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PREFACE

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PREFACE

BUILDINTECH BIT 2021. INNOVATIONS AND TECHNOLOGIES IN CONSTRUCTION

PREFACE

It is our pleasure to welcome you the Second International Scientific Conference "BuildInTech BIT 2021. Innovations and Technologies in Construction" during March 9-10, 2021, in Belgorod State Technological University named after V.G. Shukhov, Belgorod, Russia.

The conference provided a valuable opportunity for researchers and industry experts to exchange their ideas face to face. Proceedings brings both industry and academia and includes reports of scientists, representatives of the construction industry and postgraduate students from different technical universities not only from the Russian Federation (28 Russian institutes and universities).

The conference was also attended by representatives of the near and far abroad from 11 countries of the world (Iran, India, China, Lithuania, Azerbaijan, Kazakhstan, Uzbekistan, Belarus, the Ukraine, Georgia, and Abkhazia). Such wide geography of the conference participants, on the one hand, is very valuable from the point of view of the possibility of exchanging experience and knowledge on the issues of construction, building materials, as well as their application in various sectors of the construction industry. On the other hand, such a wide geography of the participants confirms the relevance of the thematic areas touched upon within the conference.

The conference model was divided into three sessions:

- *Building Materials,*
- *Structural Mechanics and Theory of Structures, Industrial and Civil Construction,*
- *Innovation in Utilities: Heating, Gas Supply, Ventilation and Air Conditioning, Water Supply and Sanitation*

including oral presentations and keynote speeches. In the first part, some scholars, whose submissions were selected as the excellent papers, were given 15 minutes to perform their oral presentations one by one. Then in the second part, keynote speakers were each allocated 30-45 minutes to hold their speeches.

There were over 300 scientists, experts and scholars in the area of Building Materials, Structural Mechanics and Theory of Structures, Industrial and Civil



Construction, Innovation in Utilities: Heating, Gas Supply, Ventilation and Air Conditioning, Water Supply and Sanitation representing different famous universities and institutes around the globe to attend the conference. Also all sections were available online via the video conferencing service ZOOM for the participants who couldn't come because of COVID-19 and travel restrictions.

The reports of the conference touched upon the issues of synthesis and production of systems and materials for construction purposes and their application in various areas of the infrastructure of human life, as well as in industrial areas; aimed at optimizing and efficient design and construction of facilities. The reports provide theoretical information in water patterns, models, author's concepts, etc., as well as practical data and experimental results in the form of dependencies that have the potential for real practical implementation. Thus, the choice of the declared directions of the conference is quite logical and justified, since the topics discussed touch upon the main problems in the construction industry.

A significant proportion of research materials were prepared within the framework of implementation of state and national programs in the scientific field as a grant, federal targeted programs, decrees of the Government of the Russian Federation, and other programs.

The success and prosperity of the conference is reflected high level of the papers received. The proceedings are a compilation of the accepted papers and represent an interesting outcome of the conference.

All articles included in the collection have been reviewed by highly qualified scientists in the relevant scientific fields. Best scientific manuscripts corresponding to the profile of the conference and reflecting the results of theoretical and experimental studies of the authors are recommended for publication.

Annual holding of such conferences is planned to be organized on the main topics of the construction industry.

Conference Editors:

Associate Professor Klyuev Sergey Vasil'yevich	Belgorod State Technological University, 308036 Belgorod, Russia
Associate Professor Klyuev Alexander Vasil'yevich	Belgorod State Technological University, 308036 Belgorod, Russia
Dr. Vatin Nikolay Ivanovich	Peter the Great St. Petersburg Polytechn, 195251 St. Petersburg, Russia

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Vatin N.I.	Doctor of Engineering Sciences (Advanced Doctor), Professor, Peter the Great St. Petersburg Polytechnic University

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Kozhukhova M.I.	the USA – Ph.D., University of Wisconsin-Milwaukee
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Nevzorov A. L.	RF - Doctor of Engineering Sciences (Advanced Doctor), Professor, Northern (Arctic) Federal University named after M.V. Lomonosov
Nenad Stoykovich	Serbia – Ph.D., Nish Higher Technical School of Vocational Education
Naumov A.E.	RF – Candidate of Engineering Sciences (Ph.D.), Associate Professor, Belgorod State Technological University named after V.G. Shukhov
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Sovann Chin	Cambodia – Ph.D.
Strokova V.V.	RF – Doctor of Engineering Sciences (Advanced Doctor), Professor, Belgorod State Technological University named after V.G. Shukhov
Suleymanova L.A.	RF – Doctor of Engineering Sciences (Advanced Doctor), Professor, Belgorod State Technological University named after V.G. Shukhov
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Eknik Jürgen	Switzerland – Ph.D., Professor, Executive Director of a Swiss Company, Performance Selling Academy Zurich Area GmbH
Shakarna Mahmoud Husni Ibrahim	Palestine – Ph.D.

We would like to acknowledge all of those who supported “BUILDINTECH BIT 2021. INNOVATIONS AND TECHNOLOGIES IN CONSTRUCTION” conference. Each individual and institutional help were very important for the success of this conference. Especially we would like to thank the organizing committee for their valuable advices in the organization and helpful peer review of the papers. We sincerely hope that BUILDINTECH BIT 2021 will be a forum for excellent discussions that will put forward new ideas and promote collaborative researches. We are sure that the proceedings will serve as an important research source of references and the knowledge, which will lead to not only scientific and engineering progress but also other new products and processes.

All conference participants express deep gratitude to the Science team.