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Research Article

# Formation and Manifestations of Natural Human Intelligence Under the Influence of the Universe

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## Abstract

Intelligence, consciousness, knowledge and skills are key concepts related to understanding human activity and cognitive processes. Consciousness is a subjective perception and awareness of the surrounding world, one's sensations, thoughts and feelings. It allows a person to feel like a separate person, to be aware of their actions and experiences. Intelligence is the ability to analyze, think logically, solve problems, adapt to new conditions and be creative. Intelligence can use knowledge, draw conclusions and make decisions. Knowledge is a set of information, facts, skills and abilities acquired by a person through experience, training or inheritance. Knowledge serves as a basis for thinking and acting. There is a connection between them. Consciousness provides awareness and perception of knowledge. Intelligence uses knowledge for analysis, problem solving and creative activity. Knowledge is replenished and updated through consciousness, thinking and the activity of the intellect. Thinking is the process of processing information that involves using intelligence and knowledge to form new ideas, solutions, and concepts. Together, these concepts form the basis for understanding the human mind and its functioning. Human consciousness is firmly connected with the Universe. Modern physics views the Universe as a boundless, indivisible network of dynamic activity. Everything in this world is interconnected and influences each other. The influence of higher-state matter on human intellect and earthly processes should be considered as causal phenomena of the Universe.

## Keywords

Formation and Manifestation of Intelligence, Consciousness, Cognitive Process, Model of the Universe

## 1. Introduction

Natural human intelligence is the ability to learn, adapt to new situations, solve problems, abstract, plan and reflect. It includes, firstly, cognitive functions (memory, attention, thinking, language, strategy development). Secondly, social and emotional aspects (empathy, communication). The main areas of intelligence formation are as follows:

1. Neurophysiological:
   1) Development of the nervous system and brain. Increase in the neocortex, development of areas responsible for planning, speech and complex behavior.
   2) Brain plasticity allows you to adapt neuronal connections to experience.
   3) Frontal cortex (executive functions, planning), hippocampus (memory), parietal and temporal regions (language, spatial thinking).
   4) Genetics determines potential and predispositions (approximately part of the variations in intelligence is inherited).

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2. Social environment:
   1) Education, language, nutrition, health, stress, culture, social interactions.
   2) Early childhood formation of basic neural networks and brain plasticity.
   3) Childhood and school age: development of working memory, attention, language and mathematical skills, executive functions.
   4) Adolescence and emerging adulthood: further sophistication of thinking strategies, abstract and critical thinking.
   5) The role of parents and the environment in adaptive behavior and learning.
   6) Language as a means of communication and a tool for thinking.
   7) Cultural practices shape ways of solving problems and approaching knowledge.

3. Manifestation of intelligence through basic cognitive functions: - Attention: the ability to maintain focus and allocate resources.
   1) Working memory: temporary retention and processing of information.
   2) Executive functions: planning, flexibility of thinking, self-control.
   3) Memory: episodic and semantic memory, learning skills.
   4) Logical and abstract thinking: problem solving, decision theory.
   5) Ability to formulate ideas, reason, follow complex instructions, learn from verbal information.
   6) The ability to generate new ideas and approaches, to combine knowledge in a new context.
   7) Empathy (understanding other people's thoughts), communication, and emotion regulation are important elements of intelligent behavior.
   8) The ability to think about your thoughts, to strategically plan ways of learning and solving problems.

4. Developing intelligence through education and incentives:
   1) Diverse learning, reading, solving problems of varying complexity, language practice.
   2) Motivation, constructive criticism, culturally significant activities. Intelligence is a multifaceted phenomenon. Different aspects (logical thinking, creativity, social intelligence, emotional intelligence) develop differently and depend on many factors.

The manifestation of human intellectual abilities is ensured by the neurophysiology of natural intelligence. The main aspects of the neurophysiology of natural human intelligence include:

1. The structure of the brain and neural networks:
   1) The study of the anatomy of the brain: the cerebral cortex, subcortical structures, cerebellum and brainstem.
   2) The interaction of different areas of the brain during the performance of cognitive tasks.

2. Neurophysiological mechanisms of information processing:
   1) Transmission of signals between neurons through synapses.
   2) The role of neurotransmitters and ion channels in the excitation and inhibition of neurons.

3. Plasticity and learning:
   1) Mechanisms of synap
   2) The influence of experience on the structure and functions of the brain.

4. Mechanisms of cognitive functions:
   1) Attention, perception, memory, thinking, language and decision-making.
   2) Neurophysiological bases of these processes, including the activity of certain areas of the brain. 5. Brain activity and electrophysiological methods:
   3) Use of electroencephalography, functional magnetic resonance imaging, positron emission tomography and other methods to study brain activity in real time.

5. Disorders and pathologies:

Study of neurophysiological changes in diseases such as dementia, strokes, autism spectrum disorders, schizophrenia and others, which helps to understand the basics of normal functioning of the intellect.

The importance of human neurophysiology in understanding natural intelligence is enormous: it helps to reveal the mechanisms of formation of consciousness, thinking and behavior, and also contributes to the development of new methods of treatment of neurodegenerative diseases and the development of technologies of neural interfaces and artificial intelligence based on the principles of brain operation [1-4].

## 2. Tuning Brain Neurons with Consciousness to Implement Thoughts

Tuning brain neurons with consciousness to implement thoughts is a complex and multifaceted process associated with the concepts of neuroplasticity, cognitive activity, and the interaction of conscious and subconscious processes. Below are the main ideas and approaches related to this issue:

1) Neuroplasticity and adaptation of neural circuits: The brain is able to change its structure and functions under the influence of experience, learning, and conscious efforts. Consciousness can direct attention, focus on certain thoughts or skills, which helps to strengthen the corresponding neural connections.
2) Conscious control of thoughts and attention: Practices of meditation, mindfulness, and cognitive therapy allow you to consciously influence brain activity, forming new neural patterns associated with certain thoughts, feelings, or habits.
3) Modeling and training techniques: Using visualization, mental training, and repetition helps to "tune" neurons to

implement specific thoughts or goals, strengthening the corresponding neural networks.

4) The role of consciousness in the formation of neural connections: Conscious efforts can activate and change neural networks, contributing to the development of new thought models or the improvement of existing ones.
5) Technological approaches: In the field of neural interfaces and neurotechnology, methods of direct interaction with the brain are being explored, for example, using electrodes or stimulation, which potentially allows for the "tuning" of neurons under the control of consciousness to implement desired thoughts or commands.

Consciousness plays an active role in the management and formation of neural connections, which allows a person to purposefully influence his mind and implement certain thoughts through training, attention, and internal efforts to survive [5].

## 3. The Neural Complex Manifestation of the Brain in the Intellectual Substance of Consciousness

The neural complex manifestation of the brain in the intellectual substance of consciousness suggests that the intelligence of consciousness is realized by complex interactions of neural networks of the brain, forming a complex system of information signals. The main aspects include:

1) Neural networks as the basis for the implementation of the intelligence of consciousness. Groups of neurons and their interactions create dynamic structures that form subjective experiences, thoughts and perceptions.
2) Complexity and integration. Connections between billions of neurons ensure the integration of information signals, which allows the brain to form a holistic implementation. Theories such as information integration theory (IIT) emphasize the importance of a high degree of connectivity for the emergence of states of intelligence implementation.
3) Intelligence implementation as a result of neural activity. Higher cognitive functions are realized by complex patterns of neural signals.
4) Consciousness as a substance. Some philosophical approaches suggest that consciousness is not only the result of physical processes, but also has its own substantial nature (e.g. dualism or panpsychism). Within the framework of neuroscience, it is more often considered that consciousness is manifested by a certain structural and functional organization of the brain.
5) Models and theories. Modern scientific models explore how neural processes can generate subjective experience, for example, through the work of neural cortical networks, synchronicity of activity and feedback mechanisms.

In general, this topic remains the subject of active research and philosophical discussions, since it has not yet been possible to fully understand how neural structures generate the subjective intelligence of consciousness. However, it is obvious that the brain is a complex, dynamic system in which the intellectual and conscious aspects of human life experience are manifested [6-14].

## 4. Modeling the Brain's Expression of Consciousness

Modeling the brain's expression of consciousness is a field of research that aims to understand and create models that reflect the brain's work in the context of intellectual processes. The main aspects of this field include:

1) Studying the neural mechanisms of intelligence. Analyzing how neural networks and their interactions lead to subjective experience, self-awareness, and perception of the surrounding world.
2) Models of information integration. Models of information integration that combine various sensory and cognitive processes into a single conscious perception.
3) Modeling of brain processes. Using neural networks and computer simulations to reproduce the processes of perception, attention, memory, and decision-making within consciousness.

The goal of such research is to understand how intelligence is realized from brain activity capable of implementing intellectual abilities, which may lead to the development of more advanced AGIs capable of self-awareness and subjective experience.

## 5. Neurophysiology of the Implementation of Natural Human Intelligence

Neurophysiology of the implementation of natural human intelligence is a branch of science that studies the physiological mechanisms and processes that ensure the manifestation and functioning of human intellectual abilities. This aspect of neurophysiology focuses on how the structure and activity of the brain implement cognitive functions. The main points of the neurophysiology of the implementation of natural human intelligence include:

1. Morphological basis and organization of the brain:
   1) The structure of the cerebral cortex, especially the prefrontal cortex, which is responsible for planning, attention management and decision-making.
   2) The interaction of different parts of the brain (for example, the hippocampus for memory, the temporal lobes for perception and language).
2. Neural networks and their dynamics:
   1) The implementation of cognitive functions through complex networks of interacting neurons.

2) Mechanisms of synchronization and rhythmic activity to coordinate the work of different areas of the brain.

3. Mechanisms of neurophysiological information transmission:

1) Transmission of signals through synapses, the role of neurotransmitters (e.g., glutamate, dopamine) in the regulation of excitation and inhibition.
2) Providing plasticity of neural connections (synaptic plasticity), which allows learning and retention of experience.

4. Formation and functioning of cognitive systems:

1) Implementation of the processes of attention, memory, thinking, and language through the activity and interaction of neural ensembles.
2) Mechanisms of selective activity and suppression for focusing attention and processing information.

5. Neurophysiological research methods:

1) Use of electroencephalography and electrophysiological recordings to study brain activity in various states and when performing tasks.
2) Analysis of activity patterns associated with specific cognitive functions.

6. Implementation of intelligence through the dynamic work of neural systems:

1) Intelligence is manifested through the dynamic interaction between brain structures, their ability to adapt and learn.
2) The plasticity and modularity of brain systems allow for the flexible implementation of complex cognitive tasks.

7. Pathological changes and their impact on the implementation of intelligence:

1) Disturbances in neurophysiological mechanisms lead to cognitive deficits (for example, in dementia, strokes, or mental disorders).
2) The study of these changes helps to understand how intelligence is normally implemented.

Neurophysiology of the implementation of natural human intelligence shows that intelligence is the result of complex and dynamic interactions of neural networks, their structural organization, and physiological processes. Understanding these mechanisms helps not only to understand how the brain works, but also to develop methods for restoring functions when it is damaged, as well as to create artificial systems that imitate human intelligence.

## 6. Modeling Natural Intelligence

Modeling natural intelligence is a field of research that deals with the creation of systems and algorithms that can imitate or reproduce aspects of human intelligence. Key areas include:

1) Creating programs and systems that can perform tasks that require human intellectual effort, such as speech recognition, decision making, learning, planning, and others.
2) Researching and modeling the mechanisms of thinking, perception, memory, attention, and learning that are characteristic of humans.
3) Using artificial neural networks similar to the structure of the brain to solve complex problems, such as image processing, natural language, and others.
4) Developing machine learning methods that allow systems to learn from large amounts of data and knowledge, as well as improve over time.

The goal of modeling natural intelligence is to understand the principles of the human mind and create automated systems that can adapt, learn, and solve complex problems in various fields of activity.

## 7. Metalanguage for Describing Natural Human Intelligence

The metalanguage for describing natural human intelligence is a system of concepts and terms used to analyze, explain, and formalize the processes that make up human intelligence. In other words, it is a language that can be used to talk about human intellectual functioning, its cognitive mechanisms, and structures. The main features of the metalanguage in this context are:

1) Abstraction and levels of description allow us to separate the description of the processes of thinking, memory, perception, and learning from their specific manifestations, creating levels of abstraction for clearer analysis.
2) Modeling cognitive processes includes terms and concepts such as “knowledge,” “understanding,” “learning,” “inference,” “problem,” “solution,” and “information processing,” which allow us to formalize the mechanisms of human intelligence.
3) Interpretation serves to explain how a person perceives the world around him, forms concepts, makes decisions, and learns, as well as how these processes can be modeled or imitated.
4) A language for interdisciplinary interactions helps specialists from psychology, neuroscience, artificial intelligence, philosophy and other fields exchange ideas and research results.
5) Using logic and formal systems. The metalanguage uses logical schemes, algorithms, information theory and epistemology to describe and analyze cognitive functions. Metalanguage concepts can include terms like "knowledge representation", "metacognition", "signal processing", "symbolic representation", which allows us to formalize and systematize the description of human intelligence.

In general, the metalanguage for describing natural human intelligence serves as a tool for analyzing, modeling and, ultimately, creating artificial intelligence systems that imitate human cognitive functions on a universal scale.

## 8. The Influence of the Universe on the Manifestation of Human Natural Intelligence

The influence of the Universe on the manifestation of human natural intelligence is an important and multifaceted aspect, which includes both external cosmic factors and internal processes caused by the nature and development of man. The main areas of this influence are presented below:

1. Space environment and conditions:
   1) Astrophysical conditions: climate, climate change, availability of resources and natural disasters in the environment affect the development of human civilization and intellectual abilities.
   2) Cosmic radiation and microgravity: the impact of cosmic factors on human physiology and the brain, which can affect cognitive functions and the development of intelligence.
2. Discovery and study of the Universe:
   1) Expansion of knowledge: the study of space stimulates the development of science, technology and critical thinking, which contributes to the development of intelligence.
   2) Motivation to search for meaning: understanding the scale of the Universe and our place in it encourages philosophical reflection and the development of self-awareness.
3. Technological advances:
   1) Space exploration and innovation: the development of technologies for space exploration contributes to the development of engineering and scientific skills, stimulates creativity and innovative thinking.
   2) Lifestyle impact: new discoveries change the way we perceive the world and expand the boundaries of what is possible, which affects the development of intelligence.
4. Philosophical and cultural aspects:
   1) Understanding the place of man in the universe: thinking about space shapes the worldview, contributes to the development of metaphysical and ethical aspects of intelligence.
   2) Intercultural interaction: the exchange of knowledge and ideas about the universe contributes to the intellectual development of the global community.
5. Evolutionary aspects:
   1) The influence of cosmic factors on human evolution: hypotheses that the space environment and conditions may have shaped the characteristics of the human brain and thinking.
   2) Possibility of future development: ideas about how space exploration and interaction with extraterrestrial environments may stimulate new forms of intelligence.

In general, the Universe has both a direct and indirect influence on the manifestation and development of human natural intelligence, stimulating it through research, technological advances, and philosophical understanding of one's place in the Universe.

## 9. Interdisciplinary Model of the Universe

The interdisciplinary model of the Universe is a comprehensive theoretical representation that combines ideas and methods from various scientific fields to describe the structure, evolution and fundamental properties of the cosmos. Such a model seeks to integrate physical laws, information concepts and mathematical formalizations for a deeper understanding of the nature of the Universe. The main components and ideas of this model include:

1. Information aspec.
   1) Representation of the Universe as a system where information plays a fundamental role. Within this idea, physical states, fields and particles can be considered as information carriers.
   2) Concepts related to quantum information, coding theories, entropy and information saturation of space-time.
   3) The idea that all physical reality can be described through information structures and processes. 2. Physical aspect.
   4) Using modern physical theories such as General Relativity, Quantum Mechanics, Field Theory and Cosmology to model the structure and dynamics of the Universe.
   5) Consideration of fundamental interactions, dark matter and energy, and possible extra dimensions or structures at the fundamental level.
   6) Inclusion of hypotheses about the nature of space and time as information carriers or quantum fields.
2. Mathematical aspect.
   1) Formalization of physical and information concepts through mathematical structures: differential equations, topology, group theory, algebra, information theory and other modern methods.
   2) Creation of universal equations or systems of equations describing the interactions and development of the Universe within the framework of a unified model.
3. Interdisciplinary aspects.
   1) Integration of knowledge and methods from physics, mathematics, computer science, philosophy and other sciences to achieve a more holistic and universal view.
   2) Use of concepts from information theory and cognitive science to understand the processes of observation, measurement and modeling.
4. Objectives and application.

1) Explaining the origin and evolution of the Universe in terms of information and physical principles.
2) Developing a new theoretical framework capable of unifying quantum mechanics and gravity.
3) Creation of hypotheses about the structure of space, possible multiverses and fundamental laws of nature.

As a result, the interdisciplinary information, physical and mathematical model of the Universe is an attempt to synthesize the knowledge and methods of different sciences to form a deeper and more universal picture of the cosmos, which can lead to new discoveries in understanding its nature and laws [15-17].

## 9.1. Representation of the Universe by Mathematical Model

Representation of the Universe by a mathematical model is an attempt to describe its structure, laws, and processes using formal mathematical tools. This approach allows us to understand patterns, predict the development of systems, and test hypotheses about the nature of everything that exists. The main stages and components of mathematical modeling of the Universe include:

1) Identification of the main elements and laws. First, defining the components (particles, fields, matter, energy). Second, defining the physical laws (gravity, electromagnetism, quantum mechanics, relativity theory) that govern their interactions.
2) Creating equations and formalisms — formulating equations that describe the dynamics of the system, such as Einstein's equations for gravity, Maxwell's equations for electromagnetic fields, the equations of quantum mechanics, and cosmological models.
3) Using numerical methods. Solving complex equations to perform analytical modeling on computers and numerical calculations.
4) Cosmological models, such as Lambda Cold Dark Matter, which describes the expansion of the Universe, its structure and evolution, taking into account dark energy and dark matter.
5) Observational data and model testing. Comparison of model predictions with astronomical observations (cosmic microwave background, distribution of galaxies, redshift, etc.).

Thus, mathematical model of the Universe is a complex structure that combines physical laws and methods for solving them, which allows us to study and understand the structure and evolution of the cosmos.

## 9.2. Representation of the Universe with Mathematical Formulas

This is an interdisciplinary field of science, located at the intersection of physics, mathematics and philosophy, and is called mathematical modeling. Let's consider a detailed explanation:

1. Mathematical representation of processes, relationships and objects of the Universe.

1.1 Objective: to create formal models capable of describing and predicting the behavior and properties of various elements and processes occurring in the Universe.

2. Basic approaches and tools.

2.1. Mathematical formulas and equations:

The basic laws of physics, such as the Schrödinger equation, the Einstein equation, the Navier-Stokes equation, the equations of gravity and electromagnetism, use differential equations to describe the dynamics of systems, the Einstein equation for gravity:

$$R_{\mu\nu} - \frac{1}{2} R g_{\mu\nu} + \Lambda g_{\mu\nu} = \frac{8 \pi G}{c^4} T_{\mu\nu},$$

where $R_{\mu\nu}$ is the curvature tensor, $g_{\mu\nu}$ is the metric tensor, $T_{\mu\nu}$ is the stress-energy tensor, $\Lambda$ is the cosmological constant.

3. Functions and modules.

1) Functions describe the dependence of some parameters on others, for example, the density function $\rho(r, t)$ can describe the distribution of matter in the Universe.
2) Models and functionals: in quantum theory, functionals are used, for example, the action functional in Lagrangian mechanics (for example, the path functional in quantum mechanics).

4. Functionals. - In field theory and quantum field theory, functionals are used, such as the action functional $S[\phi]$, which depends on the fields $\phi$:

$$S[\phi] = \int \mathcal{L} (\phi, \partial_\mu \phi) \, d^4x$$

where $\mathcal{L}$ is the Lagrangian.

5. Mathematical structures and models.

1) Mathematical tools generalize and relate objects and processes in the Universe.
2) Topology and geometry are used to describe the structure of space-time and the relationships between objects.
3) Differential equations for modeling wave propagation processes, heat conduction, particle dynamics.
4) Allow predicting the behavior of systems.
5) Help understand patterns and relationships between phenomena.

# 10. Conclusion

Look at the future development of human intelligence:

1) Balance between biological and cultural-technological development.
2) Modern technologies will expand human capabilities, but will create new challenges (ethical, social, environmental) [18].
3) Development of human natural intelligence in interaction with AGI artificial intelligence.

4) Risks and opportunities: the possibility of enhancing cognitive abilities, but also the risk of dependence on technology, increasing inequality and new forms of fears related to safety and control [19].
5) Ethics and sustainability: it is important to combine scientific curiosity with responsibility for the future of humanity and the environment of the Universe.

## Abbreviations

AGI Artificial General Intelligence)

## Author Contributions

Evgeny Bryndin is the sole author. The author read and approved the final manuscript.

## Conflicts of Interest

The author declares no conflicts of interest.

## References


[1] *Mark Minevich.* Our Planet Powered by AI: How We Use Artificial Intelligence to Create a Sustainable Future for Humanity. *Wiley. 2023. 233 p.*

[2] *Evgeny Bryndin.* Self-learning AI in Educational Research and Other Fields. *Research on Intelligent Manufacturing and Assembly. V.3, Issue1. 2025. pp. 129-137.*

[3] *Evgeny Bryndin.* Formation of Motivated Adaptive Erudite AI Twin with Reflexive Multimodal Ontology by Ensembles of Intelligent Agents. *Research on Intelligent Manufacturing and Assembly. V.4, Is.2.* 2025. *(272-282)* https://doi.org/10.25082/RIMA.2025.02.004

[4] *Evgeny Bryndin.* Network Training by Generative AI Assistant of Personal Adaptive Ethical Semantic and Active Ontology. *International Journal of Intelligent Information Systems Volume.14, Is.2. 2025. pp. 20-25.* https://doi.org/10.11648/j.ijiis.20251402.11

[5] *Evgeny Bryndin.* Preservation of Natural and Spiritual Balance - Criterion of Humanity Survival. *Journal of Research in Social Science and Humanities, Vol. 2, Is. 9. 2023. pp. 7-11.*

[6] *Eremeeva N. A., Savoskina O. A., Poddymkina L. M.* Analysis of anthropogenic impact on the environment, measures to reduce it, and waste management. *Front. Bioeng. Biotechnol., Volume 11.2023.*

[7] *Kevin Walsh, Jen Nelles and Simon Stephen.* Recycling in entrepreneurial ecosystems: the phenomenon of boomeranging. *R& D Management 53(2). 2023.*

[8] *Fields, Zisk.* Multidisciplinary Approaches in AI, Creativity, Innovation, and Green Collaboration. University of Johannesburg, South Africa. 2023. 405 p. https://doi.org/10.4018/978-1-6684-6366-6

[9] *Ashley Dawson*. Environmentalism from Below: How Global People's Movements Are Leading the Fight for Our Planet. *Haymarket Books* 2024. 437 p.

[10] *Evgeniy Bryndin*, (2024). Maintaining of Biosphere Cycles of Matter and Energy by Ecological Economical Life Activity. *Advances in Earth and Environmental Science; 5(1):1-5.*

[11] *Natarajan Ishwaran, Yexuan Liu, Qi Luo, Shuang Wang, Lin Zhen*. Ecological Civilizations - Development Narrative for the Global South? *Ecological Civilization* 2025, *2*(1)

[12] *Xiaowen Shang, Yujie Liu, * Chao Zhang, Litao Lin, Shufang Liu*. Harmony between Humanity and Nature in the Beijing-Tianjin-Hebei Urban Agglomeration during Decadal Development. *Ecological Civilization* 2025, *2* (2)

[13] *Mark Diesendorf*. A Strategy for Resisting the Vested Interests Driving the Collapse of the Biosphere and Civilisation. *Ecological Civilization* 2025, *2* (3)

[14] *Evgeny Bryndin.* When Humanity Defiles Nature, then Nature Defiles Humanity with Diseases. *Advance in Environmental Waste Management & Recycling, V.8, Is.1. 2025. pp. 1-3.*

[15] *Leonid Marochnik.* Universes Emerging from Nothing and Disappearing into Nothing as an Endless Cosmological Process. *Universe* 2024, *10*(10), *pp. 1-10.*

[16] *Richard Dvorsky.* A Scale Invariant Fully Conformal Cosmological Model and Its Support by Astrophysical Data. *Universe* 2025, *11*(2), *pp. 1-21.*

[17] *Evgeny Bryndin.* From Creating Virtual Cells with AI and Spatial AI to Smart Information Multi-Level Model of the Universe. *Journal of Progress in Engineering and Physical Science, V.4, Is.1. 2025. pp. 1-7.*

[18] *Evgeny Bryndin.* Towards Continuous Changes through Interacting Processes with Synergetic Self-Regulation according to the Law of Harmony. *ShodhSamajik: Journal of Social Studies. India. 2025. pp. 29-38.* https://doi.org/10.29121/ShodhSamajik.v2.i1.2025.15

[19] *Evgeny Bryndin.* Noospheric Technology of Interpersonal Communication Using AI. *Journal of Progress in Engineering and Physical Science, Volume 4, Is.2. 2025. pp. 11-15.*