MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION

Federal State Autonomous Educational-established of higher education
"National Research Tomsk Polytechnic University"

HEAT AND MASS TRANSFER IN THE THERMAL CONTROL SYSTEM OF TECHNICAL AND TECHNOLOGICAL ENERGY EQUIPMENT

PROGRAM

International Youth Scientific School - workshop

24 - 26 April 2018

Tomsk 2018

Dear colleagues!

We invite you to take part in an international youth-term scientific school - seminar "Heat and mass transfer in the thermal control system of technical and technological energy equipment".

Workshop will be held on 24 - 26 April 2018 at the Tomsk Polytechnic University.

The opening of the school-seminar will be held on April 24 in auditorium 406 4 build. Energy Institute (Lenina ave., 30-a).

Registration of participants April 24 from 09-00 to

9-30 406 4 build. audience Energy Institute (Lenina, 30 a).

Established the following rules of performances:

□ performances of leading scholars to give lectures to the participants School seminars- 60 minutes,

□ speaking participants with Section reports - 10 minutes speaking in the debate - 5 minutes

MEASURES AND THE PLACES

24.04.18	09^{00}- 09^{30}	***participants registration***	4 building, room. 406 Lenin Ave, 30a
	09^{30}–10^{30}	Opening the school-seminar **Lecture I** Water-coal technologies in power engineering: state, problems, prospects of development (prof. Salomatov V.V.) **Lecture II** Thermal regimes of spacecraft structures made of composite materials (prof. Reznik S.V.)	4 building, room. 406 Lenin Ave, 30a
24.04.18		***Work of sections***	
Section IV	10^{30}–13^{05}	Heat and mass transfer in the combustion technology	4 building, room. 406 Lenin Ave, 30a
Section III	10^{30}–13^{05}	Physical and mathematical modeling of heat-mass-parameter under intensive phase transformations	4 building, room. 47 Lenin Ave, 30a
Section IV	10^{30}–17^{45}	Heat and mass transfer in the combustion technology	4 building, room. 406 Lenin Ave, 30a
25.04.18		***Work of sections***	
Section III	10^{15}–13^{00}	Physical and mathematical modeling of heat and mass transfer under intensive phase transformations	4 building, room. 406 Lenin Ave, 30a
Section II	10^{15}–13^{00}	Local evaporative cooling systems	4 building, room. 47 Lenin Ave, 30a
Section IV	15^{00}–17^{45}	Heat and mass transfer in the combustion technology	4 building, room. 406 Lenin Ave, 30a
Section V	15^{00}–17^{45}	Evaporation and condensation in porous and disperse media	4 building, room. 47 Lenin Ave, 30a
26.04.18	17^{45}–18^{15}	***Closing the school-seminar***	4 building, room. 406

	Lenin Ave, 30a
26.04.18	***Departure of the participants of the school-seminar***

For more information call: 8-903-953-8673

The organizing committee of the school-seminar

Tabakaev R.B. Ph.D., Associate Professor of ESE TPU, Chairman of the Section "Heat and Mass Transfer in Fuel-Burning Technologies"
Khaustov S.A. Ph.D., Associate Professor of ESE TPU, co-chair of the section "Heat and Mass Transfer in Fuel-Burning Technologies"
Kuznetsov G.V. Doctor of Physical and Mathematical Sciences, Chairman of the section "Physical and Mathematical Modeling of Heat and Mass Transfer in the Conditions of Intensive Phase Transformations"
Kachalov N.A. Ph.D. ESE TPU, scientific expert
Maksimov V.I. Ph.D., Associate Professor of ESE TPU, Chairman of the Section "Local Evaporative Cooling Systems"
Baranovsky N.V. Doctor of Physical and Mathematical Sciences, Professor of ESE TPU, Chairman of the section "Evaporation and condensation in porous and dispersed media"
Goldaev S.V. Ph.D., Associate Professor ESE TPU, Chairman of the Section "Thermosyphons"
Kobenko Yu.V. Doctor of Technical Sciences, Professor ISE TPU, Chairman of the Section "Scientific and Technical Discourse: Synergetics of Linguistics and Technology"
Rostovtsev V.M. Ph.D., Associate Professor ESE TPU, Secretary of the Section "Scientific and Technical Discourse: Synergetics of Linguistics and Technology"
Polovnikov V.Yu. Ph.D., assistant professor ENIN TPU, secretary of the section "Evaporation and condensation in porous and disperse media"
Krainov D.A. Ph.D., Assistant of ESE TPU, Secretary of the Section "Thermosyphons"
Syrodoy S.V. Ph.D., Associate Professor ESE TPU, Secretary of the Section "Physical and Mathematical Modeling of Heat and Mass Transfer in Conditions of Intensive Phase Transformations"
Nagornova T.A. Candidate of Technical Sciences, Associate Professor ESE TPU, Secretary of the Section "Local Evaporative Cooling Systems"
Astafyev A.V. engineer ESE TPU, secretary of the section "Heat and mass transfer in fuel combustion technologies"
Ibraeva K.D. graduate student of ESE TPU, secretary of the section "Heat and Mass Transfer in Fuel-Burning Technologies"

Alexandra Antonnikova, Sergey Basalaev, Anna Usanina, and Eugene Maslov	An experimental study of the dynamics of ascent of the bubble system in the presence of a surfactant
Dmitry Antonov, Konstantin Osipov, Irek Khasanov, and Alena Zhdanova	Experimental and Numerical Studies of Suppression of Forest Combustible Material Pyrolysis under Influence of Steam-Water Curtain
Vladimir Arkhipov , Sergey Basalaev, Sergey Orlov , and Sergey Polenchuk	Experimental setup for investigating the dynamics of the ascent of a cluster of bubbles in a liquid
Alexey Balastov, Boris Kovrigin and Valery Lavrinovich	Approach to detecting latent defects of the printed circuit boards thin-filmed coatings
Maria V. Bartashevich	Modeling of conjugated heat and mass transfer in the entrance region of falling liquid film at various values of the froude number
Maria V. Bartashevich	Numerical simulation of non-isothermal absorption in a liquid film moving over a cooled horizontal surface under the action of a gas flow
Ilya S. Bondarchuk, Sergei S. Bondarchuk and Boris V. Borisov	Identification of kinetic triplets by results of derivatographic analysis
Roman Brendakov, Alexander Shvab and Vladimir Brendakov	Numerical research of metal tungsten fluoride process
Yana Dubkova, Andrei Mostovchikov, and Valery Kuznetsov	Combustion of mixtures containing the activated aluminium powder
Anton N. Ermolaev, Olga V. Khaustova, Anastasia P. Yakovets	Finite element analysis of a thermally insulated infrared radiant emitter
Natalia Gicheva, Alexander Shvab and Vladimir Brendakov	Numerical Investigation of Tungsten Reduction Process
Elena Vorontsova, Andrey Gil, Alexander Romanenko	Research of parameters of the steam boiler BKZ-220-100 at joint burning of natural gas and low-grade fuel
Elena E. Gotovkina, Grigory I. Parfenov, Nikolay N. Smirnov, Vladimir V. Lebedev, Vladimir V. Tyutikov	Mathematical simulation of thermal state of digital current and voltage transformer in unfavourable weather conditions
Sergei Khaustov, Olga Guk, and Igor Razov	Ordinary differential equations for the dynamic characteristics of heating boilers
Anton N. Ermolaev, Olga V. Khaustova, Ilya A. Turaev	Simulating a convectional heat transfer in buildings with radiant gas heating
Oleg M. Koksharev, and Andrey V. Gil	Study of in-furnace gas-dynamic processes with different design of vortex burners
Dmitrii Antonov, Geniy Kuznetsov, and Alena Zhdanova	Numerical investigation of localization and suppression of thermal decomposition of forest combustible materials using specialized water supply
Anton V. Meleshkin, Dmitriy S. Elistratov	Influence of the water level in the work area on the hydrate formation process

Yuriy Patrakov, Svetlana Semenova, and Anna Usanina	Improving the Quality of coal is one of the factors in intensification of combustion processes in coal-based energy
Vladimir Arkhipov, Nikolay Zolotorev, and Ksenia Perfilieva	Optimization of Construction of a Shell for Launcher in the Water Medium in the Supercavitation Regime
Amer Saloum, and Vyacheslav I. Maksimov	An experimental study of the effect of water bodies temperature on water heat pump performance
Irina Zharova, Valery Kuznetsov, Ksenia Perfilieva , and Irina Zasadny	Technique of measuring the emissivity coefficient of solid materials surface
Nikolay Zolotorev, Yana Dubkova and Aleksey Konovalenko	Influence of dispersion aluminum powder on the burning rate of mixed solid fuel
Ivan Voloshko, and Vasiliy Ushakov	Research of temperature distribution in rooms with radiant heating systems
V. G. Afanaseva,	Mathematical modeling of ignition of coal-water slurries particles coated with water film
Andrew Arbatskiy, Andrew Garyaev and Vasiliy Glasov	Icing control model and algorithm for wasteheat exchangers of ventilation systems
Kseniya Batishcseva, Konstantin Ponomariov	Experimental study of a drop "evolution" under conditions of its free fall on a heated surface
Svyatoslav Tsibulskiy, Nikolay Galashov, Denis Mel'nikov, Alexandr Kiselev and Al'bina Bannova	Algorithm for calculation of a CCGT of a trinary type with an air condenser
Svyatoslav Tsibulskiy, Nikolay Galashov, Denis Mel'nikov, Alexandr Kiselev , and Al'bina Bannova	Improvement air condensers evaluation model
Anastasia Islamova,	Experimental determination of the heat transfer coefficient during evaporation and boiling of thin liquid film
Zhanna K. Ivanova, Juri V. Kobenko, Mariya A. Kulkova and Elena S. Riabova	The comparison of complexities of the Chinese and Russian languages on the example of terminology of chemistry
Dmitry Kirichenko, Dmitry Zaitsev, Oleg Kabov	Levitation of liquid microdroplets over a dry heated substrate near triple-phase contact line
A.A. Kostoreva, Zh. A. Kostoreva	Experimental study of the processes of ignition of wet wood particles
Alexander Kudrov , Arian Kuzmin and Denis Savitsky	Calculation of temperature distribution and effective temperature in high burnup fuel of wwer-1000
Mikhail Purin, Ekaterina Zakharova	Mathematical modeling of heating of a dimetallic plate by a high-energy concentrated radiation flux
Inna Shafikova, Galina Gurova and Andrey Novikov	Developing English language competence for specialists in rocket and space composite structures

Almira Shatekova	Interdroplet distance in a structured monolayer of liquid microdroplets levitating over hot liquid surface
Sergei Shevelev	Analysis of the effect of water steam concentration on water drop cooling process efficiency in conditions of water cooling towers of thermal power plants
Natalya Ivanova, Elena Bulba	Mathematical modeling of processes of heat and mass transfer during drying of wood biomass
Aleksei Kreta, Vyacheslav Maksimov	The effect of the liquid layer thickness on the evaporation intensity
Egor Tkachenko	Dynamics of dry spots in the liquid film moved by the gas flow in the mini-channel under intensive local heating
Alexander Korotkikh, Ivan Sorokin and Ekaterina Selikhova	Ignition and combustion of high-energy materials containing aluminum, boron and aluminum diboride
Arkadiy V. Zakharevich, Mikhail S. Zygin, Dmitriy N. Tsymbalov	Ignition of liquid droplets fuels under conditions of radiation-conductive heating in air
Ekaterina Zakharova, Mikhal Purin	Mathematical modeling of the melting of ice under conditions of motion of a heat drill
Maria Yu. Stepkina, Olga B.Kudryashova, Natalia V. Korovina	Research of efficiency of application of external physical fields for sedimentation of liquid-droplets aerosols of different concentration
Alexander Kondakov	Influence of thermo-gravitational convection to temperature fields in small surroundings of the heat source
Alexander Korotkikh, Ivan Sorokin, Ekaterina Selikhova	Features of thermal behavior and ignition of HEM with bimetal powders
Nikita V. Hapov, Aigul S. Kulesh, Anton A. Gerasimov	Internal stress distribution in weld-affected zone under the effect of constrained loads
Sergey N. Litvinov, Vladimir V. Lebedev, Nikolay N. Smirnov, Vladimir V. Tyutikov, Ilkhom B. Makhsumov	Physical simulation of heat exchange between 6(10) kV voltage instrument transformer and its environment with natural convection and insolation
Ilnur N. Madyshev, Oksana S. Dmitrieva, Andrey V. Dmitriev	Heat-mass transfer efficiency within the cooling towers with jet-film contact devices
Ilnur N. Madyshev, Oksana S. Dmitrieva, Andrey V. Dmitriev	Determination of heat-mass transfer coefficients within the apparatuses with jet-film contact devices
Eugene Maslov, Irina Zharova, Valery Faraponov, Eugene Kozlov, Vladislav Matskevich	Study of heat transfer processes in the flowing part of hypersonic air-ramjet engine
Anton V. Meleshkin, Dmitriy S. Elistratov	Experimental investigation of the process of hydrate-formation by the method of explosive boiling of liquefied freon 134a in the water volume during decompression

Konstanitin Mikhaylovskiy, Pavel Prosuntsov	Modelling of thermal and stress-strain state of transformable space structures from hybrid composite materials
S.Y. Misyura, V.S. Morozov	Nonisothermal desorption of droplets of LiBr salt solution on a heated wall
S.Y. Misyura, V.S. Morozov	Evaporation of layers of salt solutions
Aleksandr S. Naumkin, Boris V. Borisov, Aleksandr G. Nigay	Influence of water-methanol solution additives on hydrocarbon fuel combustion in burner
Andrey A. Pil'nik, Andrey A. Chernov	Analytical solutions of the segregation problem
Michail Vasilevsky, Aleksandr Razva, Dmitri Zaharov, Danil Shabirov	The modeling of the dust deposits on the surfaces of cyclone scrubber
Ekaterina Slesareva, Ruslan Dekhtyar, Valeriy Ovchinnikov	Dynamics of the vapor cavity in the vertical tube of a small diameter after boiling-up in aqueous lithium bromide solutions
Elena S. Popova, Alexander N. Subbotin	Analysis of the vapor-oxygen oxidizer in the synthesis gas production from solid fuel
Dariga Altynbaeva, Alexander Astafev, Roman Tabakaev	Kinetics of biomass low-temperature pyrolysis by coats–redfern method
Maria Gaydabrus, Dias Mussafirov, Roman Tabakaev	Research of the opportunity of using bran as a building material
Darya Bolgova, Kirill Larionov, Andrey Zenkov, Stanislav Yankovsky	Influence of cu(ch3coo)2 promoting additive on bituminous coal oxidation process
Sergey Reznik	Thermal regimes of space composite structures. Part II
Sergey Reznik	Thermal regimes of space composite structures. Part I
Antonov D.V., Voytkov I.S., Vysokomornaya O.V., Piskunov M.V., Shlegel N.E.	The main causes of rebound, coagulation, fragmentation and complete decay of liquid droplets in gas vapor-drop streams

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National Research
Tomsk Polytechnic University
The quality management system
Tomsk Polytechnic University is certified
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