SUMMARY

Barladin A.V., Gorodetsky E.M., Netreba A.V. **Optimization of the multilevel geoinformation systems' structure** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 3-8.

The particularies of created by Institute of Advanced Technologies Geoinformation Systems and its applied software have been explained. The technologies of creating of the roads and rivers systems for suitable solving transport's and relief's tasks have been described. It is concluded that usage of special program modules increases the effectiveness of GIS.

Keywords: GIS, relief models, program modules.

Bobra T.V. **Analysis and mapping of geoecotones and geoecotonetion of geospace with usage of GIS-technologies** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 9-16.

The problem of formation of geoecotones of a miscellaneous parentage, their role in a geographic shell(envelope) is reviewed. The nature of process geoecotonetion is detected. Is offered and the factor anthropogenic geoecotonetion is counted for terrain of Crimea, with usage of GIS-technologies the card of a degree geoecotonetion of terrain of Crimea is constructed.

Keywords: geoecotones, geoecotonetion, GIS-technologies.

Bogolubov V.M. **The conceptual approaches to develop GIS for control by a surface sink of urbanized territories** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 17-21.

In a paper the algorithmic features of GIS for control optimization of urbanized territories surface sink are depicted.

Keywords: surface run-off, management, Geoinformatic System (GIS), urbanized territory, pond.

Bokov V.A. **GIS-technology in territorial planning** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 22-26.

In connection with transferring to sustainable development and gang of a socio economic course in room former USSR is necessary revise a role and forms of a realization of territorial planning. The territorial planning should become total, that envelop all forms of activity of the society within the framework of functioning of ecosystems at involvement of all groups of the population. The realization of such type of planning is impossible without of GIS-technology permitting to operate by major streams the information in time-spatial coordinates of ecosphere.

Keywords: territorial planning, GIS-technology, control, space, time, objects, subject.

Vahrushev I.B. **Some approaches to the GIS-mapping of the dangerous gravitational processes in Southern Coast of Crimea** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 27-30.

In work the problem of maping of dangerous geomorphological objects with use GPS-receiver for the purposes of creation of digital cards with the subsequent application them in geoinformation systems of an estimation of an ecological situation is considered.

Keywords: GPS-receiver, Geoinformatic System (GIS), ecological situation.

Horokhov Ye.V, Grimud G.I., Turbin S.V. **Principles of PTL Technical State Estimation Basing on Geoinformational Systems** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 31-39.

The article is shown the questions of reliability exploitation of power transmission lines. The principles of PTL technical state ranging in dependence from damage's degree and climatic loads are proposed.

Keywords: power transmission line, geoinformational systems

Datzenko L.N. **Creation of informational-cartographical systems for a sphere of enlightenment: experience of working and approbation** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 40-44.

In the article, the problems and experience of publication in Institute of advanced technologies on CD for school of the electronic school-books with maps on geography and history are elucidated (for 5 class - Kiev: a history, geography, culture; 7 class - Ukraine since antiquity to Kievan Rus'; - Geography of continents and oceans; 8 class - Modern history XVI - XVIII centuryes; the information atlas «Ukraine and its regions»).

Keywords: the electronic school-books, CD-disks, atlases.

Dulitskyi A.I., Kovalenko I.S. **The analysis of spatial-temporary structure the natural center with the help of GIS-technology** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 45-49.

In work the attempt is undertaken to use GIS-technology for the analysis of spatial - temporary structure of the center nature-focal of an infection on an example tularemia in .Crimea. Seasonal dynamics of activity epizootically of displays on positive (or negative) finds is revealed at use of various laboratory methods.

Keywords: the electronic school-books, CD-disks, atlases.

Epikhin D.V., Vahrusheva L.P. **The methods of using GIS – technologies in vegetation mapping of cities** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2.. – P. 50-55.

In the article the methods of employment of GIS in cities vegetation mapping were described. Adduced necessary elements of database for urban forestry cadastre and vegetations monitoring. The ways of vegetation classification and evaluation of anthropogenic pressing were offered.

Keywords: GIS, urban ecosystem, synanthropic vegetation, urban forests, classification, database.

Ischuk O. **Conceptual territory models, considered as tools for complex territory evaluation** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 56-63.

Main goal of this issue is to summarize existing experience in using GIS realization of conceptual territory models for complex territory evaluation.

Keywords: GIS (Geographical Informational Systems), spatial modeling, conceptual territory model.

Karpenko S.A. **Geographical providing of the regional natural-economic data bases** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 64-69.

There are the approaches to creation of the regional natural-economic data bases in the article. The author proposes the elementary operational units as "spatial atoms" for management of the region.

Keywords: elementary operational units, regional data bases.

Kiriyakova L.S., Khaitovich A.B., Kovalenko I.S. **Use geographical information system in realization cholera control's and by other infectious diseases** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P.70-72 .

The realization of epidemiological analysis with use of geographical information technologies (GIS), has allowed creating an electronic card of monitoring of epidemic process of cholera in the world and Ukraine. On the basis of an electronic card of the world dynamics of involving of the countries and continents in 7-th cholera pandemic is reproduced, that enables scientifically to prove the periods of distribution of a cholera in the world. The created epidemiological and geographical card of distribution of a cholera in Ukraine has epidemiological shown territorial distribution and dynamics of allocation of cultures cholera pathogen, geographical prevalence by amount of the allocated cultures in southern regions, primary allocation cholera pathogen from open reservoirs and waste water, that allows to determine priority directions of monitoring and to spend the analysis.

Keywords: cholera, cholera control, GIS.

Kolesnik V.I., Kolesnik C.V., Petrenkova V.P., Popov V.V., Smagliuk D.V., Chekh V.Yu. **Implementation of Remote Sensing and GIS technologies for crop capacity forecasting** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 73-80.

The crop capacity forecasting model based on scrinning and remote sensing data processing has been described as well as initial data organization and technical implementation including original hard- and software solutions.

Keywords: forecasting, screening, vegetation index.

Kurenkov V.O. **Organization of information support GIS "Vernadski-Antarctika"** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 81-84.

The article is devoted to problems of organization of information support GIS "Vernadski-Antarctika" in the framework of the state program of the Ukrainian investigations in Antarctica.

Keywords: GIS, Antarctica.

Kuznetsov M.M. **Geoinformational providing of the local system resettlement mapping** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 85-88.

The author gives reason expedience and the main features of the GIS-technologies using in the local system resettlement researches. There are results of the local system resettlement mapping of Crimea in the article.

Keyword: GIS-technologies, the local system resettlement.

Lagodina S.E. **Geoinformational providing for output elementary spatial management units** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 89-95.

The approaches for outputting of the elementary spatial management units were described. Author proposes the classification of the mains for landed recourses management for example for Vilinskiy municipal Council.

Keywords: natural-economic spatial systems, operational spatial units, managerial goals.

Lychak A.I., Glushchenko I.V. **Theoretic-methodological bases of the geoinformation modeling of the ecological condition of geosystems (on an example of the analysis of forest conditions of the Mountain Crimea)** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 96-100.

The theoretic-methodological bases of geoinformation modeling of the ecological condition of the geosystems are described. There is realization of some methodological principles of the spatial - temporary analysis of forest conditions of the Mountain Crimea in the article.

Keywords: geoinformation modeling, spatial - temporary analysis, geosystems.

Lychak A.I., Glushchenko I.V. **GIS-modeling of the ecotopical structure of the territory of the specially protected areas objects (on the example Karalar landscape reserve in the Crimea)** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 101-105.

Possibilities of using of the geoinformation technologies for modeling of the ecotopical structure of the territory of the specially protected areas objects are considered.

Keywords: GIS-modeling, ecotopical structure of the territory.

Mazurkevich A.A., Serenko V.V., Ryabokonenko A.D., Ryabokonenko S.A. **Automation of landscapes classification based on the remote sensing with the AIM of modeling of the environmental conditions** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 106-109.

The article touches upon the possibilities of using remote sensing methods and GIS technologies to address water resource and water protection issues, and possibilities for identification of bank collapsing, shallowing and water pollution sources

Keywords: remote sensing of the earth, comparison analysis, spectral characteristics, water protection.

Nochvaj V.I., Shavrina A.V., Dyachuk V.A., Sosonkin M.G., Sosonkin M.G. **The use of GIS for modelling of surface ozone concentrations** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 110-114.

Experience in the use of GIS for creating of ecological air pollution model is discussed . The fist step was a preparation and of the emission data for photochemical three-dimensional Urban Airshed Model. The model is used for surface ozone calculation. Emissions and calculated surface concentrations of pollution in modeling region (Kyiv) are presented as a raster models.

Keywords: GIS, air pollution, ozone, emission , surface concentration distribution.

Oliferov, A. N., Ogorodnik I. N. **The Use of GIS-technology of the Natureuse Based on the Basin-landscape Method** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 115-124.

The local geoinformation system for the information support of the natureuse on the base of the basin-landscape method was worked out. The computer complex was used and the database was prepared. The electronic maps, including the map of the microwatercollection and the map of the rational natureuse, were created.

Keywords: geoinformation system, cartographical block, database, basin method.

Palekha Y.N. **Features of GIS-technologies usage in an estimation of Ukrainian settlements** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 125-132.

In the article the features of GIS-technologies usage in an estimation of lands of Ukrainian settlements and their money estimation are described. The problems of GIS application at different stages of a money estimation are reviewed. The economic-geographical features of distribution of the cost of urban lands are studied.

Keywords: GIS-technologies, cost of urban lands, money estimation

Petrogradski Y. P. **Using GIS – technologies for estimation of the ecological influence of autotransport in cities` environment** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 133-137.

The article is devoted to approaches for estimations of the ecological influence of autotransport in cities` environment with using GIS – technologies.

Keywords: GIS – technologies, autotransport, traffic.

Plyska L.V., Prymak A. V. **From creating vector data maps with stereophotogrammetrical method to flood modeling using ArcView (by way of Transcarpathian region)** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 138-141.

Flooding can be studied and simulated using GIS. Two data sets are required to model - a flood Elevation & watercourse. Data sets can be taken out of vector data maps which where created using stereophotogrammetrical method. The elevation of the river can then be increased to simulate a flood. The flood results can be combined with other data to identify risk to population and infrastructures.The technology was tested on maps of Transcarpathian region.

Keywords: flood modelling, GIS, stereophotogrammetrical method

Popov M.O., Ryabokonenko O.D., Petrochenko O.Yu. **An approach to classify the state of forest resources by multispectral images based on data fusion principle and application of GIS technologies** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 142-150.

It was proposed a new approach to classify the state of forest resources by multiband space-born images, which is based on the theoretical concept of synergic fusion of data. A classifying algorithm employing an information value criterion for spectral bands and classifying rule how to determine whether an object is belonged to a certain class is elaborated. A software module to classify multiband space-born images is written down using elements of GIS technologies.

Keywords: multiband image, information value, classification of objects, forest resources

Prydatko V.I., Karpenko S.O., Lychak O.I., Vatset O.E., Parkhisenko Ya.V. **Remotely Sensed Data (Landsat 7 ETM+, Terra ASTER) Application In the Initial Assessment of Ecosystems Insulation Scale and Natural Areas Regeneration on the Crimean Peninsula** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 151-160.

A pilot-GIS was developed and thematic maping of "islands" of natural areas in Crimea at 1:200,000 scale was justified, using new 1999-2001 remotely sensed data (Landsat 7 ETM+, Terra ASTER). Around 1,314 "islands" with the total area of 0.8 million ha were identified, 50% of which are located on the pastures.

Keywords: Crimea, remote sensing of the earth, ecosystems insulation.

Prisyagny V.I., Klyufas S.I., Makoveychuk A. N., Butko I.M. **Algorithm of the geographic snapping reference points determination** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 161-166.

A new algorithm of the image snapping reference points determination was developed. An example of the algorithm application to geographical snapping of the space images is given.

Keywords: reference points, geographic snapping.

Pishkin V., Tarasov U. **Using GIS-technologies in chorological analysis of the insects of Crimea** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 167-170.

Creating multifunctional systems mapping database and chorological imagine on the generalization ecology map

Keywords: mapping, GIS, chorology, insects.

Ryabokonenko S.A. **Integrated Approach to Studying Landscape Complexes Using Remote Sensing Methods** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 171-174.

The issues of decoding satellite images of natural landscapes, based on the landscape-system approach and an integrated use of spectral and spatial characteristics for the assessment of the main geo-environmental characteristics of the study regions are considered in the article. The principle of landscape-system method, using the example of the aquatic-land landscapes classification, is described.

Keywords: Remote Sensing methods, landscape complexes, classification, system approach.

Sapyton Y. **The Carpathian National Nature Park pilot-GIS** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 175-180.

In a paper the structure Carpathian NNP pilot-GIS was present.

Keywords: Geoinformatic System (GIS), ecological management, reserved territories.

Stadnikov V.V., Voronin A.V., Shpilevoy A.A. **Using the cosmic removal at fission of the city Odessa on regions** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 181-183.

In this paper the formatting about using the cosmic removal at fission of the city Odessa on regions.

Keywords: Geographic information system, GIS, digital maps, cosmic picture.

Tekelenburg A., Prydatko V., JRM. Alkemade, D. Schaub, E. Luhmann and JR. Meijer. **Assessment of Wild Biodiversity in Agricultural Land Use. First design and perspectives of a pressure-based Global Biodiversity Model** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 184-195.

This paper presents the very first insights into and tools used in building a new Global Biodiversity Model (GLOBIO), which can also be used for assessments of agricultural land use and landscapes.

Keywords: agrobiodiversity, global models, GIS.

Fedorovsky A.D., Ryabokonenko S.A., Ryabokonenko A.D., Parkhisenko Y.V. **Automation of landscapes classification based on the remote sensing with the AIM of modeling of the environmental conditions** // Uchenye zapiski TNU. Series: Geography, 2003. – Vol. 16 (55). №2. – P. 196-200.

The article deals with applying structure and texture analysis for the automation of landscapes classification based on the remote sensing with the aim of modeling of the environmental conditions

Keywords: structure and texture analysis, fractal analysis, landscapes, classification.