



MIP: Engineering

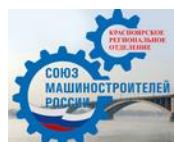
Передовые технологии в материаловедении,
машиностроении и автоматизации



Красноярский
ДОМ НАУКИ И ТЕХНИКИ



РОССИЙСКИЙ И МЕЖДУНАРОДНЫЙ
СОЮЗ НАУЧНЫХ И ИНЖЕНЕРНЫХ
ОБЩЕСТВЕННЫХ ОБЪЕДИНЕНИЙ



ТИОХММИ
Технологии Иノベーション в Климат, Энергетика
Механика и Автоматизация Инженерия

IOP Conference Series

AIP Conference Proceedings

Conference Programme

**III International Scientific Conference MIP: Engineering-III-2021:
Modernization, Innovations, Progress: Advanced Technologies in Material
Science, Mechanical and Automation Engineering
(Krasnoyarsk, 29-30 April 2021)**

29 April 2021

11.00-12.00	Registration of participants	
12.00-13.00	Coffee break	
13.00-13.30	Opening, greeting participants	Krasnoyarsk, KKDNIT, Uritskogo, 61,
13.30-15.00	Face-to-face plenary speeches and round table of face-to-face participants	hall 103
15.00-19.00	Online speeches of participants	Zoom

[https://us02web.zoom.us/meeting/register/tZcof-2spjkvGNLQ35OnHdMkL5fXFBOxV0Dm](https://us02web.zoom.us/j/87895976052?pwd=)

19.00-20.00	Poster Presentations Section 1-2	https://conf.domnit.ru/ru/materialy/mip-engineering-2021-materials/
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30 April 2021

9.00-12.00	Poster Presentations Section -4	https://conf.domnit.ru/ru/materialy/mip-engineering-2021-materials/
12.00-13.00	Coffee break	Krasnoyarsk, KKDNIT, Uritskogo, 61, hall 103
13.00-15.00	Videoreports of the participants	Zoom

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Conference identifier: 878 9597 6052
Access code: 895399

14.00-18.00 Poster Presentations Section 5-6
18.00-20.00 Poster Presentations Section 7
20.00 Closing ceremony

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Zoom

[https://us02web.zoom.us/j/87895976052?](https://us02web.zoom.us/j/87895976052?pwd=RGdaSHErbGJNWEN3OGxjUUJaeXB0Zz09)
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29 April 2021 13.30-15.00

Face-to-face plenary speeches

Modeling the distribution of polydisperse particles over a cross section in cast cylindrical metal blanks in order to impart new functional properties	Andrey Anikeev	Federal State Autonomous Educational Institution of Higher Education "South Ural State University (National Research University)", Yekaterinburg, Russia
Introduction of dispersed particles into a metal melt during casting as a method for the formation of new functional properties of steels	Ilya Chumanov	Federal State Autonomous Educational Institution of Higher Education "South Ural State University (National Research University)", Yekaterinburg, Russia
Dynamic model of a device for preventing ice formation on power transmission lines	Valentina Ratushnyak	IrGUPS, Irkutsk, Russia
Modelling the Heating of Thin-Walled Aerospace Designs from Various Materials with Electron Beam Welding	Vadim Tynchenko	Siberian State University named after M.F. Reshetnev, Krasnoyarsk, Russia
Simulation modeling of woodworking production	S. N. Masaev	Siberian Federal University, Krasnoyarsk, Russia

29 April 2021 15.00-19.00

Online speeches of participants

Zoom

<https://us02web.zoom.us/meeting/register/tZcof-2spjkvGNLQ35OnHdMkL5fXFBOxV0Dm>

Gear tooth action in a plane synthesis based on the criterion of constant curvature	Anastasia Barkova	MSTU them. N. E. Bauman, Moscow
Changing the properties of mechanically activated aqueous suspensions	Veronica Feoktistova	Kemerovo State University, Kemerovo
Thermal Regime of the Radiative Chamber of the Butane-Propane Pyrolysis Furnace	Danil Vafin	Nizhnekamsk Institute of Chemical Technology (branch) of Kazan National Research Technological University, Nizhnekamsk
Identification and analysis of sources of errors of the magnetoelastic sensor	Kamila Zhuraeva	Tashkent State Transport University, Tashkent, Uzbekistan
Features of hypersonic flow around bodies during track tests of aircraft objects	Ivan Kulak	FKP "GkNIPAS", Beloozersky
Amplitude dependence of internal friction and elastic modulus at ultrasonic frequencies in the Ni-Mn-Ga martensitic phase	Vladimir Kaminsky	ITMO University, St. Petersburg
Hydrodynamic lubrication of the skirt of the compound piston taking into account deformations	Alexander Vorobyov,	Peoples' Friendship University of Russia (RUDN), Moscow
Artificial intelligence for imaging data analysis in Materials Science: microscopy and behind	Sergey Smirnov	Novosibirsk State University, Novosibirsk
Model predictive control for path planning of UAV group	Philip Samoilov	SKFU, Stavropol
Computer application of the control system for the kinematics of a real stretching press	Vladimir Mikheev	Samara University named after academician S.P. Queen, Samara
Optimization of microwave heating of pellets with radial distribution of EAF dust and biochar	Anton Anzulevich	Chelyabinsk State University, Chelyabinsk
Investigation of composition and properties of EAF dust for metal reduction	Dmitrii Kalganov	ITMO University, St. Petersburg

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Theoretical aspects of the implementation of remote monitoring and control of technological processes controlled using SoftPLC	Artyom Akimov	Moscow State Technological University "STANKIN", Moscow
Comparative analysis of physical and mechanical characteristics of hard-alloy samples from sintering conditions	Alexander Zhadyaev	FSBEI HE "Samara State Technical University", Samara
Modelling of power consumption for Advanced Encryption Standard and PRESENT ciphers	Ekaterina Maro	Southern Federal University, Taganrog
Application of machine learning methods to determine the actual state of a resource in production planning	Daria Kolesnikova	ITMO University, St. Petersburg

30 April 2021 13.00-15.00

Zoom

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Videoreports

Additive manufacturing process parameters influence investigation	Daria Alexandrovna Gaponova	National Research University "MPEI", Russia
Ensuring temperature stability of the angular velocity measuring unit	Alexey Viktorovich Golikov	Institute for Problems of Precision Mechanics and Control RAS, Saratov, Russia
Methods to improve vibroacoustic characteristics of mining machines	A I Podgorny, A V Kudrevatykh, N V Kudrevatykh, A S Ashcheulov and A S Ashcheulova	Federal State Budgetary Educational Institution of Higher Education "T.F. Gorbachev Kuzbass State Technical University "
Development of algorithms for the simulation environment to support the methodology of systems design based on automata models using HD-vector algebra	Vitaly Kalashnikov	Penza State Technological University; Penza State University, Penza
Formalization of load testing scripts using the theory of event-driven non-deterministic temporary finite state machine	Nikita Iskhakov	Penza State Technological University; Penza State University, Penza, Russia
Concealment of sensor network node interaction	E.A. Kushko	Siberian State University named after M.F. Reshetnev, Krasnoyarsk, Russia
Mathematical simulation of the stability of the felling machine for forest thinning	Christina Chernik	Siberian State University named after M.F. Reshetnev, Krasnoyarsk, Russia

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Exploring of an open hammer die life with an expanding gutter using information technologies	I N Khaimovich and D A Elistratov	Samara University, Samara; Samara University, Samara, Russia
Differential thermal analysis of the results of isothermal discrete scanning of alloy 1163	Mikheev Vladimir, Agafonova Daria, Doroshko Gennady, Krasheninnikov Maxim	Samara National Research University and Samara State Technical University, Samara
Application of machine learning methods to determine the actual state of a resource in production planning	Daria Kolesnikova	ITMO University, St. Petersburg
Features of information support for decision-making in planning production processes	D V Kolesnikova, Y S Andreev, M V Tsarev, R A Iureva	ITMO University, St. Petersburg
A method for protecting telemetry in the processor memory from single failures	E S Lepeshkina, A V Shakhmatov, N D Kustov, V Kh Khanov	Siberian State University named after M.F. Reshetnev, Krasnoyarsk, Russia

The full text of the Program, including a list of all the reports of the conference participants, video reports and poster presentations are posted on the website of the Conference Materials

<https://conf.domnit.ru/ru/materialy/mip-engineering-2021-materials/>



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