

APPLICATIONS AND CHALLENGES OF CONCRETE 3D PRINTING TECHNOLOGY

Speaker

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Abstract

3D printing concrete (3DPC) technology in China has been developing very fast in the past few years. Prof Zhang will introduce the main progress of her team and her industrial partners on the development of various low carbon concretes for 3D printing and the application of this advanced technology. The demonstration projects covering assembled 3D printed building, on-site 3D printed building, assembled 3D printed bridge, and etc. will be introduced. Various concretes developed for 3D printing will be briefly introduced as well. The challenges for further pushing forward the 3D concrete printing technology in construction industry will be discussed.

Biography

Dr. Yamei Zhang is a Professor in School of Materials Science & Engineering from Southeast University in Nanjing, China. She is also an affiliate professor in the department of civil engineering at the University of British Columbia, Canada, the director of Nanjing Institute for Intelligent Additive Manufacturing. She serves on several national and international academic committees which include the chair of the Committee of concrete 3D printing, the Chinese Ceramic Society, National Convener of RILEM China, etc. She is now an associate editor of the journal of Cement and Concrete Composites and board members of several other international journals. Her research covers cementitious composites, 3D printing, and low carbon construction materials. Her team has close collaboration with well-known industrial partners including Holcim, CR Cement, China Construction Eighth Engineering Division, and etc. Her work on the utilization of solid wastes in concrete 3D printing was reported by CCTV 9.



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