

Preliminary schedule of the ISAG2024 symposium
Wroclaw University of Science and Technology
9 – 10 May 2024

9 May 2024

Venue: H14

7:30 – 8:30 – Registration

8:30 – 9:30 – Opening ceremony

Keynote speaker 1: Prof. B. Hejmanowska

Keynote speaker 2: Prof. W. Kresse

9:30 – 10:00 – Coffee break

10:00 – 11:30 – Satellite Image Providers Session

11:30 - 13:00 – Lunch and transfer to the conference venue Geocentrum – L2 via Pollink

Venue: Geocentrum L2

13:00 – 14:30 – 1. Parallel sessions

14:30 – 16:00 – Poster session

16:00 – 16:30 – Coffee break

16:30 – 18:00 – 2. Parallel sessions

20:00 – Icebreaking event on the banks of the Odra River

10 May 2024

Venue: Geocentrum L2

09:00 – 10:30 – 3. Parallel sessions

10:30 – 11:00 – Coffee break

11:00 - 12:30 – 4. Parallel sessions

12:30 – 13:30 – Lunch

13:30 – 15:00 – 5. Parallel sessions

15:00 – 15:30 – Coffee break

15:30 – 17:00 – 6. Parallel sessions

17:00 – 17:30 – Conclusion of the symposium; Farewell coffee

Wroclaw, 19/04/2024

ORAL Presentations

1. Parallel sessions

Thursday 9 May 13:00 –14:30	Session 1.1 – Environmental Monitoring Venue: TBA Chair: TBA
14547	SELIN UYAR and MUZAFFER CAN IBAN Exploring the Influence of LST and NDVI on Real Estate Values in Turkish Cities Through Regression Analysis
15243	ANITA KUKULSKA-KOZIEŁ, JULIA GORZELANY and TOMASZ NOSZCZYK Greenery in Times of Crisis: Residents' Travel Preferences
14923	VIDYA NAHDHIYATUL FIKRIYAH, ROSHANAK DARVISHZADEH, ALICE LABORTE and ANDREW NELSON Sentinel-1 Backscatter Analysis of Ratoon Rice Crops: Example from Ratooning Practice in the Philippines
15356	ERDEM COŞKUN, AHMET YİĞİT ARABUL and ABDULLAH POLAT Calculating the Carbon Footprint of Industrial Induction Motors via Life Cycle Analysis
15193	VIKTORIIA HNATUSHENKO, DMYTRO SOLDATENKO, VOLODYMYR HNATUSHENKO and CHRISTIAN HEIPKE Machine Learning Approaches for Evaluating Forest Fire Impacts on Sentinel-2 Satellite Imagery across Ukraine
15194	MYKHAILO LOHACHOV, KAZUO OKI and NOBUYUKI UTSUMI Residual Attention Downscaling Model on the Japanese 55-year Reforecast for Hydrological Applications

Thursday 9 May 13:00 –14:30	Session 1.2 – Photogrammetry and Remote Sensing Venue: TBA Chair: TBA
15191	RAYAN NAS, ANIL OLGAÇ, and İDİL PORA ÖLMEZ Flood Dynamics Evaluation Using Sentinel-1 SAR Intensity and Coherence for Mapping Extent and Depth Estimation
15200	SAYED ISHAQ DELIRY and UĞUR AVDAN Advances in Engineering Surveying: A Comprehensive Accuracy Assessment of UAS Photogrammetry and Structure from Motion
15210	MINGXUE ZHENG, JINPING YU, MEIHUA XING and WENJING YANG Farmland Boundary Extraction Based on Improved Mean Shift From UAV Remote Sensing Images
15228	HARALD ZANDLER, WOLFGANG SULZER and VIKTOR KAUFMANN Delineation of Debris-covered Glaciers with Multi-temporal UAV Images (Gössnitzkees glacier, Schober Group /Austria)
15238	MIROSLAV KARDOŠ, ŁUKASZ BOROWSKI, JULIÁN TOMAŠTÍK, KAMIL MACIUK, MICHAL FERENČÍK, IZABELA BASISTA and IVAN SAČKOV Accuracy of Forest Road Digital Terrain Models Captured using Airborne and Mobile Light Detection and Ranging Technology and Photogrammetry

Thursday 9 May 13:00 –14:30	Session 1.3 – Engineering Surveying, BIM and GIS Venue: TBA Chair: TBA
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14879	KATARZYNA CEGIELSKA, ANITA KUKULSKA-KOZIEŁ, JÓZEF HERNIK, TOMASZ SALATA and KAROL KRÓL Peri-urban Areas – How to Measure the Balance between Anthropogenic Pressure and Ecological Relevance with GIS tools?
14886	ALEXANDER BONG, ENRICO ROMANSCEK and CHRISTIAN CLEMEN Low-distortion-projections (LDP) for Point Clouds in BIM Projects – A Practical Demo
14893	CHRISTOPH FREY, ALEXANDER BONG and CHRISTIAN CLEMEN Variants for Demand-oriented CityGML-2-IFC ETL Processes with FME
15209	BOITUMELO SELAMOLELA Modelling Malaria Suitability: A case study of Chiredzi District in Zimbabwe
15269	TOSHIHIRO OSARAGI and AKIRA MESAKI Robust Neighborhood Solutions for Facility Location Problems with Uncertainty

2. Parallel sessions

Thursday 9 May 16:30 –18:15	Session 2.1 – Environmental Monitoring Venue: TBA Chair: TBA
15208	BOHDAN YAILYMOV, HANNA, NATALIYA KUSSUL and ANDRII SHELESTOV European-Wide High-Fidelity Forest Type Maps
15221	WOLFGANG SULZER and MANUEL KOEBERL Remote sensing-based Analyses of multi-temporal and multi-seasonal changes of Land Surface Temperatures in the Greater Graz area from 1985 to 2021
15224	ALESSANDRA CAPOLUPO, MARCO LONERO and EUFEMIA TARANTINO Beach Macroplastic Debris Detection From High-Resolution RPAS Images
15360	HILAL SEDEF ÖZKANOĞLU, FATMA KESKIN ARABUL and EMIN TARIK KARTAL The Changing Landscape of the Automotive Industry: Impacts on Vehicle Wiring Harnesses
15245	MILEN CAHNEV, Lachezar Filchev, Iliana Kamenova and Nevena Miteva Study the Applicability of Sentinel-2 Optical Data, as well as Benefits from the Sentinel-1 SAR Data, for Predicting Yields of Organic Barley
15229	SOUAD GHOUZLANE and OKAN FISTIKOĞLU An Integrative Approach to Wildfire Risk Assessment: Combining the Canadian FWI System with MCDA-AHP

Thursday 9 May 16:30 –18:15	Session 2.2 – Photogrammetry and Remote Sensing Venue: TBA Chair: TBA
15277	STYLIANOS MANOUDAKIS, VASILIOS SKEVAKIS and PANAGIOTIS DEDOUSIS Remote Sensing-Based Identification Of Tree Species In Degraded Forest Areas: A Methodology For Targeted Restoration In The Attica Region, Greece
15287	GOKTUG YASAR CUKURLU, NUSRET DEMIR and POL KOLOKOUSSIS Determination Of Forest Fire Damage Through Coherence Values Derived From Insar Data
15316	JAVAD HASHEMPOUR, SOHAIB ABUJAYYAB and SABRA ALSHUKAIRI Evaluating an Image Processing Algorithm for Measuring Flame Extension Angle of Wind-Aided Spreading Dowel Fire
15288	GSPURNING JOSEF

	Designing low-cost Virtual Reality walk throughs for Cultural Heritage Management
15290	HIPPOCRATES MANOUDAKIS and MARIA BAKATSAKI Spatial Realities: Bridging Digital Heritage, Geoinformatics, and Sustainable Development

Thursday 9 May 16:30 –18:15	Session 2.3 – Engineering Surveying, BIM and GIS Venue: TBA Chair: TBA
14894	Felix GRUNER, ENRICO ROMANCHEK and CHRISTIAN CLEMEN Green3DScan – an Open Source Tool to Create and Use Adaptive Point Cloud Segments BIM Projects
15203	ADAM SENETRA, MARTA CZAPLICKA, ANNA ŻRÓBEK-SOKOLNIK and PIOTR DYNOWSKI Possibilities of Developing Maps of Sight-Aesthetic Attractiveness of Underwater Landscapes of Lakes Using the Point-Valuation Method and Spatial Interpolation Methods
14895	SEBASTIAN SCHILLING, ENRICO ROMANCHEK and CHRISTIAN CLEMEN Just another CAD to BIM Process? First Experimental Results with Semantic Graphs and 2D-space Partitioning
15222	RENATA RÓŻYCKA-CZAS, BARBARA CZESAK, MARIA PAZDAN and TOMASZ SALATA Temporal Changes in Building Concentration – an Attempt to Measure Sprawl
15359	ZERAFIL ZAFER GÜLDAL, EMIN TARIK KARTAL and FATMA KESKIN ARABUL Investigation of the Impact of Slot Geometry on Brushless DC Motors
15232	ISKREN IVANOV and LACHEZAR FILCHEV Past, Contemporary and Future Lunar Referent Coordinate System and Digital Elevation Models

FRIDAY

3. Parallel sessions

Friday 10 May 9:00 –10:30	Session 3.1 – Environmental Monitoring Venue: TBA Chair: TBA
15247	PAVLO HENITSOI and ANDRII SHELESTOV Transfer Learning Model for Chlorophyll-a Estimation Using Satellite Imagery
15254	ZLATOMIR DIMITROV Multi-frequency SAR Utilization in Mountainous Regions in Bulgaria for Forest Boundaries Determination with Impact of Seasonality
15275	NIKOLAOS SIFAKIS, GEORGE TSINARAKIS, MARIA ARYBLIA and GEORGE ARAMPATZIS Empowering Sustainable Manufacturing with the Process Simulation Modelling: A Leap Towards Circular Economy Integration
15279	MARIA ARYBLIA, NIKOLAOS SARANTINOUDIS, NIKOLAOS SIFAKIS, GEORGE TSINARAKIS and GEORGE ARAMPATZIS Enhancing Manufacturing Sustainability through Integrated Digital Product Passports and the Sustainability Balanced Scorecard

15280	NIKOLAOS SIFAKIS, ELEFThERIOS FAKOTAKIS, ATHANASIOS, SERAFEIM MOUSTAKIDIS and GEORGE ARAMPATZIS Advancing Livestock Management through ICT: Insights from the Chameleon Project in Greece
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Friday 10 May 9:00 –10:30	Session 3.2 – Photogrammetry and Remote Sensing Venue: TBA Chair: TBA
15325	ANGELOS ANTONOPOULOS, GEORGIOS PETRAKIS, STATHIS BIKOS, LEONIDAS SPANDAGOS, GIANNIS ZERVOS, GEORGIOS STAVGIANNOUDAKIS, CHRYSSIDA MANOUDAKI and PANAGIOTIS PARTSINEVELO AIR2SEA, A Synergy of Unmanned Aerial and Sea Surface Systems for Search and Rescue
15328	KLAUDIA BIELINSKA UP42 Platform – the Comprehensive Solution that Facilitates Access to Different Geospatial Data for Scientific and Commercial Projects
15264	SALIH BOZKURT, ZAIDE DURAN and DURSUN ZAFER ŐEKER Automatization of 3D Point Cloud Semantic Segmentation Using PointNet++ Algorithm
15311	MERTCAN NAZAR and UMUT GUNES SEFERCIK Comparative Accuracy Analysis of Algorithms Used in Automatic Detection of Power Lines from LiDAR Data
15312	ISMAIL COLKESEN, UMUT GÜNEŐ SEFERCIK, NIZAMETTIN OZDOGAN, TASKIN KAVZOGLU, MUHAMMED YUSUF OZTURK, OSMAN YAVUZ ALTUNTAS, MERTCAN NAZAR, ILYAS AYDIN and HASAN TONBUL An Assessment of the Potential Use of Sentinel-2 Imagery and Water Indices in Monitoring Water Quality: A Case Study of Sakarya River
15290	HIPPOCRATES MANOUDAKIS and MARIA BAKATSAKI Spatial Realities: Bridging Digital Heritage, Geoinformatics, and Sustainable Development

Friday 10 May 9:00 –10:30	Session 3.3 – Engineering Surveying, BIM and GIS Venue: TBA Chair: TBA
15234	DAWID KUDAS and AGNIESZKA WNĘK The Impact of Hexagonal Grid Size on The Uncertainty of Spatial Entropy Mapping
15293	INESE VARNA, INGUS MITROFANOV, ANSIS ZARINS and AUGUSTS RUBANS Study of Impact of Anomalous Refraction on Digital Zenith Camera Measurements by using Meteorological Data
15294	ECE ORTAK and AHMET ÖZGÜR DOĐRU GIS Based Decision Support Tool for Assisting Parcel Locker Field Operations
15310	ESRA GIZEM UĐUR, ZAIDE DURAN and DURSUN ZAFER ŐEKER Evaluating Integration and Accessibility Along the M7 Yıldız-Mahmutbey Metro Line in Istanbul, Türkiye
15318	ARTUR KRAWCZYK The Role of Terminological Postulates at the Core of Geoinformatics Definition

4. Parallel sessions

Friday 10 May 11:00 –12:30	Session 4.1 – Environmental Monitoring Venue: TBA Chair: TBA
15286	NURTEN VARDAR, BULENT BAYRAM, BEKIR SENER, TOLGA BAKIRMAN, YASEMIN A. ÖZDEN, ISKENDER DEMIR and SERTAÇ OGDUM A Novel Autonomous System for Dynamic Monitoring of Marine Pollution
15297	EFTHALIA KARKOU, SAVVAKIS NIKOLAOS and GEORGE ARAMPATZIS Digital Intelligent Services in Industrial Wastewater Treatment to Mitigate Climate Change
15302	GETACHEW BAYABLE Estimating Water Hyacinth Biomass and its Impact on Water Quality in Lake Tana, Ethiopia, using Geospatial Technology
15320	NIK AFIQAH N AHMAD YANI, NURUL AIN MOHD ZAKI, SHUKOR SANIM MOHD FAUZI and MOHAMMAD HAFIZ ISMAIL Exploring the Dynamics Interplay of Growth Parameters and Physiological Traits in Harumanis Mango Trees (<i>Mangifera indica</i>) Across Growth Stages
15322	AJANTA GOSWAMI Recreating three major Glacial & Landslide Lake Outburst flood (GLOF & LLOF) events in Indian Himalaya and comparing its causes and consequences to century old LLOF of Gohna Lake using earth observation techniques

Friday 10 May 13:30 –15:00	Session 4.2 – Artificial Intelligence Venue: TBA Chair: TBA
15198	MOHAMED RABII SIMOU, SAFIA LOULAD, ZINEB EL FARAJ, MOHAMED BENAYAD, MEHDI MAANAN and HASSAN RHINANE From Classical Analysis to AI: Tracing Methodological Evolution in Spatial Rural-Urban Transformation Studies
15252	NATALIIA KUSSUL, VOLODYMYR KUZIN, YEVHENII SALII, BOHDAN YAILYMOV and ANDRII SHELESTOV Transfer Learning Models for Oil Spills Detection Based on Satellite Data
15255	YOUSSEF LEBRINI and ALICIA AYERDI GOTOR Investigating the Use of Artificial Intelligence and Data from UAV for Wheat Crop Height and Yield Estimation
15260	OLEKSANDR PARKHOMCHUK, ANDRII SHELESTOV and SOFIIA DROZD Symbiotic Artificial Intelligence and Satellite Imagery for Rapid Assessment of War-Induced Agricultural Damage in Ukraine
15348	BAHADIR KULAVUZ, TOLGA BAKIRMAN, NURTEN VARDAR, BÜLENT BAYRAM, MESUT KOROGLU and NESLIHAN GENC Deep Learning Based Marine Debris Segmentation from Sentinel-2 Imageries

Friday 10 May 13:30 –15:00	Session 4.3 – Land Management and Cadaster Venue: TBA Chair: TBA
15326	PANAGIOTIS PARTSINEVELOU, GEORGIOS PETRAKIS, KYRANNA DEMIRTZOGLU, IFIGENEIA BRESSA, ELENI CHARALAMPOPOULOU, ACHILLEAS TRIPOLITSIOTIS and CHRISTINA BREMPOU Towards Formalization of Thematic Tactile Mapping Representation
15308	MUHAMMET FATİH GÖKDAĞ

	Evaluation of Semi-Automated Parcel Boundary Extraction in terms of countries whose Cadastre has been completed: Türkiye Example
15291	MUHAMMET FATİH GÖKDAĞ, SÜMEYYE EBRAHİMİ, ZEYNEP BAYRAMOĞLU and MUSTAFA ASLAN The Importance of MEGSIS in Turkish Cadastre in Terms of Sustainable Land Administration and e-cadastre
15282	AHMET EMİR YAKUP and ISMAIL ERCÜMENT AYAZLI A Novel Vector Cellular Automata Model for Modelling Urban Growth: Preliminary Findings
15268	SÜMEYYE EBRAHİMİ Evaluation of Dynamic Cadastre Approach: Chrischurch/New Zealand Case

5. Parallel sessions

Friday 10 May 13:30 –15:00	Session 5.1 – Environmental Monitoring Venue: TBA Chair: TBA
15174	MINGXUE ZHENG, JINPING YU, MEIHUA XING and WENJING YANG Farmland Boundary Extraction in Plain Based on Contour Hierarchical Detection
15190	MONCEF BOUAZIZ, HASKE BENJAMIN, AL HEIB MARWAN and BENNDORF JOERG Geographic Information System-Driven Decision Support System for Assessing Multiple Hazards in Post-Mining
15199	SAYED ISHAQ DELIRY and UĞUR AVDAN Assessment of River Basin Water Budget Estimation Using Remote Sensing Observations and GIS Techniques
15201	GÜRCAN BÜYÜKSALIH, CEM GAZIOĞLU and KARSTEN JACOBSEN Geometric Analysis of WorldView-2 Geo-referenced Image Containing Mostly Sea
15225	TOMASZ SALATA The Role of Training Data in Identifying Land Cover Classes from Sentinel-2 Satellite Imagery

Friday 10 May 13:30 –15:00	Session 5.2 – Artificial Intelligence Venue: TBA Chair: TBA
15197	SOFİA DROZD and NATALIİA KUSSUL Forecasting of Solar Power Plant's Capacity Utilization Factor in Ukraine using Satellite Data and Random Forest Regression
15330	AHMET ÖZGÜR DOĞRU Mapping the Future: The Integration of Artificial Intelligence in Cartography and Map Design
15313	ELİF ÖZLEM YILMAZ, YAKUP KAN UZUN, EMRE BERKAN and TASKIN KAVZOĞLU Enhanced Comparative Analysis: LIME Integration with Multiresolution Segmentation (MRS) and Simple Linear Iterative Clustering (SLIC) Algorithms for Support Vector Machine (SVM) Classification in Sentinel-2 Imagery
15295	MOHAMMAD ASEF MOBARIZ and GORDANA KAPLAN Assessment of Urban Growth and Land Cover Changes in Kandahar City Using Remote Sensing and Machine Learning Techniques: A Case Study from 2000 to 2020
15214	BOHDAN POTUZHNYI, VLADA SVIRSH and NATALIİA KUSSUL Graph-Based Modeling of Village Infrastructure Development

Friday 10 May 13:30 –15:00	Session 5.3 – Management and RS/GIS Venue: TBA Chair: TBA
15235	VLADA SVIRSH, BOHDAN POTUZHNYI and NATALIIA KUSSUL Integrated Geospatial Analysis for Rural Development Metrics
15211	SÜMEYYE EBRAHIMI, MUSTAFA ASLAN and ISMAIL DURSUN The Role of the Land Registry and Cadastre Administration in Disasters: Evaluation of the Effects of Earthquakes on Property
15218	MOHAMED BENAYAD, MOHAMED RABII SIMOU and HASSAN RHINANE Optimization of the Location of Charging Stations for Electric Vehicles in Morocco: Challenges and Opportunities
15342	FÜSUN BALIK ŞANLI, OMER GOKBERK NARIN and SAYGIN ABDIKAN Comparative Evaluation of the Consistency of Sentinel-2 Water Indices for Akyatan Lagoon
15283	PAWEŁ BURDZIAKOWSKI, JÜRATĖ SUŽIEDELYTĖ-VISOCKIENĖ, KATARZYNA BOBKOWSKA and PAWEŁ TYSIAĆ 3D Gaussian Splatting for UAV Night Photogrammetry

6. Parallel sessions

Friday 10 May 15:30 –17:15	Session 6.1 – Environmental Monitoring Venue: TBA Chair: TBA
15327	VIKTOR PUTRENKO Integrated Geoinformation Modelling to Support Community Adaptation to Climate Change
15329	IBRAHIM ADENIRAN and Man-sing Charles WONG An Improved Machine Learning Model for Predicting Diurnal and Spatially Continuous Near Surface Air Temperature from Optimised Land Surface Temperature Data: Case Study of Hong Kong
15350	DENIZ BITEK, FÜSUN BALIK ŞANLI and RAMAZAN CUNEYT ERENOGLU Forest Fire Analysis with Landsat Satellite Images: 2023 Gökçeada Forest Fire
15366	ANNA SZOSTAK-CHRZANOWSKI Influence of Climate Change on Deformations of Earth Dams
15196	ELLEMIEKE VAN KINTS, NANCY O HARE and DEEPAK MISHRA Neural Radiance Field Methods for Satellite Imagery of Polar and Arid Climates

Friday 10 May 15:30 –17:00	Session 6.2 – Artificial Intelligence Venue: TBA Chair: TBA
15272	HAKIMA ZAIR, SAFIA LOULAD, HOUSSINE BOUTAROUINE, SAMIR ZOUHRI and HASSAN RHINANE Semantic Segmentation using Segformer for Precise Building Damage Identification: A Study of the Marrakech Earthquake
15276	STYLIANOS MANOUDAKIS, VASILIOS SKEVAKIS, PANAGIOTIS DEDOUSIS and GEORGE ARAMPATZIS Utilizing Remote Sensing and Artificial Intelligence for Effective Monitoring of Deforestation: A Case Study in the Attica Region, Greece

15278	STYLIANOS MANOUDAKIS, CHARITON KALAITZIDIS, ANASTASIA PHILLIS and GEORGE ARAMPATZIS Predicting Post-wildfire Soil Characteristics Using Remote Sensing and AI: A Case Study in Central Greece
15301	LAAZIZA HAMMOUMI, CHAYMAE KHALOUA, DOUNIA DAKIR, HASSAN RHINANE and MEHDI MAANAN Machine Learning for Urban Traffic Prediction : Towards Intelligent Urban Planning. Case Study: Casablanca
15315	TASKIN KAVZOGLU, EMRE BERKAN, YAKUP KAAAN UZUN and ELIF ÖZLEM YILMAZ Global-Scale Explainable AI Assessment of Classification Algorithm Effectiveness in Object-Based Image Analysis using Random Forest and Support Vector Machine

Friday 10 May 15:30 –17:00	Session 6.3 – Engineering Surveying, BIM and GIS Venue: TBA Chair: TBA
15365	BURAK AKPINAR, CÜNEYT AYDIN, NEDIM ONUR AYKUT, SEDA ÖZARPACI, GÜLDANE OKU TOPAL, ÖZGE GÜNEŞ and MUSTAFA FAHRI KARABULUT Low-Cost GNSS Measurement System for Geodetic Applications
15362	PINAR EKSERT and JAN BLACHOWSKI WebGIS Map of Landform Transformations in a Lignite Post-mining Area. Case Study of the Babina Mine (Poland)
15335	CÜNEYT AYDIN, ÖZGE GÜNEŞ and BEYZA GÜNEY Regression Approach to transform GRACE Mascon TWS-L3 data into groundwater-induced displacements in the Türkiye Region
15296	NUSRET DEMIR, DILARA SOLMAZ and UFUK YAZGAN Analysis of Surface Displacements and VS30 Models of Kartal-Istanbul and Antalya City
15205	JING LI, JÖRG BENNDORF and PAWEŁ TRYBAŁA Quantitative Analysis of Different SLAM Algorithms for Geomonitoring in an Underground Test Field

POSTER Presentations

Thursday 9 May 14:30 –16:00	Venue: TBA Chair: TBA
15195	BELHOUARİ FATİMA ZOHRA The Problem of Overlapping Cadastral Boundaries Cases and Proposed Solutions
15220	AUDREY MERCIER, SUSANNA KARLQVIST, AARNE HOVI and MIINA RAUTIAINEN Boreal Forest Diversity Through In Situ and Laboratory Spectral Measurements of Understory Elements
15215	MOHAMED ABDELHAMID, GRZEGORZ OLEJARZ, ŁUKASZ BOROWSKI, PAWEŁ POSTEK and KAMIL MACIUK Changes in the Coordinate Time Series Based on PPP Solutions Using Innovative Polygon Trend Analysis
15216	GRZEGORZ OLEJARZ, MOHAMED ABDELHAMID, AGATA BEM and KAMIL MACIUK Dependence of Seasonal Phenomena in Coordinate Time Series on GNSS Antenna Mounting Height
15223	BARBARA CZESAK and RENATA RÓŻYCKA-CZAS

	Evolving Rural Landscapes: Land Abandonment and Urban Sprawl
15231	MARTA WŁODARCZYK-SIELICKA Design of a Coastal Zone Monitoring System Using an Unmanned Vessel
15233	ISKREN IVANOV and LACHEZER FILCHEV Geomorphological Structural Mapping of Dryden Crater on the Moon Using Mappy Tool Plugin in QGIS Software
15237	REZWAN AHMED and KATJA TRACHTE Detection of Land Use and Land Cover Changes in Cottbus City and Spree-Neisse District, Germany in the Last Three Decades Using Machine Learning Approaches
15202	ANDREA CARBONE, DARIO SPILLER and GIOVANNI LANEVE Fuel Type Mapping in Sardegna via Convolutional Neural Network and PRISMA Imagery
15253	MARIA PAZDAN, BARBARA CZESAK and JÓZEF HERNIK Weight of Evidence Exploration of the Built-up Area Changes in the Rural Setting
15263	ANETA STRZALKA Development of GIS-Based Methods for Generating and Dimensioning of District Heating Networks on a Communal Level
15284	PAULINA LEWINSKA, RAFAŁ MATUŁA, PAWEŁ POSTEK, KAMIL MACIUK and ŁUKASZ BOROWSKI Ground-based Remote Sensing in Earthquake Monitoring
15298	AGNIESZKA WNĘK and DAWID KUDAS The Impact of the CEEMD Method Boundary Errors on the Estimation of Oscillation Periods Detected in GNSS Time Series
15303	ZULKIFLEE ABD LATIF, NURUL AIN MOHD ZAKI, MOHD NAZIP SURATMAN, NAFISAH KHALID and HAMDAN OMAR Tree Crown Segmentation using Hyperspectral and LiDAR for Tropical Forest
15306	KATARZYNA BOBKOWSKA, PAWEŁ TYSIĄC, PAWEŁ BURDZIAKOWSKI and JAKUB SZULWIC Monitoring Artificial Light Pollution Using a Multispectral Camera
15319	NORMAISURAH SAMSUDDIN Quantification of Heat Vulnerability Index (HVI) via Principal Component Analysis (PCA) and Equal Weighted Index (EWI)
15321	ASHOK ANAND Cartography of the Chamoli-Kshetrapal Landslide Vulnerability Using TLS, UAV, and a Machine Learning Algorithm
15323	ASHOK ANAND and ALOK BHARDWAJ Data Fusion and Accurate Evaluation of Topographic Information Utilising UAV and TLS Surveys of Kshetrapal Landslide, Chamoli, Uttarakhand
15324	MOHAMMAD DOWAJY, MOHAMED FAWZY, ÁRPÁD BARSÍ and TAMÁS LOVAS Automatic Non-Urban Road Surface Point Extraction Based on Geometric Features Using Neural Networks and Raster Structure Approach
15334	ILINA KAMENOVA Potential of Hyperspectral Vegetation Indices for Assessing Nitrogen Content in Potato, Maize, and Grassland
15336	ILINA KAMENOVA Comparison of Hyperspectral and Broad-Band Vegetation Indices for Estimation of Nitrogen Content in Grasslands
15244	MILEN CAHNEV and ZLATOMIR DIMITROV Study the Applicability of Sentinel-2 Optical Data, as Well as Benefits from the Sentinel-1 Sar Data for Predicting Yields of Organic Barley