

1st Virtual ESIS Summer School – VESS1

TC-09 Concrete



Chairman: Liberato Ferrara, Giuseppe Andrea Ferro, Luciana Restuccia

Title: “Concrete: innovation and prospective trends”

Summary: The ESIS Concrete Technical Committee (TC09) through this Virtual Summer School aims to create a day of sharing and discussion on recent developments and new frontiers relating to concrete. Renowned professors for their research work will share their experience on new materials, technologies, numerical modeling, trying to stimulate the curiosity and interest of young PhD students and researchers.

Date and time: 21 July 2020, Time zone Rome (GMT+2). **Programme:**

- **9.15 – 9.30: welcome**
L. Ferrara, Politecnico di Milano; G. Ferro, L. Restuccia, Politecnico di Torino
- **9.30 – 10.30: 1st talk**
Kua Harn Wei, National University of Singapore
Title: “*Biochar concrete/ mortar: history, milestones, challenges and opportunities*”
- **10.30 – 11.30: 2nd talk**
Viktor Mechtcherine, TU Dresden
Title: “*Extrusion-based Digital Construction: Opportunities and Challenges*”
- 11.30 – 11.45: break
- **11.45 – 13.00: 3rd talk**
Erik Schlangen, TU Delft
Title: “*Multiscale testing and modelling of cement based materials*”
- 13.00 – 14.30: Lunch break
- **14.30 – 15.00: 1st talk**
Devid Falliano, Politecnico di Torino
Title: “*Foamed Concrete: properties, applications and development of a fascinating construction material*”
- **15.00 – 15.45: 2nd talk**
Shiho Kawashima, Columbia University
Title: “*Cement rheology and processing: future of concrete casting*”
- **15.45 – 16.45: 3rd talk**
Konstantin Sobolev, University of Wisconsin-Milwaukee
Title: “*Concrete under nanoscope*”
- 16.45 – 17.00: break
- **17.00 – 17.45: 4th talk**
Maria S. Konsta-Gdoutos, University of Texas Arlington
Title: “*Smart Cementitious Materials: New Functionalities and Nanotechnology*”
- **17.45 – 18.15: 5^h talk**
Liberato Ferrara, Politecnico di Milano
Title: “*Advanced cement based composites: an asset for civil engineering to face the XXI century societal and economical challenges. The approach of the H2020 Project ReSHEALience*”
- **18.15 – 18.30 Final exam**