

#### **DEADLINES** 31 May 2008

Submission of abstracts 15 July 2008

Preliminary acceptance 31 December 2008

Submission of full papers

28 February 2009 Final acceptance

**ABSTRACTS SUBMISSION** 

Abstracts should be submitted by e-mail (prohitech09 @unina.it) no later than 31 May 2008. Abstracts should be shorter than 500 words and should include: title of the paper. authors' details (affiliation, address, e-mail, telephone number, fax number) and an indication of the most relevant Conference topic.

Authors will be notified by 15 July 2008 on whether their abstract has been accepted.

#### **INFORMATION**

For general information. please contact the following e-mail address: prohitech09 @ unina.it



English will be the official language for both oral and printed contributions

#### **PROCEEDINGS**

All accepted papers will be durina working presented sessions. The Proceedings will be distributed at the registration desk at the beginning of the Conference, Oral presentation is the unavoidable condition for the publication of a paper in the Proceedings.



### Federico M. MAZZOLANI

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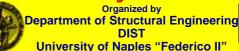
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Italy 21-24 June 2009



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# Introduction

The PROHITECH Conference staff is very pleased to announce that a special conference, entirely devoted to the protection of relevant buildings belonging to the cultural heritage, is under preparation. The Conference will be held in Rome, which can be legitimately considered one of the most important places in the world from the historical point of view. The main subject of the Conference is mostly represented by the use of innovative technologies, namely those relying upon mixed reversible systems, for the protection of historical buildings under extreme conditions due to catastrophic events, such as earthquakes, volcanic eruptions, tsunamis, fires, blasts, impacts and shocks. Such study field is receiving more and more interest all over the world, due to the widely shared policy of protecting historical constructions by means of techniques which exploit the advantageous peculiarities of different materials and devices combined together, and allow easy removal and substitution, if necessary. This framework make us confident that, also thanks to your participation, the PROHITECH Conference in Rome will provide a remarkable contribution to the development of advanced techniques for the protection of the valuable building heritage.

### **Objectives**

The main objectives of the PROHITECH Conference in Rome are:

- 1.Drawing the attention of industry, research centres, engineers and competent authorities on the problem of safeguard of the construction heritage from seismic and catastrophe risk, in particular when historical and monumental buildings are concerned;
- 2. Improving the awareness of the practicing operators about the importance of using advanced materials and technologies in the protection of constructions;
- Improving the average knowledge of practicing technicians about innovative systems of protection of historical buildings, so as to contribute to the institution of specialized skills in such technical field;
- 4.Promoting the use at a wide scale of reversible and environmentally friendly technologies, in order to fit existing constructions with easily removable and modifiable protection systems;
- 5.Supporting the adoption of "smart" materials and special techniques for the protection of constructions as a cheap and effective alternative to traditional, highly intrusive strengthening methodologies, especially when historical constructions are faced;
- 6.Advancing the state-of-the-art in the field of protection of constructions, by adding new information about the behaviour of structures fitted with special systems and/or using advanced materials or devices for improving their performance in extreme conditions;
- 7. Allowing engineers to use simple and reliable tools for analyzing the behaviour of constructions provided with advanced systems of protection, as well as for detailing up-grading interventions;
- 8. Developing advanced, Performance Based Design (PBD)-complying guidelines for the practical application of innovative materials and technologies in the field of restoration of buildings belonging to the cultural heritage.

## Scope

The main scope of the PROHITECH Conference is to focus on the development of sustainable methodologies for the use of reversible mixed technologies in the protection of existing constructions, with particular emphasis to historical and monumental buildings, which are particularly prone to earthquake and catastrophe risk. This would primarily involve saving human lives and reducing both economic and cultural losses due to earthquakes or catastrophic events. Reversible mixed technologies exploit the peculiarities of innovative materials and special devices, allowing ease of removal if necessary. At the same time, the combined use of different materials and techniques yields an optimization of the global structural behaviour.

## Conference Venue

The PROHITECH Conference will be held in a prestigious historical building in the centre of the city of Rome, which is universally recognised as the capital of the Cultural Heritage in the World ("Roma caput mundi").



Rome, Italy 21-24 June 2009

# Main Topics

- a. Traditional restoration techniques
- b. Damage assessment
- c. Risk analysis
- d. Intervention strategies
- e. Innovative materials and techniques
- f. Reversible mixed techniques
- g. Experimental analyses
- h. Numerical analyses
- . Calculation models
- Design guidelines and codification
- k. Validation criteria
- I. Monitoring and diagnosis
- m. Robustness and reliability
- n. Vulnerability to natural hazards
  (earthquakes, tsunamis, volcanic eruptions...
- vulnerability to man-made hazards (fire, blast, impact, shock...)
- p. Protection systems against catastrophic actions
- q. Rehabilitation of old bridges
- r. Conservation of the religious heritage
- s. Study cases

### Format

The technical programme of the Conference will consist in working sessions introduced by the Chairman, followed by oral presentations and open discussion.

Out-standing experts will be invited for keynote lectures, presenting the most recent developments in theory, design and practice with reference to the protection of relevant historical and monumental buildings in various parts of the world.

Special Sessions are envisaged. All participants have complete freedom to propose and organize Special Sessions on selected topics within the general scope of the Conference. A typical session consists of one key-note paper plus five regular papers.