

FOREWORD

Welcome to the Special Issue of Academic Journal of Civil Engineering related to the conference organized each year by AUGC (The University - Association of Civil Engineering). In 2023, the conference was organized with the AFGC (French Association of Civil Engineering) and called CFGC 2023. The aim of the conference was to promote information dissemination and exchange, discussions and debates on research, learning and practice related to the construction field.

Established in 1981, the AUGC (The University - Association of Civil Engineering) 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 conference has been co-organized by **AFGC**, **AUGC** and the LMPS (ENS Paris-Saclay – CentraleSupélec – Université Paris-Saclay). The theme was: “**Ville du futur et changement climatique**”.

This year, the organizers benefited from the sponsorship of Université Paris-Saclay, DIM MaterRE, 3R, AFCAB, ARCELORMITTAL, ATILH/SFIC, CEMENTLAB, CIMBETON/SNBPE, CONSTRUIRACIER, EFB, FNTF, HILTI, INGEROP, ITECH, RILEM, TRIMBLE, URETEK, UBY GROUP, VICAT. May they find here the recognition of our community for their contributions and supports.

The CFGC 2023 special issue includes a section of academic papers presented at the conference. It consists of 91 full texts of papers.

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

- Cécila Amor & Thomas Lavigne : « **Ville du futur face aux effets du changement climatique : Les yeux des architectes** »
- Léa Mosconi : « **Influence de l'émergence de la question écologique dans le milieu de l'architecture** »
- and one on the history of the development of the Saclay plateau, Emilia Robin : « **Saclay avant Saclay ou comment la science est arrivée sur le plateau** »

The papers were presented in several sessions which covered a wide spectrum of the topics related to materials, structures, urbanism and climatic change.

An important part of the conference is the René Houpert Award. This traditional event has been organized through seven parallel sessions. Thirty-seven (37) junior researchers have presented their PhD works. This high number of candidates shows the vitality of the civil engineering community of researchers. The winner of the 2023 competition is **Hannah Franz** from the Université Gustave Eiffel. The awards list is the following:

- **1st prize: Hannah Franz**, “*Une approche interdisciplinaire pour mieux évaluer la performance structurale de charpentes métalliques anciennes (1850-1930)*”, UGE, MAST/SMC
- **2nd prize: Elodie Donval**, *Comportement au feu des murs de maçonnerie en pierre naturelle*, UGE, CSTB
- **3rd prize : Ali Mezher**, *Application de la méthode de condensation statique adaptative sur la maquette VERCORS*, Université Paris-Saclay, CEA
- **4th prize ex æquo: Théophile Bouillard**, LMDC, UPS / ANDRA
- **4th prize ex æquo: Lola Doussang**, LMDC, UPS / Holcim
- **4th prize ex æquo: Yohan Jacquet**, Univ. Bretagne Sud, Inst. de Rech. du Puy de Lôme
- **4th prize ex æquo: Colin Lashermes**, Univ Aix-Marseille / INRAE

Special prizes were also attributed by FNTF to **Lola Doussang** (LMDC, Holcim) for her work on « Evaluation du risque de corrosion en présence de chlorures au sein de trois bétons bas-carbone : bas clinker, alcali-activé et sursulfaté » and by EFB to **Imane El Khaldi** (GeM, Edycem) for her work on « Proposition d'une approche de caractérisation des bétons bas carbone vis-à-vis du risque de corrosion »

A poster competition was organized for the PhD students who are in the first year of their work. The winner is **Deeksha Margapuram** from **INSA Toulouse** for her work on "Comparative evaluation of the interaction between the surface of SCM and Portland based concretes and biofilms in marine environment for the application of offshore wind turbine structure".

A video competition was also organized and the winner is **Camille Martin-Cavaillé** for her work on "*Valorisation de co-produits calcaires issus de l'aquaculture en béton porteur isolant*", **ENS Paris-Saclay, Builders Ecole d'ingénieur**. The video is available on the AUGC Youtube channel: https://youtu.be/77yYDVS4_LE?feature=shared.

A special prize is dedicated to the best communication on the environmental transition. The winner of the 2023 session is **Tiffany Desbois** from **CEREMA** for her work on "Principes méthodologiques de l'outil CIOGEN : Calcul des Impacts des Ouvrages de GENie civil".

On behalf of the scientific committee and the administration committee of AUGC, we would like to take this opportunity to express our sincere thanks to the local organizing committee, to all our contributors and participants for their carefully prepared and stimulating, to the members of the Scientific Committee for their time and effort of reviewing the papers and their valuable assistance.

Alexandra Bourdot & Fabrice Gatuingt (Chairs of the Local Committee)

Alain Sellier (Chair of the Association)

Jean Michel Torrenti (Chair of the Scientific Committee)

Abdelhafid Khelidj (Chair of the René Houpert Award)