

FOREWORD

Welcome to the Special Issue of the Academic Journal of Civil Engineering related to the conference organized each year by AUGC (The University - Association of Civil Engineering). In 2024, the conference was organized at Le Havre. The conference aimed to promote information dissemination and exchange, discussions and debates on research, learning and practice related to the construction field.

Established in 1981, the AUGC aims to develop and promote academic teaching (Undergraduate, Graduate, and PhD) and research in the civil engineering field in the universities and high schools of French Education.

The conference has been co-organized by AUGC and Builders Ecole d'ingénieurs, the INSA Rouen Normandie and the University Le Havre Normandie. The theme was: “*Le Génie Civil en territoires maritimes et portuaires, adaptation au changement climatique et transition énergétique*” (Civil engineering in maritime and port areas, adaptation to climate change and energy transition).

This year, the organizers benefited from the sponsorship of University Le Havre Normandie, Builders Ecole d'ingénieurs, CNRS Ingénierie, the laboratory Ondes et milieux complexes, 3R, Cimbéton, EFB, FFB, FNTP, FNTP Normandie, Génie civil syndicat professionnel Normandie, Itech, Le Havre Seine métropole, PBI, Vicat and Zeiss. May they find here the recognition of our community for their contributions and supports.

The RUGC special issue includes a selection of 91 academic papers presented at the conference.

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

- Régis Soenen : « *Aménagement portuaire et maritime face au changement climatique : de la prise de conscience à un premier inventaire des défis à relever* »
- Philippe Gotteland : « *Décarboner la filière des TP : partage des données, partage des responsabilités* »

The papers were presented in several sessions which covered a wide spectrum of 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. Twenty-nine (29) 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 2024 competition is **Imane Bekrine** from the GEM laboratory. The awards list is the following:

1st prize: Imane Bekrine, “*Approche couplée nanoindentation-imagerie pour la quantification des phases et la prédiction du fluage des matériaux cimentaires*”, GEM, Nantes Université, Ecole Centrale Nantes, CNRS.

2nd prize: Myriam Goutière, *Optimisation des propriétés d’usage, de la durabilité et de la qualité environnementale d’un isolant biosourcé pour le bâtiment*, LMDC, Université de Toulouse, INSA, UPS

3rd prize : **Abdel Razzak El Zohby**, *Vers un dimensionnement plus robuste des systèmes de maintenance électrochimique*, LMDC, Université de Toulouse, INSA, UPS

4th prize ex æquo: **Colin Guenser**, LMDC, Université de Toulouse, INSA, UPS

4th prize ex æquo: **Rita Tabchoury**, LMDC, Université de Toulouse, INSA, UPS

4th prize ex æquo: **Camille Martin-Cavaillé**, LMPS, Université Paris-Saclay, CentraleSupélec, ENS Paris-Saclay, CNRS

Special prizes were also attributed by FNTF to **Lucile Pigeot** (GEM & Geocod) for her work on « *Etude de l'effet de la pression de cure sur la microstructure d'un limon stabilisé à la chaux et au liant hydraulique par tomographie in situ à rayons X* » and **Chedid Saadé** (GERS, Université Gustave Eiffel) for his work on « *Modélisation physique et numérique du*

comportement d'un remblai construit sur un sol liquéfiable soumis à un séisme » and by EFB (école française du béton) to **Julie Dubuit** (LMDC) for her work on « *Des bactéries au service de la durabilité des structures en béton armé en environnement marin* ».

A poster competition was organized for the PhD students who are in the first year of their work. The winner is **Aghiless Yahmi** (ICAM/GEM/CSTB) for his poster on « *Évaluation par arbre décisionnel du potentiel de réemploi du bois lamellé-collé : Une application expérimentale* ».

A video competition was also organized and the winner is **Jules Gombault** (INSA Rennes / SCOBAT ingénierie et construction) for his work on « *Formulation, caractérisation et durabilité de bétons banchés à base d'argile revalorisée* ». The video is available on the AUGC Youtube channel: <https://www.youtube.com/watch?v=gl08vIkoezQ>

A special prize is dedicated to the best communication on the environmental transition. The winner of the 2023 session is **Guillaume Delannoy** (FRD/ Codem / IMT Nord Europe / LGCgE) for his work on « *Etude des possibilités de fin de vie du béton de chanvre* ».

And finally, a special prize was attributed by the FFB du Havre Pointe de Cau to **Youssef Shamas** for his work on « *Raw Earth Concrete: Effect of Formulation on the Toughness* ».

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.

Tariq Ouahbi (Chair 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), **Franck Taillandier** (in charge of this special issue).