

Improving the structural safety of historical masonry buildings: Concepts, recent developments in analysis and applications

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místnosti B379 v budově Fakulty stavební ČVUT v Praze
Thákurova 7, 166 29 Praha 6**

The lecture addresses historical masonry structures, from the perspective of conservation, analysis and strengthening. These tasks are still a challenge to modern practitioners even if significant research advances have occurred in the last decades. Significant advances have been made in non-destructive testing, mechanical characterization, tools for advanced numerical analysis, knowledge on traditional materials and techniques, and innovative materials and techniques. Here, modern concepts, recent developments and applications to emblematic case studies are discussed.

Paulo LOURENÇO is full professor in the Department of Civil Engineering, University of Minho, Guimarães, Portugal, and coordinator of the Group of Historical and Masonry Structures. Professor Lourenço is experienced in the fields of NDT, advanced experimental and numerical techniques, innovative strengthening techniques and earthquake engineering. He is a specialist in structural restoration and has worked as consultant on more than forty monuments, including World Heritage sites such as Cathedral of Porto, Monastery of Jeronimos (Lisbon), and Qutb Minar (New Delhi). He is also a structural masonry expert, responsible for R&D projects with the clay brick, concrete block and lightweight concrete block masonry in structural restoration. He has worked as consultant on innovative masonry structures in Portugal using confined and reinforced masonry, and on masonry infills in large projects, including 3 of the 5 new stadiums for Euro 2004 (Soccer). Professor Lourenço is the coordinator of the European Erasmus Mundus Advanced Master's in Structural Analysis of Monuments and Historical Constructions. He is editor of the International Journal of Architectural Heritage: Conservation, Analysis and Restoration and coeditor of the Conference Series, Structural Analysis of Historical Constructions. He is a Board Member of Committee on Historical Structures / International Council of Monuments and Sites – ICOMOS and participated in technical committees from CEN, CIB and RILEM. Supervisor of 28 PhD students (15 concluded) and coordinator of several national and international research projects. He is author or co-author of more than 400 technical and scientific publications in the fields of masonry, timber and concrete structures.

Přednáška bude v angličtině. Všichni zájemci jsou srdečně zváni.

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