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#### THE APPLIED SCIENTIFIC RESEARCHES DIRECTION

“COGNITIVE MODELING IN THE NATURAL SCIENCES” (“NEN”)  
OF “THE SIO "ACADEMY OF COGNITIVE NATURAL SCIENCES"” (PART 2)

The developed “The applied scientific researches direction  
“Cognitive modeling in the natural sciences”” (“NEN”)  
treats to the applied scientific researches divisions  
of “The SIO "Academy of cognitive natural sciences"” (“The SIO "ACNS"”)  
as main component of science and education system of the modern country  
for creation, distribution and use of the main and derivative  
scientific results of the cognitive modeling technology (CMT) (www.vetrovan.(spb.)ru)  
[see the applied scientific researches directions and departments of “The SIO "ACNS"”]:  
1) it is executed by the principle of “administrative-economy submission”;  
2) works in several main directions, which allow to provide  
development of the applied main and derivative scientific results  
(my second report on SRW from 2006-2008(9) y. was submitted  
to “The SPbSETU "LETI"” and The Government of The RF  
for the translation, carrying out of int. action and receiving of “The Nobel Prize”);  
3) includes several various main divisions:  
III. “The applied scientific researches department  
“The applications of the geochemical ecology and preservation of environment”” (“SNOS”)

*[the applied scientific researches in area  
“Applications of preservation of environment and ecology” –*  
usage of theory of methods of studying of preservation of environment of person and animals,  
usage of theory of ecological bases of use of natural resources,  
usage of theory of international cooperation,  
usage of theory of studying of environmental contamination of person and animals,  
usage of theory of control of pollution and protection  
of atmosphere, waters of land, seas and oceans,  
usage of theory of protection of soils and bowels,  
usage of theory of ecological bases of ability to live of organic individuals,  
usage of theory of studying of influence of anthropogenous changes  
of environment on health and activity of organic individuals,  
on condition of natural ecosystems,  
populations and organisms of vegetative and generative world,  
usage of theory of protection of vegetative and generative world of person and animals,  
usage of theory of studying of anthropogenous influence on landscape,  
usage of theory of protection and optimization of landscape,  
usage of theory of nature reserve,  
usage of theory of protected natural territories and water areas,  
usage of theory of nature acts and anthropogenous origin accidents,  
usage of theory of ecological safety,  
usage of theory of rational use and reproduction of natural resources,  
usage of theory of preservation of environment and natural resources  
in separate regions and countries,  
usage of theory of waste management,  
usage of theory of small waste and without waste technology,  
usage of theory of organic individuals protection  
against noise, vibration, electric and magnetic fields and radiations,  
usage of theory of cognitive modeling technology  
in applications of preservation of environment and ecology].

IV. "The applied scientific researches department  
"The applications of the models of The Earth and The Solar system planets  
in the geography, geology, geodesy and cartography,  
astronomy and other sciences" ( "S N Z" ) ( \* )  
"the applied scientific researches in area  
"Applications of geography" –  
usage of theory of geography, usage of theory of historical geography,  
usage of theory of military geography, usage of theory of physical geography,  
usage of theory of economical and social geography,  
usage of theory of country (regional) geography,  
usage of theory of medical geography, usage of theory of toponymics,  
usage of theory of cognitive modeling technology  
in applications of geography;  
"the applied scientific researches in area  
"Applications of geology" –  
usage of theory of lithology, usage of theory of tectonics,  
usage of theory of geological-geo-physical researches of deep structure of The Earth,  
usage of theory of regional geology, usage of theory of planetology,  
usage of theory of stratigraphy, usage of theory of paleontology,  
usage of theory of geo-chemistry, usage of theory of mineralogy,  
usage of theory of petrography,  
usage of theory of experimental and technical mineralogy and petrography,  
usage of theory of methods of mineralogical-petrographical  
and geo-chemical laboratory researches,  
usage of theory of anthropogenic period,  
usage of theory of neo-tectonics, usage of theory of geo-morphology,  
usage of theory of geology of ore minerals,  
usage of theory of geology of nonmetallic minerals,  
usage of theory of geology of fields of oil, gas and its condensates,  
usage of theory of geology of deposits of coal, bituminous breeds and peat,  
usage of theory of methods of search and investigation of deposits of minerals,  
usage of theory of technics and technology of geological-prospecting works,  
usage of theory of hydro-geology, usage of theory of engineering geology,  
usage of theory of frozen condition of ground,  
usage of theory of cognitive modeling technology  
in applications of geology;  
"the applied scientific researches in area  
"Applications of geodesy and cartography" –  
usage of theory of supreme geodesy, usage of theory of geodesy,  
usage of theory of aerial photograph and photogrammetry,  
usage of theory of topography, usage of theory of photo-topography,  
usage of theory of cartography, usage of theory of selenodesy,  
usage of theory of planetodesy,  
usage of theory of mapping of The Moon and planets,  
usage of theory of cognitive modeling technology  
in applications of geodesy and cartography;  
"the applied scientific researches in area  
"Applications of astronomy" ( \* ) –  
usage of theory of astronomy, usage of theory of heavenly mechanics,  
usage of theory of astrometry,  
usage of theory of astro-physics of The Solar system, The Earth, The Sun,  
stars, fogs, interstellar environment and star systems,  
usage of theory of cosmology,  
usage of theory of observatories, tools,  
devices and methods of astronomical supervision,  
usage of theory of cognitive modeling technology  
in applications of astronomy,  
usage of theory of cognitive models of gravitational and other interactions  
between 1, 2, 3, 4, 5 - and more artificial  
space objects, satellites, planets, The Earth and The Sun,  
usage of theory of cognitive models of work of basic rocket engine,  
the first, the second, the third and the fourth rocket engine of the launch vehicle and others].  
The applied scientific researches directions and departments of "The SIO "ACNS"  
allow to develop the main and derivative scientific results of CMT.