



Politechnika Świętokrzyska
Kielce University of Technology



Zakład Katastru
i Gospodarki
Nieruchomościami

Kielce University of Technology

State Higher School of
Technology and Economics
in Jarosław

Warsaw University of Technology



Lviv National Agrarian
University in Dubliany



Tokat Gaziosmanpaşa University



University of Oradea



UNIVERSITÀ DEGLI STUDI
DI PERUGIA

Università degli Studi di Perugia



Association for Rural Development



Association of Polish Surveyors,
Świętokrzyskie Branch Office
Rzeszów Branch Office

We invite you to participate in the
9TH INTERNATIONAL SCIENTIFIC CONFERENCE

*Collection and processing
of surveying and economic data*
COMMUNICATION No. 3

KIELCE, POLAND, OCTOBER 24-25, 2019

Honorary Patronage



Surveyor General of Poland



Politechnika Świętokrzyska
Kielce University of Technology

Rector prof. Wiesław Trąmpezyński



Voivode
of the Świętokrzyskie Province



Marshal
of the Świętokrzyskie Province



Mayor of Kielce



Starost of Kielce



Media Patronage



GEOPARK
KIELCE

SCIENTIFIC COMMITTEE

CHAIRMAN : Dr hab. inż. Janusz DĄBROWSKI, prof. PWSTE State Higher School of Technology and Economics in Jarosław, Poland			
VICE-CHAIRMAN: Dr hab. inż. Katarzyna SOBOLEWSKA-MIKULSKA, prof. PW Warsaw University of Technology, Poland Dr inż. Ryszard FLOREK-PASZKOWSKI Kielce University of Technology, Poland			
Dr hab. inż. Paweł HANUS, prof. AGH Dr hab. inż. Piotr PARZYCH, prof. AGH Dr hab. inż. Edward PREWEDA, prof. AGH Dr hab. inż. Agnieszka BIEDA Dr hab. inż. Małgorzata BUŚKO Dr hab. inż. Jarosław BYDŁOSZ Dr hab. inż. Anita KWARTNIK-PRUC Dr hab. inż. Marcin LIGAS Dr hab. inż. Sławomir MIKRUT	AGH University of Science and Technology, Krakow, Poland	Prof. dr hab. inż. Józef CZAJA Prof. dr hab. inż. Konrad ECKES Prof. nadzw. dr hab. Krzysztof REJMAN	State Higher School of Technology and Economics in Jarosław, Poland
		Prof. PhD. Ersoy ARSLAN Assoc. Prof. PhD. Tekin SUSAM	Tokat Gaziosmanpaşa University, Turkey
		Assoc. Prof. PhD. Carlos Barranco MOLINA	University of Huelva, Spain
		Assoc. Prof. PhD. Eng. Sorin NISTOR	University of Oradea, Romania
		Assoc. Prof. PhD. Marco VIZZARI	University of Perugia, Italy
		Prof. Andrea DE MONTIS	University of Sassari, Italy
		Prof. Giuseppe MODICA	Mediterranean University of Reggio Calabria, Italy
		Assoc. Prof. PhD. Eng. Ebru COLAK Assoc. Prof. PhD. Eng. Yakup Emre CORUHLU	Karadeniz Technical University Trabzon, Turkey
		Prof. dr hab. inż. Karol NOGA	University of Life Sciences in Lublin, Poland
Prof. dr hab. inż. Franciszek WOCH	Institute of Soil Science and Plant Cultivation, Pulawy, Poland	Dr hab. inż. Jarosław JANUS, prof. UR Dr hab. inż. Wojciech PRZEGON, prof. UR Dr hab. inż. Jacek PIJANOWSKI, prof. UR Dr hab. inż. Monika MIKA, prof. UR Dr hab. inż. Monika SIEJKA, prof. UR Dr hab. inż. Zbigniew SIEJKA	University of Agriculture in Krakow, Poland
Prof. PhD. Velta PARSOVA	Latvia University of Agriculture, Latvia		
Prof. PhD. Mykhailo STUPEN Prof. PhD. Volodymyr SNITYNSKYJ Assoc. Prof. PhD. Eng. Pavlo KOLODIY Assoc. Prof. PhD. Eng. Ruslana TARATULA	Lviv National Agrarian University in Dubliany, Ukraine		
Prof. dr hab. inż. Krystyna BURSHTYNSKA Prof. dr hab. inż. Kornelij TRETAK	Lviv Polytechnic National University, Ukraine	Dr hab. inż. Małgorzata KRAJEWSKA, prof. UTP Dr hab. inż. Janusz KWIECIEŃ, prof. UTP	UTP University of Science and Technology, Bydgoszcz, Poland
Prof. dr hab. Alina MACIEJEWSKA Dr hab. inż. Anna BIELSKA	Warsaw University of Technology, Poland	Prof. dr hab. inż. Sabina ŻRÓBEK Prof. dr hab. inż. Ryszard ŻRÓBEK Dr hab. inż. Katarzyna KOCUR- BERA, prof. UWM Dr hab. inż. Agnieszka DAWIDOWICZ, prof. UWM Dr hab. inż. Krystyna KUROWSKA	University of Warmia and Mazury in Olsztyn, Poland

ORGANIZING COMMITTEE

CHAIRMAN: dr inż. Agnieszka CIENCIAŁA	Kielce University of Technology, Poland
VICE-CHAIRMAN: dr inż. Monika BALAWAJDER	State Higher School of Technology and Economics in Jarosław
VICE-CHAIRMAN: mgr inż. Piotr SEMANIAK	Kielce University of Technology, Poland
SECRETARY: mgr inż. Szymon SOBURA	Kielce University of Technology, Poland
dr inż. Marek BANAŚ	State Higher School of Technology and Economics in Jarosław
dr inż. Katarzyna MATKOWSKA	State Higher School of Technology and Economics in Jarosław
dr inż. Artur WARCHOŁ	State Higher School of Technology and Economics in Jarosław
dr inż. Robert ŁUCZYŃSKI	Warsaw University of Technology, Poland
dr inż. Ewa GŁOWIENKA	AGH University of Science and Technology, Krakow, Poland
Assist. Prof. PhD. Amalia STURZA	University of Oradea, Romania
Assoc. Prof. PhD. Eng. Oleksandra KOVALYSHYN	Lviv National Agrarian University in Dubliany, Ukraine
Assist. Prof. PhD. Servet YAPRAK	Tokat Gaziosmanpaşa University, Turkey

PURPOSE OF THE CONFERENCE

The 9TH International Scientific Conference will focus on the technologies referring to collection and processing of surveying and economic data. The purpose of the conference is to present new approaches in the scientific research at the national and international level, dealing with methods and techniques used in geomatics. The wide range of issues refers not only to researchers, but also to the geomatic environments.

Main thematic areas:

- Geomatics;
- Surveying arrangement of rural space;
- Real estate management;
- Cadastre;
- Engineering surveying;
- Geoinformatics;
- Photogrammetry and Remote Sensing;
- Valuation of real estate;
- GIS.

PUBLICATIONS

1. Structure and Environment- eng + pol;
2. Journal of Applied Engineering Sciences - eng.; 20 pkt
3. Journal of Water and Land Development — eng.; 40 pkt
4. Geodesy and Cartography - eng. 20 pkt
5. Reports on Geodesy and Geoinformatics – eng. 20 pkt
6. REAL ESTATE MANAGEMENT AND VALUATION – eng.; 20 pkt
7. Geomatics and Environmental Engineering– eng. ; 20 pkt
8. Woda-Środowisko-Obszary Wiejskie - pol./rus./eng
9. Acta Scientiarum Polonorum Administratio Locorum - pol./eng.; 20 pkt
10. Geomatics, Landmanagement and Landscape- eng.; 20 pkt
11. Budownictwo i Architektura- pol./eng.; 20 pkt
12. Remote Sensing "Remote Sensing and GIS for Environmental Analysis and Cultural Heritage"- eng; 100 pkt

Detailed information concerning the possibility of publishment of the articles can be found on the websites of each of the publishing houses. If required, the publication fee can be paid to the publisher's account after positive review of the article.

WAŻNE TERMINY

until 30 September 2019

until 30 September 2019

until 30 September 2019

until 05 October 2019

Application for participation and sending summaries of papers

Making payment for conference participation (EURO 120)

Sending full texts of articles to publishing houses

Information about qualification for the plenary or poster session



CONFERENCE FEE

In order to participate in the conference, you need to send an application form [online registration] at the following address: konferencja.pwste.edu.pl.

Conference participation fee is: **EURO 120 (or 450 PLN) until 30th of September 2019**

including: participation, meals, conference materials.

Participants make a reservation and cover the cost of accommodation on their own.

Hotel Uroczysko (place for the Conference and for the evening supper):

- 1 person room standard – 200,00 zł (approximately 46 Euro),
- 2 person room standard – 220,00 (approximately 51 Euro),
- 1 person room De Lux – 220,00 zł (approximately 51 Euro),
- 2 person room De Lux – 250,00 zł (approximately 58 Euro).

Reservations should be made at the following e-mail address: rezerwacja@hotel-uroczysko.com.pl

Phone contact to the hotel: +48 696 494 843

More information about the place of stay at: www.hotel-uroczysko.com.pl

The conference fee must be paid on the following account:

Kielce University of Technology

25-314 Kielce, al. Tysiąclecia Państwa Polskiego 7

NIP PL 657-000-97-74

Account number:

KOD SWIFT/BIC: PKOPPLPW

Number IBAN: PL18 1240 1372 1111 0000 1249 0552

with a note: "IX Surveying Conference (name of participant and of the institution for which the invoice should be prepared)"

CONTACT

ORGANIZATION, PUBLICATIONS

dr inż. Agnieszka Cienciała
Kielce University of Technology

phone. +48 508099403
acienciala@tu.kielce.pl

REGISTRATION AND PROGRAM

dr inż. Monika Balawejder
State Higher School of Technology
and Economics in Jarosław

phone. +48 660664569
monika.balawejder@pwste.edu.pl

FEES AND INVOICES

mgr inż. Piotr Semaniak
Kielce University of Technology

phone. +48 602794897
psemaniak@tu.kielce.pl

CONFERENCE VENUE

Hotel Uroczysko

Cedzyna 44D, 25-900 Kielce

www.hotel-uroczysko.com.pl



During the stay in the hotel guests are welcome to use the swimming pool complex and various amenities.

www.konferencja.pwste.edu.pl

FIRST DAY: 24 October 2019, THURSDAY

Conference location: Hotel Uroczysko Spa & Business ***** Cezdyna 44D, 25-900 Kielce

33. The use of augmented reality in the process of revitalization
Kazmierczak Radek, Tomasz Podchoborski - University of Warmia and Mazury in Olsztyn, Poland
34. Assessment of the economic efficiency level of agricultural lands use
Mykhailo Stupen - Lviv National Agrarian University, Ukraine
35. Bootstrap methods for determining the influence of the transaction date on real estate prices
Tomasz Adamczyk - AGH University of Science and Technology in Kraków, Poland
36. Analysis of the implementation of the state registration of transactions with immovable property in the Republic of Belarus
Natalia Krutkavich - Belarusian State Agricultural Academy, Minsk, Belarus
37. The development of recreational areas on the left territory of the Precarpatian region as a component of effective land management
Oksana Gera - Ivano-Frankivsk National Technical University of Oil and Gas, Ukraine
38. The project of a database model supporting revitalization works
Tomasz Podchoborski - University of Warmia and Mazury in Olsztyn, Poland
39. Economic aspects of the use and protection of land of aviation transport
Mykhailo Stetsiuk - National Aviation University, Kyiv, Ukraine
40. The impact of local investments on real estate market – case study in Poland
Monika Mika, Paweł Koliński - University of Agriculture in Kraków, Poland
41. Selected aspects of LiDAR data quality in the context of BIM modelling
Artur Warchoł^{1,2} - The State Higher School of Technology and Economics in Jarosław, Poland, ¹Progea 4D
42. Land moratorium: threats, mechanisms, prospects
Svitlana Małachova - Lviv National Agrarian University, Ukraine
43. Geodetic observations of pipeline movements at sections of air crossings
Roksana Oleśki - Ivano-Frankivsk National Technical University of Oil and Gas, Ukraine
44. Estimation of usable area of flat-roof residential buildings using topographic data with machine learning methods
Leszek Dawid, Anna Dawid, Michał Torza - Technical University of Koszalin, Poland
45. Modern methods of soil fraction testing in aspect of bonitation classification
Agnieszka Łudyna - Kielce University of Technology, Poland
46. Problems of filling of the state land cadastre with qualitative data for lands market improvement
Roksana Taradla, Roman Taradla, Bohdana Kyndik - Lviv National Agrarian University, Ukraine
47. GeoSurvey as a tool for studying spatial awareness
Agnieszka Dawidowicz, Anna Kimach - University of Warmia and Mazury in Olsztyn, Poland
48. Innovative solutions for stabilizing reference spheres on the land surface and to balustrades and handrails
Maria Małach - Pałaga Gawełek - University of Agriculture in Kraków, Poland
49. Algorithms for processing hyperspectral and multispectral data in monitoring and modeling of environmental changes
Ewa Głowienka, Beata Hejmanowska, Sławomir Mikrot¹, Krystyna Maciejowska², Piotr Karanycz³
¹AGH University of Science and Technology, Poland, ²HyprLab Solution sp. z o.o., Gdańsk University of Technology, Poland
³Roman Supen - Lviv National Agrarian University, Ukraine

Information about publishing in the scientific journal "Geomatics and Environmental Engineering"
Piotr Parzych - AGH University of Science and Technology in Kraków, Poland



- 9.30-10.00 REGISTRATION OF THE PARTICIPANTS
- 9.30-10.00 Installation of posters
- 10.00-10.30 Conference Opening - Dr hab. inż. Janusz Dąbrowski, Prof. PWSZ, Dr hab. inż. Katarzyna Sobolewska-Mikulska, Prof. PW, Dr inż. Ryszard Fiołek-Paszkowski, Dr inż. Agnieszka Ciencala, Dr inż. Monika Balaeweller
- 10.30-11.00 PLENARY SESSION - CHAIR:
Dr hab. inż. Janusz Dąbrowski, Prof. PWSZ - The State Higher School of Technology and Economics in Jarosław & Dr inż. Ryszard Fiołek-Paszkowski - Kielce University of Technology
- 10.30-11.00 New generation of PhaseOne aerial cameras and systems
Keynote Speaker: Ph.D. Yurit Raizman - PhaseOne Industrial and GeoCloud, Tel Aviv, Israel
- 11.00-11.10 Discussion
- 11.10-11.40 Coffee break
- 11.40-12.45 I PRESENTATION SESSION - CHAIR:
Dr hab. inż. Katarzyna Sobolewska-Mikulska, Prof. PW - Warsaw University of Technology & Dr inż. Agnieszka Ciencala - Kielce University of Technology
- 11.40-11.50 Real estate assets management
Prof. dr hab. inż. Ryszard Zióbek¹, Msc. Mał Do Thi Tuyet²
¹University of Warmia and Mazury in Olsztyn, Poland; ²Vietnam National University of Agriculture in Hanoi, Vietnam
- 11.50-12.00 Trends of Development of National Real Property Cadastre in Latvia
Prof. dr hab. inż. Vēlā Parsova, Msc. Baiba Ziemele - Latvian Agricultural University, Jelgava, Latvia
- 12.00-12.10 The impact of road traffic noise on housing prices – case study in Poland
Dr hab. inż. Janusz Kwiatkowski, Prof. UTP, Dr inż. Kinga Szopkowska, Dr hab. inż. Małgorzata Krajewska, Prof. UTP - UTP University of Science and Technology in Bydgoszcz, Poland
- 12.10-12.20 Improving the kinematic determination using different GNSS data: GLONASS, GALILEO and GPS
Assoc. Prof. Ph.D. Nisim Sorn, Assist. Prof. Ph.D. Analia Surza, Assist. Prof. Ph.D. Sora Norbert Szaboics, Assist. Prof. Ph.D. Aurelian Stefan Buda - University of Oradea, Romania
- 12.20-12.30 Touristic thematic maps for agri-tourism – conceptual and technological GIS aspects
Dr inż. Ryszard Fiołek-Paszkowski, Kielce University of Technology, Poland
- 12.30-12.45 Discussion
- 12.45-14.00 II PRESENTATION SESSION - CHAIR:
Prof. dr hab. inż. Ryszard Zióbek - University of Warmia and Mazury in Olsztyn & Dr hab. inż. Monika Balaeweller - The State Higher School of Technology and Economics in Jarosław
- 12.45-12.55 Cadastria data as a source of information about spatial phenomena
Dr hab. Agnieszka Biner-Falkowska - University of Agriculture in Kraków, Poland
- 12.55-13.05 Land valuation system in Vietnam
Prof. dr hab. inż. Ryszard Zióbek¹, Msc. Mał Do Thi Tuyet²
¹University of Warmia and Mazury in Olsztyn, Poland; ²Vietnam National University of Agriculture in Hanoi, Vietnam
- 13.05-13.15 Chosen statistical methods for the detection of outliers in real estate market analysis
Dr hab. inż. Anna Baraniska, Prof. AGH, Mgr inż. Beata Spiewak - AGH University of Science and Technology in Kraków, Poland
- 13.15-13.25 3D modeling of discontinuity in the spatial distribution of apartment prices using Voronoi diagrams
Dr hab. inż. Mirosław Bęgi, Dr inż. Marta Fournier - University of Warmia and Mazury in Olsztyn, Poland
- 13.25-13.35 Development of small water retention within the proceedings of land consolidation
Dr inż. Małgorzata Stanczak-Gawliczek - Warsaw University of Technology, Poland
- 13.35-13.45 Verification of the correctness of the road network layout in the land consolidation and exchange project using modern technologies and geomatic tools
Dr inż. Monika Balaeweller, Dr inż. Marek Banas, Dr inż. Katarzyna Małkowska, Dr inż. Artur Warchoł - The State Higher School of Technology and Economics in Jarosław, Poland
- 13.45-14.00 Discussion
- 14.00-14.45 I POSTER SESSION - CHAIR:
Dr inż. Łukasz Kuleczka - Kielce University of Technology & Dr inż. Marek Banas - The State Higher School of Technology and Economics in Jarosław
- 14.45-15.15 III PRESENTATION SESSION (in Polish) - CHAIR:
Dr hab. inż. Karol Hoga - Lublin University of Technology & Dr inż. Katarzyna Małkowska - The State Higher School of Technology and Economics in Jarosław
- 15.15-15.25 Analysis of the impact of open cast mining on rural development
Prof. dr hab. Alina Maciejewska, Mgr inż. Łukasz Kuzak - Wroclaw University of Technology, Poland
- 15.25-15.35 Evaluation of the possibility of using remote sensing and GIS techniques to assess moisture in surface soil layer on grassland
Prof. dr hab. inż. Andrzej Żyromski, Prof. dr hab. inż. Małgorzata Binał-Pięty, Mgr inż. Krystyna Świerdz, Dr hab. inż. Mariusz Sołkaj, Dr inż. Joanna Jasłuszka, Dr inż. Radek Radek - Wrocław University of Science and Technology, Poland
- 15.35-15.45 Land use changes modeling based on a statistical approach: Some observations from eastern Poland
Dr inż. Tomasz Noszczyk - University of Agriculture in Kraków, Poland
- 15.45-15.55 Infrastructure of Spatial Information in Poland from the point of view of needs of the communities
Dr inż. Józef Maślanka - AGH University of Science and Technology in Kraków, Poland
- 15.55-16.05 Hierarchy of facilities regarding the location of real estate
Dr inż. Anna Przemysławski - AGH University of Science and Technology in Kraków, Poland

16.05-16.15 **Information about real estate – a comparative study of Poland and Latvia**
Dr hab. inż. Kocur-Biera Katarzyna, Prof. UWM¹, Prof. dr hab. inż. Vēlra Pārsone²
University of Warmia and Mazury in Olsztyn, Poland, ¹Latvian Agricultural University, Jēgava, Latvia

16.15-16.30 Discussion

16.30-19.00 Free time: visit to the Centre of Geopeducation - Geopark, Kielce / relax in the SPA zone of the Hotel

19.00 Gala dinner in Uroczysko Hotel

SECOND DAY: 25 October 2019, FRIDAY

Conference location: Hotel Uroczysko Spa & Business *****, Cezdyňa 44D, 25-900 Kielce

9.00-10.20 **IV PRESENTATION SESSION - CHAIR:**
Dr hab. inż. Sławomir Mierut, Prof. AGH – AGH University of Science and Technology in Krakow
& Dr inż. Małgorzata Stenczak-Sławaszczek – Warsaw University of Technology

9.00-9.30 GeoCloud cloud-based SaaS platform – first year of operationsystems
Keynote Speaker: Ph.D. Yair Razzman - PhasOffice Industrial and GeoCloud, Tel Aviv, Israel

9.30-9.40 The measurement of anthropogenic terrain forms using archival aerial photos: case study of Promnik landfill
Dr Maciej Haidukiewicz - Kielce University of Technology, Poland

9.40-9.50 Determination of the land development potential using geographic data analysis
Dr inż. Sadaa Tomasz, Mgr inż. Anna Kukułska-Kozel - University of Agriculture in Krakow, Poland

9.50-10.00 Spatial Data Infrastructure of Świętokrzyskie Voivodship - slpa-swietokrzyskie.pl
Mgr inż. Piotr Czarniecki, Mgr inż. Marek Koliński, Mgr inż. Katarzyna Grabowska, Mgr inż. Karolina Hays - Marshal's Office of Świętokrzyskie Region, Poland

10.00-10.10 Mental maps in the analysis of urban space perception
Dr inż. Stanisław Szombara - AGH University of Science and Technology in Krakow, Poland

10.10-10.20 Discussion

10.20-10.50 Coffee break

10.50-12.20 **V PRESENTATION SESSION - CHAIR:**
Dr hab. inż. Janusz Kuciński, Prof. UTP – UTP University of Science and Technology in Bydgoszcz
& Dr hab. inż. Alina Kwarciak-Pro, Prof. AGH – AGH University of Science and Technology in Krakow

10.50-11.00 Land use forecasting with application of high precision terrain models
Assoc. Prof. Ph.D. Pawo Kołody - Lviv National Agrarian University, Ukraine

11.00-11.10 Verification of cadastral database with use of photogrammetric data
Dr inż. Ewa Sudoł - Wrocław University of Science and Technology, Poland

11.10-11.20 Surveying and photogrammetric methods in registration and verification of cadastral data regarding land use
Dr inż. Agnieszka Chencioła, Mgr inż. Szymon Sobura - Kielce University of Technology, Poland

11.20-11.30 Assessment of vertical accuracy of DTM ISOK
Dr inż. Łukasz Kulesza - Kielce University of Technology, Poland

11.30-11.40 On the Tandem-X gpm Global Digital Surface Model
Dr hab. inż. Kazimierz Bećek, Prof. PwT - Wrocław University of Science and Technology, Poland

11.40-11.50 Possibility of digitalization of planning data in the aspect of existing legal provisions
Mgr inż. Monika Zielińska, Dr inż. Józef Kłasiński, Dr hab. inż. Piotr Parzycki, Prof. AGH - AGH University of Science and Technology in Krakow, Poland

11.50-12.00 Analysis of technical and legal obstacles in the process of creating a 3D cadastre in Polish conditions
Dr hab. inż. Monika Mikić, Prof. UR, Mgr inż. Magdalena Jurkiewicz - University of Agriculture in Krakow, Poland

12.00-12.10 Comparison of the time of the execution of the chosen spatial analysis for GIS software: ArcGIS and QGIS and DMS: Spatialite and PostGIS
Mgr inż. Justyna Dębicka, Dr inż. Stanisław Szombara - AGH University of Science and Technology in Krakow, Poland

12.10-12.20 Discussion

12.20-13.50 **VI PRESENTATION SESSION (in Polish) - CHAIR:**
Prof. dr hab. inż. Bogdan Wośki - Kielce University of Technology
& Dr inż. Anna Przewiężlikowska – AGH University of Science and Technology in Krakow

12.20-12.30 The influence of selection criteria of comparables and their attributes on the accuracy of the property value estimation
Dr inż. Zygna Jacek - Lublin University of Technology, Poland

12.30-12.40 Proposal for distribution of agricultural land
Dr inż. Zanna Strek, Dr inż. Paweł Postek, Dr hab. inż. Przemysław Leń, Prof. UTP - Dr inż. Justyna Wójcik-Leń - University of Life Sciences in Lublin, Poland

12.40-12.50 Air pollution as a factor determining investment site selection
Dr hab. inż. Monika Sękła, Prof. UR, Mgr inż. Marcin Gack - University of Agriculture in Krakow, Poland

12.50-13.00 Resources used in measurements of the Crown of Polish Mountains
Mgr inż. Justyna Dębicka, Dr inż. Karol Marciak - AGH University of Science and Technology in Krakow, Poland

13.00-13.10 The conversion of heights of the benchmarks of the detailed vertical reference network into the PL-EUREF2007-M frame
Dr inż. Łukasz Bownski¹, Dr hab. inż. Piotr Barański, Prof. AGH²
¹Lublin University of Technology, ²AGH University of Science and Technology in Krakow, Poland

13.10-13.20 Analytical and graphic compilation of geodetic measurements, taking into account their meaning and destination in industrial interpretation of results
Dr inż. Krzysztof Pienkuszka - Kielce University of Technology, Poland

13.20-13.30 Research on the positioning accuracy with the use of various GNSS for the purpose of the precise real-time satellite measurements
Dr hab. inż. Zdzisław Sękła - University of Agriculture in Krakow, Poland

13.30-13.40 Conditions for the development of commercial real estate market on the example of the city of Jarosław
Dr hab. inż. Janusz Dąbrowski, prof. PWSTF¹, Anna Salanowa²
¹The State Higher School of Technology and Economics in Jarosław, Poland, ²College of International Business ISM Slovakia in Prešov, Slovakia

13.40-13.50 Discussion

13.50-14.20 **II POSTER SESSION - CHAIR:**
Dr inż. Tomasz Adamczyk – AGH University of Science and Technology in Krakow
& Dr inż. Leszek Dawid – University of Technology Koszalin

14.20-14.30 Closure of the Conference

14.30-15.30 Lunch

POSTER SESSION

1. Method of delimitating the spatial structure of villages for the needs of land consolidation and exchange
Katarzyna, Zanna Strek - University of Life Sciences in Lublin, Poland
2. Comparison of current and past trends in planning of multi-family housing in Poland
Agnieszka Dawidowicz, Elżbieta Zysk, Adam Seneiza, Ryszard Zdobek - University of Warmia and Mazury in Olsztyn
3. GNSS clocks stability analysis based on the 1 Hz observations
Karol Marciak - AGH University of Science and Technology, Poland
4. UAV applied to precision viticulture: a semi-automatic procedure for vine trees detection and analysis
Francesco Santaga¹, Filippo Matarazzi², Marco Vizzari³, Agnieszka Chencioła⁴
¹University of Perugia, Italy, ²Dronework s.r.l. Italy, ³Kielce University of Technology, Poland
5. The importance of soil conditions in the residential development in suburban areas - Poland case study
Anna Bielicka, Agnieszka Wendland, Iwona Kurek - Warsaw University of Technology, Poland
6. A building plot in the aspect of newly designed property borders
Piotr Serniack - Kielce University of Technology, Poland
7. Determination of the plot boundaries during the modernization of the cadastre - assessment of selected legal and technical procedures
Małgorzata Buśko - AGH University of Science and Technology, Poland
8. Assessment of the legal possibilities of using the data of the state geodetic and cartographic resource to introduce historic undergrounds into the 3D cadastre
Monika Balażewicz¹, Agnieszka Bieda², Rusłana Tarabuk³
¹The State Higher School of Technology and Economics in Jarosław, Poland, ²AGH University of Science and Technology in Krakow, Poland
³Lviv National Agrarian University, Ukraine
9. Usefulness of ASTER and Landsat 8 Scenes to Aid in 1: 50,000 Scale Geological Mapping: A Case Study of Murchison Greenstone Belt Area, South Africa
Abraham Thomas PR, SICHANI, GISC, PR - Council for Geoscience, Pretoria, South Africa
10. Assessing the possibility of using the Gini coefficient for the purpose of analyzing the price dispersion on the real estate market
Justyna Brzezicka - University of Warmia and Mazury in Olsztyn, Poland
11. Luxury real estate market in Poland
Natalia Sapijko, Andrzej Borkowski - Warsaw University of Technology, Poland
12. Analysis of the location of primary schools in the context of the proper land management of the Bemowo district after the Education Reform in 2017
Kornel Podowca, Agnieszka Chencioła - ¹Warsaw University of Life Sciences, Poland, ²Kielce University of Technology, Poland
13. The Act on the development of land communities as the basis for regulating the legal status of land occupied for municipal roads
Alina Kwarciak-Pro, Alina Mączkowska - AGH University of Science and Technology, Poland
14. Digitalization of local spatial development plans in selected municipalities - form and details level
Alina Mączkowska, Wojciech Bartoszczuk - Warsaw University of Technology, Poland
15. Methods and accuracy of determining the areas of administrative territorial and territorial units in the Republic of Belarus
Olgia Pieskavaya, Yanna Isayeva - Belarussian State Agricultural Academy, Belarus
16. Environmental noise in the awareness of buyers of residential premises – case study of Central and Eastern Europe
Kinga Szopinska, "Ivo Kostov" - "Taras Shevchenko" - UTP University of Science and Technology in Bydgoszcz, Poland, ¹University of Economics - Varna, ²National University of Life and Environmental Sciences of Ukraine
17. The efficiency of applying the effective age method for locative buildings in the Republic of Moldova
Valdim Ciubă, Rodica S. Ioni, Pavel T. Iu - Tiraspol State University, State Agrarian University of Moldova, Moldova
18. The issue of transforming the perpetual usufruct right into ownership
Anna Trzebicka - AGH University of Science and Technology in Krakow, Poland
19. The information potential of satellite remote sensing data in storm flow modeling
Gabriel Gosselin, Bartosz Szeliąg, Ewa Glowienka, Agnieszka Chencioła, Szymon Sobura - ¹PCI Geomatics, Markham, Canada, ²Kielce University of Technology, ³AGH University of Science and Technology in Krakow, Poland
20. Safety of personal data in IT systems
Anna Osinska - The Warmia and Mazury Vocational Training Center in Olsztyn, Poland
21. Photogrammetric and geodetic inventory of deteriorating architectural monuments on the example of the Sobien Castle in Monasteczko and the Carmelite Church in Zagórz
Paulina Lewińska, Stanisław Szombara, Maria Rog, Anna Żądło, Marcin Głinałowicz - AGH University of Science and Technology in Krakow, Poland
22. Problems of access to the public road of newly-separated plots in the aspect of local plan regulations
Anna Michalek, Teresa Front-Dąbrowska - Kielce University of Technology, Poland
23. Impact of crustal deformation on the boundary points disclosed in the real estate cadastre
Karol Marciak, Agnieszka Pęska-Siwik - AGH University of Science and Technology in Krakow, Poland
24. UAV Based 3D Modelling and Surveying of Historical Buildings
Suam Tejin, Çağrı Ruşşu, Gezgün Kübra, Pala Sema - Iktel Gazetecilik ve Yayıncılık University, Turkey
25. Applications supporting databases validation GESUR, BD07500, EGBR
Katarzyna Markowska, Justyna Skalska - Oleg Bida
¹The State Higher School of Technology and Economics in Jarosław, Poland, ²Lviv National Agrarian University, Ukraine
26. Theological foundations in the professional ethics of real estate market advisors - legal analysis of court decisions
Elżbieta Zysk, Łukasz Kowalski - University of Warmia and Mazury in Olsztyn, Poland
27. Preliminary assessment of the possibility of introducing the "time" dimensions to the real estate cadastre
Joanna Berzyska - AGH University of Science and Technology, Poland
28. Methods and accuracy of determining the areas of administrative territorial and territorial units in the Republic of Belarus
Yanna Isayeva, Olga Pieskavaya - Belarussian State Agricultural Academy, Minsk, Belarus
29. Information support of cadastral system of Ukraine and Poland
Anna Przewiężlikowska¹, Oleksandra Kovalyshyn², ¹AGH University of Science and Technology in Krakow, Poland, ²Lviv National Agrarian University, Ukraine
30. Methodical fundamentals of land assessment in Ukraine
Zoriana Ryznok - Lviv National Agrarian University, Ukraine
31. Knowledge of the Territory's Environment. Experiment with a headlight identifier
Cándis Bararico Molina - University of Huelva, Spain
32. Inventory of agricultural lands of state ownership
Galyna Hesterenko - Lviv National Agrarian University, Ukraine