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**The Programme of
International Conference G.I.C. 2021
*Disaster Risk Management and Solutions for
Monitoring of Risks***

18 - 20 November 2021

**Organised by:
Department of Land Measurements and Cadastre & Department of Economics and Physics
Technical University of Cluj-Napoca, Romania**



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- Diana Toader, Ph.D stud.
- Izabela Rus, Ph.D stud.

IT&C

Eng.Adrian Petrovan, Ph.D

Eng.Cosmin Roman

Interpret

Alexandra Golgoț ,A-Z Translations S.R.L

CONFERENCE PROGRAMME

IMPORTANT: All time intervals are displayed in Bucharest local time. For time correspondence with other countries, please access: <https://www.timeanddate.com/world-clock/converter.html>

Plenary Session & Workshop Disaster Risk Management and Solutions for Monitoring of Risks Day 1 November 18 2021 | Online

10:00-10:15	Welcome address from Technical University of Cluj-Napoca, Romania Prof.dr.eng.Daniela MANEA-Dean of Faculty of Civil Engineering Assoc.Prof.dr.Monica MARIAN-Dean of Faculty of Sciences
10:15-12:30	PLENARY SESSION Chair: Prof dr. eng. Alexandu OZUNU, General Manager ISUMADECIP (Research Institute for Sustainability and Disaster Management based on High Performance Computing), Faculty of Environmental Science and Engineering, Babes-Bolyai University of Cluj-Napoca, Romania Co-Chair: Prof.em.dr.eng.mat.Gheorghe M.T. RĂDULESCU, Executive Manager GeoSES Project, Department of Land Measurements and Cadastre, Faculty of Civil Engineering, Technical University of Cluj Napoca, Romania
10:15-10:30	<i>The importance of monitoring disasters and mitigation of risks</i> Prof dr. eng. Alexandu OZUNU General Manager ISUMADECIP Research Institute for Sustainability and Disaster Management based on High Performance Computing, BBU Cluj-Napoca
10:30-13:00	KEYNOTE SPEAKERS
10:30-10:50	Prof. Dr. Walter Timo de VRIES Chair of Land Management Department Aerospace and Geodesy, School of Engineering and Design, Technical University of Munich, Germany Keynote speech: <i>Trends in applying geospatial technologies for land management in support of disaster management</i>

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<p>10:50-11:10</p>	<p>Adj. Prof.dr. Simone MINEO Department of Biological, Geological and Environmental Sciences, University of Catania, Italy Keynote speech: <i>Unstable slope surveying and monitoring through Infrared Thermography for landslide risk management</i></p>
<p>11:10-11:30</p>	<p>Assist.Prof.dr. Carlotta RODRIQUEZ BCM IEM department, Rabdan Academy, Abu Dhabi, United Arab Emirates Keynote speech: <i>Integrating Sustainable Development and Disaster Risk Reduction: from theory to practice</i></p>
<p>11:30-11:50</p>	<p>Assoc. Prof. Dr. Matej VOJTEK Department of Geography and Regional Development, Faculty of Natural Sciences, Constantine the Philosopher University in Nitra, Slovakia Keynote speech: <i>Combined basin-scale and localized approach for riverine flood risk mapping and assessment: A case of the Gidra basin, Slovakia</i></p>
<p>11:50-12:10</p>	<p>Post-doc.res. Dr. Raffaele PELOROSSO Department of Agriculture and Forest Sciences, Tuscia University, Italy Keynote speech: <i>Blue-green roofs and pluvial urban flooding mitigation: a scenario simulation in central Italy</i></p>
<p>12:10-12:30</p>	<p>Assoc. prof. dr. eng. Adrian T. RĂDULESCU Project manager GeoSES, Department of Land Measurements and Cadastre, Faculty of Civil Engineering, Technical University of Cluj Napoca, Romania Keynote speech: <i>The role of cross-border projects in Disaster Management. Case study: GeoSES-Extension of the operational "Space Emergency System" towards monitoring of dangerous natural and man-made geo-processes in the HU-SK-RO-UA cross-border region</i></p>
<p>12:30-13:00</p>	<p>Break</p>

Workshop

Geomatics Solutions for Disaster Management

Day 1

November 18 2021 | Online

Chair:

Assist. Prof. dr. eng. Virgil Mihai RĂDULESCU, Technical Manager GeoSES Project, Department of Land Measurements and Cadastre, Faculty of Civil Engineering, Technical University of Cluj Napoca, Romania

13:00-13:20

INVITED GUEST:

Prof. dr. eng. Masafumi NAKAGAWA, Head of Geoinformatics Lab. Department of Civil Engineering, Shibaura Institute of Technology, Tokyo, Japan

Lecture:

Geoinformatics and 3D Data Acquisition for Infrastructure and Environment Monitoring

13:20-13:40

Lead Partner-National University of Uzhhorod, Ukraine

Senior Lect. dr. Maryia NYCHVID, Department of Land Management and Cadastre, GeoSES, Technical manager, Uzhhorod National University, Ukraine

Lecture:

The use of modern methods for monitoring of dangerous natural and man-made geo-processes in Ukraine

13:40-14:00

Partner 1-, Pavol Jozef Šafárik University in Košice, Slovakia

RNDr. Ján KAŇUK, Head of the Laboratory of Geographic Information Systems, Pavol Jozef Šafárik University in Košice, project manager

Lecture:

Terra Mapper - a collaborative tool designed for mobile mapping and data management

14:00-14:20

Partner 2- Technical University of Cluj-Napoca

Dr. eng. Radu A. MARIAN, eng. Bogdan VĂDUVA, IT experts GeoSES Project, Technical University of Cluj-Napoca, Romania

Lecture:

Portal and mobile applications for presenting the results of the GeoSES Project Extension of the operational "Space Emergency System" towards monitoring of dangerous natural and man-made geo-processes in the HU-SK-RO-UA cross-border region

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<p>14:20-14:40</p>	<p>Partner 3- Budapest University of Technology and Economics, Hungary Dr. Balint MAGYAR, Geophysicist - GNSS/InSAR R&D, Lechner Nonprofit Ltd., Satellite Geodetic Observatory (Penc, Hungary)& local project expert, Budapest University of Technology and Economics, Hungary Lecture: <i>Regional Scale Monitoring of Surface Deformation in Transcarpathia using InSAR Technology</i></p>
<p>14:40-15:00</p>	<p>Partner 4- Self-government of Szabolcs-Szatmár-Bereg County Assoc. Prof. Dr. Róbert VASS expert, professional implementer University of Nyíregyháza, Hungary Lecture: <i>Climate strategy: from idea to realization</i></p>
<p>15:00-15:30</p>	<p>Conclusions and debate of further perspectives on Solutions for Disaster Management</p>
<p>End of day 1</p>	

Parallel Sessions

SECTION A: Environmental and Earth Sciences

Day 2

November 19 2021 | Online

Chairs:

Assoc. Prof. dr. Eng. Adrian T. RĂDULESCU, Department of Land Measurements and Cadastre, Faculty of Civil Engineering, Technical University of Cluj-Napoca

Assist. Prof. dr. eng. Paul SESTRĂȘ, Department of Land Measurements and Cadastre, Faculty of Civil Engineering, Technical University of Cluj-Napoca

10:00-10:15	<i>Sediment Dynamics Monitoring at High Mountain Area</i> Naoki NISHIMURA, Asia Air Survey Co., Ltd, Tomoaki EGUCHI, Asia Air Survey Co., Ltd, Nobuhiro USUKI, Asia Air Survey Co., Ltd Masafumi NAKAGAWA, Shibaura Institute of Technology
10:15-10:30	<i>Corresponding Points Estimation of Texture-less Regions with Topology Constraints</i> Yuichiro YAMAGUCHI & Masafumi NAKAGAWA, Shibaura Institute of Technology
10:30-10:45	<i>Model-Based Point Cloud Reconstruction of Buried Pipe using Model Fitting Approach</i> Kouki KURITA & Masafumi NAKAGAWA, Shibaura Institute of Technology
10:45-11:00	<i>Multi-GNSS Near Realtime Precipitable Water Vapor Estimation for Severe Weather Prediction</i> Szabolcs RÓZSA, Abir KHALDI, Ágnes ÁCS & Bence TURÁK, Budapest University of Technology and Economics, Department of Geodesy and Surveying
11:45-12:00	<i>Low-cost GNSS Sensor Development for Structural Monitoring</i> Csaba ÉGETŐ, Zoltán SIKI, Bence TURÁK & Szabolcs RÓZSA, Budapest University of Technology and Economics, Department of Geodesy and Surveying
12:00-12:15	<i>Extension of the field of Structural Health Monitoring on Tracking the Behavior over Time of Land, Subject to Landslides</i> Adrian T. RĂDULESCU, Gheorghe M.T. RĂDULESCU, Tiberiu T. KALMAR, Technical University of Cluj Napoca
12:15-12:30	Break

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<p>12:30-12:45</p>	<p><i>Using GIS technologies for spatial analysis of landslides. Case study Sighetu-Marmatiei municipality</i> Petru MĂRAN, Technical University of Cluj-Napoca, Mihai HERBEL, Banat University of Agricultural Sciences and Veterinary Medicine "King Michael I of Romania" from Timisoara, Romania</p>
<p>12:45-13:00</p>	<p><i>The Use of UAS and GIS Spatial Analysis in Cadastral Surveying and Technical Documentations</i> Paul SESTRĂȘ, Technical University of Cluj Napoca</p>
<p>13:15-13:30</p>	<p><i>Study on the importance of using GIS technology in road infrastructure projects</i> Mihai Dorin ISAC, Sanda NAS, Mircea BONDREA, Technical University of Cluj Napoca</p>
<p>13:30-13:45</p>	<p><i>Study on the activity related to monitoring the behavior of landslides over time by comparative methods</i> Norbert KISS, Technical University of Cluj Napoca</p>
<p>Paper presented at the G.IC.2021-Plenary Session</p>	<p><i>The role of cross-border projects in Disaster Management. Case study: GeoSES-Extension of the operational "Space Emergency System" towards monitoring of dangerous natural and man-made geo-processes in the HU-SK-RO-UA cross-border region</i> Adrian T. RĂDULESCU, TUCN; Tiberiu T. KALMAR, UASVM of Cluj-Napoca; Gheorghe M. T. RĂDULESCU, TUCN; Sanda Mărioara NAȘ, TUCN; Virgil Mihai RĂDULESCU, TUCN; Petru Daniel MĂRAN, TUCN; Mihai HERBEL, BUASVM Timisoara; Mircea BONDREA, TUCN</p>
<p>Paper presented at the G.IC.2021-Workshop</p>	<p><i>Regional scale monitoring of surface deformation in Transcarpathia using In-SAR technology</i> Bálint MAGYAR, Roland HORVÁTH & Lajos VÖLGYESI, Lechner Nonprofit Ltd., Budapest, Hungary - Satellite Geodetic Observatory, Penc, Hungary & Budapest University of Technology and Economics – Faculty of Civil Engineering - Department of Geodesy and Surveying, Budapest, Hungary</p>

End of day 2

Parallel Sessions

SECTION B: Economic and social sciences

Day 2

November 19 2021 | Online

Chairs:

Assoc.Prof.dr.Grațiela Dana **BOCA**, Department of Economics and Physics, Faculty of Sciences, Technical University of Cluj-Napoca, Romania

Assoc.Prof.dr.Liliana **ZIMA**, Department of Economics and Physics, Faculty of Sciences, Technical University of Cluj-Napoca, Romania

11:00-11:15	<p><i>The Use of Data Loggers for Monitoring Temperature and Relative Humidity in Museums</i></p> <p>Izabela Luiza POP, County Museum of Art « Baia- Mare Artistic Centre», Romania & Technical University of Cluj-Napoca, North University Center of Baia-Mare, Romania</p>
11:15-11:30	<p><i>Sustainability in Disaster Management: An Overview of Nature-Based Solutions</i></p> <p>Anıl Yıldırım POYRAZ & Maria SZALMANÉ CSETE, Budapest University of Technology and Economics, Department of Environmental Economics and Sustainability, Hungary</p>
11:30-11:45	<p><i>Internal Organizational Features of Activity of Hotel Enterprises of the Transcarpathian Region in the Conditions of a Pandemic</i></p> <p>Vitalia CHYNIK & Svitlana SLAVA, Uzhhorod National University, Ukraine</p>
11:45-12:00	<p><i>Hierarchy of Factors Influencing the Implementation of Projects in Risk Conditions</i></p> <p>Diana Cezara TOADER, Corina M. RĂDULESCU, Technical University of Cluj-Napoca, Romania</p>
12:00-12:15	<p><i>The Importance of Investing in Human Capital in Times of Crisis</i></p> <p>Alina Natalia POP, Florina HAHN, Diana IGHIAN, Technical University of Cluj-Napoca, Romania</p>
12:15-12:30	<p><i>Challenges of the Sustainable Development Strategy of Maramures County in the Context of Crisis</i></p> <p>Izabela RUS, Rita TOADER, Grațiela BOCA, Cezar TOADER, Technical University of Cluj-Napoca, Romania</p>



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Day 3

November 20 2021 | OnSite

10:00-11:30	Meeting with local media, radio and TV. Public information on the conference debates. Technical University of Cluj Napoca -GeoSES Team
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11.30-12:00	Photo session
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End of Conference



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