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THE FUNDAMENTAL SCIENTIFIC RESEARCHES BRANCH  
“COGNITIVE MODELING IN THE SOCIAL SCIENCES” (“OON”)  
OF “THE SIO "ACADEMY OF COGNITIVE NATURAL SCIENCES””

The developed “The fundamental scientific researches branch  
"Cognitive modeling in the social sciences"” (“OON”)  
treats to the fundamental 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 fundamental scientific researches branches 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 fundamental 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:  
I. “The fundamental scientific researches department  
“The theory of the social sciences, philosophy, science of science,  
politics and political sciences, sociology,  
(cognitive) psychology, state, law and jurisprudential sciences,  
patenting business, invention and rationalization work”” (“SFPSPP”) (\*)  
*[the fundamental scientific researches in area*  
*“Theoretical social sciences” –*  
theory and ideology of social sciences,  
theory of history of social sciences,  
theory of modern condition of social sciences,  
theory of scientific societies, conventions, congresses,  
conferences and symposiums on social sciences,  
theory of international cooperation in field of social sciences,  
theory of organization of scientific-research work in field of social sciences,  
theory of information work in social sciences,  
theory of terminology of social sciences,  
theory of propagation and popularization of social sciences,  
theory of teaching of social sciences,  
theory of mathematical modeling in social and humanitarian sciences,  
theory of staff of social scientists,  
theory of cognitive modeling technology  
in theoretical social sciences;  
*the fundamental scientific researches in area*  
*“Theoretical philosophy” –*  
theory of general problems of modern philosophy,  
theory of general-philosophical problems, theory of logic,  
theory of philosophy and methodology of science, theory of social philosophy,  
theory of ethics, theory of aesthetics, theory of philosophy of religion and atheism,  
theory of history of philosophy (theory of history of philosophy of science and society),  
theory of cognitive modeling technology  
in theoretical philosophy;

***the fundamental scientific researches in area “Theoretical science of science”*** – theory of development of science, theory of science and society, theory of sociology of science, theory of scientific work and scientific creativity, theory of organization of science, theory of politics in field of science, theory of technique and technics of research work, theory of economics of science, theory of scientific staff, theory of international cooperation in science, theory of science and scientific-research work in separate countries, theory of cognitive modeling technology in theoretical science of science;

***the fundamental scientific researches in area “Theoretical politics and political sciences”*** – theory of methodology of political researches, theory of history of political doctrines, theory of political systems, theory of internal policy, theory of international relations, theory of foreign (external) policy and diplomacy, theory of cognitive modeling technology in theoretical politics and political sciences;

***the fundamental scientific researches in area “Theoretical sociology”*** – theory of general problems of modern sociology, theory of methodology of sociology, theory of technique and technics of sociological researches, theory of society as systems, theory of social relations and processes, theory of social classes, communities and groups, theory of sociology of social life spheres, theory of social phenomena and institutes, theory of sociology of person and behavior, theory of historical and regional sociology, theory of applied sociology, theory of history of sociology, theory of cognitive modeling technology in theoretical sociology;

***the fundamental scientific researches in area “Theoretical (cognitive) psychology” (\*)*** – theory of general psychology, theory of psychology of development, theory of age psychology, theory of comparative psychology, theory of social psychology, theory of applied psychology, theory of cognitive modeling technology in theoretical (cognitive) psychology, theory of modified stratified-step model of processing (cognitive psychology) of information fragments content, theoretical bases of cognitive psychology and cognitive modeling technology, theoretical bases of parametrical cognitive models block for the system analysis of information-educational environments (cognitive models of subject of training and means of training), theory of ways of representation of structure of cognitive models and problem environments: formal classical of the 0<sup>th</sup> generation (logical and production models), nonformal classical of the 0<sup>th</sup> generation (semantic network, frame network and ontology), formal new of the 0<sup>th</sup> generation (calculus of theory of sets and corteges on domains and innovative calculus of theory of sets and graphs), nonformal new of the 0<sup>th</sup> generation (multilevel structural scheme and multilevel encapsulated pyramids combining theory of graphs and theory of sets), flat of the 1<sup>st</sup> generation (cognitive circle and cognitive disc), volumetric of the 1<sup>st</sup> generation (cognitive cylinder, cognitive cone and cognitive sphere), flat and volumetric of the 2<sup>nd</sup> generation (one-, two-, three-, four-, five- and more cognitive circle, cognitive disc, cognitive cylinder, cognitive cone and cognitive sphere), hybrid of the 3<sup>rd</sup> generation (combinations of the existing cognitive models),

theory of adaptive automation means of information-educational environment (basic and applied diagnostic module, electronic textbook, laboratory practical work, electronic dean, electronic library and others), theory of technical means of adaptive information interaction support (adaptive representation of sequence of information fragments processor, question-answers structures sequence processing processor, linguistic processor and other processors), theory of technical means of the complex analysis support (automation means of formation and research of psychological parameters of cognitive model as cognitive circle, cognitive disc, cognitive cylinder, cognitive cone, cognitive sphere, one-, two-, three-, four-, five- and more cognitive sphere and others); ***the fundamental scientific researches in area “Theoretical state management, law and jurisprudence sciences”*** – theory of state and law, theory of history of state and law, theory of history of political and legal doctrines, theory of constitutional (state) law, theory of municipal law, theory of administrative law, theory of information law, theory of financial law, theory of owner (enterprise) law, theory of civil law, theory of civil-procedural law (civil process), theory of arbitration-procedural law (arbitration process), theory of patent law, theory of industrial property law, theory of copyright and adjacent rights, theory of succession law, theory of family law, theory of agrarian law, theory of legal problems of environment preservation, theory of ecological law, theory of land (ground) law, theory of forestry law, theory of water law, theory of air-protection law, theory of legislation about bowels, theory of legislation about fauna world, theory of labor law, theory of social support law, theory of legal institutions, theory of criminal law, theory of criminal-procedural law (criminal process), theory of criminology, theory of criminal-executive law, theory of penitentiary, theory of criminalistics, theory of judicial statistics, theory of international law, theory of international private law, theory of state and law of separate countries, theory of cognitive modeling technology in theoretical state management, law and jurisprudence sciences; ***the fundamental scientific researches in area “Theoretical patent business, invention and rationalization”*** – theory of patent-information work, theory of invention and rationalization, theory of patent-license work, theory of the technical-economical analysis on patent materials, theory of invention law, theory of cognitive modeling technology in theoretical patent business, invention and rationalization].

II. "The fundamental scientific researches department  
"The theory of the economics and economical sciences,  
organization, management, statistics and financial analysis  
based on cognitive modeling technology" ("SE") (\*)  
*[the fundamental scientific researches in area*  
*"Theoretical economics and economical sciences" –*  
 economical theories, theory of history of economical idea,  
 theory of account-economical sciences, theory of science of economics management,  
 theory of economical history, theory of The World economy,  
 theory of international economical relations,  
 theory of economical development and growth,  
 theory of prediction and planning of economics,  
 theory of economical cycles and crises,  
 theory of productive forces and scientific-technical progress,  
 theory of social-economical structure,  
 theory of reproduction structure of economics,  
 theory of accumulation and consumption, theory of well-being,  
 theory of territorial structure of economics,  
 theory of regional and city economics, theory of branch structure of economics,  
 theory of financial science, monetary and tax theories,  
 theory of credit-financial institutes,  
 theory of cognitive modeling technology  
 in theoretical economics and economical sciences;  
*the fundamental scientific researches in area*  
*"Theoretical organization and management" –*  
 theory and methodology of management,  
 theory of state and administrative management,  
 theory of organization of economics management, theory of social management,  
 theory of prediction, theory of futurology,  
 theory of strategical management, theory of strategical planning,  
 theory of cognitive modeling technology  
 in theoretical organization and management;  
*the fundamental scientific researches in area*  
*"Theoretical statistics" –*  
 theory of general statistics, theory of economical statistics,  
 theory of branch statistics, theory of social statistics,  
 theory of international statistics,  
 theory of statistics of separate countries and social-economical systems,  
 theory of organization and management of statistics,  
 theory of methods and means of data mining,  
 processing and the analysis of statistical information,  
 theory of cognitive modeling technology  
 in theoretical statistics;

*the fundamental scientific researches in area "The theoretical financial analysis, monetary circulation and credit" (\*)* – theory of tendencies, dependences and laws of the financial analysis of objects, processes and phenomena, theory of system, information and cognitive approaches in economics, theory of structure and dynamics functioning of financial market, theory of global purposes of standardization of accounting and problems of unification of accounting documents, theory of institutional subjects of regulating of creation, distribution and use of international standards, theory of principles of creation, distribution and use of international standards of financial and accounting documents, theory of basic methods of financial documents transformation, theory of formation of accounting balance under international standards of financial documents, theory of qualifying tests of professional participants of financial system of the country, theory of administrative-legal forms of existence of managing subject, theory of features of procedure of the financial analysis of managing subject, theory of organizational structure of enterprise and its features (educational establishment of educational system and information-educational environment), theory of inflationary depreciation, discounting and compounding of money streams in economical system of the country, theory of indexes of dynamics of financial market and tools, theory of dynamics and communications of managing subject, theory of investment and innovative politics of managing subject in financial system of the modern country, theory of organizational, technological, scientific, methodical, normative-legal, information, hardware, software, brainware, raw, warehouse, personnel and economical preparations of manufacture and basis of the financial analysis and estimation of quality of activity of credit and other organization, theory of requirements and structure of financial documents of (non)production organizational structures, theory of additional elements of accounting and financial documents of credit organization, theory of consumers of financial documents, theory of elements of financial documents connected with changes of financial-economy activity, theory of simple and consolidated accounting and financial documents, theory of methods of the financial analysis of different forms of documents, theory of accounts structure of the accounting and financial analysis, theory of the vertical, horizontal and trend financial analysis based on analytical coefficients system, theory of scheme of carrying out of auditor check inspection, the financial analysis and audit, theory of external and internal control of different organizations activity, theory of kinds of bank operations of (credit) organization and enterprise, theory of structure of accounting balance (form №1), theory of structure of explanatory note to accounting balance, theory of structure of report about profits and losses (form №2), theory of structure of explanatory note to report about profits and losses, theory of structure of report about change of capital (form №3), theory of structure of report about movement of money resources on accounts (form №4), theory of structure of explanatory note to report about movement of means, theory of structure of appendix to accounting balance (form №5), theory of structure of report about target use of received means (form №6), theory of structure of auditor conclusion about results of activity of enterprise, (credit) organization, organization of The Federal reserved system of The USA,

theory of analysis of stability of credit organization and commercial bank,  
theory of basic analytical coefficients of the financial analysis,  
theory of structure of accounting balance and report about profits and losses of enterprise  
for introduction of analytical coefficients system,  
theory of cognitive modeling technology  
with dynamic cloning, verification and subverification,  
theory of iterative cycle and technique of use  
of cognitive modeling technology,  
theory of technique of formation of normative-legal and information basis  
for the financial analysis of organization,  
theory of technique of additional check of information basis  
of the financial analysis of organization,  
theory of technique of creation and modification  
of working plan of accounts and model of accounting,  
theory of technique of carrying out of the financial analysis of condition of organization,  
theory of parametrical cognitive models block for the financial analysis  
and increase of efficiency of functioning of objects, processes and phenomena,  
theory of structure of cognitive models for the vertical, horizontal and trend  
financial analysis of (credit) organization and enterprise,  
theory of ways of representation of structure of cognitive models and problem environments  
(formal and nonformal classical and new of 0<sup>th</sup> generation,  
flat and volumetric of the 1<sup>st</sup> generation and 2<sup>nd</sup> generation and hybrid of the 3<sup>rd</sup> generation),  
theory of algorithm of formation of cognitive model structure,  
theory of technique of research of cognitive models parameters,  
theory of algorithm of analysis of a posteriori results of research,  
theory of formation and calculating of accounting balance units  
of production and nonproduction organization,  
theory of calculation of cognitive models parameters  
for the vertical, horizontal and trend  
static and dynamic financial analysis  
of enterprise and (credit) organization  
in conditions of definiteness and uncertainty,  
theory of software for automation of research tasks,  
theory of statistical substantiation of practical use of received results,  
theory of factors influencing to efficiency of functioning  
of (credit) organization and enterprise in economical system,  
theory of organization and plan of carrying out of experiment,  
theory of research of cognitive models parameters  
for the vertical, horizontal and trend financial analysis,  
theory of preliminary processing of a posteriori results of diagnostics,  
theory of choice of statistical analysis methods of generated data sets,  
theory of analysis of productivity dynamics of financial-economy activity,  
theory of dispersion, regression, discriminant, cluster analysis,  
multidimensional scaling, factor analysis and bibliographical lists;  
***the fundamental scientific researches in area***  
***“Theoretical other branches of economics”*** –  
theory of manufacture of musical instruments,  
theory of manufacture of photo-art products, theory of jeweler industry,  
theory of manufacture of toys, theory of manufacture of sport products,  
theory of manufacture of writing goods,  
theory of cognitive modeling technology  
in theoretical other branches of economics].

The fundamental scientific researches branches and departments of “The SIO “ACNS””  
allow to develop the main and derivative scientific results of CMT.