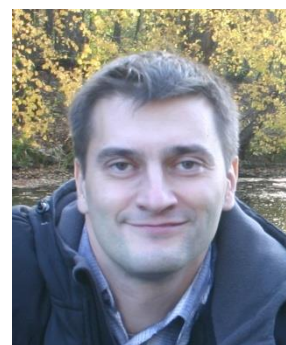# CURRICULUM VITAE

Name: Sergey Anatolievich Lobov
Address: 141, 20, Loscutova str, Nizhny Novgorod, Russia
Phone: Mobile: +7-951-901-67-62
Date and Place of Birth: 19 November 1974, Nizhny Novgorod, USSR

Areas of Specializations: biophysics, bioelectrogenesis, spiking neuronal networks, information processing in biology, models of synaptic plasticity and learning.

Education
2003   Ph.D. in biology, Nizhny Novgorod State University
1998   Graduated from Nizhny Novgorod State University, Biological Faculty

Additional Education
2008-2009   Programmer's course at NIIT. I, II stage (C/C++/Unix/English)
2004   English courses «Denis School»

Research Experience
2009-present   Computer modeling of spiking neural networks. Implementation of complex computer program "NeuroNet" which include several models of spiking neurons, delays, synaptic plasticity and growing processes. Neuronal learning simulation and its demonstration in neuroanimates – robots controlled by neurons.

1997-2003   Studies of bioelectric reactions (BER) in plants (Nizhny Novgorod State University, Biophysics Department). Using macroelectrode technique, designing software for BER registration, computer modeling some electrophysiology processes, studying the electrophysiological stage in perception, using luciferin-luciferase method for ATP measuring, dose injure by cold and hit.

1995, 1996   Studies of synaptic plasticity and epileptic activity in rat hippocampus (2-month student research works at Institute of Theoretical and Experimental Biophysics, Puschino, Russia). Using microelectrode (extracells) technique, making microelectodes, making living slices of rat hippocampus.

Employment
2020-present   Researcher, Neuroscience and Cognitive Technology Laboratory, Center for Technologies in Robotics and Mechatronics Components, Innopolis University, Innopolis.
2012-present   Researcher, Lobachevsky State University of Nizhni Novgorod
2001-2015   System administrator, the trade company Kontinent ETS (Uzola), Nizhny Novgorod
2011-2012   Researcher, Laboratory of Nonlinear Processes in Living Systems, Institute of Applied Physics of RAS (part time)
2009   Software designer, Mera-NN
1999-2001   System administrator, the geology company CGGE, Nizhny Novgorod
1997-1999   Engineer, The IT company VMNUC VTI (part time)
1997   Software designer (modeling in MATLAB), The Geology firm Geoecos (part time).

Main publications

1. Lobov, S.A.; Zharinov, A.I.; Makarov, V.A.; Kazantsev, V.B. Spatial Memory in a Spiking Neural Network with Robot Embodiment. Sensors 2021, 21(8), 2678.

2. Villacorta-Atienza, J.A.; Calvo Tapia, C.; Díez-Hermano, S.; Sánchez-Jiménez, A.; Lobov, S.; Krilova, N.; Murciano, A.; López-Tolsa, G.E.; Pellón, R.; Makarov, V.A. Static internal representation of dynamic situations reveals time compaction in human cognition. J. Adv. Res. 2021, 28, 111–125.

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4. Lobov, S.A.; Chernyshov, A. V; Krilova, N.P.; Shamshin, M.O.; Kazantsev, V.B. Competitive Learning in a Spiking Neural Network: Towards an Intelligent Pattern Classifier. Sensors 2020, 20.

5. Mikhaylov, A.; Pimashkin, A.; Pigareva, Y.; Gerasimova, S.A.; Lobov, S.; Gryaznov, E.; Talanov, M.; Lavrov, I.; Demin, V.; Erokhin, V.; et al. Neurohybrid Memristive CMOS-Integrated Systems for Biosensors and Neuroprostetics. Front. Neurosci. 2020, 14, 358.

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11. Mironov, V.I.; Lobov, S.A.; Krylova, N.P.; Gordleeva, S.Y.; Kaplan, A.Y.; Buylova, T.V.; Bakhshiyev, A.V.; Shchurovsky, D.V.; Wagner, V.O.; Kastalskiy, I.A.; et al. Development of a Neurally-Controlled Vehicle — Neuro-Mobile — for Driving by Individuals with Motor Deficiency. Sovrem. Tehnol. v Med. 2018, 10, 49.

12. Mikhaylov, A.N.; Morozov, O.A.; Ovchinnikov, P.E.; Antonov, I.N.; Belov, A.I.; Korolev, D.S.; Sharapov, A.N.; Gryaznov, E.G.; Gorshkov, O.N.; Pigareva, Y.I.; et al. One-Board Design and Simulation of Double-Layer Perceptron Based on Metal-Oxide Memristive Nanostructures. IEEE Trans. Emerg. Top. Comput. Intell. 2018, 2, 371–379.

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