



**BABEŞ-BOLYAI UNIVERSITY
FACULTY OF GEOGRAPHY
DEPARTMENT OF PHYSICAL AND
TECHNICAL GEOGRAPHY
and
AIR AND WATER ASSOCIATION**

in cooperation with

“SOMEŞ - TISA” Basin Water Administration

organize

**THE INTERNATIONAL CONFERENCE
AIR AND WATER - COMPONENTS OF THE ENVIRONMENT**

11th Edition

Partners

**”SOMEŞ” WATER COMPANY CLUJ
HIDROELECTRICA CLUJ BRANCH**

**22 – 24 March 2019
CLUJ-NAPOCA, ROMANIA**

SCIENTIFIC COMMITTEE

PhD. Prof. L. APOSTOL	„Al. I. Cuza” University, Iași, Romania
PhD. Prof. H. BANCIU	Babeș-Bolyai University, Cluj-Napoca, Romania
PhD. Assoc. Prof. M. BELDEAN-GALEA	Babeș-Bolyai University, Cluj-Napoca, Romania
PhD. Emeritus Senior Scientist R. BERTONI	CNR-IRSA Water Research Institute, Verbania, Italy
PhD. Prof. D. BOROWIAK	University of Gdansk, Poland
PhD. Assoc. Prof. P. BREȚCAN	“Valahia” University, Târgoviște, Romania
PhD. V. CHENDEȘ	N.I.H.W.M., Bucharest, Romania
PhD. S. CHEVAL	"Henri Coandă" Air Force Academy Brașov / National Meteorological Administration, România
PhD. Eng. D. CIATARĂȘ	C.A. „Someș” S.A., Cluj-Napoca, Romania
PhD. Assoc. Prof. S. CINTA PÎNZARU	Babeș-Bolyai University, Cluj-Napoca, Romania
PhD. Prof. M. CURIC	University of Belgrad, Serbia
PhD. Cp. I. C.S. DRAGOTĂ	Romanian Academy, Institute of Geography, Bucharest
PhD. Assoc. Prof. M. ELIZBARASHVILI	"Ivane Javakhishvili" Tbilisi State Univ., Georgia
PhD. Doc. Prof. P. GĂȘTESCU	"Hyperion" University, București, Romania
PhD. Assoc. Prof. M. GEORGESCU	Arizona State University, USA
PhD. Prof. Ewa ŁUPIKASZA	University of Silesia, Poland
PhD. Prof. W. MARSZELEWSKI	Nicolaus Copernicus Univ. Toruń, Poland
PhD. Prof. J. MIKA	University Eszterházy Károly, Eger, Hungary
PhD. Assoc. Prof. F. MOLDOVAN	Babeș-Bolyai University, Cluj-Napoca, Romania
PhD. Eng. C. NEAMȚU	C.A. „Someș” S.A., Cluj-Napoca, Romania
PhD. Prof. A. OREN	Hebrew University of Jerusalem, Israel
PhD. Prof. G. PANDI	Babeș-Bolyai University, Cluj-Napoca, Romania
PhD. Prof. D. PETREA	Babeș-Bolyai University, Cluj-Napoca, Romania
Eng. I.S. RÎNDAȘU-BEURAN	„Romanian Waters” National Administration, Romania
PhD. Prof. H. SAARONI	Tel Aviv University, Israel
PhD. M.M. SOMMERHÄUSER	Dep. of Water Manag., Emschergenossenschaft, Deutschland
PhD. Prof. V. SOROCOVSCHI	Babeș-Bolyai University, Cluj-Napoca, Romania
PhD. Roman TANDLICH	Rhodes University, Grahamstown, South Africa
PhD. Res. H. TABARI	KU Leuven University, Belgium
PhD. Prof. E. TEL-OR	Hebrew University of Jerusalem, Israel
PhD. Prof. L. TOUCHART	University of Orléans, France
PhD. Prof. L. ZAHARIA	University of Bucharest, Romania
PhD. Prof. M. ZELENKOVA	Technical University of Košice, Slovakia

ORGANIZING COMMITTEE

PhD. Assoc. Prof. Gh. ȘERBAN	Babeș-Bolyai University, Cluj-Napoca, Romania
PhD. Prof. A. CROITORU	Babeș-Bolyai University, Cluj-Napoca, Romania
Eng. I. ROȘU	„Someș-Tisa” Regional Water Basin Administration, Cluj-Napoca, Romania
Șef lucr. dr. T. TUDOȘE	Babeș-Bolyai University, Cluj-Napoca, Romania
Șef lucr. dr. R. BĂȚINAȘ	Babeș-Bolyai University, Cluj-Napoca, Romania
Șef lucr. dr. Cs. HORVÁTH	Babeș-Bolyai University, Cluj-Napoca, Romania
PhD. Assoc. Prof. I. HOLOBĂCĂ	Babeș-Bolyai University, Cluj-Napoca, Romania
Soc. V. CROITORU	C.A. „Someș” S.A., Cluj-Napoca, Romania

PROGRAM

Friday, March 22, 2019

- 08.00 – 09.00: *Registration (Hall 43, 1st floor)*
- 09.00 – 10.00: *Opening ceremony (Hall 43, 1st floor)*
- 10.00 – 10.30: *Coffee break (Hall 27, Groundfloor)*
- 10.30 – 12.15: *Plenary session (Hall 43, 1st floor)*
- 12.15 – 12.50: *Poster session (Hall 43 and 46, 1st floor)*
- 13.00 – 14.30: *Lunch (Haşdeu University Restaurant, Petru Friciu Hall)*
- 14.45 – 16.30: *Communication sessions*
- 16.30 – 17.00: *Coffee break (Hall 27, Groundfloor)*
- 17.00 – 18.00: *Communication sessions*
- 18.00 – 18.30: *Conclusions (Hall 43, 1st floor)*
- 19.00 – 22.00: *Official dinner (Haşdeu University Restaurant, Petru Friciu Hall)*

Saturday, March 23, 2019

08.00 – 20.00 *Field trip itinerary*

Cluj-Napoca – Gilău –Tarnița dam – Mărișelu – Beliș – Căpuș – Cluj-Napoca

Sunday, March 24, 2019

09.30 – 12.30 *Cluj-Napoca city tour*

Friday, March 22, 2019

Opening Ceremony

Hall 43, Amphitheatre „George Vâlsan”, 1st floor

- 09.00 - 09.05:** Organizers welcome
09.05 - 09.15: Prof. Dănuț PETREA - Dean of the Faculty of Geography
09.15 - 09.25: Assoc. Prof. Florin MOLDOVAN - World Meteorological Day - 2019
09.25 - 09.35: Lect. Răzvan BĂTINAȘ -World Water Day - 2019
09.35 - 09.45: Dipl. Eng. Ioan ROȘU – Presentation of Someș - Tisa Water Branch Administration
09.45 - 09.55: PhD. Eng. Călin NEAMȚU - Presentation of ”Someș” Water Company
09.55 - 10.00: Organizers speech
10.00 - 10.30 **Coffee break**

Plenary Session

Hall 43, ”George Vâlsan” Amphitheatre, 1st floor

Chairmen: Martina ZELENKOVA, Roman TANDLICH

10.30 - 11.05

Paul-Adrian BULZU, Adorján CRISTEA, Dorian M. BUDA, Horia L. BANCIU:
*Asgardarchaeota – A Novel Prokaryotic Group Discovered in Aquatic Sediments that
Might Shed Light on the Origin and Early Evolution of Eukaryotes*

11.05 – 11.40

Ionel Sorin RÎNDAȘU-BEURAN, Anemari Luciana CIUREA, Ramona
DUMITRACHE, Bogdan ION, Diana ACHIM, Petrișor MAZILU, Răzvan Dan
BOGZIANU: *Flood Risk Assessment in the Tisa River Basin*

11.40 – 12.15

Sorin CHEVAL: *WRF Simulations of Urban Heat Island in Bucharest (Romania)*

12.15 – 12:50: *Poster session (Hall 43 and 46, 1st floor)*

13.00 – 14.30: *Lunch (”Petre Friciu” Hall, Hașdeu University Restaurant)*

14.45 – 18.00 *Thematic sessions*

18.00 – 18.30 *Conclusions*

Session I.A. Poster session

12.15 – 12.50

Hall 43 1st Floor

Chairmen: Iulian HOLOBĂCĂ, Narcisa MILIAN

1. Liviu-Marian ALBU: *Remote Sensing of Snow Cover – a Comparative Analysis*
2. Alexandra CHELU: *A Typology of Indices for Drought Assessment*
3. Adina Eliza CROITORU, Mugurel SIDĂU: *Comparative Analysis of Extreme Values of Precipitation and Temperatures from the Grid Data Series Available for the North-East of Romania, with the Measured Values*
4. Elena GRIGORE, Dana Maria CONSTANTIN (OPREA), Marius-Alin CRISTEA, Nicoleta IONAC, Adrian Amadeus TIȘCOVSCHI, Florina TATU, Dan Vasile ARDELIAN: *The multi-criteria assessment of the thermic comfort satisfaction degree in a general dentist's office*
5. Ines GRIGORESCU, Dana MICU, Monica DUMITRAȘCU, Bianca MITRICĂ, Irena MOCANU, Paul ȘERBAN, Cristina DUMITRICĂ, Loredana HAVRIȘ, Gheorghe KUCSICSA: *Renewable Energy Sources in Romania: Progress and Perspectives Towards the EU Targets*
6. Narcisa MILIAN: *2017-2018 Winter - Favorable Avalanche Conditions in Southern Carpathians*
7. Larisa PAVELUC, Gianina COJOC, Alina TIRNOVAN, Bogdan GHINDĂOANU: *Representative Basin Trebeș-Negel - Analysis of Air Temperature Variation*
8. Clara RONCEA: *The Summer of 2018 in Southwestern Romania-Contrasts and Trends*
9. Otilia RUSZ: *Some Characteristics of Precipitation in the Central Region of Romania in the 1961-2017 Period*
10. Bogdan URÎTESCU, Georgiana GRIGORAȘ, Nicoleta IONAC: *The Influence of Urban Morphology on the Urban Microclimate*

Session I.B. Poster session

12.15 – 12.50

Hall 46 1st Floor

Chairmen: Csaba HORVATH, Valentina-Mariana MĂNOIU

1. Liviu-Marian ALBU, Andrei ENEA, Constantin Cristian STOLERIU, Lilian NIACȘU: *G.I.S. Implementation on Dam-Break Flood Vulnerability Analysis – A Case Study of Cătămărăști Dam, Botoșani, Romania*

2. Daniel BOICU, Ionuț MINEA, Oana-Elena CHELARIU, Marina IOSUB: *Evaluation on Groundwater Recharges Capacity Using the AHP Method - Case Study: The Moldavian Plain*
3. Petre BREȚCAN, Dănuț TANISLAV, Cristiana RADULESCU, Mihaela SENCOVICI, Andra COSTACHE: *Spatial analysis of shallow groundwater quality from Targoviste Plain using Water Quality Index and GIS analyses*
4. Elena HUȚANU, Andrei URZICĂ, Vasile Bogdan GHINDĂOANU: *Water Parameters Physico-Chemical Variation in the Phreatic Aquifer of Băiceni Locality, Botosani County*
5. Valentina-Mariana MĂNOIU, Alexandru-Ioan CRĂCIUN: *Water Management on Board Disney Cruise Line Company Ships: Methods and Legislation*
6. Ioana Corina MOGA, Gabriel PETRESCU, Bogdan Iulian DOROFTEI, Roxana BUZEA: *Water Management Applied in Recirculating Aquaculture Systems*
7. Gabriela Adina MOROȘANU, Liliana ZAHARIA, Philippe BELLEUDY: *Applying Colorimetric and Image Analysis Methods to Identify the Coal Areas Contributing to the Hydro-Sedimentary Dynamics in Jiu River Basin*
8. Lucica NICULAE: *Environmental Impact of Mining in the Banat Mountains*
9. Carina STRAPAZAN, Ionel HAIDU, Istvan KOCSIS: *Assessing Land Use/Land Cover Change and its Impact on Surface Runoff in the Southern Part of the Țibleș and Rodnei Mountains*
10. Ionuț ȘOREA, Cristian Constantin STOLERIU, Adrian URSU: *Road Traffic Noise Modeling. Case Study: Vaslui Town, North-Eastern Romania*
11. Andreea-Violeta TUDORACHE: *Current Possibilities for Elaborating Flash Flood Warnings in Romania. Case Study: The Flood Produced on 30 June 2018 in the Trotuș River Basin*
12. Andrei URZICĂ, Elena HUȚANU, Claudiu PRICOP, Alin MIHU-PINTILIE: *GIS Modeling for Dam Reconstruction. Case Study: Nichiteni Dam, Botoșani County*
13. Melinda VIGH: *The Mineral Springs of Malnaș Băi*

II. Climatic and Hydrological Hazards

14.45 - 16.30

Hall 43 1st Floor

Chairmen: Vlasta Ondrejka HARBULAKOVA, Zeineddinne NOUACEUR

14.45 - 15.00

Rastislav FIJKO, Martina ZELENÁKOVÁ: *Verification of the Hydrodynamic Model of the Slatvinec River in Kružlov*

15.00 - 15.15

Vlasta Ondrejka HARBULAKOVA, Martina ZELENÁKOVÁ, Maria SUGAREKOVA: *Assessment of the Preparedness for Flood Protection of Municipalities in Presov Region Based on the Questionnaire Survey*

15.15 - 15.30

Vlad-Alexandru ILIE, Adina-Eliza CROITORU, Titus MAN: *Mediterranean Cyclones tracks in Europe with special view over Romania region (1986-2015)*

15.30 - 15.45

Jeevan KUMAR, István GERESDI: *Fog and Smog Experience Over Northern India In Winter Time*

15.45. - 16.00

Mihnea Cristian POPA, Daniel Constantin DIACONU: *Effects of Deforestation on Flooding in the Moldova River Basin*

16.00 - 16.15

Cristian RUSU: *Severe Convective Wind in North-Western Romania*

16.15 - 16.30

Lidia SĂLĂJAN, Daniela Elena GOGOĂȘE NISTORAN: *The Characteristics of the Historical Floods from the Years 1974 and 1975 in the Bâsca Basin*

16.30 - 16.50 Coffee break

III. Water Resource Management

14.45 - 16.30

Hall 30, Groundfloor

Chairmen: Mustafa DEMIRCI, Katarzyna KUBIAK-WÓJCICKA

14.45 - 15.00

Cristina BĂLĂCEANU, George SUCIU, Romulus CHEVEREȘAN, Marius DOBREA, Andreea IOSIF, Raluca IOSU, Ioana MARCU: *Monitoring Solutions for Smart Agriculture*

15.00 - 15.15

Simon CAILLIEZ, Francesco DONATI, Laurent TOUCHART, Pascal BARTOUT, Galina KAPANEN, Agata MARZECOVA, Jaanus TERASMAA, Tiiu KOFF, Egert VANDEL, Quentin CHOFFEL, Camille MILLOT, Véronique MALEVAL, Zoudiba QSAIR: *The Chemical Properties of Pond Sediments and the Operations of River Restoration*

15.15 - 15.30

Mustafa DEMIRCI, Yunus Ziya KAYA: *Estimation of Keban Dam Reservoir Level in Turkey Using Artificial Neural Network and Support Vector Machines*

15.30 - 15.45

Yunus Ziya KAYA, Bestami TAŞAR: *Evapotranspiration Calculation for South Carolina, USA and Creation Different ANFIS Models for ET Estimation*

15.45. - 16.00

Katarzyna KUBIAK-WÓJCICKA: *Long-Term Variability of Runoff of Vistula River in 1951-2015*

16.00 - 16.15

Gavril PANDI, Csaba HORVÁTH: *Regradation of the Somesul Mic Riverbed*

16.15 - 16.30

Fatih ÜNEŞ, Mustafa DEMİRCİ, Hakan VARÇİN: *Wall Jet Flow Simulation in a Reservoir Using a Three-Dimensional Mathematical Model*

16.30 - 16.50 Coffee break

IV. Pollution and Protection of Air and Water Environment

14.45 - 16.30

Hall 46 1st Floor

Chairmen: Christof LANZERSTORFER, Ionuț MINEA

14.45 - 15.00

Thamer Adnan ABDULLAH, Noor ALJAMMAL, Ali D. SALMAN, Mohammed AL-ASADI, Ahmed Mosa JAFAR, Roquia RIZK, Endre DOMOKOS: *Removal of Hydrocarbons from Waters Using MWCNTs after Modification with Nano Zinc- Oxide*

15.00 - 15.15

Hallo Angaleni Nameya ANGALA, Roman TANDLICH, Nosiphiwe P. NGQWALA, Bongumusa Msisi ZUMA, Sylvester MOYO: *Citizen Science, Treatment and Compliance Monitoring of Microbial Water Quality in Namibia*

15.15 - 15.30

Gertrud ANZENGRUBER, Christof LANZERSTORFER: *Remediation of Hexachloro-1,3-Butadiene Contaminated Groundwater* Gertrud ANZENGRUBER, Christof LANZERSTORFER: *Remediation of Hexachloro-1,3-Butadiene Contaminated Groundwater*

15.30 - 15.45

Ali Dawood SALMAN, Tatjana JUZSAKOVA, Igor CRETESCU, Brindusa SLUSER, Le Phuoc CUONG: *Process Development for Recovery of Rare Earth Elements from Red Mud*

15.45. - 16.00

Iolanda-Veronica GANEA, Alexandrina NAN, Rodica TURCU, Marin ȘENILĂ, Iulia NEAMȚIU: *Comparative study of new types of materials for improved heavy metals removal from contaminated water and reduced human health impact*

16.00 - 16.15

Tatjana JUZSAKOVA, Noor AL-JAMMAL, Thamer Adnan ABDULLAH, Igor CRETESCU, Viktor SEBESTYÉN, Le Phuoc CUONG, Endre DOMOKOS: *Modified Carbon Nanotubes for Water Cleaning*

16.15 - 16.30

Simion BELDEAN GALEA, Sorin POP, Vlad PĂNESCU, Cătălina Mihaela HERGHELEGIU: *The assessment of contamination and source of polycyclic aromatic hydrocarbons from the sediments of the Someș River*

16.30 - 16.50 Coffee break

V. Air and Water Environment Monitoring

17.00 – 18.00

Hall 43 1st Floor

Chairmen: Lucian SFÎCĂ, Gavril PANDI

17.00 - 17.15

Hallo Angaleni Nameya ANGALA, Roman TANDLICH, Nosiphiwe P. NGQWALA, Bonugmusa Msisi ZUMA: *Efficiency of a Decentralised System in the Treatment of Rainwater in South Africa*

17.15 - 17.30

Zeineddinne NOUACEUR, Ovidiu MURARESCU: *Comparative Analysis on the Rainfall Variability in two Regions of North Africa: the Moroccan Middle Atlas and the Northern East of Tunisia (PHC Maghreb Transversal Project 2017- 2020)*

17.30 - 17.45

Lucian SFÎCĂ, Ionela NICURIUC1, Andrei NIȚĂ: *Boundary Layer Temperature Stratification as Result of Atmospheric Circulation Within the Western Side of Braşov Depression*

17.45 - 18.00

Simona PÎNZARU CINTĂ, Lucian Barbu TUDORAN, Dorina PODAR, Fran NEKVAPIL: *Confocal Raman micro-spectroscopy and SERS: sensitive tools for fast detection of microorganisms accumulated in water dispenser filters*

18.00 - 18.30 Conclusions (Hall 43, 1st floor)

VI. Climatic Changes and Their Impact & VIII. Air- and Hydrobiology

17.00 – 18.00

Hall 46 1st Floor

Chairmen: Ştefan DOMBAY, Traian TUDOSE

17.00 - 17.15

Doriana M. BUDA, Paul A. BULZU, Adorján CRISTEA, Horia L. BANCIU: *The Saline Aquatic Systems as 'Natural Reservoirs' For Microorganisms with Current and Potential Applications*

17.15 - 17.30

Ștefan DOMBAY, Zsolt MAGYARI-SASKA: *Statistical Effect of Temperature on Tourism Seasonality in Romania*

17.30 - 17.45

Anikó CSÉPLŐ, Noémi SARKADI, Ákos HORVÁTH, Gabriella SCHMELLER, Tünde LEMLER: *Fog Climatology In Hungary*

17.45 - 18.00

Adina Eliza CROITORU, Vasile ZOTIC, Adina Viorica RUS, Diana ALEXANDRU, Ștefana BANC, Sabina SCRIPCĂ, Răzvan CHERTEȘ: *Tourism Climate Index in big cities of Romania*

18.00 - 18.30 Conclusions (Hall 43, 1st floor)

VII. Weather and Hydrological Forecast

17.00 – 18.00

Hall 30, Groundfloor

Chairmen: Liviu APOSTOL, Simion BELDEAN GALEA, Fatih UNEȘ

17.00 - 17.15

Radu-Vlad DOBRI, Liviu APOSTOL, Lucian SFÎCĂ: *Physico-Geographic Changes Produced by Air Masses Convergence Within the Central Part of Romanian Plain*

17.15 - 17.30

Ionuț MINEA: *Anomalies and trends on Grounwater level in the North-Eastert Part of Romania*

17.30 - 17.45

Vasile PRISACARIU, Sorin CHEVAL: *Using UAV-LTA for Environmental Monitoring*

17.45 - 18.00

Bestami TAȘAR, Fatih UNEȘ, Hakan VARCÎN: *Prediction of the Rainfall – Runoff Relationship Using Neuro-Fuzzy and Support Vector Machines*

18.00 - 18.30 Conclusions (Hall 43, 1st floor)

Session IX. Students

14.45 - 16.30

Hall 37, Groundfloor

Chairman: PhD. Răzvan BĂȚINAȘ

14.45 - 15.00

Anca-Florina BUCUR, Remus-Ștefan COMĂNESCU, Mădălina Adriana ȚUGUI:
Impact of the thermal decontaminations of polluted soils on the environment

15.00 - 15.15

Marius PÎRTICĂ, Marina-Mădălina CĂCIULĂ: *The hydro-tourism potential of the Danube sector: Baziaș-Iron Gates - poster*

15.15 - 15.30

Luminita-Rodica GIURGIU: *Extreme pluvial flood registered on the Hășdate River on July 22, 2010.*

15.30 - 15.45

Marian MARIN: *The Influence of Climate Trends on Potato and Corn Production in Târgu Secuiesc and Întorsura Buzăului Depressions*

15.45 - 16.00

Petre-Alexandru RACHIERU, Lucian GRIGORE, Alexandru-Roberto BARBU, Elena-Lavinia PISCAN, Madalina CHIRITA: *Waste water treatment solution*

16.00 - 16.15

Adam REPEL: *Design of simple water retention structures in the Medzibodrozie area in Eastern Slovakia*

16.15 - 16.30

Dumitru-Florin STĂNICĂ: *Hydropower in Romania. Case study: Paltinu Hydro Power Plant - Energy and Environment*

16.30 – 16.50 Coffee break

18.00 - 18.30 Conclusions (Hall 43, 1st floor)

Partners



**Administrația Bazinală de Apă Someș-
Tisa**



**S.C. COMPANIA DE APĂ „SOMEȘ”
S.A., CLUJ**



HIDROELECTRICA
Puterea noastră este apa!

**S.C. HIDROELECTRICA S.A. SUCURSALA
CLUJ**

Supporting exhibitors / organizations

