

## SUMMARY

***Barladin O. V., Yaroshuk P. D. Use of GIS and RS-technologies in agriculture***  
// Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.3-8.

The article is devoted to the experience of specialized geographic information system for solving of different agricultural tasks. The principles of crop and agricultural grounds monitoring organization are stated.

Key words: GIS-technologies, RS-technologies, agricultural grounds monitoring.

***Barladin A. V., Datsenko L.N., Morgun S. I. Electronic geological atlas Ukraine***  
// Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.9-13.

Joint-stock company “Institute of Advanced Technologies” is finishing works on preparation of the electronic version of Geological atlas of Ukraine.

The contents of the Atlas is structured on the subject blocks: survey maps, geophysical, maps of geostructural zoning, geologic maps, lithologic-and-facies, ecology-geological, maps of mineral resources.

The atlas can become a source of the information first of all for a solution of the miscellaneous problems linked with the natural resources, education and ecologic monitoring.

Key words: geological atlas.

***Bobra T.V. Identification, analysis and mapping of the landscape organization on different spatial levels with using GIS-technologies*** // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.14-18.

The author brings into the open the questions of landscape organization identification, analysis and map on different spatial levels with using quantitative homogeneity-heterogeneity index.

Key words: informational gradient, spatial homogeneity-heterogeneity, ecotone systems, geocotinizaton.

***Bobra T.V., Lychak A.I. The new approaches to the ecotonization learning in the Crimean maintain-forest landscapes*** // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.19-24.

There is the opportunities and results of using GIS-technologies for putting out, analysis and mapping of landscape spatial differentiation accounting ecotonization in the article.

Key words: ecotonization, ecotone, GIS-technologies.

***Boldyrev V.B., Efimov S.A., Karpenko S.A., Ugarov S.G. Development of prognosis-modeling complexes and geo-informational databases “The source of technogenic and ecological danger”*** // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.25-32.

The article explores approaches to development of prognosis-modeling complexes and geo-informational databases “The sources of ecological danger” (based on the

example of Gasprinsky yard for solid wastes and yards for storing especially dangerous military materials). The article formulates list of prognosis and evaluation mapping of the territories with ecologically dangerous objects.

Keywords: prognosis-modeling complex, sources of ecological danger, geo-informational mapping.

**Vatset E. E. The quantitative methods for foundation of the econet elements // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.33-40.**

The author demonstrate the attempt using the quantitative methods for nature-saving potential analysis. The quantitative parameters were base for geography foundation of the structural elements of the econet.

Key words: the quantitative methods, the econet structure, the landscape organization.

**Zorin S.V., Kartavtsev O.M., Golovko I. O. Calculation of runoff quantity and quality from urban areas using computer modeling and ESRI GIS technologies // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.41-45.**

In this paper authors describe the possibilities of using computer modeling for calculation runoff quantity and quality and also present some examples of using GIS technologies for gathering and preparing all the necessary input data.

Keywords : urban runoff, computer modeling, GIS technologies.

**Ischuk O. O. Technology for calculation of regional maps of dangerous natural phenomena risks using GIS spatial analysis facilities // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.46-50.**

Methodical approach for calculation of regional maps of dangerous natural phenomena risks using GIS spatial analysis facilities is described. It is proposed the technology for risks assessment based on potential of GIS spatial analysis concerning an estimation of the areas of elements of thematic territorial zoning (estimation of possible flooding and underflooding zones, zones of karst activity, etc.). Elements of administrative or departmental zoning (such as oblasts, raions, territories of settlements, industrial agglomerations, mining areas, and recreational zones) are used an objects for evaluation. Examples of ArcGIS calculation for creation of maps showing vital function risks due to dangerous natural hazards are given.

Key words: risk assessment, geographic information system, ArcGIS, spatial analysis.

**Karpenko S.A. Cartography and geo-informational modeling of sustainable territorial development // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.51-58.**

The article explores approaches to the development of geo-informational models of sustainable territorial development on different levels of space and time organization of the Ukraine's coastal zones. The article shows that the main points of sustainable

territorial development model are: allotment of elementary operational units, substantiation of the functional zoning scheme. The scheme supports optimal correlation of the different types of landusage.

Keywords: sustainable development, territorial organization, elementary operational units, functional zoning of territory

**Kaydansky V.V. Geoinformation modeling of Ukrainian Maritime areas geostrategic potential** // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). – №2. – P. 59-66.

The author describes methodic for geoinformation model of integral estimation of the Ukrainian maritime areas geostrategic potential based on GIS-technologies.

Key words: maritime areas, geostrategic potential, GIS-modeling, GIS-technologies.

**Lykhograd N.G., Seredynin E.S. Automated land-information cadaster system " a Southern coast of Crimea "** // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.67-69.

In clause the concept of creation of system for information maintenance of process of a privatization, rent of land and for increase of efficiency of process of management of land resources of Crimea is reflected.

Key words: GIS, space images, geodatabase.

**Olynyk O.V., Ryabokonenko S.A., Ryabokonenko A.D. Application of remote sensing data for adjustment and updating of topographic and cadastral maps and charts** // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.70-74.

The article focuses on methodological issues and analysis of remote sensing data application objectives for improving and updating topographic and cadastral maps and charts.

Keywords: remote sensing of Earth, remote sensing data, updating, cadastral maps, topographic maps, cadastre, monitoring of land resources, privatization, GIS, city construction cadastre.

**Petrenko O.N. Using GIS-technologies at analysis a landscapes structure of territory of Ukraine** // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.75-78.

In the article are considered questions of using GIS when making the landscapes cards. Stated structure of database of study of landscapes variety of Ukraine.

Keywords: GIS-technologies, landscapes structure, landscapes variety.

**Protsenko L.M., Sazonenko S.K., Chumak S.I. Geoinformation system of formation and analysis of the route network of the city passenger motor transport** // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.79-85.

In this work the approach to implementation of creation the city geoinformation system of formation and analysis of the route network of the city passenger motor

transport is reviewed, examples of practical implementation of GIS, the first part of which is introduced in exploitation in frames of control of the transport, are adduced. The system is designed on the basis software ArcView 3.2.

Keywords: GIS, route network, passenger motor transport.

**Ryabokonenko S. A., Ryabokonenko A.D. Estimation of regional under flooding evaluation using remote sensing and GIS** // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.86-92.

The article focuses on methodological issues and analysis of remote sensing data application objectives and GIS for estimation of regional underflooding evaluation.

Keywords: remote sensing of Earth, remote sensing data, GIS, underflooding.

**Stadnikov V.V. GIS "Inventory networks of the plumbing"** // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.93-96.

In article reflected methodical aspects introduction GIS technology at inventories of the networks of the water-supply the city Odessa.

Keywords: GIS, water-supply, inventory.

**Stankevich S.A., Shklyar S.V. Improved Algorithm of Determination of a Transition Function on the Digital Aerospace Image** // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.97-102.

On basis of probabilistic mathematical model the improved algorithm of imaging system's transition function obtaining by its digital aerospace image is offered. Using of this algorithm allows to enhance accuracy of direction finding, along which the transition function computes, also allows to increase quality of its best realizations selection due to augmentation of analysis range and reliability.

Keywords: transition function, digital aerospace images.

**Tevjashev A.D., Ecilevsky B.C., Dolgobrod A.G. GIS-technologies application for enhancement of the repairing effectiveness of the sewerage** // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.103-109.

The author describes the GIS-technologies application problems of sewerage. The "informational-analytical system for repairing sewerage management" was described. This system bases on the progressive information resources-saving technologies.

Key words: ecology safety technologies, GIS-technologies

**Fedorovsky A.D., Ryabokonenko S.A., Ryabokonenko A.D. Structure for modeling and assessment of emergency effects** // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.110-112.

Issues of generating a GIS conceptual model for meeting crisis monitoring objectives have been considered

Keywords: structure and texture analysis, GIS, Landscape.

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***Shevchuk A.G., Karpenko S.A. Informational , geographical support for the problems of the repatriated into the Crimean society // Uchenye zapiski TNU. Series: Geography, 2005. – Vol. 18 (57). №2. – P.113-119.***

The article explores approaches to the creation of geo-informational databases, which characterize spatial distribution of the repatriated, who now are integrating into Crimean society (the settlements of compact residence, disposition and radius of confessional influence of the Muslim communities). The article also gives the analyses of the role change of the repatriated in regional system of settlements in 2000-2004. On the example of Belogorsky region of Crimea, the article also shows changes of the ethnic composition in settlements based on data from sensus from 1885 and 1915

Keywords: the repatriated, Muslim communities, geo-informational database.