INTERNATIONAL BAIKAL INVESTMENT AND CONSTRUCTION FORUM «Spatial Restructuring of territories»

International Baikal investment and construction forum «Spatial Restructuring of territories» was held at the Irkutsk National Research Technical University in Irkutsk, Russia on October 30, 2020.

International Baikal investment and construction forum is to bring together innovative academics and industrial experts in the field of engineering, construction, architecture, urban planning and economics to a common forum.

The primary goal of the forum not only is to promote research and developmental activities in forum’s topics but also is to promote scientific information interchange between researchers, developers, engineers, students, and practitioners working all around the world.

The forum will be held every year to make it an ideal platform for people to share views and experiences in engineering, construction, architecture, urban planning and economics. The forum program was divided into 9 sections:

- **Section 1** Environmental management
- **Section 2** Comfortable urban environment as a driver of urban areas development
- **Section 3** Architecture, design and applied arts: current discourses and practices in the formation of a subject-spatial environment
- **Section 4** Building structures and buildings. From science to innovation
- **Section 5** Advanced production technologies in construction. Organization of building site
- **Section 6** Wooden house building: state, development prospects
- **Section 7** Information technology and systems for design and construction management
- **Section 8** Innovation and durability of engineering and transport infrastructure objects (materials, structures, technologies)
- **Section 9** Entrepreneurship: economics and management of construction, real estate, housing and utilities infrastructure

Due to the severe impact of the COVID-19 outbreak and travel restrictions, it has been difficult for authors to attend the offline meeting. The forum was successfully held in a way of virtual conference on October 30, 2020. The online conference platform (Zoom Conference Meeting) supports this forum conducted without postponed. Due to the epidemiological situation, only participants living in the city of Irkutsk could provide a personal presence at the forum. The rest of the participants were connected via videoconference to participate in the forum. A total of 350 people took part in the plenary session of the forum, of which only 70 people were personally present. The offline meeting of the forum was held at the Irkutsk National Research Technical University. The chairman of the forum Vitaly Peshkov addressed the participants of the plenary session with a welcoming speech. Opening the plenary session, he thanked Russian and foreign participants for their interest in the scientific event, and also noted the relevance of the forum topics in the light of recent changes in the construction industry.

The participants of the plenary session in an online format discussed the most pressing issues of spatial restructuring in the context of high cyclical dynamics of the current stage of construction industry development. The plenary session was attended by international scientists in the field of
architecture, urban planning, production technologies, organization, economics, management in the
development and implementation of investment and construction projects.

Within the framework of the plenary session, the following reports were presented by researchers
from leading world universities:
1. Chupin Victor, Doctor of Technical Sciences, Professor - Integrated optimization of oil and gas
   field pipelines
2. Skolubovich Yuri, Doctor of Technical Sciences, Professor - Renovation of areas of mass
   residential development
3. Wei Dong, Doctor of Technical Sciences, Professor - Construction Industry: Strategies to Manage
   and Adapt to Global Challenges
4. Balabanov Vadim, Candidate of technical sciences, Associate professor - Research of frost
   resistance of heavy polymer concrete modified by silica fume
5. Dmitreva Tatiana, Doctor of Technical Sciences, Professor - Some aspects of information
   modeling of construction objects
6. Bolshakov Andrey, Doctor of Architecture, Professor - Lessons of landscape conformity from the
   city of Tulun
7. Barbara Engel, Doctor of Architecture, Professor - German Experience in Renovation
8. Michael Klammer, Doctor of Technical Sciences, Professor - Post-pandemic cities: how to ensure
   sustainable development in the new environment
9. Yaskova Natalya, Doctor of Economics, Professor - Challenges of a new decade and rethinking
   current approaches to real estate development
10. Kogan Anton, Doctor of Economics, Associate Professor - Development of forms of financing for
    housing construction and their impact on the economy of development

The online event made it possible to establish a dialogue between experts from world scientific
construction and architecture schools. The presented reports aroused the interest of foreign colleagues,
who also took part in the plenary session of the forum. Professors of Harbin Polytechnic University
actively participated in the discussion of the reports, shared their experience in a specific area of the
construction industry.

The report of Kogan Anton, Doctor of Economics, Head of the Department of Economics and
Development Finance of Sibstrin (Novosibirsk), aroused particular interest of international colleagues.
The speaker stressed that a significant measure to support housing construction was the reduction in
mortgage rates to 6.5%. However, in his opinion, there is a problem with different directions of action:
the mortgage rate is decreasing, and the price per square meter is growing, which means there is a
danger of losing demand. Anton Kogan also raised the problem of the accompanying development of
the social sphere in the regions of the country, which needs serious financial support.

The participants of the conference were especially interested in the reports of professors of foreign
universities. After the speech of each international speaker, the forum participants from Russia asked
practical questions of the application of the theoretical aspects highlighted in the reports. It is also
planned to implement two projects in the field of rational use and calculation of economic benefits
from the use of building materials in winter conditions.

During the forum, the scientific event was divided into nine sessions, including oral presentations,
keynote speeches, and online discussion. The best reports of the sections are marked with diplomas
and letters of thanks and are published in this collection of the forum.

The forum brought together more than 350 researchers, doctoral students and professionals, who
shared the results of their scientific research, innovative ideas and practical experience. Most of the
participants praised this forum for the dissemination of useful and practical knowledge.

The proceedings are a compilation of the accepted papers and represent an interesting outcome of
the forum. All applications for International Baikal investment and construction forum «Spatial
Restructuring of territories» have been double-blind peer-reviewed by the Technical Committee to
ensure the high quality of the forum.
Finally, we thank all the authors, who contribute their innovative ideas, research results, applications and experience from as well as highlight activities in the related areas. We would like to specially thank IOP Publishing for their kind support on the publication of this proceeding and for their editorial support.

*International Baikal investment and construction forum*

«Spatial Restructuring of territories» Organization Committees