

NATIONAL TECHNICAL UNIVERSITY OF ATHENS SCHOOL OF CIVIL ENGINEERING INSTITUTE OF STEEL STRUCTURES



LECTURE

Monday 3 June 2024, 16:00-17:00

Auditorium of Institute of Steel Structures, Zografou Campus, NTUA

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SOIL-STEEL UNDERGROUND STRUCTURES (CULVERTS, BRIDGES, PIPES, TUNNELS)

LECTURE

FIRE SAFETY OF BUILDINGS AND INSTALLATIONS

Prof. Damian Beben Opole University of Technology

ABSTRACT: The presentation will include a short introduction and construction procedures of the soilsteel underground structures. Next, examples of experimental testing of such structures under static and dynamic loads will be presented. The finite element method simulations of such structures under static and dynamic loads (including seismic) will be shown at the end of the presentation.

BRIEF CV: Prof. Damian Beben, PhD, DSc. Professor at the Faculty of Civil Engineering and Architecture, Opole University of Technology. He is the chairman of the Scientific Council of the civil engineering, geodesy and transport discipline at the Opole University of Technology (Poland). An author and co-author of 3 books and over 200 publications at national and international conferences as well as in peer-reviewed scientific journals indexed in the Journal Citation Reports. He has an h-index of 16 and 17, according to the Web of Science Core Collection and Scopus, respectively. According to Stanford University and Elsevier, he is among the top 2% of researchers worldwide. He has been a reviewer in many international scientific journals, the National Centre for Research and Development, the Polish Ministry of Science and Higher Education, and the Foundation of Polish Science. Member of the International Association for Bridge Maintenance and Safety (IABMAS); International Association for Life-Cycle Civil Engineering (IALCCE); International Association of Computer Science and Information Technology (IACSIT); Transportation Research Board (TRB) of the National Academies, Committee on Subsurface Soil-Structure Interaction (AFS40). He was the scholarship holder of the Foundation for Polish Science for young prominent scientists, a scientific scholarship for outstanding young scientists awarded by the Ministry of Science and Higher Education; 2011 Outstanding Reviewer for the Journal of Bridge Engineering (ASCE); and the European Social Fund for PhD. Hi is an associate editor of Vibration Journal and Frontiers in Built Environment (Bridge Engineering section). His most important research interests are the analysis of bridges, including soil-steel composite structures, underground structures, durability of engineering structures, field load tests of structures, non-destructive evaluation of structures, and environmental protection in transportation engineering.

Dr. Krzysztof Drozdzol Opole University of Technology

ABSTRACT: The presentation will cover the results of tests conducted on building installations (chimney systems) in relation to the fire safety of buildings. The primary focus will be on flammable building elements, such as ceiling penetrations. The presentation will showcase tests of innovative chimney technology solutions, including the incorporation of additional airspace to enhance fire safety. The research presented will primarily pertain to steel and ceramic-concrete chimneys.

BRIEF CV: Dr. Krzysztof Drozdzol (PhD in Civil Engineering), Assistant Professor at the Faculty of Civil Engineering and Architecture, Opole University of Technology. He is an expert in the Technical Committee of the Polish Standardization Committee KT 180 since 2013, and Chairman of KT 316 since 2023. He is also a member of the Polish Chimney Sweepers Corporation of the Professional Association (Vice President of the Opole branch) since 2010. Member of the Accreditation Council of the Polish Accreditation Center. He was awarded by the Ministry of Science and Higher Education for scientific achievements, primarily for the research described in the doctoral dissertation titled "Analysis of Technological and Operational Parameters in Multilayer Thin-Walled Steel Chimneys."

He is a scholarship holder of the Minister of Education and Science for outstanding young scientists. He collaborates closely with companies that produce chimneys and chimney sweeping organizations, including the European Federation of Chimney Sweeps (ESCHFOE) and the fire brigade. He has also been involved in legislative processes related to construction regulations.

Scientific Discipline: Civil Engineering, Specialty: Construction Installations and Fire Safety of Buildings.