Tentative Outline

Special Thematic Issue for The Open Civil Engineering Journal

Toward new approaches for recovery of existing buildings: development and criticalities

Guest Editors: Dr. Michele D'Amato[1] and Dr. Antonio Formisano[2]

Aims & Scope:

In the last decades many efforts have been conducted in improving the knowledge of existing constructions behavior, since they represent a conspicuous part of the cultural heritage still in service utilized either as private or as public buildings, or else as parts of infrastructures. In addition, differently from the recent past it is considerably changed the awareness within the scientific community that there is the need of a unitary design process for constructions, intended as the assemblage of primary resisting structures, non-structural elements, facilities and architectural elements. This issue, within the existing constructions context, involves of dealing with the complexities of conciliating concerted interventions capable to satisfy as much as possible the requirements of an integrated and economic conservation plan of a building.

To this, it should be added that in the published literature there is a lack of works addressed to propose integrated design approaches on existing constructions regarding different performances, such as structural (mainly with respect to seismic action), in conjunction with energy, acoustic, and fire resistance aspects. To date, on the contrary many methods are separately addressed for recovering the buildings with respect to each of these mentioned aspects, not considering any possible interaction among them, implying also unavoidable repeated problems of buildings usability.

The current Special Issue is addressed to the works focused on the recovering of existing buildings (made of reinforced concrete, masonry, and steel, mixed) including also those interventions where different aspects are and integrated approaches are taken into account, also implying innovative materials/techniques.

Keywords: Constructions behavior, Cultural heritage, Infrastructures, Primary resisting structures; Fire resistance, Buildings usability.

Subtopics:

In this thematic issue, we intend to consider the following topics. Potential topics include but not limited to:

- Advanced numerical analysis
- Recovering of existing buildings
- Innovative materials for buildings recovering
- Retrofitting strategies on existing building
- Repairing and strengthening techniques
- Integrated approaches for recovering existing buildings
- Case studies

Schedule:

Special Issue Time Line

- **Abstract submission deadline: 15/08/2020**
- **Manuscript submission deadline: 30/09/2020**
- **Peer Review Due: 30/10/2020**
- **Revision Due: 30/11/2020**
- **Announcement of acceptance by the Guest Editors: 15/12/2020**

- **Final manuscripts due: 30/12/2020**
- **Publication of the special issue: Jan 2021**

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