

Agnieszka Bieda, Paweł Hanus: **Real Estate Boundaries on Maps for Projects** • Geomatics and Environmental Engineering 2010, Vol. 4, No. 3

Preparing detailed maps for projects is the most often made survey. It results from quick development of real estate market, prosperity in buildings branch and connected with it big demands for maps by clients. Preparing map for project is seemingly simple and easy task. It brings about that many surveyors are not fully conscious consequences which can result within investment process (including stopping of building site), when on the map for project are put real estate boundaries not consistent with cadastral data. Thus, methods preventing such cases, have been shown in the paper. There also basis of mapping boundaries on the map for project, being under preparing. So, the paper is a trial towards describing real estate boundary on maps for project. The main attention has been focused on the stage of creating map and inserting on it cadastral data. It has also been remarked that in some cases other surveys must be performed, before final process of completing map for project had been made. It has also been emphasized that on maps for project, only real estate legal boundaries should be mapping

Keywords: real estate boundaries, real estate legal boundaries, boundaries according to factual status, map for project

Radosław Cellmer: **The Use of Selected Spatial Interpolation Methods for Analyzing the Worth of Land Zoned for Housing Development** • Geomatics and Environmental Engineering 2010, Vol. 4, No. 3

This study discusses cartographic presentation options for determining the worth of undeveloped land zoned for single-family housing development. Three spatial interpolation methods have been analyzed: inverse distance weighting, local polynomial interpolation and ordinary kriging. The obtained results indicate that the above methods can be applied to develop cartographic maps illustrating land worth where value at a given point in space is determined based on the prices of property in the immediate vicinity, thus satisfying the location-based similarity condition. The study relied on property transactions registered in Olsztyn in 2007–2009.

Keywords: spatial interpolation, real estate market, geostatistics

Alojzy Dzierżęga: **Determination of Angular Standard Deviation with Total Stations** • Geomatics and Environmental Engineering 2010, Vol. 4, No. 3

A compact, laboratory based method is introduced that verifies the angular measuring accuracy of surveying instruments. Angular measurements are carried out with collimators. The method has been optimized in regards to meeting stringent space and time requirements. It is suited for service workshops or institutions with limited space available.

Keywords: angular measurements, collimator, total station. accuracy, standard deviation, hypotheses test procedures, level of significance, circle eccentricity

Ryszard Hycner, Jan Ruchel: **An Influence of Location Prestige Factor on Price of Dwelling** • Geomatics and Environmental Engineering 2010, Vol. 4, No. 3

Problem of influence of location factor on price of dwelling, has been shown in the paper. It concerns especially so called luxurious dwellings, located in very attractive districts in selected Polish towns. There has also been presented similar problems concerning selected towns of the world. Investigations have been based on data coming from various sources, presented by offices of land agencies, developers companies, financial organisations, and so on. In the relation to selected Polish towns, an analysis of trend of offered prices in the period from 2007 to 2009 year, has been presented. There has been stated that one can not give any reasonable conditions as argumentation for very high prices of luxurious dwellings. One can only suppose, that the major factor influenced on very high prices of luxurious dwelling is its very prestige location. One can also observe a similar situation for prices of luxurious dwellings located in centres of the biggest towns in the world. They reach the more values the more prestige is their location.

Keywords: real estate valuation, trend, real estate market, real estate location, real estate price, apartment, luxurious dwelling

Elżbieta Jasińska, Edward Preweda, Jan Ruchel: **Modeling Transaction Prices of Properties Based on Qualitative and Quantitative Features** • Geomatics and Environmental Engineering 2010, Vol. 4, No. 3

The article presents a solution which allows to take in account the qualitative and quantitative features while modeling transaction prices of real estate apartments. The research material information concerned dwellings located within the city of Krakow, which have been sold in the period November 2008 – March 2009. Authors propose extension

of the existing ways of testing the real estate market by multi-dimensional analysis, what will allow the comparison of impact of variables without assigning them numerical values. The solution is presented by the C&RT method (Classification and Regression Trees), which does not require scaling these attributes, as it can be described in a qualitative scale. This paper describes the optimal parameters of such models, thanks to which the creation of appropriate size tree is possible, that is a tree which allows the identification of rules which develop the property market in the selected districts. This proposal extends the existing research by taking into account the qualitative and quantitative features. It allows the introduction of an additional attribute, which is the location of a premises by a chosen street, which has been overlooked until now. Apart from defining the principles developing the general price of the real estate transaction, the features of the property have been lined up, showing the necessity of taking under consideration the address of the property

Keywords: real estate market, transaction value, classification trees, dwelling properties

Paulina Lewińska: **Possible Use of Voxler and MicroStation I/MINE Programs in Surveying** • Geomatics and Environmental Engineering 2010, Vol. 4, No. 3

This article revolves around two new programs. Voxler published by Golden Software and I/MINE an expansion to Bentley's MicroStation. It shows the use of bought products in survey, visualizations and analyses. The similarities and differences between the key options of both programs and final effects are shown clearly. The main focus of this article is on ways of imputing gathered data, grid options, visualization, editing 3D images and in case of I/MINE analysis. There are given some examples of the above. The final conclusion is that I/MINE can be far more useful in survey purposes. It gives a wider range of options, analysis and is much more user friendly.

Keywords: survey, visualization, analysis, mine, grid, spatial, software, Voxler, I/MINE

Natalia Pocztar: **The Methods of Expert Valuation of Grounds in Ukraine** • Geomatics and Environmental Engineering 2010, Vol. 4, No. 3

The article presents the methods of expert valuation of grounds in the understanding of the law in Ukraine. The main Ukrainian legal acts were discussed, referring to the prices of real estates. The attention was paid on the term of "an improved ground", occurring in legal acts. Then the approaches and methods of expert valuation of grounds applied in Ukraine were presented and the assessment of usufruct laws and the restrictions in the right to use the ground.

Keywords: valuation of real estates, methods of expert valuation, Ukrainian legal acts in valuation of grounds

Anna Trembecka, Anita Kwartnik-Pruc: **Acquiring Real Estate for the Construction of Public Roads by the Current Legal Status** • Geomatics and Environmental Engineering 2010, Vol. 4, No. 3

One of the basic stages of the investment process in public roads is acquiring of the land. This issue in practice causes numerous geodetic and legal problems and prolongs the investment. Due to the necessity of the acceleration of the development of road infrastructure, new legal regulations were introduced, including acquiring the land for the road construction. The article presents the ways of acquiring the grounds for road investments starting from 16th December 2006, regarding legislation changes in the presented period.

Keywords: public roads, road construction, acquiring the grounds

Agnieszka Włodyka-Bergier, Monika Dziugieł, Tomasz Bergier: **The Possibilities of Using Constructed Wetlands to Disinfect Water** • Geomatics and Environmental Engineering 2010, Vol. 4, No. 3

This paper presents the results of the research on the possibilities to use constructed wetlands for water disinfection. The research was conducted in the laboratory conditions on the model beds filled with gravel and sand, with and without plants. During the experiments the influence of the flow rate and the initial concentration of microorganisms on the disinfection effectiveness were examined for culturable microorganisms incubated at 36°C and 22°C. The possibilities to remove bacteria from coli group, thermotolerant coli bacteria, *Escherichia coli* was also examined. The research showed the high usefulness of the constructed wetlands for the water disinfection.

Keywords: water disinfection, constructed wetlands