### ВЕСТНИК № 2(22) 2013

### PROSPECTS FOR CARTOGRAPHY DEVELOPMENT: FROM DIGITAL LAND TO VIRTUAL GEOREALITY

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The prospects for the development of cartography and allied geoinformatics are considered. The analysis of the development is based on the concept of chnological stage. The results are pre-sented in the table with the conclusion given as a forecast for applying geodata and their models for the term up to 2065.

**Key words:** cartography, digital earth, georeality, system, technological stage.

### MODELING THE FORM AND EVALUATING DIMENSIONS OF SYSTEMS IN APPLIED GEOINFOR

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The object of studies in applied geoinformatics is made up by varied systems of both natural and artificial origins. The subject of the studies is made up by the state of these systems in space and time, whereas mathematic modeling (computerized geometry and geometric modeling) is the major method of studying them.

The form and the dimensions of a system are its major characteristics. The model of the form of any system depends upon the aim of the model and the dimensions are dependent on the existing apriority and/or empirical data. The present paper studies the task of modeling the form and evaluating the dimensions of the systems model by the surfaces of the second order. Let us consider the following examples. The models of this kind can be used to evaluate and to predict the state and the evolution of the systems state in geodynamics, cartography, economics, ecology, construction, safe-ty of living and in some other spheres of human activity.

**Key words:** applied geoinformatics, computerized geometry, geometric modeling, limits of a system, the form of a system, dimensions of a system.

# INVESTIGATIONS OF ACCURACY LEAP-FROG METHOD BY THE TRIGONOMETRIC LEVELLING WITH APPLY ELECTRONIC TOTAL STATIONS

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The article deals with the method of short distances trigonometric leveling with high precision total stations for measurements height differences. The results of the field investigations on elevation measurements by a 2" total station at the distance of 50 m - 250 m are presented.

**Key words:** trigonometric leveling, leveling by total station, height.

### TECHNOGENIC LAND TRANSFORMATION AND ITS INDICATORS FOR MONITORING SYSTEM

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Studied the main factors of technogenic transformation of land and identified their key that require monitoring, indicators for soils, relief, lithosphere, atmosphere.

**Key words:** technogenic transformation, land resources, soil, relief, lithosphere, atmosphere, indicators, monitoring.

# IMPROVEMENT OF QUALITY AND AVAILABILITY OF STATE SERVICES IN STATE CADASTRAL REGISTRATION AND STATE REGISTRATION OF REAL PROPERTY RIGHTS IN NOVOSIBIRSK REGION

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The process of execution of R.F. government decree of 01.12.2012 #2236-p "On the approval of measures ("road map") and "Improvement of state services in cadastral registration of real property and state registration of real property rights and transactions" is described.

**Key words:** "road map", state cadastre of real estate, the unified state register of rights.

### HYPOTHESIS OF FORMATION OF OIL AND OIL POOLS

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The hypothesis proves evolution of petroleum resulting from throttling methane, which comes from the depths by fractures and while crossing the reservoir rock strata it undergoes sharp drop in pressure and temperature, causing petroleum formation. If there are any catch structures on the way oil deposits are formed.

At the higher level, mostly in the ocean bed and bottom deposits and with lower thermodynamic characteristics gas-hydrates deposits appear in methane stream output. Surface deposits of gas-hydrates often have their antipodes in the depth, i.e. oil deposits. The fact testifies to their common source of hydrocarbons and the common production channel.

## BACKGROUND LOW-INTENSITY ELECTROMAGNETIC RADIATION AS A CONTROL FACTOR AFFECTING PLANTS GRAVITROPIC REACTION

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### COMPLEX COAXIAL RESONATORS ON THE BASIS OF PSEUDO SPHERE LOBACHEVSKY

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In the article the analysis of complex coaxial microwave resonators on the basis of Lobachevsky, the principle of which is based on the resonant amplification of electromagnetic field with subsequent rapid conclusion of the energy in the form of powerful microwave pulses. Results of research work of these resonators, it is proved that the distribution of the resonators on the basis of CNRLP below, than on a radar site in 2 times and bandwidth considerably broader than that indicates a higher resonance resistance of the irregular component of resonators

**Key words:** coaxial resonator, microwave, pseudo sphere Lobachevsky.

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**Key words:** coaxial resonator, microwave, pseudo sphere Lobachevsky.

### METHODS AND RESULTS OF EXPERIMENTAL RESEARCH OF CUMULATIVE JETS PHASE STATE: BRIEF OVERVIEW

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The knowledge of the physical state of the shaped charge jet is important in order to determine its elongation capability and its physical characteristics. The

brief review of experimental investigation in X-ray, optical, IR, millimeter wave and "soft" recovered shaped charge jet phase state are discussed.

**Key words:** cumulative jet, temperature measurement, metallographic analysis, the phase state.

### WORKPLACE CERTIFICATION: THE ECONOMIC ASPECTS OF A DIFFERENTIATED APPROACH

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As amended in the certification of workplaces on working conditions, made by Order of the Ministry of Labor and Social Protection of the Russian Federation № 590n, examined the economic aspects of job evaluation in organizations with preferred types of work on a PC with multiple copying machines, office and other equipment.

**Key words:** certification, jobs, working conditions, health.

#### FUTURE OF SIBERIAN ECONOMY: PROBLEMS AND PROSPECTS

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The problems of social-and-economic problems of Siberia development are considered. The factors impeding economic development of the region are emphasized. The potential and resources of Siberia are shown. Priority directions

are presented. Macroeconomic prognosis and the prospects for the region development are stated.

**Key words:** factor of development, economic potential, development problems, prognosis, level, region, efficiency, priorities, strategy, innovations, modernization.

### STATE ACCREDITATION OF THE ACADEMY AS A PLATFORM FOR TRAINING NEW FORMATION SPECIALISTS

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The results of the State accreditation of the academy are presented. The strategy of its development for the six-year term is offered.

**Key words:** accreditation, strategy of development.

# NOVOSIBIRSK TECHNICAL SECONDARY SCHOOL OF GEODESY AND CARTOGRAPHY AS A MAIN LINK OF SPECIAL SECONDARY EDUCATION IN SSGA

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### INFLUENCE OF THE LABOR MARKET ON PROFESSIONAL ORIENTATION OF YOUTH

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The article considers the influence of the modern labour market, vocational guidance of youth. The author summarizes the number of negative phenomena, which complicate the process of professional orientation of the youth. Describes the direction in which it is possible at this time to find the optimal solution in the prevention of unemployment.

**Key words:** labor market, educational services, professional choice, graduate.