

The Russian Chapter of SD Society

The Russian Chapter of the System Dynamics Society (www.sysdynamics.ru) was created in 2006 with participation of leading Russian universities. It participates in SDS Conferences since 2008.

In 2011, the Russian Chapter of the SDS became a member of the Federation of European Simulation Societies (EUROSIM) (<http://www.eurosim.info>).

The main task of the Society is propagation of system dynamics in the Russian-speaking academic and practical environment by means of granting the information in Russian and English languages, an exchange of experience between members of a society, and establishment of business and research contacts, supporting activity of System Dynamics Society in Russia.

Activities of the Russian Chapter include:

- provision of the information for experts, researchers;
- organization of regular meetings, round tables and conferences on system dynamics and application of simulation modeling;
- promotion of initiatives on the organization of educational programs in system dynamics;
- publications of scientific, popular, and methodical works.



Natalia Lychkina, the Chairman of Russian Chapter

Recent System Dynamics-related events in Russia

Every 2 years the National Simulation Modeling Society organizes theoretical and practical conference IMMOD «Simulation Modeling: Theory and Practice». This conference provides a comprehensive analysis of the current state and development perspectives of the simulation modeling theory and simulation tools in business, industry and administrative governance. Russian Chapter members regularly present their reports there. The latest conference was held in November 2015 in Moscow.



Theoretical and practical conference IMMOD «Simulation Modeling: Theory and Practice». The head of Anylogic company Andrey Borschev and the Secretary of The Russian Chapter Yulia Morozova



The Secretary of The Russian Chapter Yulia Morozova at the Conference IntelliSys 2015, London

The annual International scientific conference «Modernization of the Economy and Society» having section Y entitled «Instrumental methods in the analysis of social and economic processes» was held at the National Research University Higher School of Economics in April 2016 in Moscow. The session was devoted to application of simulation modeling of social and

economic systems.

On May 31, 2016 International Center of Logistics and the School of Logistics of Faculty of Business and Management of National Research University Higher School of Economics together with partners held a round table with international participation on the topic "Simulation and optimization in supply chain management". The International Center of Logistics invited a well-known specialist in the field of simulation of production logistics systems and digital manufacturing, Professor of [Fraunhofer IFF](#) (Magdeburg, Germany), Ph. D. Yuri Toluev. Natalia Lychkina, the Chairman of Russian Chapter, was the moderator and round table organizer.



Round table "Simulation and optimization in supply chain management". Professor Ph. D. Yuri Toluev.

Institute for Informatics and Mathematical Modeling of Technological Processes of the Kola Science Center of Russian Academy of Science regularly organizes the All-Russia scientific and practical conference with the international participation «Theory and practice of system dynamics» in the city of Apatity. The latest conference was held in March 2015.

Participation in the 34th International System Dynamics Conference

During the few last years, the Russian Chapter of the Society regularly presented posters on the International Conference of System Dynamics, where the key activities, large scientific schools and its certain personalities were presented. Members of the Russian Chapter also regularly present results of their scientific works. At the recent International SD Conference that took place in July, 2016 in Delft (Netherlands), Chairman of Russian Chapter of System Dynamics Society Natalia Lychkina presented e-Poster of Russian Chapter and organized Annual Meeting of Russian Chapter of System Dynamics Society.

This meeting was intended as a forum for exchanging opinions and building partnership. Members of the SD group created in National Research University Higher School of Economics (Russia, Moscow) shared their experience of using system dynamics in education, research and consulting projects in corporate and government administration.

Once again, there was participation and sponsorship by Russian companies The AnyLogic Company and JSC Prognoz (Perm) which have been acting as sponsors of the Russian Chapter for the International SD Conference for the last few years.

JSC Prognoz (www.prognoz.com) develops business intelligence and business performance management solutions that help corporations and government agencies harness the power of data to make informed decisions. The flagship application is the Prognoz Platform, a modular software package with data storage, reporting, analytical, modeling and forecasting capabilities.

The AnyLogic Company (www.anylogic.com) is a leading provider of dynamic simulation tools, technologies and consulting services for business applications. The company designs, develops and markets AnyLogic — the first and only tool that brings together system dynamics, process-centric (discrete event), and agent-based methods within one modeling language and one model development environment.

There were more than 10 Russian-speaking system dynamics specialists from Russia, Moldova, Republic of Tatarstan, Latvia, America, France and other countries, who attended the conference. The following members of the Russian Chapter presented papers and posters: Natalia Lychkina (Higher School of Economics), Alexander Ryzhenkov (Institute of Economics & IE SB RAS, NSU), Oleg Pavlov (Worcester Polytechnic Institute), Valeriy Skribans (Riga Technical University).

During the negotiations at the conference, Head of Russian Chapter achieved agreements with colleagues from the United States (WPI), UK, Norway, and other countries for the establishment of joint educational projects in the field of system dynamics, inviting experts to the scientific activities and master classes carried out in Russia.

The Russian Chapter also presented at the conference the problem-oriented books published in Russia. One of them was a monograph on system dynamics, *Simulation Modeling of Economic Processes*, by Prof. Lychkina. The paper is based on the fundamental works of J. Forrester; simulation of enterprises, and social and economic systems operation. It was published by INFRA-M publishing house and was recommended by the Ministry of Education of Russia. The other was the book of D. Katalevsky, *Fundamentals of Management Simulation Modeling and System Analysis*, published in Moscow by University Press.

System dynamics related educational programs

Several universities in Russia continue to host the following educational programs:

- *National Research University Higher School of Economics* (www.hse.ru). SD courses are offered in curriculums of the Faculty of Business and Management:
 - System Dynamics (N.B. Filinov, master program “Strategic Management and Corporate Governance”)
 - Simulation Systems (A.S. Akopov, master program “Business Informatics”)
 - Scientific research methodology in management: theory of logistical integration and methods of research in logistics, Computer simulation for solving problems of logistics and supply chain management (N.N. Lychkina, G.V. Zakhodiakin, Y.A. Morozova, master program “Strategic Management in Logistics“)
 - System Analysis and Organization Design (Z. Avdeeva, master program “Big Data Systems”)
 - Scientific research methodology in management: theory of logistical integration and methods of research in logistics (N.N. Lychkina, G.V. Zakhodiakin, Y.A. Morozova, master program “Strategies for Logistics and Supply Chain Management“)

- Simulation modeling of socio-economic systems (N.N. Lychkina, G.V. Zakhodiakin)
 - Simulation modeling of organizational and logistical systems (N.N. Lychkina, G.V. Zakhodiakin)
 - Simulation modeling and its business applications in AnyLogic (N.N. Lychkina, G.V. Zakhodiakin)
- *Lomonosov Moscow State University, School of Public Administration* (www.msu.ru). SD courses are offered in curriculums of the Economic Faculty (V.N. Sidorenko) and Faculty of State Management (D.N. Kavtaradze). A laboratory of simulation under the direction of D. Kavtaradze is engaged in the development of educational games on the basis of system dynamics models.
 - *Perm National Research University (former Perm State University, www.psu.ru):* The Information Systems and Mathematical Methods in Economics Department offers a Master’s degree program, “Business Intelligence Systems in Forecasting and Management of Socio-Economic Development Processes in Countries and Territories,” where students study a course of system dynamics.

Russian Chapter of System Dynamics Society and AnyLogic Company regularly conduct seminars and training courses for professionals on simulation modeling of economic processes. Recent training course took place at the National Research University Higher School of Economics in April 2016.



Seminar “Agent-based modeling and business applications” organized by National Research University Higher School of Economics and Anylogic company



Training course for professionals on simulation modeling in Anylogic conducted by National Research University Higher School of Economics. Senior lecturer Gleb Zakhodiakin

Further development and international cooperation

The chapter plans to carry out co-operative programs, seminars, workshops, and master degree programs on simulation modeling and system dynamics, write monographs, organize a roundtable discussion on “Strategies of Socio-Economic Development of Russia up to 2020 (Strategy-2020)” and participate in some activities within the recently established National Simulation Modeling Society. Joint educational projects at the leading Russian universities, as well as international projects, are also planned.

We welcome the members of System Dynamics Society to strengthen cooperation with the Russian Chapter and are ready to provide support from the Higher School of Economics, the Moscow State University and others.

Today there is a certain interest in system dynamics and simulation modeling from both business and government organizations. We are ready to respond to these challenges in cooperation with our international colleagues.