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THE DIVISIONS OF FUNDAMENTAL AND APPLIED SCIENTIFIC RESEARCHES (AT THE MICROSCOPIC LEVEL) OF "SIO "ACNS"" AND "SRI "SFA CMT" OF "RA(N)S" N. A. VENIAMINOV V.N."

The structure of "The state international organization "Academy of cognitive natural sciences"" ("SIO "ACNS"") and "The scientific-research institute "System and financial analysis based on cognitive modeling technology" of "The Russian academy of (natural) sciences" named after Veniaminov V.N." ("SRI "SFA CMT" of "RA(N)S" n. a. Veniaminov V.N." – "SRI") as the first SRI in the structure of "SIO "ACNS"" (www.vetrovan.(spb.)ru) includes the various divisions of the process of receiving of the scientific results:

A. <u>The fundamental scientific researches (developments) (management) divisions of "SIO "ACNS"" ("SRI")</u> for the microscopic system, financial and complex analysis – the 26 fundamental scientific researches sections (departments) (FSRS(DP)) on the 13 fundamental scientific researches branches (FSRB) of "SIO "ACNS"" corresponds to the 26 fundamental developments departments (FDDP) on the 13 fundamental developments branches (FDB) of "SRI", and also the 26 sections on the 13 branches of "The Russian academy of sciences".

A.1. FSRB [FDB] "Cognitive modeling in the mathematical sciences" ("CM in MATHS") ("OMN").

A.1.1. FSRS(DP) [FDDP] "Theory of mathematics and the complex system analysis based on the cognitive modeling technology" ("TM and CSAB on CMT") ("SM") (*).

A.1.2. FSRS(DP) [FDDP] "Theory of cybernetics and (cognitive) informatics" ("TC and (C)I") ("SPMI") (*).

A.2. FSRB [FDB] "Cognitive modeling in the physical sciences" ("CM in PHS") ("OFN").

A.2.1. FSRS(DP) [FDDP] "Theory of physics, astronomy and space researches" ("TPHA and SR") ("SOFA") (*).

A.2.2. FSRS(DP) [FDDP] "Theory of nuclear physics and physics of atomic nucleus" ("TNPH and PHAN") ("SYF") (*).

A.3. FSRB [FDB] "Cognitive modeling in the nano-technologies and information technologies" ("CM in N-T and IT") ("ONIT").

A.3.1. FSRS(DP) [FDDP] "Theory of electronics, radio-engineering and connection" ("TER-E and C") ("SVLTSEB").

A.3.2. FSRS(DP) [FDDP] "Theory of automatics, computer engineering and the system analysis based on the cognitive modeling technology" ("TACE and SAB on CMT") ("SITA") (*).

A.3.3. FSRS(DP) [FDDP] "Theory of nano-technologies for the mechanics-engineering, instrument-making, polygraphy, reprography and photo-cinema-technics, the easy and food-processing industry, transport, architecture and construction" ("TN-T for M-EI-MPR and PH-C-TE and FITA and C") ("SNT") (*).

A.4. FSRB [FDB] "Cognitive modeling in the exact sciences" ("CM in ES") ("OEMMPU").

A.4.1. FSRS(DP) [FDDP] "Theory of (theoretical) mechanics and gyroscopes" ("T(T)M and G") ("SM") (*).

A.4.2. FSRS(DP) [FDDP] "Theory of mechanical-engineering, instrument-making and metrology" ("TM-EI-M and M") ("SPMPU").

A.4.3. FSRS(DP) [FDDP] "Theory of power-engineering and electrical-engineering" ("TP-E and E-E") ("SE").

A.5. FSRB [FDB] "Cognitive modeling in the industry and chemical sciences" ("CM in I and CHS") ("OHNM").

A.5.1. FSRS(DP) [FDDP] "Theory of the easy, food, forest and wood-processing industry, the architecture and construction, the agricultural, forestry, water and fish economy and aqua-culture" ("TEFF and W-PIA and CAFW and FE and A-C") ("SNM") (*).

A.5.2. FSRS(DP) [FDDP] "Theory of chemistry, chemical technology and chemical industry" ("TCHCHT and CHI") ("SCHN").

A.6. FSRB [FDB] "Cognitive modeling in the biological sciences" ("CM in BS") ("OBN").

A.6.1. FSRS(DP) [FDDP] "Theory of biology and pharmacology" ("TB and PH") ("SOB").

A.6.2. FSRS(DP) [FDDP] "Theory of physical-chemical bio-technology" ("TPH-CHB-T") ("SFCHB") (*).

A.7. FSRB [FDB] "Cognitive modeling in the physiology, fundamental medicine and public-health-services" ("CM in PHFM and P-H-S") ("OFFM").

A.7.1. FSRS(DP) [FDDP] "Theory of physiology, bio-physiology and private physiology" ("TPHB-PH and PPH") ("SF") (*).

A.7.2. FSRS(DP) [FDDP] "Theory of medicine, public-health-services, labor safety, environment preservation and ecology of person" ("TMP-H-SLSEP and EP") ("SFM") (*).

A.8. FSRB [FDB] "Cognitive modeling in the sciences about The Earth" ("CM in S about E") ("ONZ").

A.8.1. FSRS(DP) [FDDP] "Theory of geo-physics, geology, mining and metallurgy" ("TG-PHGM and M") ("SGGGGN").

A.8.2. FSRS(DP) [FDDP] "Theory of oceanology, structure and physics of atmosphere, geodesy, cartography and geography of The Earth and planets" ("TOS and PHAGC and GE and P") ("SOFAG").

A.9. FSRB [FDB] "Cognitive modeling in the social sciences" ("CM in SS") ("OON").

A.9.1. FSRS(DP) [FDDP] "Theory of social sciences, philosophy, science-study, politics and political sciences, sociology, (cognitive) psychology, state, law and jurisprudential sciences, patenting business, invention and rationalization-work" ("TSSPHS-SP and PSS(C)PSL and JSPBI and R-W") ("SFPSPP") (*).

A.9.2. FSRS(DP) [FDDP] "Theory of economics and economic sciences, organization, management, statistics and the financial analysis based on the cognitive modeling technology" ("TE and ESOMS and FAB on CMT") ("SE") (*).

A.10. FSRB [FDB] "Cognitive modeling in the global problems and international relations" ("CM in GP and IR") ("OGPMO").

A.10.1. FSRS(DP) [FDDP] "Theory of demography, pedagogics and national education, standardization, complex studying of separate countries and regions, general and complex problems of natural, exact, technical, public and applied sciences and manufacture branches" ("TDP and NESCSSC and RG and CPNETP and AS and MB") ("SGP").

A.10.2. FSRS(DP) [FDDP] "Theory of culture and cultural-science, art and art-science, mass communications, journalism and mass media means, religion, internal trade and tourist-excursion service, external trade, transport, housing-communal economy, housekeeping and household services at the international level" ("TC and C-SA and A-SMCJ and MMMRIT and T-ESETTH-CEH and HS at IL") ("SMO").

A.11. FSRB [FDB] "Cognitive modeling in the historical-philological sciences" ("CM in H-PHS") ("OIFN").

A.11.1. FSRS(DP) [FDDP] "Theory of history and historical sciences" ("TH and HS") ("SI").

A.11.2. FSRS(DP) [FDDP] "Theory of science of language, (cognitive) linguistics, literature, literary-science and oral national creativity" ("TSL(C)LLL-S and ONC") ("SYL") (*).

A.12. FSRB [FDB] "Cognitive modeling in the sports sciences" ("CM in SPS") ("OSN").

A.12.1. FSRS(DP) [FDDP] "Theory of competitions, sport and sports sciences" ("TCSP and SPS") ("STSSSN").

A.13. FSRB [FDB] "Cognitive modeling in the military sciences" ("CM in MILS") ("OVN").

A.13.1. FSRS(DP) [FDDP] "Theory of architecture, construction, technics, history, education, politics and economics in the armed forces" ("TACTHEP and E in AF") ("STASTIOPEVS").

B. <u>The applied scientific researches (developments) (management) divisions of "SIO "ACNS"" ("SRI")</u> for the microscopic system, financial and complex analysis – the 27 applied scientific researches sections (departments) (ASRS(DP)) on the 9 applied scientific researches directions (ASRD) of "SIO "ACNS"" corresponds to the 27 scientific-researches laboratories (SRL) on the 9 applied developments directions (ADD) of "SRI", and also the 27 sections on the 9 directions of "The Russian academy of natural sciences".

B.1. ASRD [ADD] "Cognitive modeling in the natural sciences" ("CM in NS") ("NEN").

B.1.1. ASRS(DP) [SRL] "Applications of (cognitive) informatics, cybernetics, automatics, computer engineering, data transmission and connection" ("AP(C)ICACEDT and C") ("SIC") (*).

B.1.2. ASRS(DP) [SRL] "Applications of mathematics, mathematical physics, mechanics, metrology, astronomy, space researches, the complex system analysis based on the cognitive modeling technology and complex problems of natural sciences" ("APMMPHMMASRCSAB on CMT and CPNS") ("SMMF") (*).

B.1.3. ASRS(DP) [SRL] "Applications of geo-chemical ecology and preservation of environment" ("APG-CHE and PE") ("SNOS").

B.1.4. ASRS(DP) [SRL] "Applications of the models of The Earth and The Solar system planets in the geography, geology, geodesy, cartography, astronomy and other sciences" ("APME and SSP in GGGCA and OS") ("SNZ") (*).

B.1.5. ASRS(DP) [SRL] "Applications of the models, methods and technologies of the geology of oil and gas and the oil and gas industry" ("APMM and TGO and G and O and GI") ("SNG").

B.1.6. ASRS(DP) [SRL] "Applications of the system analysis based on the cognitive modeling technology, prediction, standardization, unification and complex problems of exact technical sciences" ("APSAB on CMTPSU and CPETS") ("SSAP") (*).

B.1.7. ASRS(DP) [SRL] "Applications of theoretical and experimental physics, geo-physics, power-engineering, electrical-engineering, electronics and radio-engineering, nuclear physics, technics and instrument-making" ("APT and EPHG-PHP-EE-EE and R-ENPHT and I-M") ("SF") (*).

B.1.8. ASRS(DP) [SRL] "Applications of (non)organic chemistry, crystallography, mineralogy and chemical industry" ("AP(N)OCHCM and CHI") ("SH") (*).

B.2. A S R D [A D D] "C o g n i t i v e m o d e l i n g i n t h e a p p l i e d technical sciences and technologies" ("CM in ATS and T") ("NNT").

B.2.1. A S R S (D P) [S R L] "A p p l i c a t i o n s o f m i n i n g a n d m e t a l l u r g y" (" A P M a n d M ") (" S G M ").

B.2.2. ASRS(DP) [SRL] "Applications of the sciences about wood and wood processing" ("APS about W and WP") ("SNL").

B.2.3. ASRS(DP) [SRL] "Applications of the noo-sphere knowledge and technologies: the (heavy) mechanical-engineering, instrument-making, polygraphy, reprography and photo-cinema-technics, the easy and food-processing industry, transport, architecture, construction and other branches" ("APN-SK and T: (H)M-EI-MPR and PH-C-TE and FITAC and OB") ("SNZT") (*).

B.2.4. ASRS(DP) [SRL] "Applications of the scientific problems of agro-industrial complex" ("APSPA-IC") ("SNPAK").

B.3. A S R D [A D D] "C o g n i t i v e m o d e l i n g i n t h e g e o - p o l i t i c a l sciences and researches" ("CM in G-PS and R") ("NSGI").

B.3.1. A S R S (D P) [S R L] "A p p l i c a t i o n s o f g e o - p o l i t i c s a n d s a f e t y" (" A P G - P a n d S ") (" S G B ").

B.3.2. A S R S (D P) [S R L] "A p p l i c a t i o n s o f c l a s s i c a l a n d m i l i t a r y h i s t o r y" (" A P C a n d M H ") (" S V I T ").

B.4. A S R D [A D D] "C o g n i t i v e m o d e l i n g i n t h e s o c i e t y s t e a d y development of post-industrial country" ("CM in SSDP-IC") ("NURS").

B.4.1. A S R S (D P) [S R L] "A p p l i c a t i o n s o f t h e c o m p l e x p r o b l e m s o f c o u n t r y d e v e l o p m e n t" (" A P C P C D ") (" S P U R ") (*).

B.5. A S R D [A D D] "C o g n i t i v e m o d e l i n g i n t h e s o c i a l - economic and jurisprudential sciences" ("CM in S-E and JS") ("NSEPP").

B.5.1. ASRS(DP) [SRL] "Applications of the inter-branch jurisprudential and economic system researches of society and country" (" A P I J a n d E S R S a n d C ") (" S M E E S I ").

B.5.2. A S R S (D P) [S R L] "A p p l i c a t i o n s o f t h e c o m p l e x p r o b l e m s o f m i c r o - (m a c r o -) e c o n o m i c s , s o c i a l s p h e r e a n d m a r k e t economy of the country" ("APCPM-(M-)ESS and MEC") ("SPMSRH").

B.5.3. A S R S (D P) [S R L] "A p p l i c a t i o n s o f e c o n o m i c s , m a n a g e m e n t , sociology, statistics and their other branches" ("APEMSS and TOB") ("SES").

B.5.4. ASRS(DP) [SRL] "Applications of the financial analysis, accounting and audit of the (credit) organization based on the cognitive modeling technology" ("APFAA and A(C)OB on CMT") ("SFABUA") (*).

B.6. A S R D [A D D] "Cognitive modeling in the biological and medical sciences" ("CM in B and MS") ("NBME").

B.6.1. A S R S (D P) [S R L] "Applications of biology, ecology and physiology of plants" ("APBE and PHP") ("SBE").

B.6.2. ASRS(DP) [SRL] "Applications of bio-technology, bio-medicine, ergonomics and labor safety of organic individuals" ("APB-TB-ME and LSOI") ("SB") (*).

B.7. A S R D [A D D] "Cognitive modeling in the humanitarian sciences, art and creativity" ("CM in HSA and C") ("NGNOT").

B.7.1. ASRS(DP) [SRL] "Applications of (cognitive) linguistics, (national) creativity, culture, art and religion" ("AP(C)L(N)CCA and R") ("SGNT") (*).

B.7.2. ASRS(DP) [SRL] "Applications of literature, science-study, philosophy, journalism and mass communication means" ("APLS-SPHJ and MCM") ("SLPZ").

B.7.3. ASRS(DP) [SRL] "Applications of the problems of (cognitive) psychology, education, science and support of young scientists (the programs of grants and others)" ("A P P (C) P E S and S Y S (P G and O)") ("S P O P M U") (*).

B.7.4. ASRS(DP) [SRL] "Applications of innovations of the project "The Russian encyclopedias", philosophy of science, technics and technology on the branches of knowledge" ("APIPREPHST and T on BK") ("SRE").

B.8. A S R D [A D D] "C o g n i t i v e m o d e l i n g in the physical training and sport" ("CM in PHT and S") ("NFS").

B.8.1. A S R S (D P) [S R L] "Applications of sport, sports sciences and actions" ("A P S S S and A") ("S S S N M").

B.9. A S R D [A D D] "C o g n i t i v e m o d e l i n g in the military sciences" ("CM in MILS") ("NVN").

B.9.1. ASRS(DP) [SRL] "Applications of architecture, construction, technics, history, education, politics and economics in the armed forces" ("APACTHEP and E in AF") ("SASTIOPEVC").

"SIO "ACNS"" and "SRI "SFA CMT" of "RA(N)S" n. a. Veniaminov V.N." allow to develop the main and derivative scientific results, in particular the algorithms, methods and technologies of the system, financial and complex analysis for the increase of efficiency of the diverse (information) technologies of single, serial and mass (non)material production of the one or several assortment groups and nomenclature units of goods, works and services to the final consumer of the social-economic formation based on the cognitive modeling technology and the cognitive models.