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Communications in Computer and Information Science 1627

Advances in Building Information Modeling

Second Eurasian BIM Forum, EBF 2021
Istanbul, Turkey, November 11–12, 2021
Revised Selected Papers

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Preface

Welcome to the proceedings of the 2nd Eurasian BIM Forum (EBF 2021), held virtually during November 11–12, 2021. Building information modeling (BIM) is rapidly changing the architecture, engineering and construction (AEC) industry as the catalyst for more integrated, sustainable, and efficient processes. This paradigm change leads to knowledge-based economies in AEC which open new trajectories for industry-wide transformation. BIM is a process, method, and technology but, more importantly, it is now the new common language of the AEC industry across all disciplines. Keeping pace with these developments, the BIM paradigm also evolves with new possibilities and novel approaches.

Grounded on these premises, this book focuses on providing a comprehensive view of BIM by concentrating on the current theoretical and practical aspects of the subject matter with four thematically organized parts. The chapters in the first part elaborate on the adoption of BIM in the AEC industry. Chapters include well-articulated survey studies, BIM use in specific phases in architectural design, and novel BIM uses coupled with machine learning methods. The second part of the book emphasizes the role of BIM in project management. It covers subjects such as BIM-enabled supply chain management, value engineering, risk management, and automated code checking through customized BIM frameworks. The third part is about BIM and current educational practices, where issues related to the role of BIM in architectural and engineering education are discussed. The fourth part of the book covers novel viewpoints on specific implementations of BIM methods such as heritage BIM (HBIM), kinetic architecture, building energy modeling, and smart city applications.

EBF 2021 received a total of 27 submissions. Each paper was reviewed by at least 3 members of the Scientific Program Committee in a single-blind review process, resulting in the selection of 17 submissions for presentation and 12 of which for publication in this proceedings (an acceptance rate of 44%). We hope that readers will find this book useful for exchanging theoretical and practical knowledge and experience on the novel developments in BIM methods and technologies, as well as BIM-based information and project management approaches.

We conclude this preface by thanking the many people who contributed their time and efforts to EBF 2021 and made this publication possible. We also thank all the organizations that supported the event. We thank Istanbul Technical University and Mimar Sinan Fine Arts University which co-organized EBF 2021. We extend our sincere gratitude to the members of the Scientific Program Committee and Steering Committee, all the special session chairs, and the reviewers who invested their time generously to ensure the timely review of the submitted manuscripts. Finally, we would like to thank

our family members for their support during the editing process and for the positive energy they have brought into our lives.

June 2022

Ozan Önder Özener
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Contents

Novel Viewpoints on BIM