

## FOREWORD

Dear Readers,

First and foremost, I would like to express great satisfaction that, as per the decision by the Ministry of Science and Higher Education of the Republic of Poland, our GLL journal has been included in the national program of “Support for scientific journals.” Thereby, we are now officially an important thematic journal in the field.

At this point, I would like to thank all the honourable members of our Editorial Board – from Warsaw to Sheffield, from Vienna to Lviv, from Krakow to Munich, from Wroclaw to Beijing. Dear friends, please accept our utmost thanks for your support – for being with us, for reviewing the papers, and for submitting your own articles. We are counting on receiving many more of those. Meanwhile, our latest issue is out, containing 12 papers.

The first of the articles concerns the application of mathematical statistics for testing the correctness of geodetic equipment performance on the basis of compliance tests, and testing the statistical identity of error distributions in empirical measurements. The second article concerns the analysis of the environmental impact assessment of a road construction project in terms of correctness of its preparation. The analyses took into account the impact of the planned project on individual elements of the environment. The conclusions were based on the results of the descriptive and research analysis. The third article concerns spatial diversity of tourism attractiveness of a particular district (*poviat*), analysed with the application of the Wroclaw taxonomy. This assessment is based on the analysis of statistical data using zero unitarization.

Next (fourth), we present the results of research conducted at the Ukrainian Polar Station “Akademitsky Vernadsky” located in the Antarctic region of Galindez Island. The article sets out the relationship between global climate change and the changes taking place in the Galindez Island area based on the 3D models of the glacier surface studied using the onereviews software, applied to three-dimensional surface modelling. Their characteristics have been analysed, and 3D models were presented, that had been constructed using various software products. The fifth article is a case study on the analysis of the level of detail of a selected Local Spatial Information System (SIP), in terms of the content of databases and the possibility of using them in real estate property valuation. The research described therein was aimed at determining the suit-

ability of information collected in the analysed system for the purposes of preparing a real estate appraisal report by a property appraiser. The case study contains a comparative analysis of information available in the spatial information system of the city of Częstochowa with analogous systems operating in several selected cities (Kraków, Wrocław and Warsaw).

The next (sixth) article concerns the creation of topographical map charts based on data obtained using unmanned aerial vehicles (UAV), and applying the image classification method. Digital photographs taken during the flight constitute the basis for generating a high quality orthophotomap. Pinpointing the exact location of individual spatial elements enables the creation of cartographic documents for large areas. The paper presents the method for mapping topographical maps of rural areas founded on orthophotomaps, developed on the basis of photographs taken during the UAV flight. The supervised and unsupervised methods for classifying objects were analysed with the view to increasing the efficiency of determining the types and extent of occurrence of individual topographic objects, whereas the results obtained are used in preparing the topographic map of the studied area. An important element of the work is the classification of objects into the appropriate classes and categories, i.e. arable land, pastures, forests, water reservoirs, technical infrastructure, buildings and others. Next, particular classes undergo the cartographic generalization process, by combining smaller elements into one compound group, defining a common boundary of their occurrence, and applying appropriate graphic and colour symbols.

Another (seventh) article touches on the important issues of harmonizing the relationship between society, economy and the environment. The paper addresses this challenge in the context of developing new, more efficient and environmentally friendly technologies, the need to limit the exploitation of natural resources, reduce energy consumption, and eliminate polluting forms of production, as well as the universal change in the way of life and revision of the existing hierarchy of values. In accordance with the applicable rules, investment projects in municipalities should comply with the principle of sustainable development, thus ensuring a balance in all three areas of investment: ecological (environmental), economic, and social. The aim of the research was to conduct a comparative analysis of investment projects implemented in 2007–2013 in selected municipalities of the Warmia-Masuria Region (Voivodeship) in terms of their compliance with the principles of sustainable development of rural areas. The study pertained to investment projects that were co-financed from EU funds.

The eighth article presents the results of analyses and comparisons of selected interactive image browsers and viewers, selected tools and examples of their applications. Analyses were conducted in terms of these tools' suitability for tasks performed by public administration units, including information and education. Multiple and direct transmission of information may affect the awareness of local communities. As it has been demonstrated, public administration units often struggle with the lack of abilities and skills to use widely available technologies and design tools that allow, in a relatively simple manner and at low financial expense, to provide, for instance, online maps on the Internet. Exploratory tests consisted in determining the applicability of selected

tools for the presentation of spatial data, as illustrated with the example of land cover analysis within the Wolbrom Municipality (Poland).

The following (ninth) article is a description of the modification of the multi-valued method as an effective way of identifying prospective investment areas. The aforementioned method is a combination of cartographic research methods and mathematical analyses. The operations proposed within the presented technique can be considered as studies, constituting an indispensable basis for programming the optimal structure of land use in urban areas. As seen in the example of the collected information, various cartographic studies, as well as the existing information on the case of Dobczyce city, four functional designations were presented, of which the industrial function was selected as the one having the highest priority. The obtained results confirmed the effectiveness of the developed method, as well as its usefulness in planning practice, while emphasizing the synergistic effect of the collated objectives.

The next (tenth) article discusses the problem of the unambiguous determination of the coordinates of the measurement network points in the State Geodetic Coordinate System 2000, stabilized during the works related to establishing land records (register of land and buildings) in Poland. The solutions and measurement methods applied in this respect, in accordance with the applicable standards, in many cases do not allow the correct identification of the boundary points of the land plots in the process of their designation. The data provided by the District Centre for Geodetic and Cartographic Documentation (PODGiK) regarding the coordinates of the measurement network points established for the purpose of creating land records in the period after World War II presents a lot of problems for geodetic contractors – land surveyors. Due to the lack of unambiguous coordinates of the measurement network points, it is often required for additional work to be undertaken, including the identification of measurement network points and the verification of their position in the field on the basis of archival data. These are time-consuming operations, which moreover do not always bring the intended result. The article contains the results of research on the compatibility of archival data with the actual location of measurement network points in several selected precincts of the Świętokrzyskie Region (Voivodeship). Based on the analyses that were conducted, discrepancies were determined between the data constituting the PODGiK resources, and a solution was proposed to obtain coordinates of measurement network points that could be considered appropriate.

The eleventh article deals with the issue of tourism development of the space in coastal zones, as illustrated with a case example of the spa city of Ustka, located within the zone that performs tourism, agricultural and forest functions in this region of Poland. A fragment of the coastal belt was examined, which constitutes the main recreation and leisure area. The article presents an analysis of the specificity of development of the eastern part of the Baltic coast, in the city of Ustka. One of the goals of the article is to draw attention to the landscape issue and the legal problem of unfinished construction projects, especially troublesome in places with deficits of recreational spaces.

The last (twelfth) article concerns selected problems in the scope of the examination of the real estate appraisal reports in court and administrative proceedings, against the

background of the case law of the Supreme Court of the Republic of Poland, as well as Polish common and administrative courts. The article presents considerations regarding the practical problem of the scope of the examination, by the court or an administrative body, of the real estate appraisal report. An important result of the analyses is the conclusion that there is no uniform view developed in the courts' jurisprudence in this matter. Various positions can be observed – from limiting the possibility of examining the real estate appraisal report to formal issues only, to the position allowing the possibility of far-reaching interference with its substantive content.

I would like to wish you a most pleasant reading.

*Prof. dr hab. Urszula Litwin, Scientific Editor  
of "Geomatics, Landmanagement and Landscape" journal  
Dr hab. Jacek M. Pijanowski, V-ce-chair of Editorial Board  
of "Geomatics, Landmanagement and Landscape" journal*