

Preface

The International Scientific Conference “Construction and Architecture: Theory and Practice of Innovative Development” (CATPID-2020) is held from September 26 to 30, 2020 in Nalchik, Russia in a separate conference format for the third time.

The work of the conference is aimed at providing an opportunity for scientists, graduate students and representatives of the construction industry to generalize the recent achievements results in the field of industrial and civil construction (design, organization of all types of work, construction materials, etc.), discussing promising directions for the construction industry development and establishing useful partner relationships for future interaction.

The conference is held on numerous topics:

- Structural mechanics and construction theory, civil and industrial engineering.
- Architecture, design and reconstruction of architectural heritage.
- Building materials and technologies of binders, concrete and building ceramics.
- Mechanics of a deformable solid.
- Computational methods, mathematical models and information technologies in construction.
- Organization and technology of construction production. Surveying, cartography and photogrammetry.
- Innovations in utilities: heating, gas supply, ventilation and air conditioning, water supply and sanitation.
- Operation and reliability of transport and technological machines and complexes.
- Construction of roads, bridges, tunnels and airfields.
- Economics in construction.
- Reliability, efficiency and safety of fuel and energy facilities and construction complexes.
- Technosphere safety.
- Materials and nanotechnology in chemistry.

572 participants from 32 regions of the Russian Federation and 14 participants from 5 countries of the near and far abroad (Uzbekistan, Armenia, Vietnam, Taiwan, Belarus) were registered for the conference in 2020.

The important problems of construction and architecture (from ideas and projects to immediate implementation) are raised and the ways of their solution and optimization are suggested in the reports presented in frameworks of these topics. Many reports were prepared as a benefit of the state support of science in forms of grants, federal target programs, resolutions of the Government of the Russian Federation and other programs.

Particular attention is paid to young researchers, whose works are evaluated separately. The general impression associated with the organization and holding of the conference is very positive.

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

Editors:

Batyr Yazyev

ps62@yandex.ru

Stepan Litvinov

litvstep@gmail.com

Anastasia Lapina

nastya-L1@yandex.ru

Anastasia Kotesova

a.kotesova@mail.ru

Oksana Akay

oksanaakay@gmail.com

Committees

Conference Chairman

Pavel Akimov Russian Academy of Architecture and Building Sciences

Deputy Chairman of the Organizing Committee

Batyr Yazyev Don State Technical University

Organizing Committee Co-Chairs

Besarion Meskhi	Don State Technical University
Nikolay Karpenko	Department of Building Sciences
Yuri Konoplev	Academy of Sciences of the Republic of Tatarstan
Yuri Altudov	Kabardino-Balkarian Federal University
Svetlana Khashirova	Kabardino-Balkarian Federal University
Zaven Ter-Martirosyan	Moscow State University of Civil Engineering
Boris Sokolov	Kazan Giproniaviaprom JSC
Iftikhar Abbasov	Southern Federal University
Valery Azarov	Volgograd State Technical University
Sergey Fedosov	Moscow State University of Civil Engineering
Vladimir Erofeev	Ogarev Mordovia State University
Levon Mayilyan	Self-regulatory organization Association “Association of builders of the South and North Caucasus districts”
Vitaliy Kolchunov	Russian Academy of Architecture and Building Sciences
Vladimir Travush	Russian Academy of Architecture and Building Sciences
Nail Kashapov	Kazan Federal University
Irina Akhmetova	Kazan State Energy University
Vladimir Andreev	Moscow State University of Civil Engineering
Aleksey Beskopylny	Don State Technical University
Sergey Kalashnikov	Volgograd State Technical University
Ashot Tamrazyan	Moscow State University of Civil Engineering
Armen Ter-Martirosyan	Moscow State University of Civil Engineering
Stepan Litvinov	Don State Technical University
Linar Sabitov	Kazan Federal University

Honorary Members of the Organizing Committee

Alexey Adamtsevich	Moscow State University of Civil Engineering
Friel Akhmetov	Kazan Federal University
Mukhtar Bekkiev	Mountain Geophysical Institute
Iskander Gilmanishin	Kazan Federal University
Georgy Nikitin	Kazan Giproniaviaprom JSC
Oleg Radaykin	Kazan State University of Architecture and Engineering
Stanislav Roshchupkin	Sevastopol State University
Emer Sibgatullin	Kazan Federal University
Victor Taratuta	Kuban State Agrarian University
Svetlana Yazyeva	Don State Technical University

International Program Committee

Gagik Galstyan	National University of Architecture and Construction of Armenia (Yerevan)
Shan Yue	Shandong Jiaotong University
Narine Pirumyan	National University of Architecture and Construction of Armenia (Yerevan)
Lyu Chunguan	Shandong Jiaotong University
Amansahatov Chariyar	Deputy Director of the Academy of Sciences of Turkmenistan
Erkin Nafasov	Chief expert of Gosstroy of Turkmenistan
Abbas Hodzhaev	Tashkent architecture and civil engineering institute (TACII)
Ján Bujňák	Head of Department of Structures and Bridges, FCE UŽ, SK
Josef Vičan	Dean of FCE UŽ, SK
Zaynalobuddin Kobuliev	Institute of Water Resources and Ecology of the Academy of Sciences of the Tajikistan Republic
Zbigniew Wójcicki	FCE WrUT, PL
Stanisław Jemioło	FCE WUT, PL
Artur Zbiciak	FCE WUT, PL
Alejandro Valerio Pai Yang	México, Querétaro
Dietmar Wiegand	TU Wien, Austria
Vera Steiner	FH Wien, Austria
Milan Radosavljevic	Paisley, Renfrewshire, United Kingdom
Hellmich Christian	TU Wien, Austria
David Grigoryan	National University of Architecture and Construction of Armenia
Artavazd Arzumanyan	National University of Architecture and Construction of Armenia
Anna Zynzar	Shevchenko Transnistria State University
Maria Barabash	Shevchenko Transnistria State University
R. Giniavichus	Vilnius Gediminas Tech. Un., LTU
N. Danijarov	Karaganda St. Tech. Un., KAZ
O. Pruteanu	Tech. Un. "Gh. Asachi", ROU
Galina Danilova-Volkovskaya	North Caucasus Federal University (NCFU) in Pyatigorsk

Organising Committee of the Conference (Editorial Board)

Oksana Akay	Don State Technical University
Alina Golubeva	Don State Technical University
Igor Dolbin	Kabardino-Balkarian State University named after H.M. Berbekov
Sergey Klyuev	Belgorod State Technological University named after V.G. Shukhov
Anastasia Lapina	Don State Technical University
Stepan Litvinov	Don State Technical University
Anastasia Kotesova	Don State Technical University
Svetlana Yazyeva	Don State Technical University
Georgy Molokanov	Kabardino-Balkarian State University named after H.M. Berbekov
Luiza Seferyan	Don State Technical University
Serdar Yazyev	Don State Technical University