



**India - Russia
Scientific Webinar on AI and CPS
28-29 October 2020
10.00 (MSC) / 12.30 IST time onwards**

Working language – English.

2.30+MSC = IST

28th October, Wednesday	
09:30 MSC 12:00 IST	ZOOM ROOM OPENS ✓ Staff officers from Russian and Indian sides log on, and IT Support log on ✓ Audio/Visual Check
09:50 MSC 12:20 IST	ZOOM ROOM OPENS TO PUBLIC ✓ All speakers and staff from Russian and Indian sides in place ✓ Registered participants allowed to enter
10.00 - 10.10 MSC 12:30 - 12:40 IST	Welcome and Introduction Remarks Mr SK Varshney , Head International Cooperation, Department of Science & Technology, India Mr. Sergei Malenko – Head of the Department for International Cooperation, RAS Special Address - Dr KR Murali Mohan , Head NM-ICPS, DST, India
Theme-I “Multi-Domain Modelling, Simulation, Storage and Analytics”	
Moderator: Prof. Ashish Ghosh ; ISI Kolkata; ash@isical.ac.in	
10.10 – 10.30 MSC 12:40 - 13:00 IST	Dr. Praditpa Biswas , IISC Bengaluru, pradipta@iisc.ac.in <i>“Human Machine Interactions”</i>
10.30 – 10.50 MSC 13:00 – 13:20 IST	Vladimir Shakirov ; Ph.D.student, Researcher, Institute of System Research, RAS Schw90@mail.ru <i>“Continual Learning RL agent with experience Storage”</i>
10.50 – 11.10 MSC 13:20 – 13:40 IST	Prof. Snehanshus Saha ; BITS Goa; snehanshus@goa.bits-pilani.ac.in <i>“Parsimonious Computing: A Minority Training Regime for Effective Prediction in Large Microarray Expression Data Sets”</i>



<p>11.10 – 11.30 MSC 13:40 – 14:00 IST</p>	<p>Arutyun Avetisyan, Prof., D.Sc., Acting Director of the Ivannikov Institute for System Programming, RAS Director@ispras.ru</p> <p>Denis Turdakov, Associate Professor, Head of Information Systems Department Ivannikov Institute for System Programming, RAS turdakov@ispras.ru</p> <p><i>“Talisman Platform: Machine learning in production systems”</i></p>
<p>11.30 – 11.50 MSC 14:00 – 14:20 IST</p>	<p>Dr. Dileep A. D., Associate Professor, Indian Institute of Technology Mandi; Email: addileep@iitmandi.ac.in</p> <p><i>“Design of Advanced Big-Data Analytics in the Network Management System for Large Telecom Networks”</i></p>
<p>11.50 – 12.10 MSC 14:20 – 14:40 IST</p>	<p>Roman Meshcheryakov, Prof. of RAS, D.Sc., Head of Cyber-Physical Systems Lab., V.A. Trapeznikov Institute of Control Sciences, RAS mrv@ieee.org</p> <p><i>“Future for intelligent robotic systems”</i></p>
<p>12.10 – 12.30 MSC 14:40 – 15:00 IST</p>	<p>Dr. Santonu Sarkar, Senior Principal Researcher ABB Corporation India, Adjunct Faculty, BITS Pilani K K Birla Goa Campus santonus@gmail.com</p> <p><i>“Simulation and modeling of industrial cyber-physical systems”</i></p>
<p>12.30 – 12.50 MSC 15:00 – 15:20 IST</p>	<p>Panel Discussions and 5 Minutes Break</p>
<p>Theme-2: “Control, Optimization, Planning and Policy”</p> <p>Moderator 2: Yaroslav Seliverstov, Ph.D., Senior Researcher, Solomenko Institute of Transport Problems seliverstov-yr@mail.ru</p>	
<p>12.50 – 13.10 MSC 15:20 – 15:40 IST</p>	<p>Prof. Sridharakumar Narasimhan. IIT Madras, "Sridharakumar Narasimhan" sridharkrn@iitm.ac.in</p> <p><i>“Smart Distribution of Water and Gas”</i></p>
<p>13.10 – 13.30 MSC 15:40 – 16:00 IST</p>	<p>Sergey Yu. Borovik, D.Sc., Leading Researcher, Head of the Institute, Samara Federal Research Scientific Centre of RAS, Institute for the Control of Complex Systems, RAS borovik@iccs.ru</p>



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	<i>"New paradigm of enterprise management in Society 5.0 based on digitalization of knowledge and formation of digital eco systems of smart services".</i>
13.30 – 13.50 MSC 16:00 – 16:20 IST	Prof. Vinayak Naik ; BITS, Goa; vinayak@goa.bits-pilani.ac.in <i>"Smart transportation and Smart Cities"</i>
13.50 – 14.10 MSC 16:20 – 16:40 IST	Yaroslav Seliverstov , Ph.D., Senior Researcher, Solomenko Institute of Transport Problems, RAS seliverstov-yr@mail.ru <i>«Development of road quality evaluation system with mobile devices based on Cyber-Physical principles»</i>
14.10 – 14.30 MSC 16.40 – 17.00 IST	Prof. Radhakant Padhi ; IISc; padhi@iisc.ac.in <i>"Non-linear Optimal control in Real-time using MPSP: An ultra-fast MPC Paradigm"</i>
14.30 – 14.50 MSC 17.00 – 17.20 IST	Danik Yuliya , Ph.D, Researcher yuliadanik@gmail.com Mikhail Dmitriev , Ph.D., Prof., Chief Researcher, mdmitriev@mail.ru Dmitry Makarov , Ph.D., Senior Researcher, makarov@isa.ru Federal Research Centre "Computer Science and Control" of RAS <i>"Close-loop controls in nonlinear continuous and discrete systems: modified SDRE technique".</i>
14.50 – 15.10 MSC 17.20 – 17.40 IST	Dr. Albert Sunny ; IIT Palakkad; albert@iitpkd.ac.in <i>"IXT: Info Exchange for Things"</i>
15.10 – 15.30 MSC 17:40 – 18:00 IST	Sergey Yu. Borovik , D.Sc., Leading Researcher, Head of the Institute, Samara Federal Research Scientific Centre of RAS, Institute for the Control of Complex Systems, RAS borovik@iccs.ru <i>"Distributed intelligence for autonomous resource scheduling, optimization and controlling in real time"</i>
15.30 – 15.50 MSC 18:00 – 18:20 IST	Prof V Kamakoti – IIT Madras; kama@cse.iitm.ac.in <i>"Shakti: India's indigenous Microprocessor"</i>
15.50 – 16.10 MSC 18:20 – 18:40 IST	Alexander Krylatov , Prof., D.Sc., Solomenko Institute of Transport Problems, RAS aykrylatov@yandex.ru ;



	<i>“Sustainable Topology Optimization in Urban Road Areas”</i>
16.10 – 16.30 MSC 18:40 – 19:00 IST	Prof. Arnab Maity ; arnab.maity@iitb.ac.in ; IIT Bombay <i>“Navigation, Guidance & Control of Drone Delivery System”</i>
16.30 – 16.50 MSC 19:00 – 19:20 IST	Panel Discussion

29th October, Thursday

Theme-3: “5g and 6g: Low latency, large scale, reliable wireless communication”

Moderator 3 Prof. Devendra Jalihal; IIT Madras (dj@ee.iitm.ac.in)

10.00 – 10.20 MSC 12:30 - 12:50 IST	Prof. P. Rajalakshmi ; IIT Hyderabad; raji@iith.ac.in <i>“Autonomous Navigation Technologies”</i>
10.20 – 10.40 MSC 12:50 - 13:10 IST	Aung Myo Thaw , Ph.D. Student, Faculty of Software Engineering and Computers, ITMO University aungmyothaw52660@gmail.com Zhukova Natalia , Prof., Senior Researcher, St. Petersburg Institute for Informatics and Automation of RAS nazhukova@mail.ru <i>“Development of methods and tools for secure data collection of Internet of Things (IoT) environments”</i>
10.40 – 11.00 MSC 13:10 - 13:30 IST	Prof. Radhakrishna Ganti ; IIT Madras; <i>“An Innovative Practical Solution for Rural 5G”</i>
11.00 – 11.20 MSC 13:30 – 13:50 IST	Alexander Lebedev , Ph.D., Researcher, Research Institute for Systems Research, RAS yufituris@yandex.ru <i>«Pavlov Principle based learning in large-scale symmetry problems»</i>
11.20 – 11.40 MSC 13:50 – 14:10 IST	Dr. Aftab M Hussain ; IIIT Hyderabad; aftab.hussain@iiit.ac.in <i>“LoraWAN as a Technology platform for Smart City Solutions”</i>
11.40 – 12.00 MSC 14:10 – 14:30 IST	Yakov Karandashev , Ph.D., Leading Researcher, karandashev@niisi.ras.ru ; Maria Pushkareva , Ph.D., Leading Researcher ratko@phystech.edu Research Institute for Systems Research, RAS <i>“Exponential Discretization of Weights of Neural Network Connections in Pre-Trained Neural Network”</i>



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12.00 – 12.20 MSC 14:30 – 14:50 IST	Dr. Varun Dutt , Associate Professor, Indian Institute of Technology Mandi; varun@iitmandi.ac.in “ <i>Influence of subnetting in networks involving honeypots via the Hack IT tool</i> ”
12.20 – 12.40 MSC 14.50 – 15.10 IST	Prof Hemendra Arya ; IIT Bombay; arya@iitb.ac.in “ <i>Hardware in Loop Simulation/Emulation</i> ”
12.40 – 13.00 MSC 15.10 – 15.25 IST	Panel Discussion 5 minutes Break

Theme-4: “CPS Systems engineering”

Moderator 4: Gleb G. Rogozinsky, Ph.D., Leading Researcher, Solomenko Institute of Transport Problems, gleb.rogozinsky@gmail.com

13.00 – 13.20 MSC 15:30 – 15:50 IST	Dr. Roshan Srivastav ; IIT Tirupati; roshan@iittp.ac.in “ <i>Role of positioning and precision in CPS</i> ”
13.20 – 13.40 MSC 15:50 – 16:10 IST	Witali L. Dunin-Barkowski ; Prof., Ph.D., Chief Researcher, Head of the Department of Neuroinformatics Research Institute for Systems Research, RAS; wldbar@gmail.com “ <i>About frontiers research topic “Toward and beyond human-level AI”</i> ”
13.40 – 14.00 MSC 16.10 – 16:30 IST	Prof. K. Madhava Krishna , Robotics Research Lab, IIIT Hyderabad; mkrishna@iiit.ac.in “ <i>Where AI meets Robotics</i> ”
14.00 – 14.20 MSC 16:30 – 16:50 IST	Gleb G. Rogozinsky, Ph.D. , Leading Researcher, Solomenko Institute of Transport Problems, gleb.rogozinsky@gmail.com “ <i>Sonification of Cyber-Physical systems: Technologies and Structures</i> ”
14.20 – 14.40 MSC 16:50 – 17:10 IST	Dr. Satyajit Das , IIT Palakkad; satyajitdas@iitpkd.ac.in ; “ <i>Energy Efficient Computing in CPS: Importance & Reality</i> ”
14.40 – 15.00 MSC 17:10 – 17:30 IST	Vladimir E. Zyubin, D.Sc. , Leading Researcher, Head of Cyber-Physical Systems lab, Institute of Automation and Electrometry, SB RAS zyubin@iae.nsk.su “ <i>Process-Oriented Programming for Cyber-Physical Software Design</i> ”
15.00 – 15.20 MSC	Panel Discussion and Conclusion



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17:30 – 17:50 IST	
15.20 – 15.40 MSC	<i>Final Concluding Remarks</i>
17:50 – 18:10 IST	Dr. Shishir Shrotriya - Counsellor (Science & Technology), Embassy of India, Moscow Mr. Sergei Malenko – Head of the Department for International Cooperation, RAS