

## ***PROGRAM***

Conference "From Functional Systems to a General Systems Approach  
(on the 128th Anniversary of Academician P.K. Anokhin's Birthday)"

January 26-28, 2026

January 26

10:00 Registration of Participants

11:00 Conference Welcome Address

RAS Academician V.G. Zilov

I.A. Minenko, E.A. Yumatov. Address by Academician V.G. Zilov

G.K. Tolokonnikov, A.A. Mikryukov, S.T. Belyakin. Address by Professor M.E.

Mazurov

RAS Academician V.I. Chernoivanov

RAS Academician V.A. Lektorsky

RAS Academician S.S. Goncharov

RAS Academician N.A. Kolchanov

RAS Corresponding Member S.K. Sudakov

RAE Academician Joshua Zhexue HUANG (China)

RAE Academician Dong Yue (China)

Reports and Announcements

11:30 Chernoivanov V.I., Tolokonnikov G.K. General System Platform, Biomashsystems, and Their Digital Twins

12:10 Sibirev A.V. Stages of the RIA Section "Systems Approach and AI"

12:20 Sherstnev V.V., Vasilyuk N.A. On the Birth of P.K. Anokhina's Theory of Functional Systems

12:50 Zilov V.G., Minenko I.A. Integrative Systems Medicine

1:30 Marasanov A.V. General Theory of P.K. Functional Systems Anokhina — the key to the theory of consciousness, holistic medicine, and the theory of life

2:00 PM - 2:30 PM Coffee break

2:30 PM Lebedev G.S. The patient's digital twin in action

3:00 PM Vityaev E.E. From the theory of functional systems to cyber-physical systems

3:30 PM Saltykov A.B. Generalization of P.K. Anokhina's theory of functional systems

4:00 PM Parin S.B., Polevaya S.A., Yakhno V.G. Development of semantic models of cognitive systems, neurobiofeedback (practical instrumental implementation, hardware demonstration)

4:40 PM Vinnik D.V. Hierarchy of Ontological Properties and the Problem of Reduction in the Construction of Digital Twins

5:00 PM Dong Yue (China) Research on Control and Optimization Theory of Cyber-Physical Energy and Power Systems and Its Application

5:30 PM M. A. Kovalev Problematics of Consciousness in General (Strong) Artificial Intelligence

Demonstration of Screening Room Devices with the Ability to Test an Organism (Separate Room)

January 27, 11:00 AM

10:00 AM Registration of Participants

11:00 AM N. A. Simonov Model of Spots and the Semantic Level of System Description

11:30 AM S. V. Petukhov Algebraic bioinformatics of the inheritance of cyclic and spiral structures based on matrix-operator alphabets of genetics, systemic aspects.

12:00 Sviridenko D.I. Task-based approach and logical foundations for implementing a subject's digital twin

12:30 Sklyarov A.N. Software platform based on Linux, MySQL, and special packages of the subject's digital twin complex

12:50 Malinetsky G.G., Smolin V.S. Knowledge as a system-forming factor of AGI (and everything else)

13:20 Chaplygin M.E., Skumin M.V. Intelligent combine harvester: issues of designing and developing a digital twin

13:40 Sheleketa V.O. Principles and Prospects of Bioethics in the Context of a General Systems Approach: From a Humanistic Paradigm to Ontological Justification

14-00 - 14-30 Coffee Break

14-30 Chernovol Yu. M. Artificial Intelligent Entity: Philosophical Foundations of a Paradigmatic Shift (Hegel, Anokhin P. K., Pospelov D. A., Finn V. K.)

15-00 Falko V. I. Anokhin's Theory of Anticipatory Reflection: History, Connection with Prognostics and General Systems Approaches

15-30 Pris' I. E. Ethics of Generative Artificial Intelligence (GAI) as a Quasi-Subject

16-00 Belyakin S. T., Stepanov A. V. A Generalized Model of Interaction between Two Globally Linked Pacemakers

16-30 Godarev-Lozovsky M. G. The Space Environment as an Ontological System-Forming Factor

16:50 A.N. Spaskov. The Principle of Psychophysical Unity in Quantum Monadology

17:10 Yu. L. Orlov Systems Biology and Large Language Models in It. Teaching Systems Biology and Digital Medicine at Sechenov University

Demonstration of Screening Room Devices with the Ability to Test an Organism (Separate Room)

6:00 PM Social Evening

January 28, 10:00 AM (Online)

10:00 AM V. Ushakov Digital approaches in brain research

10:40 AM A. Safa Hameed. Various Binary Classification Applications: Utilizing an Optimized Artificial Neural Network

11:00 AM Yu.E. Gapanyuk, Yu.T. Kaganov. Information Granulation Based on an Annotated Metagraph Model

11:20 AM I. Dorokhov. The Formation of Russia as a Thinking Subject and the Error of Self-Prediction

11:40 AM G.K. Tolokonnikov A unified system platform for various systemic approaches to implementing the human digital twin project, digital twins of biomachinery systems, and organizational solutions for the practical implementation of their creation.

1:00 PM to 3:00 PM: Discussion of work plans for the RAE Section "Systemic Approach and Artificial Intelligence."

2:00 PM: Decision-making and conference closing