



**XXII INTERNATIONAL SCIENTIFIC CONFERENCE
ON ADVANCED IN CIVIL ENGINEERING**

**CONSTRUCTION
THE FORMATION OF LIVING ENVIRONMENT
2019**

(FORM – 2019)

April 18-21, 2019, Tashkent, Uzbekistan
www.form2019.org

Organized by:

- Moscow State University of Civil Engineering (National Research University)
- Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIIAME)
- JSC «HYDROPROJECT» (Uzbekistan)

Supported by:

- Ministry of Construction, Housing and Utilities of the Russian Federation
- The Foundation for the Development of Construction Education and Science
- UzbekGidroEnergo
- Russian Union of Builders (Committee of Science and Innovation)
- International House Tashkent Lyceum
- To'palang HPD Holding
- Scientific school of Russian Federation – Theory and Analysis of Systems in Construction (System Engineering of Construction)

Main Topics:

- Smart City
- Modern Building Materials
- Safety in Construction
- Reliability of Buildings and Constructions
- Hydrotechnical Construction and Melioration
- New Construction Technologies

Conference Chairmen:

- Prof. Andrey Volkov (Professor, DSc, Rector of MGSU)
- Prof. Uktam Umurzakov (Professor, DSc, Rector of TIIAME)
- Alibek Ahmedov (Director of JSC "Hydroproject")

Conference Vice-Chairmen:

- Prof. Andrey Pustovgar (Assoc. Professor, PhD, Vice-rector of MGSU)
- Prof. Bahadir Mirzaev (Professor, DSc, Vice-rector of TIIAME)
- Prof. Tahir Sultanov (Professor, DSc, Vice-rector of TIIAME)



International Scientific Committee:

- **Prof. Vladimir Andreev**, DSc, Professor, Academician of RAACS, Head of Department of Strength of Materials. Moscow State University of Civil Engineering, Russia
- **Dr. Clarice Bleil De Souza**, Associate Professor, Welsh School of Architecture, Cardiff University, Great Britain
- **Prof. Walter Bardenwerper**, Visiting Professor, Peking University School of Transnational Law in China
- **Dr. Victoria Borkovskaya**, Associated Professor, Department of housing and communal complex, Moscow State University of Civil Engineering, Russia
- **Prof. Vladimir Burkov**, DSc, Prof., Laboratory of Active Systems, V. A. Trapeznikov Institute of Control Sciences of RAS, Russia
- **Dr. Wojciech Dabrowski**, PhD, Associate Professor, Faculty of Civil and Environmental Engineering, Bialystok University of Technology, Poland
- **Prof. Isabel Fernandes**, PhD, Professor, Department of Geology, University of Lisbon/IDL, Portugal
- **Prof. Knut Hartenstein**, Dr.-Ing, Associate Professor, Department FB 2, HTW Berlin, Germany
- **Prof. Roland Heiler**, PhD, Professor, Department of Mechanical engineering, School of Engineering, HTW-Berlin, Germany
- **Prof. Borislav Hristov**, PhD, Professor, Department of Engineering Sciences - Transportation, University of Applied Sciences in Berlin, Germany
- **Prof. Katarzyna Ignatowicz**, PhD, Associate Professor, Faculty of Civil and Environmental Engineering, Bialystok University of Technology, Poland
- **Dr. Peter Kotes**, PhD, Assoc. Prof., Vice-dean, Department of Structures and Bridges. Civil Engineering Faculty, University of Zilina, Slovak Republic
- **Prof. Dmitry Kozlov**, DSc, Professor, Department of Hydraulics and Hydrotechnical engineering, Moscow State University of Civil Engineering, Russia
- **Prof. Sergey Kuznetsov**, DSc, Professor, Leading Scientist of Department Wave Dynamics, Institute for Problems in Mechanics, Russia
- **Prof. Marco Di Ludovico**, PhD, Associate Professor, Department of Structures for Engineering and Architecture, University of Naples Federico II, Italy



- **Prof. Elena Lyapunsova**, DSc, Professor, Department of Innovative Entrepreneurship, Bauman Moscow State Technical University, Russia
- **Prof. Tatyana Matseevich**, DSc, Prof., Department of Applied Mathematics, Moscow State University of Civil Engineering, Russia
- **Prof. Mirziyod Mirsaidov**, DSc, Professor, Department of Theoretical and Construction Mechanics, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, Republic of Uzbekistan
- **Prof. David L. Passmore**, PhD., Professor, Workforce Education and Development & Institute for Cyberscience, Pennsylvania State University, USA
- **Dr. Reza Barkhi**, PhD, Department of Accounting and Information Systems, Virginia Tech, USA
- **Prof. Abdulkhakim Salokhiddinov**, DSc, Professor, Department of Water Resources and Environmental Management, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, Republic of Uzbekistan
- **Prof. Ashot Tamrazyan**, DSc, Professor, advisor of RAACS, member of the Russian Engineering Academy, Head of Department of Reinforced Concrete and Stone Structures, Moscow State University of Civil Engineering, Russia
- **Dr. Adam Ujma**, PhD, Faculty of Civil Engineering, Czestochowa University of Technology, Poland
- **Prof. Andrzej Ubysz**, DSc, Professor, Faculty of Civil Engineering, Wroclaw University of Science and Technology, Poland
- **Prof. Paulo B. Lourenco**, PhD, Professor, Institute for Sustainability and Innovation in Structural Engineering. University of Minho, Portugal
- **Prof. Olga Lyapidevskaya**, PhD, Assoc. Professor, Department of Building Materials and Materials Science, MGSU, Russia
- **Prof. Maciej Major**, PhD, Prof., Dean, Faculty of Civil Engineering, Czestochowa University of Technology, Poland
- **Prof. Daman K. Panesar**, PhD, Associate Professor, Department of Civil Engineering University of Toronto, Canada.
- **Prof. Alim Pulatov**, PhD, Professor, EcoGIS Center, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, Republic of Uzbekistan
- **Prof. Richard L. Roe**, Adjunct Professor, Faculty of Law, Georgetown University Law Center, USA
- **Dr. Jaroslaw Rybak**, PhD, Assistant Professor, Faculty of Civil Engineering, Wroclaw University of Science and Technology, Poland



- **Prof. Gintautas Skripkiunas**, PhD, Professor, Department of Building Materials and Fire Safety, Vilnius Gediminas Technical University, Lithuania
- **Prof. Valeriy Telichenko**, DsC, Professor, Academician of RAACS, President of Moscow State University of Civil Engineering, First Vice-President of the Russian Academy of Architecture and Construction Sciences, Russia
- **Prof. Zaven Ter-Martirosian**, DsC, Professor of Department of Soil and Geotechnical Engineering, Chief Research Scientist of REC "Geotechnical Engineering". Moscow State University of Civil Engineering, Russia.
- **Dr. Jiangmiao Yu**, PhD, Roadway Engineering Department, South China University of Technology, China

Organizing Committee:

Shavkat Khamraev, Michail Leibman, Abdukahhor Tuhtayev, Abdugani Sanginov, Prof. Bakhridin Khasanov, Dr. Aleksey Adamtsevich, Dr. Anna Doroshenko, Abdugani Sanginov, Zafar Sharipov, Prof. Ravshan Khakimov, Prof. Sultan Ahmedov, Prof. Kodir Shovazov, Prof. Elena Gogina, Prof. Bakhtiyor Khasanov, Prof. Evgeniy Korolev, Prof. Dilshod Bazarov, Dr. Nadezhda Cherednichenko, Prof. Nikolay Aniskin, Dr. Oleg Kovalchuk, Dr. Olga Kuzina, Dr. Kirill Lushin, Nazir Ikramov, Edward Kan, Dr. Irina Markova, Akbarzhon Khamraliev, Farruhjon Irisov, Irina Molchanova, Viktor Evstratov, Dr. Liubov Shilova, Akmaljon Berdimurodov, Sharofiddin Khamidov, Pavel Vorobev.

Special thanks for information and organizational support:

- Student Scientific Society of the Moscow State University of Civil Engineering



TABLE OF CONTENTS

CONFERENCE SCHEDULE	7
KEYNOTE SPEAKERS	9
SECTION 1: SMART CITY	10
Poster Session.....	12
SECTION 2: MODERN BUILDING MATERIALS	15
Poster Session.....	17
SECTION 3: SAFETY IN CONSTRUCTION	21
Poster Session.....	23
SECTION 4: RELIABILITY OF BUILDINGS AND CONSTRUCTIONS.....	26
Poster Session.....	30
SECTION 5: HYDROTECHNICAL CONSTRUCTION AND MELIORATION.....	35
Poster Session.....	39
SECTION 6: NEW CONSTRUCTION TECHNOLOGIES.....	41
Poster Session.....	43
COMPETITION «YOUTH INNOVATIONS»	47
Smart City	47
Modern Building Materials	49
Safety in Construction.....	51
Reliability of Buildings and Constructions.....	53
Hydrotechnical Construction and Melioration	56
New Construction Technologies	58



CONFERENCE SCHEDULE

Thursday, April 18

Time	Place	Event
09:00 - 10:00	Youth Creativity Palace	Registration
10:00 - 10:30	Youth Creativity Palace	Opening Ceremony Welcomes from Special Guests
10:30 - 13:00	Youth Creativity Palace	Reports of Keynote Speakers
13:00 - 14:00	TIIAME Canteen	Lunch
14:00 - 18:30	TIIAME & IHT	Parallel Sessions
18:30 - 19:30	TIIAME Canteen	Dinner

Friday, April 19

Time	Place	Event
09:00 - 10:00	TIIAME Main Entrance	Registration
10:00 - 13:00	TIIAME & IHT	Parallel Sessions
13:00 - 14:00	TIIAME Canteen	Lunch
14:00 - 18:30	TIIAME Poster Session Hall	Poster Session & Competition "YOUTH INNOVATIONS"



Time	Place	Event
15:00 - 16:30	TIIAME	Round Table "Safety and reliability of power and water engineering facilities"
16:30 - 18:00	TIIAME	Working meeting on higher education issues
18:30 - 19:30	TIIAME Canteen	Dinner

Saturday, April 20

Time	Place	Event
09:00 - 10:00	TIIAME Main Entrance	Registration
10:00 – 12:00	TIIAME & IHT	Parallel Sessions
12:30 - 13:30	TIIAME, L-1 (Green Hall)	Closing Ceremony
13:30 - 14:30	TIIAME CANTEEN	Lunch
14:30 – 18:30	TIIAME Main Entrance	Tashkent City Tour
18:30 - 21:30	TIIAME	Gala Dinner

Sunday, April 21

05:30 - 23:00	SAMARKAND IS PEARL OF THE ORIENT
---------------	----------------------------------



KEYNOTE SPEAKERS

Thursday, April 18

10:30 - 13:00

Youth Creativity Palace

- **Prof. Abdulkhakim Salokhiddinov**
Rethinking Settlements in Arid Environments
Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, Uzbekistan (joint report by Prof. Karimov A.Kh., Prof. Salokhiddinov A.T. and Prof. Umurzakov R.K.)
- **Prof. Daman K. Panesar**
Aging Infrastructure: Translating School Projects to Real Life Engineering Solutions
University of Toronto, Canada
- **Prof. Borislav Hristov**
Influence of Road Geometry on Driver's Gaze Behavior on Motorways
University of Applied Sciences in Berlin, Germany
- **Prof. David L. Passmore**
Artificial Intelligence is the Latest Gale of Creative Destruction
Institute for Cyberscience, Pennsylvania State University, USA
- **Dr. Andrey Zhuravlev**
Maximize the Lifetime Value of Tile Installations
Moscow State University of Civil Engineering, Russia
- **Prof. Alim Pulatov**
Remote Sensing, Big Data and Machine Learning for Living Environment
Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, Uzbekistan



SECTION 1: SMART CITY

IHT Lyceum IH-2

Chairs:

**Prof. Knut Hartenstein, Prof. Borislav Hristov, Prof. Natalia Verstina,
Dr. Rustam Baratov, Dr. Adam Ujma**

Thursday, April 18

14:30 - 17:30

Authors	Title of oral report
Natalia Verstina, Anna Badalova and Evgeny Evseev	Assurance of heating systems maintenance reliability through the creation of a risk management system of the heat-supplying organizations
Alexander Ginzburg	Information modeling of the construction and demolition waste system
Pavel Chelyshkov	Computer-aided design of cyber-physical building systems
Adam Ujma and Marta Pomada	Analysis of the temperature distribution in the place of fixing the ventilated facade
Elena Gogina and Olga Yantsen	Energy-efficient solutions for household wastewater treatment using biofilters
Irina Petrova, Viktoriya Zaripova, Yuliya Lezhnina and Ilkhomzhon Siddikov	Automated system for synthesis of sensors for smart cities
Anna Lis	Reduction of air pollution as a basis for a healthy urban environment
Nikolay Garyaev and Venera Garyaeva	Big data technology in construction



Friday, April 19

10:00 – 13:00

Authors	Title of oral report
Angelina Rybakova and Pavel Kagan	Opportunities to improve the efficiency of design and construction
Minh Tuan Le, Thi Anh Tuyet Cao and Nguyen Anh Quan Tran	The role of green space in the urbanization of Hanoi city
Ha Quan Tran and Elena Gogina	Application of anoxic phase in SBR reactor to increase the efficiency of ammonia removal in Vietnamese municipal WWTPs
Artashes Petrosyan	Energy Economic Suitability of The Use of "Air-Air" Recuperators in the Climatic Conditions of the Republic of Armenia
Youssef Saied and Inna Rodionovskaya	Smart technology in planning cities that suffer the effects of displacement in war countries
Elena Zaykova	Formation methods of hybrid urban spaces in the historic city center
Andrey Volkov, Pavel Brazhnikov and Pavel Chelyshkov	Features of BIM-modeling of engineering systems of the construction object
Nikolay Makisha and Eleonora Shenchenko-Enns	Review of energy saving and energy efficiency approaches applied in water sector in Russia



POSTER SESSION

April 19, 14:00 – 18:30

TIIAME Poster Session Hall

Authors	Title	Type
Alexey Ovchinnikov, Elena Gusakova and Andrey Volkov	Approaches to the structuring of the information model of the life cycle stages of a construction object	Poster
Irina Burkova, Boris Titarenko, Amir Hasnaoui and Roman Titarenko	Resource allocation problem in project management	Poster
Elena Gusakova and Elena Romanova	Using group decision support systems in the preparation of real estate development projects	Poster
Nina Danilina and Alireza Majorzadehzahiri	Investigating the capability of Smart City in Tehran	Poster
Margarita Panteleeva and Svetlana Borozdina	Mathematical model of evaluating the quality of "smart city" transport interchanges functioning	Poster
Denis Vlasov and Anna Terechova	Determination of Regularities in the Development of Intermodal Hubs' Planning Structure in «Smart» Cities	Poster
Svetlana Shilkina	Electric utility on the basis of RES at realisation of "Smart city" concept	Poster
Mikhail Slesarev and Artur Kovrigin	Model of bifurcation prediction and innovation sustainability of energy facilities	Poster



Authors	Title	Type
Pavel Sadchikov, Tatyana Khomenko and Galina Ternovaya	Numerical optimization of the transfer function of the intelligent building management system	Poster
Andrei Prusov, Nadezhda Sevryugina and Aleksandr Ovsienko	Smart house: model of resource management and safety of vertical transport	Poster
Yegor Kotov and Vitaly Chulkov	The basic cycle of reorganization of construction	Poster
Tatyana Miroshnikova and Natalia Taskaeva	Approaches to the assessment the innovation-and-investment projects within the system of "Smart City" criteria	Poster
Olga Kuzina	Conception of the operational information model of smart city control system	Poster
Marine Ghazaryan	Peculiarities of BIM adoption in Armenia	Poster
Tatiana Tereshkina, Natalia Verstina, Marina Treyman and Artyom Tereshkin	Transport system of megalopolis and its influence on the urban environment (the example of St. Petersburg)	Poster
Zhanna Govorova, Nikita Podlesnov and Vadim Govorov	Devices for cleaning tap water	Poster
Elena Kitaytseva	A new approach to the mathematical model of thermal energy balance	Poster
Valery Telichenko, Andrey Benuzh and Dmitry Morozov	Renovation of former industrial areas by BREEAM in city of London	Poster



Authors	Title	Type
Ekaterina Melnikova, Mikhail Lepert, Aleksey Popov and Tatyana Sorokoumova	Adapting urban areas for people with limited mobility	Poster
Sergei Beliakov and Anna Kapustkina	Methodical approach to the justification of project design decisions on the application of "green" building technologies	Poster
Ilya Dunichkin, Clarice Bleil de Souza, Konstantin Bogachev, Anna Korobeinikova and Natalia Schekaturova	Perspective Trends in the Parametric Design of Multifunctional Facilities for the Conditions of the Arctic	Poster
Veronika Luchkina	Efficiency of design offers on realization of ecological reconstruction in construction	Poster
Elena Vasilyeva	Introduction of Weight-In-Motion Control System as the Component of the "Smart" Transport Infrastructure	Poster
P Gudkov, P Kagan, A Pilipenko, E Zhukova, E Zinovieva and N Ushakov	Usage of thermal isolation systems for low-rise buildings as a component of information models	Poster
Anastasiya Timina, Regina Yanova, Aleksey Popov, and Tatyana Sorokoumova	Modern translucent materials and their impact on architectural forming	Poster



SECTION 2: MODERN BUILDING MATERIALS

TIIAME Lektion Hall 2

Chairs:

**Prof. Daman K. Panesar, Prof. Olga Lyapidevskaya, Prof. Tatyana Matseevich,
Dr. Aleksandr Inozemtcev**

Thursday, April 18

14:30 – 17:30

Authors	Title of oral report
Olga Lyapidevskaya	Waterproofing material for protection of underground structures
Aleksandr Inozemtcev and Thanh Qui Duong	Technical and economic efficiency of materials using 3D-printing in construction on the example of high-strength lightweight fiber-reinforced concrete
Klaudia Jendrysik, Michał Pachnicz and Paweł Dudziński	Parameters of the constitutive model of geomaterials formed with the use of DSM dry technology
Tatyana Matseevich, Andrey Matseevich and Andrey Askadskii	Water absorption of wood-polymer composites of savewood
Sergey Inozemtcev and Evgeniy Korolev	Indicators of the effectiveness of self-healing asphalt concrete
Filip Grzymiski, Tomasz Trapko and Michał Musiał	Practical use of distributed fibre optic sensors in research on FRCM composites
Nurmuhamat Asatov, Mirjalol Tillayev and Navruzбек Raxmonov	Parameters of heat treatment increased concrete strength at its watertightness



Authors	Title of oral report
Arkady Granovsky, Oleg Simakov and Bulat Dzhamuev	The FRP and TRC strengthening of the masonry structures
Alexandra Bestuzheva, Ilya Tsipurskiy and Dimitri Gadai	Material stone-concrete – selection of composition for concrete face rockfill dams

Friday, April 19

10:00 – 13:00

Authors	Title of oral report
Elena Gotlib, Dilyara Sadykova, Tatyana Vdovina, Leisan Galeeva and Alla Sokolova	Evaluation of bactericidal properties of PVC-compositions for linoleum production
Said Shaumarov, Anvar Adilkhodjaev and Valeriy Kondrazhenko	Experimental research of structural organization of heat-insulating structural building materials for energy efficient buildings
Zafar Abdullaev, Sayibdjan Mirzaev and Sobir Mavlanov	Nonlinear Deformation of Flexible Orthotropic Shells of Variable Thickness in an Unsteady Magnetic Field
Tatiana Bobyleva and Alexey Shamaev	Various ways to build effective characteristics for a pipe made of a layered composite material
Elena Gotlib, Anh Nguyen, Vladislav Yanov and Alla Sokolova	Study of resistance to climatic factors of epoxy coatings modified by plant oils and their functionalized derivatives
Aliya Mazitova, Albina Maskova and Guliya Aminova	Development of PVC films, resistant mold influence



Authors	Title of oral report
Adrey Askadskii, Tatyana Matseevich and O Gorbacheva	Stress relaxation of wood-polymer composites of savewood
E Bezgodov and Vladislav Shvedov	Comparison of complete stress-strain curves of concrete using test prisms and test cylinders

POSTER SESSION

April 19, 14:00 – 18:30

TIIAME Poster Session Hall

Authors	Title	Type
Irina Dezhina and Vladimir Orlov	Transportation of liquid and sand in open trays	Poster
Lam Tang Van, Dien Vu Kim, Hung Ngo Xuan, Tung Lam Nguyen Doan, Boris Bulgakov and Sophia Bazhenova	Combined effect of limestone fine aggregate and pozzolan on properties of high performance fine-grained concrete	Poster
Lam Tang Van, Dien Vu Kim, Hung Ngo Xuan, Tho Vu Dinh, Boris Bulgakov and Sophia Bazhenova	Effect of Aluminium Powder on Light-weight Aerated Concrete Properties	Poster
Marat Asamatdinov, Ekaterina Shokodko, Andrey Ushakov, Igor Bessonov, Sergey Kozlov and Artem Zhukov	Composition and rheological characteristics of plaster mixtures	Poster
Olga Vasil'eva	Computer Research of Building Materials	Poster
Emma Sahakyan, Artavazd Arzumanyan and Gagik Galstyan	Chemical technology of cellular glass production	Poster



Authors	Title	Type
Valery Dyadichev, Andrey Kolesnikov, Aleksandr Dyadichev, Ekaterina Dyadicheva, Sergey Menyuk and Svitlana Chornobay	Mathematical Model of Coextrusion Molding of Polymer-concrete Building Structures	Poster
Gevorg Ter-Petrosyan	The analytical presentation of solid border basement in conditions of solid stamp effect	Poster
Evgeniy Velichko, Nikita Polkovnikov and Yuliya Sadchikova	Efficient concrete increased water resistance modified with mineral and polymeric additives	Poster
Natalya Fomina and Mikhail Polyanski	Grain size distribution of aggregates of crushed concrete	Poster
Rustam Khayrullin	To preparation of proposals for the target programs of development of housing and communal services	Poster
Viktor Sopov, Julia Danchenko, and Ekaterina Latorez	Assess the Effectiveness of protective Concrete coatings of microbiological sulfuric acid Aggression	Poster
Vu Dinh Tho, Elena Korol, Yuliya Kustikova and Nguyen Huy Hoang	Finite element analysis of three-layer concrete beam with composite reinforcement	Poster
Tamara Bakhtina, Nikolay Lyubomirskiy and Aleksandr Bakhtin	Sequestration of carbon dioxide into building products based on the dolomite binder of carbonate hardening	Poster



Authors	Title	Type
Olga Miryuk	Porous formation process of granules from man-triggered raw materials	Poster
Przemysław Palacz, Maciej Major and Izabela Adamczyk	Reduction of mechanical interactions with the use of a rubber composite	Poster
Yuri Ivaschenko, Maria Kochergina and Irina Pavlova	Structure formation and properties of thermochemically modified silicate-sodium compositions	Poster
Gennadiy Ovcharenko, Ekaterina Ibe, Aizhana Sandrasheva and Artem Viktorov	Contact strength of C-S-H cement phase	Poster
Evgeny Pyataev, Alexey Zhukov, Kirill Vako, Marina Burtseva, Elizaveta Mednikova, Maria Prusakova and Elizaveta Izumova	Effective polymer concrete on waste concrete production	Poster
Vladimir Smirnov and Evgenij Korolev	Modeling the colloidal dispersions: flocculation kinetics through particle dynamics	Poster
Evgenij Borisyyuk	The effect of the type of fixators reinforcement on strength and deformation characteristics of reinforced concrete	Poster
Mikhail Bruyako, Natalya Ivashchenko, Kristina Dobrina and Mikhail Moshnikov	Effective complex hydrophobizators for self-cleaning facade materials	Poster



Authors	Title	Type
Victoria Petropavlovskaya, Maria Zavadko, Kirill Petropavlovskii, Aleksandr Buryanov, Tatiana Novichenkova and Andrey Pustovgar	Role of basalt dust in the formation of the modified gypsum structure	Poster
Katarzyna Regulska and Aleksandra Repelewicz	Properties of gypsum composites with sawdust	Poster
Artsruni Safaryan, Tamara Sargsyan, Marine Kalantaryan, and Hripsime Melyan	Ultralight large grain porous material - expanded obsidian	Poster
Anatoly Bedov, Azat Gabitov, Askar Gaysin and Alexander Salov	Engineering solutions for heat efficient exterior walls in climatic condition of the Republic of Bashkortostan	Poster
Vladimir Belov, Temur Barkaya and Pavel Kuliaev	Durability of fine-grained limestone concrete	Poster



SECTION 3: SAFETY IN CONSTRUCTION

IHT Lyceum Hall 1

Chairs:

**Prof. Sergey Kuznetsov, Prof. Masharif Bakiev, Prof. Nikolay Aniskin,
Dr. Oleg Kovalchuk**

Thursday, April 18

14:30 – 17:30

Authors	Title of oral report
Takhir Sultanov, Ravshan Nurimbetov and Azizbek Zikriyoev	Innovative health and safety standards is a sustainable development performance for the construction sector of Uzbekistan
Sergey Kuznetsov and Anna Avershjeva	Lamb waves in multilayered media: 3D and 6D formalisms
Viktor Orlov and Oleg Kovalchuk	Mathematical problems of reliability assurance the building constructions
German Alekseev, Evenij Medvedev and Alexandra Bepalova	Minor and major repairs of buildings and structures. The need to modernize the processes of planning and implementation. Requirements of current legislation of Russia
Tomasz Kowalik, Marek Maj, Jarosław Rybak, Aleksandra Ubysz and Anna Wojtowicz	Chemical hazards in construction industry
Anatoly Alekseytsev, Michael Botagovsky and Natalya Kurchenko	Cost minimization for safety enhancing of timber beam structures in historical buildings



Authors	Title of oral report
Alexandr Mamin, Emil Kodysh and Vladimir Bobrov	Standardization of requirements to operation of buildings and facilities
Elena Malyavina and Anastasya Frolova	The influence of the solar radiation heat input into the room on the level of energy-efficient thermal protection of the building
Pavel Zhuravlev, Evgeniy Bachus and Irina Markova	Multifactorial parametric model for assessing and making organizational decisions to ensure the quality of construction

Friday, April 19

10:00 – 13:00

Authors	Title of oral report
Alla Ilyashenko and Sergey Kuznetsov	On degeneracy of dispersive waves at the bulk wave velocities
Vladimir Bratov, Alla Ilyashenko, Nikita Morozov and Tursunbai Rashidov	Seismic barriers: theory and numerical simulations
Dorota Marcinczak and Tomasz Trapko	DIC (Digital Image Correlation) method in the research of RC beams strengthened with PBO-FRCM materials
Ulugbek Shermuxamedov and Said Shaumarov	Impact of configuration errors on the dynamic oscillation absorbers effectiveness of different masses on the seismic resistance of bridges
Jarosław Michałek	Use of passive safety supporting structures



Authors	Title of oral report
Anna Wojtowicz, Jarosław Michałek and Andrzej Ubysz	Range of dynamic impact of geotechnical works on reinforced concrete structure
Vasiliy Shalenny	Safe technologies for cutting reinforced concrete structures by means of diamond tools
Viktor Orlov	Features of mathematical modelling in the analysis of console-type structures

POSTER SESSION

April 19, 14:00 – 18:30

TIIAME Poster Session Hall

Authors	Title	Type
Vladimir Agapov	The effect of cracks on the bearing capacity of reinforced concrete slabs	Poster
Victor Brodskiy	Parameters of the safety and fall arrest nets in buildings under construction	Poster
Trong-Chuc Nguyen, Trong-Phuoc Huynh, Nguyen-Trong Ho, Al-Amin Abdun Noor	Evaluating the Effectiveness of Continuous Composite Beams for Steel-Concrete Bridges and Control Concrete Cracks of the Supports at an Early Age	Poster
Sergy Barinov, Aleksandr Kalaydov and Vicheslav Mitryakov	Algorithms for characteristics recognition of man-induced incidents based on safe city HSC	Poster



Authors	Title	Type
Michael Emelianov	Considering the information technology for structural health monitoring (SHM) systems	Poster
Natalia Konstantinova, Tatiana Eremina and Irina Kuznetsova	Study of fireproof properties of textile materials safe when in contact with human skin	Poster
Nikita Levashov, Marina Akulova and Yulia Sokolova	Modifying composition of plastering mortar for the purpose of enhancing fire resistance of building structures by means of silicate additives	Poster
Dmitriy Leybman and Tatiana Khripko	Quality assurance program of a nuclear facility	Poster
Serafima Sokova and Vladimir Kalinin	Simulation of the System of Repairs of Apartment Buildings	Poster
Viktor Sopov, Nikolay Emelianenko, Nikolay Balera and Yuri Zhuravlov	Evaluation of dynamic Parameters and developing calculation Methods of Parameters of pneumatic vibratory Mechanism of Bag Filters regeneration	Poster
Daria Buzina and Igor Engovatov	Geoecological assessment methods of the radiation hazard of the use of rocks in the building materials industry	Poster
Olga Gnezhdilova, Anna Malysheva, Anna Gagulina and Aleksandr Ovsienko	The concept of reliability-oriented accounting of leaks in gas supply systems	Poster



Authors	Title	Type
Nelly Rogacheva	Active vibration suppression of a beam using piezoeffect	Poster
Armen Ter-Martirosyan and Ahmad Othman	Simulation of soil liquefaction due to earthquake loading	Poster
Oleg Rubtsov, Ramidin Alisultanov and Nina Rogova	Selection of tachymetry spacing in the process of monitoring of construction projects	Poster
Vadim Danilchenko and Vitaliy Kasyanov	Methodical Approaches to the Development of Embankment Arrangement Projects	Poster
Olga Poddaeva, Julia Gribach and Anastasia Fedosova	The study of wind effects on the bridge constructions	Poster
Isabel Fernandes, Teresa Freitas, Ricardo Prazeres, Carlos Carvalho and João Calvão	Characterization of the geological and geotechnical conditions at the village of Monsanto	Poster
Olga Shikulskaya, Galina Abuova, Ivan Vatunskiy and Mikhail Shikulskiy	Mathematical Game Theory in Civil Engineering Fire Safety	Poster
Vadim Evseev, Reza Barkhi, Aleksandr Pleshivtsev, Anton Scrynnik	Modeling the influence of weather and climatic conditions on the safety characteristics of the construction process	Poster
Marta Del Zoppo, Costantino Menna, Marco Di Ludovico and Alberto Balsamo	Flexural performance of RC columns with FRCC jacketing	Poster
Tran Thi Thuy Van and Shapiro David	Nonlinear deformation analysis for precast pre-stressed concrete beam systems	Poster



SECTION 4: RELIABILITY OF BUILDINGS AND CONSTRUCTIONS

TIIAME Lektion Hall 1

Chairs:

**Prof. Zaven Ter-Martirosyan, Prof. Ashot Tamrazyan, Prof. Andrzej Ubysz,
Dr. Sadillahon Umarhanov**

Thursday, April 18

14:00 – 18:30

Authors	Title of oral report
Zaven Ter-Martirosyan, Ivan Luzin and Mukim Yakubov	The interaction of long and compressible piles with the surrounding and underlying subgrade soils
Mirziyod Mirsaidov	An account of the foundation in assessment of earth structure dynamics
Ashot Tamrazyan and Anatoliy Alekseytsev	Evolutionary optimization of reinforced concrete beams, taking into account design reliability, safety and risks during the emergency loss of supports
Michał Baca, Włodzimierz Brząkała and Jarosław Rybak	Assessing the pile base capacity from a static load test on model piles
Karim Sultanov, Pavel Loginov, Sabida Ismoilova and Zulfiya Salikhova	Wave processes in determining mechanical characteristics of soils
Vladimir Znamenskiy and Evgenii Morozov	The results of numerical simulation of the work of the geotechnical screen of a sparse row of piles
Yuri Olyansky, Evgeniya Schekochihina and Sergey Kalinovskiy	Forecast of magnitude post-subsidence compaction at the building on slow-subsidence of loess soils



Authors	Title of oral report
Jakub Rainer	Accuracy of pile capacity assessment on the basis of piling reports
Vladimir Znamenskiy, Evgenii Morozov, Dmitrii Pekin and Dmitrii Chunyuk	The modeling of the «diaphragm wall» with the anchor without the use of distribution beams
Karim Sultanov, Pavel Loginov, Sabida Ismoilova and Zulfiya Salikhova	Variable moduli of soil strain
Nikola Dudek	Pile group settlement on the basis of Static Load Test
Marek Maj, Tomasz Kowalik and Andrzej Ubysz	Considerable cracking in the foundation slab in a multi-storey underground garage

Friday, April 19

10:00 – 13:00

Authors	Title of oral report
Bakhtiyar Khusanov and Barno Rikhsieva	Thickness dimensions of the contact layer of soil-rigid body interaction
Armen Ter-Martirosyan, Vitalii Sidorov and Anastasia Almakaeva	Determining the interfaces parameters for geotechnical modelling
Piotr Kanty, Monika Kiecana, Piotr Prokopowicz	Some remarks on statistic approach to strength testing of soil-cement composites
Grzegorz Nowak and Piotr Kanty	Mass Stabilisation as reinforcement of organic soils



Authors	Title of oral report
Andrey Lavrusevich and Ivan Lavrusevich	Development of the Underground Erosion of the Soils Adjoining the Concrete Constructions (on the Example of Zagorsk Pumped Storage Power Plant, ZPSPP-2)
Dmitry Strelnikov and Oleg Khalimov	Experience in designing and operating the buildings located on subsiding and heaving soils of the Minusinsk Hollows
Elyor Toshmatov, Makhamtali Usarov, Gayratjon Ayubov and Davronbek Usarov	Dynamic methods of spatial calculation of structures based on a plate model
Tamara Makeeva and Vitaly Trofimov	Forecast of deformations of the land surface from the separate clearing development, displacement and deformation in the main sections of the trough
Hubert Szabowicz	Slope stability analysis in the case of probabilistic and semi-probabilistic design method
Vladislav Vershinin, Saruul Javkhlan and Suhaibi Saidmukaram	Seismic pads to protect buildings and structures from bulk seismic waves
Vladimir Sokolov, Igor Razov and Sviatoslav Volinets	Influence of the stiffness coefficient of an elastic foundation on the frequency of free oscillations of polyethylene pipes in a semi-underground laying
Adilov Farkhadjan, Yuldoshev Bakhtiyor, Abirov Rustam and Miralimov Mirzakhid	Numerical approach for estimation of stress strain state of deep tunnels



Saturday, April 20

10:00 – 12:00

Authors	Title of oral report
Tulkin Mavlanov and Sherzod Khudainazarov	Calculation of structural-inhomogeneous multiply connected shell structures with viscoelastic elements
Nikolay Trekin and Dmitrii Pekin	Experimental research of punching shear mechanism of reinforcing concrete slab
Asror Yangiev, Anvar Ashrabov and Oybek Muratov	Life prediction for spillway facility side wall
Maria Berger and Alexander Tusnin	Stress redistribution in flat damaged trusses
Viktor Granev, Nikolay Kelasiev, Emil Kodysh, Nikolay Trekin and Ivan Terekhov	Modular frame trusses of buildings
Javlon Yarashov, Makhamatali Usarov and Gayratjon Ayubov	Study of longitudinal oscillations of a five-storey building on the basis of plate continuum model
Vladimir Pochinok, Murat Tamov and Andrey Aksenov	Patterns of change of mean wind velocity maximums in Krasnodar Krai from the beginning of anemometric measurements
Nikolay Trekin, Alexander Bybka, Alexander Yamalov and Nikita Konkov	Evaluation of the impact of deformability of precast floor slabs on frame performance in multi-storey building



POSTER SESSION
 April 19, 14:00 – 18:30
 TIAME Poster Session Hall

Authors	Title	Type
Ruben Kazaryan, Denis Pogodin and Anastasia Shatrova	Aspects of scheduling processes and results of the reorganization of projects in high-rise construction objects	Poster
Nataliya Fedorova, Ashot Tamrazyan and Pavel Korenkov	Industrial constructive system of civil buildings of increased survivability	Poster
Evgeny Lebed	Statistical modeling of the assembly of single-layer domes	Poster
Nataliia Lobacheva and Vadim Griniov	Comparative analysis of calculations of strip foundation, taking into account the influence of adjoined building with different soil models	Poster
Ekaterina Kuzina and Vladimir Rimshin	Experimental and calculated evaluation of carbon fiber reinforcing for increasing concrete columns carrying capacity	Poster
Valentina Tushina and Ekaterina Yakovleva	To the problem of development of low-rise housing in Russia	Poster
Anna Malakhova and Daria Davletbaeva	The consideration of compliance of structural joints in calculation of large panel buildings	Poster
Evgeny Larionov and Tatiana Zhdanova	Vibrocreep of concrete	Poster



Authors	Title	Type
Vitaly Baranchik and Anatoly Dotsenko	Determination of the road surfaces stress-strain state by using of Global Navigation Satellite System	Poster
Sofia Kurnavina and Ilya Tsatsulin	The design model of reinforced concrete beam formed by the field of cracks directions	Poster
Nadezhda Chiganova	Determination of the building products reliability parameters at different loads in a two-step mode	Poster
Elena Gryaznova	Ensuring safe operation of buildings and structures	Poster
Irina Yakovleva and Valentina Kurochkina	Arrangement of construction joints in cast-in-place slabs	Poster
Stepan Cheremnykh, Vladimir Zubchaninov and Vadim Gulyaev	Deformation of cylindrical shells of steel 45 under complex loading	Poster
Andrew Kiselman, Denis Portnyagin, Ekaterina Ibe and Galina Shibaeva	Estimation of influence of heat-conducting inclusions on thermal protection of filler constructions of buildings	Poster
Narine Pirumyan and Mihran Stakyan	Bearing capacity of elements of a gas transportation system	Poster
Vladimir Linkov	The effect of shear deformations on the stressed state of the wooden elements of the composite section on inclined metal rods	Poster



Authors	Title	Type
Zaven Ter-Martirosyan, Evgeny Sobolev and George Anzhelo	Low-amplitude dynamic tests of fine gravel in a resonant column	Poster
Viktor Yarkin, Hanna Kukhar and Nataliia Lobacheva	Non-linear settlements of shallow foundation	Poster
Natalia Fedorova, Sergey Savin and Vladislav Kovalev	Buckling of Compressed-Bent RC Elements of Frame-Bracing Structural System at "Unknown" Accidental Impacts	Poster
Alexander Danilov and Ivan Kalugin	Cascade method of Stretched Elements strengthening by FRP	Poster
Alexander Bakalov and Andrey Lavrusevich	Carbonaceous Breeds As The Material Of Engineering Protection Of Imeretinskaya Valley (Sochi)	Poster
Gabriela Kuczyńska, Magdalena Stawska and Anna Walicka	Modern geodetic techniques in monitoring of historic buildings	Poster
Vitaly Kuznetsov and Yulia Shaposhnikova	To determine the optimal size of the elements of complex overlap	Poster
Natalia Korsun and Daria Prostackishina	Bearing capacity of steel thin-walled profiles in reliability assessment	Poster
Ivan Luzin and Lyubov Ermoshina	Calculation of the foundation settlement during compensation grouting	Poster
Vitalii Sidorov and Yuliya Vanina	Features of the port retaining structure calculations	Poster



Authors	Title	Type
Pavel Deminov and Andrey Danilkiv	Evaluation of the reliability of reinforced concrete beams on a stochastically inhomogeneous elastic foundation under the action of a non-stationary random load	Poster
Stanislav Pavlov and Olga Tusnina	Progressive collapse evaluation in industrial building of existing production	Poster
Yuri Nemirovskii and Sergey Tikhonov	Bending by explosion of a multilayered concrete beam on a visco-elastic basis	Poster
Mikhail Rabinovich	Calculation of thermal stress-strain state of soil base under the building on permafrost soil	Poster
Rustam Shigapov and Oleg Kovalchuk	Study on safety and reliability of low-temperature tanks with perlite loose insulation during seismic events	Poster
Igor Gorbunov, Vladimir Kakusha, Mikhail Moshnikov, Maksim Kudryavtsev and Kristina Dobrina	Behavior of concrete beams reinforced with GFRP under transverse force	Poster
Alexey Dem'yanov, Vladymir Kolchunov, Igor Iakovenko and Anastasiya Kozarez	Load Bearing Capacity Calculation of the System "Reinforced Concrete Beam – Deformable Base" under Torsion with Bending	Poster



Authors	Title	Type
Vladimir Andreev and Vladislav Nosyrin	Stress-strain state of an array with a cylindrical cavity supported by a reinforcing ring	Poster
Aleksandr Shuvalov , Alla Katanina , Oleg Kornev and Mikhail Kovalev	Working capacity of aluminum alloys in structure elements	Poster
Serdar Yazyev, Ivan Zotov, Dmitriy Vysokovsky and Batyr Yazyev	Side busking of the cantilever beam with narrow rectangular cross section	Poster
Anastasia Lapina, Ivan Zotov, Anton Chepurnenko and Batyr Yazyev	Calculation of beams with corrugated wall on the stability of a flat bending shape	Poster
Viktor V. Bobryashov, Viktor M. Bobryashov, Anna Bobryashova and Nikolay Bushuev	Faultlessness of composite enclosing structures with thin-sheet linings and effective thermal insulation	Poster
Vladimir Andreev, Nikita Tsybin and Robert Turusov	Layered composite and contact layer. Effective modulus of elasticity	Poster



SECTION 5: HYDROTECHNICAL CONSTRUCTION AND MELIORATION

TIIAME Lektion Hall 4

Chairs:

**Prof. Abdulhakim Salokhiddinov, Prof. Dmitry Kozlov, Dr. Jaroslaw Rybak,
Dr. Nikolay Makisha**

Thursday, April 18

14:00 – 18:30

Authors	Title of oral report
Mirziyod Mirsaidov, Takhirjon Sultanov, Javlon Yarashov and Elyor Toshmatov	Assessment of dynamic behaviour of earth dams taking into account large strains
Anghesom Ghebrehiwot and Dmitry Kozlov	GIUH-Nash based runoff prediction for Debarwa catchment in Eritrea
Anatoly Krutov, Dilshod Bazarov, Begzod Norkulov, Bakhtiyar Obidov and Bobur Nazarov	Experience of employment of computational models for water quality modelling
Alisher Fatxulloev and Aziza Gafarova	Study of the process of cultivation in soil fertile irrigation canals
Nikolay Makisha	Membrane bioreactors for treatment of galvanic wastewater
Furkat Gapparov, Sobir Kodirov and Safar Mansurov	The evaporation loss from water reservoirs of Uzbekistan
Asror Yangiev, Furqat Gapparov and Dilmurod Adjimuratov	Filtration process in earth fill dam body and its chemical effect on piezometers



Authors	Title of oral report
Bakhadir Mirzaev, Farmon Mamatov, Ikromjon Avazov and Sherzod Mardonov	Technologies and Technical Means for Anti-Erosion Differentiated Soil Treatment System
Liudmila Volgina and Anastasiia Romanova	Hydraulic size of non-spherical solid particles
Farrukh Shaazizov, Bakhtiyar Uralov, Elyor Shukurov and Aydar Nasrulin	Development of the computerized decision-making support system for the prevention and revealing of dangerous zones of flooding
Farrukh Shaazizov, Abdulla Badalov, Alisher Ergashev and Diyor Shukurov	Studies of rational methods of water selection in water intake areas of hydroelectric power plants
Dilshod Kodirov and Obid Tursunov	Calculation of Water Wheel Design Parameters for Microhydroelectric Power Station
Bakhtiyar Khusanov and Ozodakhon Khaydarova	Stress-strain state of earth dam under harmonic effect

Friday, April 19

10:00 – 13:00

Authors	Title of oral report
Dilshod Bazarov, Bobur Shodiev, Boxodir Norkulov, Umida Kurbanova and Boyburi Ashirov	Aspects of the extension of forty exploitation of bulk reservoirs for irrigation and hydropower purposes
Aniskin Nikolay and Trong-Chuc Nguyen	Influence factors on the temperature field in a mass concrete



Authors	Title of oral report
Shomayramov M. A, Norkulov B. E, Rakhmanov J. D, Tadjiyeva D. O, Suyunov J. Sh.	Experimental researches of hydraulic vacuum breakdown devices of siphon outlets of pumping stations
Shokirov B., Norkulov B., Nishanbaev Kh., Khurazbaev M. and Nazarov B.	Computer simulation of channel processes
Eduard Kan, Nazir Ikramov and Muradulla Mukhammadiev	The change in the efficiency factor of the pumping unit with a frequency converter
Oleg Glovatskiy, Temur Djavburiyev, Ziyoda Urazmukhamedova, A. Gazaryan and Farkhod Akhmadov	Interconnection of influent channel and pumping station units
Nazir Ikramov, Eduard Kan, Mirasil Mirzoev and Takhir Majidov	Effect of parallel connection of pumping units on operating costs of pumping station
Satbay Nurjanov	Water regimes of rice fields
Bakhadir Mirzaev, Farmon Mamatov and Obid Tursunov	A Justification of Broach-Plow's Parameters of the Ridge-Stepped Ploughing
Rustam Ergashev, Fotima Artikbekova, Gulnora Jumabayeva and Farouddin Uljayev	Problems of water lifting machine systems control in the republic of Uzbekistan with new innovation technology
Sanat Khidirov, Mustafo Berdiev, Bekhzod Norkulov, Nurbek Rakhimov and Iqboloy Raimova	Management exploitation condition of Amu-Bukhara machine channel
Aybek Arifjanov, Maqsud Otaxonov, Luqmon Samiev, and Shamshodbek Akmalov	Hydraulic calculation of horizontal open drainages



Saturday, April 20

10:00 – 12:00

Authors	Title of oral report
Bakhtiyar Khudayarov, Kholidakhon Komilova and Fozilzhon Turaev	Numerical Modeling of pipes conveying gas-liquid two-phase flow
Daler Sharipov, Sharofiddin Aynakulov and Otabek Khafizov	Computer Modeling of Aerosol Emissions Spread in the Atmosphere
Bakhriddin Khasanov, Azam Azimov and Alisher Djurabekov	Full-scale testing of water intake pumps of pumping stations
Majid Yusupov, Barna Rakhmankulova and Sharofiddin Aynakulov	Numerical solutions of the problem of salt-transfer in soils
Irina Iordanishvili, Inga Iremashvili, Adam Ujma, Vladimer Shurgaya, Nodar Kandelaki and Konstantin Iordanishvili	Modeling Procedure of Coastal Protection Shaped Blocks with High Wave Suppressing and Interlocking Capacity
Fakhriddin Bekchanov, Rustam Ergashev, Tulkin Mavlanov and Oleg Glovatskiy	Mathematical model of vibrating air pump unit
Anatoly Krutov, Azam Azimov, Sodiq Ruziev and Akmal Dumanov	Modelling of turbidity distribution along channels
Bakhtiyor Yuldashev and Sagdulla Abdukadirov	Dynamics of inhomogeneous elastic half-space under moving load



POSTER SESSION

April 19, 14:00 – 18:30

TIAME Poster Session Hall

Authors	Title	Type
Liudmila Kuzmina, Yuri Osipov and Yulia Zheglova	Global asymptotics of filtration in porous media	Poster
Vladimir Orlov and Sergey Zotkin	Stabilization of hydraulic characteristics for non-pressure pipelines	Poster
Vadim Akhmetov	Stability of counter vortex flows in hydraulic engineering construction	Poster
Yuri Osipov and Yuri Galaguz	Filtration in porous rock with initial deposit	Poster
Yuliya Bryanskaya and Aleksandra Ostiakova	The conditions for occurrence of critical flow regime of water in the open stream	Poster
Maria Umahseva, Yuliya Bryanskaya and Pavel Bazhin	Experimental studies of the air flow power action on the elements of protective mats	Poster
Filipp Kotov	Structural alternatives of high embankment dams	Poster
Evgeny Orlov, Mariia Lavrova and Aleksandra Mishueva	Water losses in internal water supply services of residential buildings	Poster
Galina Safina	Numerical solution of filtration in porous rock	Poster
Lyudmila Frishter and Alexander Isaikin	Pre-design inspection of the long-term operation lock	Poster



Authors	Title	Type
Artur Khachatryan and Emil Khachatryan	Risk management of water distribution system in Armenia	Poster
Anatoliy Drozdov	Theoretical and empirical methods of estimating energy and force characteristics of impact wrenches	Poster
Valery Borovkov and Ivan Karaichev	Oxygen Regime Control in Water Body Amelioration	Poster
George Volgin	The hydraulic resistance coefficient in the conditions of simultaneous effect of Re , Fr and B/h	Poster
Yermekkul Zhaparkulova, Madina Nabiollina and Balzhan Amanbayeva	Methods of forecasting calculations of breakthrough wave at hydrodynamic accidents waterstorage dam	Poster
Yara Waheeb Youssef and Anna Khodzinskaya	Effective Methods of Evaporation Reduction From Water Surfaces	Poster
Alexander Solovyev, Dmitriy Solovyev and Liubov Shilova	The Ensuring of Survivability of Wave Energy Stations Constructive Elements in Extreme Weather Conditions	Poster
Genrikh Orekhov	Flow kinematics with oppositely rotating coaxial layers	Poster



SECTION 6: NEW CONSTRUCTION TECHNOLOGIES

TIAME Lektion Hall 3

Chairs:

**Prof. David Passmore, Prof. Elena Lyapuntsova, Prof. Roland Heiler,
Dr. Victoria Borkovskaya**

Thursday, April 18

14:30 – 17:30

Authors	Title of oral report
Bakhrudin Khasanov and Temurbek Mirzaev	Production of extra-strong concrete axisymmetric products
David Passmore, Chungil Chae, Victoria Borkovskaya, Rose Baker and Jeong-Ha Yim	Severity of U.S. Construction Worker Injuries, 2015-2017
Roland Heiler	Flow drilling technology and thread forming - an economical and secure connection in hollow sections and thin-walled components
Maciej Major, Mariusz Kosiń and Izabela Major	The effect of window air inlets on office room comfort
Elena Lyapuntsova, Iulia Belozerova, Ilona Drozdova and Oleg Korol	Safety in construction in the field of investment in urban infrastructure
Azariy Lapidus, Alan Khubaev and Tembot Bidov	Development of a three-tier system of parameters in the formation of the organizational and technological potential of using non-destructive testing methods



Authors	Title of oral report
Zhumabike Ospanova, Nurgul Alibekova and Nursultan Satan	Energy efficient technology of obtaining heat-insulating material based on vermiculite
Alexander Makarov and Sergey Kalinovsky	Design features of bimetallic bridges

Friday, April 19

10:00 – 13:00

Authors	Title of oral report
Bakhtiyar Khudayarov, Fozilzhon Turaev and Olimzhon Kucharov	Computer simulation of oscillatory processes of viscoelastic elements of thin-walled structures in a gas flow
Izabela Major, Maciej Major and Zbigniew Respondek	Double-arm steel connector of glass façades
Saidaglam Khodjaev	On the construction standards for the design of energy efficient buildings of the republic of Uzbekistan
Aleksey Mestnikov, Gavril Turantaev and Valeriy Fedorov	Mathematical model of the thermodynamic system during winter concreting of bored piles
Denis Furmanov, Vladimir Chizhov, Ivan Tyuremnov and Denis Troshin	Loads on cutter teeth for removing asphalt pavement
Victoria Borkovskaya, Elena Lyapuntsova and Maxim Nogovitsyn	Risks and safety in construction by increasing efficiency of investments
Sebastian Noller, Anja Pfennig and Roland Heiler	Process development for punching extruded PC based materials in cable duct production



Sergey Kozlov, Boris Efimov, Ekaterina Bobrova, Ekaterina Zinovieva and Ekaterina Zhukova	Optimization of foamed plastic technology
Dmitry Topchiy, Alexey Yurgaytis, Alina Manakhova and Karina Mustafina	The potential for implementation of liquid thermal insulation in organizational and technological solutions
Marat Kuzhin and Marina Akimockina	Optimization of construction parameters using resource scheduling

POSTER SESSION

April 19, 14:00 – 18:30

TIIAME Poster Session Hall

Authors	Title	Type
Boris Zhadanovsky and Vladimir Bazanov	Organizational and Technological Solutions for Performing Works Using Specialty Equipment	Poster
Larisa Selyutina, Tatyana Maleeva and Natalya Frolova	Acceleration of regional housing development in Russia on the basis of industrial housing construction modernization	Poster
Alexei Pervov and Xuan Quyet Nguyen	Application of reverse osmosis and nanofiltration techniques at municipal drinking water facilities	Poster
Alexey Lykov and Nataliya Mokrova	Plasma Technology for Producing Coverings on Building Materials	Poster



Authors	Title	Type
Botir Usmonov and Quvvatali Rakhimov	Vibration analysis of airfoil on hereditary deformable suspensions	Poster
Tatyana Rafalskaya, Rustam Mansurov and Dmitry Efimov	Mathematical modeling of thermal technical characteristics of external protections with air layers	Poster
Rafik Alekperov and Ivan Aksenov	Decrease of cold-formed slotted studs heat conductivity by slots shape modification	Poster
Boris Popov, Sergei Evdokimov, Olga Leonova and Yury Sokolov	The method of magnetic coercimetry and its application to assess the residual life of lifting equipment	Poster
Zohrab Melikyan, Siranush Egnatosyan and Naira Egnatosyan	Developing Ventilation System for Residential House with Solar Air Heater	Poster
Anastasiia Sharanova and Maria Dmitrieva	Selection of compositions for additive technologies in construction	Poster
Zhanna Govorova, Ekaterina Muraveva, Yulia Isachkina and Vadim Govorov	Technology of surface runoff purification	Poster
Boris Pergamenshik and Vadim Undozjorov	A model of the labor productivity dependence on workforce density	Poster



Authors	Title	Type
Vladimir Velichkin, Vladimir Zavyalov, Elena Solodovnikova and Elena Filippova	Mathematical descriptions of heat-mass-exchange processes in construction industry at control automation	Poster
Elena Korol, Natalia Shushunova and Stepan Rerikh	New green roof and green wall systems for implementation in the coverings	Poster
Alexander Tusnin and Alexey Kolyago	The calculation of anchors in steel-concrete overlaps with precast slabs	Poster
Galina Vasilovskaya, Maria Berseneva, Nadezhda Klinduh and Irina Terekhova	Sealing mastics for road surfacing in Siberian regions	Poster
Alexandra Yakshina, Galina Vasilovskaya, Maria Berseneva, Elena Danilovich and Oksana Hoffman	Bim technology in the educational process	Poster
Ivan Pulyaev, Sergey Pulyaev, Yuri Bazhenov, Anna Fetisova and Olga Shcherbeneva	Effect of thermal induced stress of concrete on performance characteristics of constructions	Poster
Oleg Korol and Anna Dudina	Engineering and technical support of territories for implementation of renovation projects of the housing stock	Poster
Lyubov Maslova, Sergey Sborshchikov and Elizaveta Kochenkova	Methodological principles of the organization of reengineering in construction (capital construction facility reengineering and technological process reengineering)	Poster



Authors	Title	Type
Dmitriy Chunuk, Artem Selviyan and Serafima Selviyan	Performance evaluation of the effectiveness of the use of core drivers in the construction of base plates	Poster
Azariy Lapidus and Yves Ndayiragije	Sip-technology as solution in low-rise multi-family residential buildings	Poster
Rustam Fatullaev	Organizational-technological modeling of a multi-apartment residential house where overhaul is planned	Poster
Aleksandr Aleksanin	Development of construction waste management	Poster
Bach Dinh Thien and Hoang Vinh Long	A study of using solar energy to cure concrete bricks	Poster
Yegisabet Hayrapetyan, Hovsep Petrosyan, Hovnan Hunanyan and Artyom Tsaturyan	High-precision two-phase laser rangefinder PFSD-1,2	Poster
Marta Pomada and Tadeusz Czarniawski	Load-bearing capacity of concrete elements reinforced with steel and composite coatings	Poster
Grigoriy Afanasyev	Replacement of floor structures in capital repair with the use of not extractable void formers	Poster



COMPETITION «YOUTH INNOVATIONS»

Friday, April 19

14:00 – 18:30

TIAME Poster Session Hall

SMART CITY

Authors	Title	Type
В.А. Бычкова, А.С. Зудова, Д.Г. Киселев	Разработка информационной модели объекта и ее практическое применение	Poster
Д.Р. Гаймалов, В.А. Ундозеров	О снижении производительности труда при увеличении насыщенности фронта работ трудовыми ресурсами	Poster
Т.В. Долгушев, В.В. Долгушева	Трансформируемые конструкции	Poster
Е.С. Зинкевич, Т.В. Шамаева	Объемно-планировочные решения объектов питания общей площадью до 1500кв.м. в Подмосковье	Poster
Н.В. Иванова	Цифровые технологии создания доброжелательной городской среды для людей с ограниченными возможностями	Poster
Е.Д. Исмагилова	Развитие общественной функции улично-дорожной сети	Poster



Authors	Title	Type
М.А. Киселева, А.С. Щуринова, А.Д. Серов	От сахарного завода к «Фабрике музыки»	Poster
М.А. Косарева	Увеличение энергоэффективности кислотнo-свинцовых аккумуляторов методом десульфатации	Poster
А.Е. Круковец	Строительство экологичных городов	Poster
В.С. Ларин	Использование IFC формата в реализации BIM проекта с применением нескольких программных обеспечений	Poster
А.А. Морозов	Моделирование воздушного режима жилого помещения	Poster
К.А. Мочкин, М.А. Уткин	Автоматизированный поиск участка под строительство на основе анализа геоданных	Poster
А.А. Муратова, И.Б. Мельникова	Проектирование надземных многоуровневых парковок в составе объема жилого здания	Poster
Е.В. Носорев, Н.А. Макиша	Удаление биогенных элементов из сточных вод в мембранных биореакторах	Poster
А.С. Овсиенко, О.А. Гнездилова	Модель контроля утечек газа в инженерных системах, не фиксируемых домовыми приборами учета	Poster



Authors	Title	Type
Е.А. Перфилова	Аспекты реализации программы реновации жилья в Москве, других городах России и за рубежом	Poster
А. Степанова	Возможности дронов в строительной сфере и их взаимосвязь с информационной моделью здания	Poster
Ф.Б. Фрумкин	Возможности формирования комфортной городской среды в районах высотной жилой застройки	Poster
Н.Р. Щекатурова	Метод архитектурного формообразования путём виртуального макетирования с применением расчетов	Poster

MODERN BUILDING MATERIALS

Authors	Title	Type
Е.В. Бовкун	Анализ использования черного цвета в архитектуре	Poster
Д.Ю. Букина	Щелочные вяжущие и бетоны на основе зол и шлаков тепловых электростанций (ТЭС)	Poster
Н.С. Дмитриев, В.В. Наруть, О.А. Ларсен	Повышение эффективности бетонов с использованием крупного заполнителя из дроблёного бетона	Poster



В.А. Зайцева, Е.А. Борисюк	Высокотехнологичные декоративные бетоны	Poster
М.А. Кочетков	Высококачественные изоляционные материалы на основе целлюлозы	Poster
Д.Г. Малинин	Неавтоклавные газобетоны повышенной трещиностойкости с низким водотвердым отношением	Poster
Е.В. Матюшин, В.Г. Соловьев, С.С. Беликов	Влияние различных видов микрокремнезема на свойства высокопрочного бетона	Poster
М.С. Мошников, К.Е. Добрина, М.В. Кудрявцев, В.А. Какуша, И.А. Горбунов	Расчетное обоснование результатов испытаний балок, армированных композитной арматурой	Poster
Б.У. Назаров, З.П. Шомансурова	Композитная арматура в строительстве – перспективы и проблемы промышленного применения в республике Узбекистан	Poster
Н.Д. Полковников, А.П. Кожевников	Модифицированный напрягающий бетон применением минеральных и полимерных добавок	Poster
Рахман Редван Бин, Ле Чунг Хиеу	Использование фибробетона в тоннелях мелкого и глубокого заложения	Poster
И.О. Рябчикова, М.С. Тремаскина	Фосфогипс как сырьё для получения гипсовых вяжущих	Poster



Д.А. Саркисов, О.Б. Ляпидевская	Использование вулканического туфа в легких самоуплотняющихся бетонах	Poster
И.М. Халиуллин, А.С. Болотова	Фасадные панели в малоэтажном строительстве	Poster
В.В. Шведов	Сравнение диаграмм деформирования бетона на образцах с различными форм-факторами	Poster
В.А. Швецова, О.А. Ларсен, М.Р. Нуртдинов	Исследование свойств полимерцементных составов с расширяющими добавками	Poster

SAFETY IN CONSTRUCTION

Authors	Title	Type
Е.А. Агрелова	Проблемы моделирования эвакуации людей из реабилитационных центров	Poster
М.С. Быканова, Н.В. Егорова, Е.Н. Покровская	Изучение поверхности древесины модифицированной наноразмерными композициями	Poster
И.А. Васькова	Архитектурные способы защиты от влияния загрязненного воздуха на организм человека в зоне аэропорта	Poster
И.Ю. Вепржицкий, Н.А. Рытик, Ю.О. Кустикова	Эксплуатационный контроль зданий и сооружений	Poster



Authors	Title	Type
В.П. Горбачевский	Отдельные аспекты подбора монтажных механизмов для возведения уникальных объектов	Poster
Д.А. Коробкова, Л.А. Аветисян	Прочность и деформативность железобетонной колонны при поперечном ударе в условиях повышенных температур	Poster
Е.Г. Костюченко	Мероприятия, обеспечивающие производственную безопасность в строительной отрасли	Poster
Ю.А. Курбатова, В.А. Горев	Теплофизический анализ конвективного теплообмена с учетом оптимизации коэффициента теплоотдачи	Poster
Ш.С. Монгуш	Удельная активность природных радионуклидов в строительных материалах Тувы	Poster
А.С. Мосолова	Повышение противорадоновой защиты зданий с постоянным пребыванием людей	Poster
Е.В. Плюснина, А.В. Остякова	Благоустройство водных объектов на территориях городских парковых комплексов	Poster
С.И. Румянцев, А.А. Румянцева, Е.Ю. Челекова	Анализ использования противопожарных роботов. Возможные направления развития	Poster



Authors	Title	Type
М. С. Юсупов, Д.А. Абдуллаева	Гидростатический датчик и метод измерения уровня воды	Poster

RELIABILITY OF BUILDINGS AND CONSTRUCTIONS

Authors	Title	Type
N. Dudek, J. Rybak	Inverse analysis application for determining of soil modulus on the basis of static load test	Poster
Gr. Nowak	An analysis of soil-cement composite compaction and its effect on material	Poster
P. Prokopowicz	Strength testing of soil-cement composites used for improving mechanical properties of organic soils	Poster
J. Rainer	Accuracy of methods used to assess the bearing capacity for driven piles	Poster
H. Szabowicz	Slope stability analysis in the case of probabilistic design method	Poster
P. Tomaszewicz, A. Ubysz, D. Logon	Impact of micro-recycling materials on mechanical properties of cement composites	Poster
P. Tomaszewicz, A. Ubysz, T. Kowalik	Possible use of composite waste materials as dispersed reinforcement for concrete	Poster



Authors	Title	Type
K. Jendrysik	Calibration of soil constitutive model by means of back analysis of testing results	Poster
А.С. Алмакаева, В.В. Сидоров	Особенности расчета напряженно-деформированного состояния подземных конструкций с учетом их взаимодействия с грунтом	Poster
И.С. Антонов, В.А. Петрова	Напряженное состояние нормального сечения железобетонной балки при температуре -50°С	Poster
Д.О. Гомырина, Л.А. Аветисян	Податливость платформенного стыка панельных зданий в условиях огневых воздействий	Poster
А.О. Данилкив, А.Г. Тамразян	Учёт перераспределения моментов при оценке надёжности статически неопределимой железобетонной балки	Poster
Т.В. Долгушев, В.В. Долгушева	Создание программного комплекса для расчётов и оптимизации бетонных гравитационных плотин	Poster
П.В. Зенкин, Л.С. Щукина, И.М. Гаранжа	Сталебетонные фермы покрытия на основе гнuto-сварных профилей	Poster



Authors	Title	Type
А.С. Златьев	Водоотливный комплекс шахты им. В. И. Ленина на подрабатываемой территории группы IIIк, г. Горловка	Poster
М.А. Ильин, А.Г. Тамразян	Применение методов эвристической оптимизации при подборе сечений железобетонных балок	Poster
О.О Коновалова, А.Г. Тамразян	Оптимизация проектных параметров балочных плит перекрытий с использованием генетических алгоритмов	Poster
Ю.С. Корытова	Управление эксплуатационной надежностью и экологической безопасностью трубопроводов	Poster
И.И. Лазэр, Б.К. Джамуев	Повышение монолитности кладки стен из ячеистобетонных блоков при использовании в швах полимерцементных растворов	Poster
С.Р. Мингазова	Особенности сейсмоизолирующего скользящего пояса, применяемого при сейсмозащите зданий	Poster
А.Н. Начарова	Влияние полимерной добавки на физико-механические характеристики бетона	Poster



Authors	Title	Type
И.Г. Павлова	Эффективность применения металлических конструкций из ГСП	Poster
Д.А. Простакишина	Исследование НДС элементов из стальных тонкостенных профилей	Poster
А.А. Рындин	Прочность и деформативность бетона при повышенных температурах	Poster
А.М. Таранова, А.Д. Истомин	Влияние знакопеременных температур и процента армирования на деструкцию бетона	Poster
А.С. Федорович	Методические особенности исследования физико-механических характеристик бетона при сжатии, растяжении и изгибе в условиях динамического нагружения	Poster

HYDROTECHNICAL CONSTRUCTION AND MELIORATION

Authors	Title	Type
Д. Ахмедов, Ж. Аъзамов	Изучение возможностей применения торцевых уплотнителей на насосных агрегатах в условиях эксплуатации в руз	Poster



Authors	Title	Type
Ф.Ё. Бобокулова, С.Ш. Майнисова	Эффективные методы орошения овощных культур	Poster
Р.Б. Джумабоева, М.Б. Джумабоева	Статистический анализ гидрологического режима реки Коратаг	Poster
Т.В. Долгушев, В.В. Долгушева	Автоматизация расчётов и оптимизации бетонных гравитационных плотин на скальных основаниях	Poster
О.О. Махмудов, А. Дадаходжаев	Развитие оврагов по густоте и плотности наманганских адыров	Poster
Л.Б. Муратов, Ш.С. Кузиев	Усовершенствованный пассивный рабочий орган	Poster
Б. Назаров, Б. Шодиев, Д. Краснолобова	Перспективы создания проточной системы озёр Сырдарья-Айдаркуль-Амударья в Узбекистане	Poster
Э. Озодов	Совершенствование средств и процессов автоматизации при внедрении насосных станций индивидуального пользования в экологической зоне Аральского моря	Poster
И.Д. Раимова, Ф. Ахматов, Л.А. Луценко	Некоторые аспекты развития строительства гидротехнических и гидроэнергетических сооружений в Узбекистане	Poster



Authors	Title	Type
Н.Н. Урунов, Д.Т. Кодиров, С.Б. Кадиров	Результаты натурных исследований статической устойчивости Ахангаранского гидроузла	Poster
А.М. Шайтанов, Н.А. Анискин	Оценка сейсмического воздействия на напряженно-деформированное состояние гравитационной плотины из малоцементного бетона	Poster

NEW CONSTRUCTION TECHNOLOGIES

Authors	Title	Type
Р.Т. Аветисян, Т.Х. Бидов	К вопросу о классификации методов временных креплений стенок выемок и котлованов	Poster
В.В. Белоусов, Н.В. Мокрова	Роботизация процесса резания объектов с нетипичной геометрией	Poster
А.С. Воробьев, А.А. Зеленцов, А.Ю. Юргайтис	Оптимизация процессов дефектоскопии при обследовании объектов долевого строительства	Poster
Е.А. Давыдова	Принципы архитектурно-планировочной организации социального жилья для молодых семей с учетом современных строительных технологий	Poster



Authors	Title	Type
А.К. Довлятова	Судьба стадионов после чемпионатов мира по футболу	Poster
Е.А. Зиновьева	Применение металлического каркаса купольного типа при строительстве индивидуального жилого дома	Poster
З. Йулдошева, Д. Абдумуминова	Показатели надежности и адгезионной прочности при восстановлении деталей водяных насосов	Poster
М.Х. Кангезова, А.А. Лapidус	Формирование организационно-технологических аспектов научно-технического сопровождения высотных зданий и сооружений	Poster
А.А. Лазарев	Экспериментальная проверка точных решений нелинейного дифференциального уравнения для задач зимнего бетонирования	Poster
А.В. Мухин	Опыт производства бетонных работ способом пневмобетонирования	Poster
И.Ю. Насырова, Р.В. Бароев, Г.М. Бажин	Компонентный метод конечных элементов в BIM проектировании на примере программы IDEA StatiCa	Poster
Е.А. Перфилова, С.Д. Мамедова, А.Д. Егорова	Технология ремонта фасадов с облицовочной плиткой с применением нанокрасок	Poster



Authors	Title	Type
К.А. Рахманов, И.В. Попов	Организация производства работ с применением несъемной декоративной опалубки	Poster
А.А. Семенчукова	Строительство подземных пространств: проблемы зарубежной и Российской реализации	Poster
Ю.Н. Смирнова	Потенциал использования мобильных информационных устройств на строительной площадке	Poster
Н.Ю. Сосновский, М.Г. Бруяко, А.А. Локтионова	Получение заливочных пенофенопластов при пониженном давлении	Poster
Н.Ю. Сосновский, А.М. Смирнова	Мобильная установка для плазмохимической модификации воды	Poster
D.U. Ubaydullayev, J.A. Kosimov	Improving the quality of education at drawing lessons with the usage of information technologies	Poster
В.В. Юрченко	Организация строительной площадки при демонтаже здания, технология по устройству ЛСПХ	Poster

