring, diagnosis and seismic improvement of heritage structures. The research involves the interpretation of monitoring data of various nature (static, dynamic, satellite, etc.) for the construction of digital twins and models. Case studies range from monumental structures subject to permanent monitoring (e.g., the Sanctuary of Vicoforte) to existing buildings requiring innovative and sustainable retrofitting interventions. The program also includes preparation and collaboration in competitive research programs.
Skills and competencies for the development of the activity	Ideal candidates should have a background compatible with the listed topics, showing an open mind and a strong motivation to tackle frontier research. A propensity for theoretical and experimental research is expected, demonstrable for example with involvement in advanced research topics in their thesis work. Knowledge in the field of earthquake engineering, structural health monitoring, satellite data processing, monumental structures are appreciated, together with some basic research experiences related to the selected Ph.D. topic.