PROGRAM

1st International Workshop on Advanced Information and Computation Technologies and Systems
(AICTS, https://aicts.icc.ru/) co-located with the Lyapunov Readings Conference
(http://idstu.irk.ru/ru/content/lyapunovskie-chteniya-2020), December 7-11, 2020, Irkutsk, Russia

The schedule of events indicated Moscow time (GMT+3)

December 7, 2020	Event
04:00 – 12:00	**Lyapunov Readings**
04:00 – 04:10	**Opening Ceremony (online, in Russian)**
04:10 – 05:10	**Competitive reports (online, in Russian)**
05:10 – 07:10	**Regular reports (online, in Russian)**
07:10 – 08:00	**Break**
08:00 – 12:00	**Regular reports**
12:00	**Meeting of the competition committee**
December 8, 2020	Event
04:00 – 12:00	**Lyapunov Readings**
04:00 – 07:00	**Regular reports (online, in Russian)**
07:00 – 08:00	**Break**
08:00 – 12:00	**Regular reports (online, in Russian)**
December 9, 2020	Event
04:00 – 12:00	**Lyapunov Readings**
04:00 – 07:20	**Regular reports (online, in Russian)**
07:20 – 08:30	**Break**
08:30 – 12:00	**Section of young researchers (online, in Russian)**
12:00	**Closing Ceremony (online, in Russian)**
December 10, 2020	Event
04:30 – 20:00	**1st International Workshop on Advanced Information and Computation Technologies and Systems (AICTS)**
04:30 – 4:40	**Opening Ceremony (online)** **Co-Chairs:**

	Igor Bychkov **Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia** ***Andrei Tchernykh*** **CICESE Research Center, Ensenada, México** **Technical secretary:** ***Evgeniy Fereferov,*** *fereferov@icc.ru* **Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia**
	Bychkov I.V., Tchernykh A. Greetings to the Workshop
04:40 – 07:00	**Section I (online)** **Co-Chairs:** ***Igor Bychkov*** **Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia** ***Andrei Tchernykh*** **CICESE Research Center, Ensenada, México** **Technical secretary:** ***Evgeniy Fereferov,*** *fereferov@icc.ru* **Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia**
	Peng Jiang, Igor Bychkov, Jun Liu and Alexei Hmelnov. Predicting of air pollutant concentrations based on spatio-temporal attention convolutional LSTM networks
	Peng Jiang, Igor Bychkov, Tianjiao Li and Alexei Hmelnov. Traffic flow prediction for vehicle emission calculation based on graph convolutional networks
	Alexei Hmelnov, Gennadiy Ruzhnikov, Tianjiao Li and Huan Xu. An approach to information export from database for complex master-detail table hierarchies into a single at table form
	Anastasia Popova. Estimation of water quality parameters from space images
	Evgeny Cherkashin and Alexey Shigarov. Construction techniques of Baikal microbiome research information-computational environment
	Nikita Dorodnykh and Aleksandr Yurin. A domain-specific notation for modeling fuzzy rules
	Stepan Kochemazov. Analysis of comparative effectiveness of state-of-the-art CDCL heuristics
07:00 – 08:00	**Break**
08:00 – 09:20	*Leonid Arshinskiy, Marina Nitezhuk, Vadim Arshinskiy and Mikhail Dunaev.* Features of inference for abnormal truth values of premises in VTF-logics
	Vitaly Karmadonov. Development user interface for virtual reality applications
	Anton Pashinin, Vera Bogdanova and Gennady Oparin. Application of binary dynamical systems in the problem of classification of Boolean vectors
	Anton Pashinin and Vera Bogdanova. Application of user dew agent in hybrid-computing environment
09:20 – 17:00	**Break**
18:00 – 20:00	**Section II (online)** **Co-Chairs:** ***Andrei Tchernykh*** **CICESE Research Center, Ensenada, México**

	Zeljko Stojanov **University of Novi Sad, Technical Faculty "Mihajlo Pupin", Zrenjanin** **Technical secretary:** *Roman Kostromin, kostromin@icc.ru* **Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia**
	Zeljko Stojanov, Dalibor Dobrilovic, Gordana Jotanovic, Dragan Perakovic, Goran Jausevac and Vladimir Brtka. Software architectures in smart manufacturing: Review and experiences
	Diego Gabriel Rossit, Sergio Nesmachnow and Jamal Toutouh. A multiobjective model for optimizing bus lines design considering pollution generation
	Juan Chavat and Sergio Nesmachnow. Elaboration of an index of electricity consumption based on statistics of household appliances ownership
	Jamal Toutouh, Sergio Nesmachnow and Diego Gabriel Rossit. Modeling air pollution under uncertainty by using deep generative models
	Sergio Nesmachnow and Andrei Tchernykh. Multiobjective Iterated Local Search for affinity multiprocessor scheduling
	Sergio Nesmachnow, Claudio Paz, Andrei Tchernykh and Jamal Toutouh. Multiobjective route planning of autonomous unmanned aerial vehicles for exploration and surveillance
December 11, 2020	**Event**
04:30 – 07:00	**1st International Workshop on Advanced Information and Computation Technologies and Systems (AICTS)**
04:30 – 06:50	**Section III (online)** **Co-Chairs:** ***Alexei Adelev*** **Melentiev Energy Systems Institute of SB RAS, Russia** ***Alexander Feoktistov*** **Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia** **Technical secretary:** ***Roman Kostromin, kostromin@icc.ru*** **Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia**
	Sergey Gorsky and Alexander Feoktistov. Static-dynamic algorithm for managing asynchronous computations in distributed environments
	Alexander Feoktistov, Roman Kostromin, Olga Basharina, Andrei Tchernykh and Vladimir Dmitriev. Agent-based approach to hybrid modeling queuing systems
	Alexei Edelev and Alexander Feoktistov. Modeling multi-energy systems as generalized and pure networks
	Dmitriy Karamov, Konstantin Suslov, Ilya Minarchenko and Vasiliy Potapov. Optimization of the installed capacity of battery inverters in power systems with renewable generation
	Dmitriy Karamov, Konstantin Suslov, Ilya Minarchenko and Vasiliy Potapov. Using a storage battery categorization technique to generate solutions for an energy storage system
	Evgeniya Gorbachevskaya, David Gercekovich and Irina Shilnikova. Identification of Basic Criteria of Portfolio Analysis Based on the Rolling Verification Principle
	Yana Kurzibova. Building user interfaces in e-learning resources

06:50 – 07:00	**Closing Ceremony (online)** **Co-Chairs:** *Alexei Adelev* **Melentiev Energy Systems Institute of SB RAS, Russia** *Alexander Feoktistov* **Matrosov Institute for System Dynamics and Control Theory of SB RAS, Russia** **Technical secretary:** *Roman Kostromin, kostromin@icc.ru* **Matrosov Institute for System Dynamics and Control Theory SB RAS, Russia**