



UNIVERSITÀ DEGLI STUDI
DEL SANNIO Benevento

DST

DIPARTIMENTO DI SCIENZE E TECNOLOGIE

Dottorato di Ricerca in Scienze e Tecnologie per l'Ambiente e la Salute

GIORNATE SCIENTIFICHE DEL DST

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**Modern instruments, data integration, and AI-based inference in
structural monitoring of historical objects**

MERCOLEDÌ 15 GENNAIO ORE 11.00

Aula 1 CUBO

Via dei Mulini, 73 - BENEVENTO

ABSTRACT

The lecture encompasses the application of geodetic and metrological sensors in monitoring historical sites. Two locations in Poland will be mentioned: the Coal Basin Museum in Będzin, Silesian Region, and the Benedictines' Monastery in Sieciechów, Mazovian Voivodship. Different aspects regarding geodetic surveys and data integration, engineering geodesy, risk management, and geo-hazards will be discussed. In particular, the lecturing block contains:

- Theoretical and practical aspects of structural monitoring, with particular attention to defining limit classes (alerting thresholds) and statistical inference.
- Prevention and risk management, especially in the hazardous areas.
- Implement diverse measuring sensors and integrate them to build a coherent knowledge base regarding historical sites.

The lecture will also provide students with the effects of a collaboration between the Warsaw University of Technology and Unisannio. Also, the opportunity of visiting WUT within the ERASMUS programme will be presented.