



In cooperation with: BME Faculty of Civil Engineering
Department of Construction Materials and Technologies
Department of Structural Engineering
Department of Structural Mechanics
In cooperation with: BME Faculty of Architecture
Department of Mechanics, Materials and Structure

Az ülés helye (PLACE):

BME Building Kmf Room 79

1111 Budapest, Műegyetem rkp. 3.

Az ülés kezdete (DATE):

10 (Monday) October 2022, from 16.15 to 17.30

INVITATION - MEGHÍVÓ

TOWARDS A MULTI-SCALE APPROACH TO DESIGN ECO-COMPATIBLE ALTERNATIVE CEMENT SYSTEMS - From the innovation to the field: Case of Ground Glass Pozzolan

Short summary of presentation: Developing concrete with the most efficient use of resources with optimized specific properties is the challenge of the 21st century. In addition to transportation, the vast majority of greenhouse gases (GHG) come from industrial production. The climate changes we are currently experiencing call upon us more than ever to reconsider our ways of designing concrete. To accelerate their application, we need a paradigm shift, scaling up and fast standardization of new materials and technologies. In this presentation we will focus on alternative cementitious materials to portland cement. The case of ground glass pozzolan will be taken as an example. The material is not only investigated in terms of hydration, microstructure and mechanical performances and durability but also in terms of macro-scale properties, scale-up, technology transfer and standardization. The resulting cementitious material is finally the first supplementary cementing material (SCM) since around 40 years in Canadian standard (CSA) and American standard (ASTM).

Reading: <https://www.cvvm-saq.ca/publications>



Prof. Arezki Tagnit Hamou, Head Cement and Concrete Research Group

Arezki Tagnit Hamou is a Professor in the Department of Civil Engineering at the University of Sherbrooke (Canada) and a Head of Cement and Concrete Research Group. He is also the Head of the International Associated Laboratory ECOMAT. He is Chairholder of Industrial Research Chair. He has been working in the field of cement and concrete research for more than 30 years.

Dr. Tagnit Hamou's main research interests are microstructure and physico-chemistry of cement and concrete and the development of alternative cementitious materials. His studies included material characterization, hydration and durability. As a chairholder he works on the glass valorization in concrete. He has authored many peer-reviewed technical papers in international journals and conferences including patent on glass UHPC. He is also the chair of the International Conference on Cementitious Materials and Alternative Binders for Sustainable Concrete (ICCM).

Dr. Tagnit Hamou is active on technical committees within the American Concrete Institute (ACI), ASTM, RILEM, and the Canadian Standards Association (CSA). He is a recipient of the ACI-SDC's Jean-Claude Roumain Innovation in Concrete Award and was elected to a Fellow of the Institute in 2009 (FACI).

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Budapest, 10 Sept. 2022

Prof. Balázs L. György, s.k., a **fib** MT elnöke