PROGRAM

3rd International Workshop on Information, Computation, and Control Systems for Distributed Environments
(ICCS-DE 2021, https://iccs-de.icc.ru/**)**
July 5-9, 2021, Irkutsk, Russia

The languages of the workshop are English and Russian.
The schedule of events indicated Moscow time (GMT+3)

July 5, 2021	EVENT
09:00 – 9:10	**OPENING CEREMONY (online)** **Chair: *Andrei Tchernykh*** **CICESE Research Center, Ensenada, México** chernykh@cicese.mx Technical secretary: *Evgeniy Fereferov,* Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia, fereferov@icc.ru *Andrei Tchernykh.* Greetings to the workshop
09:10 – 10:30	**PLENARY SESSION (online)** **Chair: *Andrei Tchernykh*** **CICESE Research Center, Ensenada, México** chernykh@cicese.mx Technical secretary: *Evgeniy Fereferov* Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia, fereferov@icc.ru 09:10 *Sergio Nesmachnow*. Demand response planning for the participation of datacenters in the electricity market 09:50 *Zeljko Stojanov*. Software maintenance improvement in small software companies: Reflections on experiences
10:30 – 10:35	**Break**
10:35 – 11:55	**SECTION I (online)** **Chair: *Zeljko Stojanov*** **University of Novi Sad, Technical Faculty "Mihajlo Pupin", Zrenjanin** zeljko.stojanov@uns.ac.rs Technical secretary: *Roman Kostromin* Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, kostromin@icc.ru *Dalibor Dobrilovic, Milica Mazalica and Goran Geci*. Experience in measuring Wi-Fi to ZigBee interference using open-source hardware *Alexei Hmelnov*. The file format SMD for representation of static map vector data *Nikita Dorodnykh, Yuriy Kotlov, Olga Nikolaychuk, Vladimir Popov and Alexander Yurin*. End-user development of knowledge bases for semi-automated formation of task cards *Sergey Kratov and Olga Sokolova*. About the life cycle of information systems based on open Web-technologies

July 6, 2021	EVENT
09:00 – 10:20	**PLENARY SESSION (online)** **Chair: *Evgeny Cherkashin*** **Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia** eugeneai@irnok.net Technical secretary: *Evgeniy Fereferov* Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia, fereferov@icc.ru
	09:00 *Igor Sheremet*. Multiset-based assessment of vulnerability of energy infrastructures to destructive impacts
	09:40 *Mikhail Babenko, Luis Bernardo Pulido-Gaytan and Andrei Tchernykh*. Privacy-preserving neural networks with homomorphic encryption: challenges and opportunities
10:20 – 10:25	**Break**
10:25 – 11:45	**SECTION II (online)** **Chair: *Evgeny Cherkashin*** **Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia** eugeneai@irnok.net Technical secretary: *Roman Kostromin* Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, kostromin@icc.ru
	Mikhail Babenko, Nikolay Kucherov, Viktor Kuchukov, Elena Golimblevskaia, Ekaterina Kuchukova, Irina Vashchenko and Andrei Tchernykh. Determining the rank of a number in the residue number system
	Nikolay Kucherov, Viktor Kuchukov, Elena Golimblevskaia, Natalia Kuchukova, Irina Vashchenko and Ekaterina Kuchukova. Efficient implementation of error correction codes in modular code
	Nikolay Vershkov, Viktor Kuchukov, Natalia Kuchukova, Nikolay Kucherov and Egor Shiriaev. Optimization of computational complexity of an artificial neural network
	Mikhail G. Babenko, Andrei Tchernykh, Aziz Redvanov and Anvar Djurabaev. Comparative analysis of the scalar point multiplication algorithms in the NIST FIPS 186 elliptic curve cryptography
July 7, 2021	EVENT
09:00 – 09:40	**PLENARY SESSION (online)** **Chair: *Ivan Sidorov*** **Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia** yvan.sidorov@gmail.com Technical secretary: *Evgeniy Fereferov* Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia, fereferov@icc.ru
	09:00 *Igor Bychkov, Gennady Ruzhnikov, Roman Fedorov, Anastasia Popova and Yuri Avramenko*. Digital transformation of forest monitoring in the Baikal natural territory
09:40 – 09:45	**Break**

09:45 – 11:05	**SECTION III (online)** **Chair: *Ivan Sidorov*** **Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia** yvan.sidorov@gmail.com Technical secretary: *Roman Kostromin* Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, kostromin@icc.ru
	Igor Skopin. Modelling purposeful processes based on the geometric representation of their trajectories
	Sagit Valeev, Natalya Kondratyeva, Rinat Karimov, Mikhail Verkhoturov, Timur Islamgulov and Lidia Shekhtman. Production planning in a construction company as an element of enterprise architecture
	Mikhail Verkhoturov, Sagit Valeev, Galina Verkhoturova, Damir Zaripov and Natalya Kondratyeva. Digital twin of the process of thermal cutting of flat material into figured parts
	Alexandra Klimova, Olga Smetanina, Nafisa Yusupova and Alexey Kovtunenko. Decision support in the information maintenance of individual education trajectory based on ontological models and distributed RDF-storage.
July 8, 2021	**EVENT**
09:00 – 10:20	**SECTION IV (online)** **Chair: *Alexander Feoktistov*** **Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia** agf65@yandex.ru Technical secretary: *Evgeniy Fereferov* Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia, fereferov@icc.ru
	Gennady Oparin, Vera Bogdanova and Anton Pashinin. Investigation of observability property of controlled binary dynamical systems: a logical approach
	Gennady Oparin, Vera Bogdanova and Anton Pashinin. A logical method for the synthesis of periodic trajectory in a binary dynamical system
	David Gercekovich, Olga Basharina, Irina Shilnikova, Evgeniya Gorbachevskaya and Sergey Gorsky. Information and Algorithmic Support of a Multi-Level Integrated System for the Investment Strategies Formation
	Artem Davydov, Aleksander Larionov and Nadezhda Nagul. Modular discrete event systems control based on logic inference
10:20 – 10:25	**Break**
10:25 – 10:35	**CLOSING CEREMONY (online)** **Chair: *Alexander Feoktistov*** **Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia** agf65@yandex.ru Technical secretary: *Roman Kostromin* Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia, kostromin@icc.ru