



UNIVERSITA' DEGLI STUDI DI PADOVA
Scuola di Ingegneria
Corso di Laurea in Ingegneria Edile-Architettura
Corso di Problemi Strutturali dei Monumenti e dell'Edilizia Storica
A.A. 2024-25

Technical seminar

IN-PLANE STRUCTURAL PERFORMANCE ANALYSIS OF MASONRY STRUCTURES

Ass. Prof. ZHANG Jingyao

Graduate School of Engineering, Kyoto University - Japan, Dr. Eng

CASE STUDIES

Prof. AOKI Takayoshi

Graduate School of Design and Architecture, Nagoya City University - Japan, Dr. Eng.



Masonry structures can be constructed using locally sourced materials, making them cost-effective. They also exhibit excellent durability, chemical stability, and atmospheric stability. As a result, approximately 60% of the global population resides in masonry structures, many of which are located in earthquake-prone regions. Due to disadvantages such as the heavy self-weight of masonry structures and the weak bonding strength between masonry units and mortar, these structures often amplify the loss of life and property caused by earthquakes. Additionally, because the stress distribution in masonry structures is discontinuous, conventional finite element analysis methods are not suitable. In this seminar, we will present our static nonlinear analysis methods specifically developed for evaluating in-plane structural performance of masonry structures. Case studies on the Handa Akarenga Building (Handa, Japan) and Ghirlandina Tower (Modena, Italy) will be also discussed.

Wednesday 26.03.2025
14:30-16:00
Sala Polivalente ICEA
via Marzolo 9
Padova



**DIPARTIMENTO DI INGEGNERIA
CIVILE, EDILE E AMBIENTALE**
DEPARTMENT OF CIVIL, ENVIRONMENTAL
AND ARCHITECTURAL ENGINEERING