



International Symposium

Architecture, Technology and Innovation 2020

"Smart Buildings, Smart Cities"

*Selected papers will be published in the International Journal of "Digital Innovation in the Built Environment" as a special issue.



- 25.11.2019 • Call for Papers
- 24.01.2020 • Deadline for the Abstract Submission
- 24.02.2020 • Final Announcement of the Accepted Papers
- 30.03.2020 • Final Full-text Submission
- 30.04.2020 • Symposium

Keynote Speaker

PATRICK TEUFFEL

CONCEPTUAL STRUCTURAL DESIGN, LIGHTWEIGHT STRUCTURES, ADAPTIVE STRUCTURES



Patrick Teuffel studied civil engineering at the University of Stuttgart from 1991 to 1996 with a focus in Conceptual Structural Design. From 1999-2003 he carried out his PhD. about the application of adaptive systems in architecture and engineering, at the University of Stuttgart. Patrick's vision for the research of ISO focuses on lightweight and adaptive structures, as well as the application of innovative materials, such as smart materials or bio-based materials. In the context of lightweight and adaptive structures he is using numerical and experimental models to optimize the design and construction processes. In addition, he is conducting research for the development of 'smart skins' using textiles with integrated smart materials, which have variable properties in shape, stiffness, viscosity and transmission.

Invited Speakers

KORAY VELİBEYOĞLU

SMART CITIES, URBAN TECHNOLOGIES, SUSTAINABLE STRUCTURES



Koray Velibeyoğlu completed his master's and doctoral studies at İTÜ Institute of Technology, after graduating from Sabancı University, Department of City and Regional Planning. He is a faculty member at the Faculty of Architecture, Department of City and Regional Planning. He has been working at İTÜ Institute of Technology since 1995 and has also held various administrative positions. Development strategies, smart city studies, urban design theory and practice, knowledge management, spatial development, local development, sustainable living strategies, urban technologies are the areas of study. Koray Velibeyoğlu was the coordinator of the 'Sustainable Development Strategy of the İTÜ Peninsula' projects.

OZAN ÖNDER ÖZENER

TECHNOLOGY AND ARCHITECTURE INNOVATIONS



Ozan Önder Özener is an Associate Professor of Architecture at the İTÜ School of Architecture. Dr. Özener has multiple building projects and design competition awards. He also collaborates with architecture firms in Istanbul for improving process performance, sustainability and design quality in complex projects. Prior to his post at İTÜ, he worked as a Research Scholar at Texas A&M University, CDS Center and TAMU-Kuwait Visualization Laboratory. He has also held visiting professorships at Texas A&M University and Penn State University. His particular research and teaching interests include BIM, design process, design technology and innovation, studio culture, and digital design for. Özener holds M.Arch and M.Arch in Design Computing degrees from Istanbul Technical University and a Ph.D. degree from Texas A&M University, College of Architecture.

'Call for Papers'

Technology has always been pivotal in shaping the society. Advances in information technologies and material sciences in the course of the twenty-first century have irreversibly altered not only everyday life of individuals, so that the structural tenets of societies, but also the design, construction and management methods in architectural, engineering and urban practices. Beyond these alterations, recent innovations in emergent technologies such as Internet of Things (IoT) and/or Machine Learning have started to define unprecedented needs and requirements for the built environments. Moreover, environmental problems like pollution, source limitations, overcrowded cities, climate change, extreme weather conditions and the social crises that they cause on the doorstep require each and every profession to rethink its role in the ever changing conditions of today's dynamic political and economic agenda, make urgent decisions to adjust itself and take immediate actions. Cutting edge technological developments and innovations have the potential of being both remedy and poison for these environmental, economic and social upheavals.

In order to give insights into the role of technology and innovation in the practice and critical theory of contemporary architecture, Yaşar University initiates the International Symposium of Architecture, Technology and Innovation (ATI), which is planned to be organized annually from this very first one onwards. The symposium aims to provide scholars a transdisciplinary platform where theoretical, technical and/or practice-based state-of-the-art research findings revolving around a yearly theme in the larger framework of ATI can be discussed reciprocally.

Themes

- ▶ Big Data and Data analytics
- ▶ Virtual Reality (VR) Technologies
- ▶ Augmented Reality (AR) Technologies
- ▶ Energy Efficient Design
- ▶ Smart Energy Grid
- ▶ Smart Transportation and Parking
- ▶ IoT Applications
- ▶ Artificial Intelligence and Machine Learning
- ▶ GIS, Smart Communities and Urban Mobility
- ▶ Transformable / Deployable Structures
- ▶ Adaptive Systems
- ▶ Responsive Façades
- ▶ Origami-Based Structures
- ▶ Computational Design and Fabrication
- ▶ Sustainability and Structural Design
- ▶ Smart and Bio-based Materials
- ▶ BIM Technologies
- ▶ Digital Humanities

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