

FOREWORD

Welcome to this first Special Issue of Academic Journal of Civil Engineering related to the conference organized each year by AUGC (The University - Association of Civil Engineering).

Established in 1981, the AUGC aims developing and promoting the academic teaching (Undergraduate, Graduate, and PhD) and researches in the civil engineering field in the universities and high schools of the French Education.

The **RUGC** is the national forum in civil engineering organized annually by the AUGC for information dissemination and exchange, discussions and debates on research, learning and practice related to the construction field.

The 36th meeting of universities in civil engineering has been organized by AUGC and Enise (Ecole Nationale d'Ingénieurs de Saint-Etienne) at Saint-Etienne on June 20-22, 2018.

The conference attracted more 222 peoples from several French speaking countries (France, Belgium, Algeria, ...) representing a wide range of academics, scientists, researchers, students, designers, policy makers and other industrialists from a wide variety of backgrounds, including fields of engineering, materials, sustainable, architecture, and ecological technologies, biomaterials, materials sciences, environmental engineering and government agencies, end-users, etc.

The RUGC'18 titled "*The remediation in civil engineering in the light of the digital transition and social as well as environmental issues*" includes the lectures and papers presented at the conference. It consists of 140 full texts of papers.

In addition, three keynotes related to some hot topics in the construction field were presented:

- Composite materials in bridge and building construction by Prof. Thomas Keller, EPFL, Suisse
- Masonry made attractive again: High level research, engineering and innovation, Paulo B. Lourenço, Université de Minho, Portugal
- Energy robustness of the building, elements of the ecological transition, Monika Woloszyn, Université Savoie Mont Blanc, France

A one-day pre-course on June, 19th 2018 was organized. The courses are related to:

- Statistical modelling of degradation tests (Part 1 and 2)
By David BIGAUD, Prof. des Universités, Equipe SFD du LARIS (EA 7315) – ISTIA – Université d'Angers
Youtube channel: <https://www.youtube.com/watch?v=jRW7xeOZkUk>
- The Discrete Element Method: some applications in Civil Engineering
By Eric VINCENS, Prof. des Universités, LTDS, Ecole Centrale de Lyon
Youtube channel: <https://www.youtube.com/watch?v=scFZyugRg78>

The 140 papers including 35 posters were presented in four parallel sessions which covered a wide spectrum of the topics related to Urban Planning and Sustainable Construction, Bio based - wood and eco-materials, Geotechnics and soil remediation, Innovative materials and Structures.

In parallel with the conference, a new edition of the René Houpert Award has been organized through five parallel sessions. 17 young junior researchers presented their PhD works and 5 candidates have been nominated for the final presentation. The 2018 René Houpert Award has been winning by Guillaume Delanoy (IFSTTAR, IP Clermont Ferrand).

Here is the award list:

1st prize: **Guillaume Delannoy**, *Durabilité du béton de chanvre soumis à des cycles d'humidification-séchage*, Ifsttar, Paris/Institut Pascal, Clermont-Ferrand

2nd prize: Mohamad Achour, *Modélisation de la phase d'initiation de la corrosion des aciers dans les bétons*, Institut de Recherche en Génie Civil et Mécanique, Nantes

3rd prize: Dorjan Dauti, *In-situ Neutron tomography and 3D numerical modeling of moisture distribution in concrete at high temperature*, Laboratoire Sols, Solides, Structures, Risques, Grenoble

4th prize ex-aequo: David Bouhjiti (*Analyse probabiliste de la fissuration et du confinement des grands ouvrages en béton armé et précontraint- application aux enceintes de confinement des réacteurs nucléaires*, 3SR, Grenoble), Maximin Varnier (*Identification de la variabilité des propriétés thermo-hydriques et mécaniques des feuillus en climat extérieur – Adaptation à l'Eurocode 5*, LGC2D, Egletons), Marie Viel (*Développement des composites bio-sourcés destinés à l'isolation des bâtiments*, LGCGM, Rennes 1)

On behalf of the scientific committee of AUGC, we would like to take this opportunity to express our sincere thanks the local organizing committee and in particular to Prof. Amir Si Larbi to all our contributors and participants for their carefully prepared, stimulating and thought provoking manuscripts; to the co-organizers of the one-day pre-course for their dedicated task; to the members of the Technical and Scientific Committee for their time and effort of reviewing the papers and their valuable assistance, without which the conference and this first Special Issue could not be formed.

Rewarding reading to all,

Sofiane Amziane (Chair of the Scientific Committee)

Prof. Institut Pascal UMR 6602 Polytech Clermont-Ferrand, Université Clermont Auvergne, France

Olivier Plé (Chair of the Administration Committee)

Prof. LOCIE / CNRS / Institut National l'Énergie Solaire, Université Savoie Mont Blanc, France