



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



in cooperation with

**“SOMEȘ - TISA” Basin Water Administration**

organize

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

**9<sup>th</sup> Edition**

**Partners**

**“SOMEȘ” WATER COMPANY CLUJ  
HIDROELECTRICA CLUJ BRANCH**

**17 – 19 March 2017  
CLUJ-NAPOCA, ROMANIA**

### **SCIENTIFIC COMMITTEE**

LIVIU APOSTOL	Al. I. Cuza University, Iași, Romania
HORIA BANCIU	Babeș-Bolyai Univ., Cluj-Napoca, Romania
SIMION BELDEAN-GALEA	Babeș-Bolyai Univ., Cluj-Napoca, Romania
ROBERTO BERTONI	Institute of Ecosystem Study – CNR, Italy
DARIUSZ BOROWIAK	University of Gdansk, Poland
SORIN CHEVAL	University of Bucharest, Romania
DORIN CIATARĂȘ	„Someș ” S.A. Water Company, Romania
MLADJEN CURIC	University of Beograd, Serbia
CARMEN DRAGOTĂ	Romanian Academy, Inst. of Geography, Romania
MARIAM ELIZBARASHVILI	Ivane Javakhishvili Tbilisi State Univ., Georgia
JEAN-MICHEL FALLOT	University of Lausanne, Switzerland
PETRE GĂȘTESCU	Hyperion University, Bucharest, Romania
NICOLETA IONAC	University of Bucharest, Romania
DENES LÓCZY	University of Pécs, Hungary
EWA ŁUPIKASZA	University of Silesia, Poland
WŁODZIMIERZ MARSZELEWSKI	Nicolaus Copernicus Univ. in Toruń, Poland
JANOS MIKA	Univ. Eszterházy Károly, Eger, Hungary
FLORIN MOLDOVAN	Babeș-Bolyai Univ., Cluj-Napoca, Romania
GAVRIL PANDI	Babeș-Bolyai Univ., Cluj-Napoca, Romania
DĂNUȚ PETREA	Babeș-Bolyai Univ., Cluj-Napoca, Romania
ANATOLIE PUȚUNTICĂ	Hidrometeorol. State Service, Moldova
DANIELA RĂDULESCU	I.N.H.G.A., Bucharest, Romania
IONEL RÎNDAȘU-BEURAN	“Romanian Waters” National Admin., Bucharest, ROU
GHEORGHE ROMANESCU	Al. I. Cuza University, Iași, Romania
CRISTINA ROȘU	Babeș-Bolyai Univ., Cluj-Napoca, Romania
MARIO MICHAEL SOMMERHÄUSER	Department. of Water Management, Emschergenossenschaft, Deutschland
VICTOR SOROCOVSCHI	Babeș-Bolyai Univ., Cluj-Napoca, Romania
HOSSEIN TABARI	KU Leuven University, Belgium
ELISHA TEL-OR	Hebrew University of Jerusalem, Israel
LAURENT TOUCHART	University of Orléans, France
LILIANA ZAHARIA	University of Bucharest, Romania
MARTINA ZELENKOVA	Technical University of Košice, Slovakia

### **ORGANISING COMMITTEE**

PhD. Assoc. Prof. Gh. ȘERBAN	Babeș-Bolyai University, Cluj-Napoca, Romania
PhD. Assoc. Prof. A. CROITORU	Babeș-Bolyai University, Cluj-Napoca, Romania
Dipl. Eng. I. ROȘU	„Someș Tisa” Basin Water Administration, Cluj
PhD. Lect. T. TUDOSE	Babeș-Bolyai University, Cluj-Napoca, Romania
PhD. Lect. R. BĂȚINAȘ	Babeș-Bolyai University, Cluj-Napoca, Romania
PhD. Lect. Cs. HORVÁTH.	Babeș-Bolyai University, Cluj-Napoca, Romania
PhD. Assoc. Prof. I. HOLOBĂCĂ	Babeș-Bolyai University, Cluj-Napoca, Romania

# PROGRAM

## Friday, March 17, 2017

- 08.00 – 09.00: *Registration (Hall 43)*
- 09.00 – 10.00: *Opening ceremony (Hall 43)*
- 10.25 – 10.50: *Coffee break (Hall 27)*
- 10.50 – 12.05: *Plenary session (Hall 43)*
- 12.05 – 12.30: *Poster session (Hall 43)*
- 12.30 – 14.00: *Lunch (Haşdeu University Restaurant, Petru Friciu Hall)*
- 14.15 – 16.00: *Communication sessions*
- 16.00 – 16.30: *Coffee break (Hall 27)*
- 16.30 – 18.00: *Communication sessions*
- 18.00 – 18.30: *Conclusions (Hall 43)*
- 19.00 – 22.00: *Official dinner (Haşdeu University Restaurant, Petru Friciu Hall)*

## Saturday, March 18, 2017

07.45 – 20.30 *Field trip itinerary*

*Cluj-Napoca – Luduş – Târgu Mureş Cultural Palace –  
Sighişoara Fortress – Biertan Fortress – Cluj-Napoca.*

## Sunday, March 19, 2017

09.30 – 12.30 *Cluj-Napoca city tour*

**Friday, March 17, 2017**

***Ceremony***

Hall 43, Amphitheatre „George Vâlsan”, 1<sup>st</sup> floor /  
Sala 43, Amfiteatrul „George Vâlsan”, Etajul I

- 09.00 - 09.05: Organizers welcome  
09.05 - 09.15: Representative of Babes-Bolyai University  
09.15 - 09.25: Prof. Dănuț PETREA - Dean of the Faculty of Geography  
09.25 - 09.40: Dipl. Eng. Ioan ROȘU – Presentation of Someș - Tisa Water Branch Administration  
09.40 - 09.55: Assoc. Prof. Florin MOLDOVAN - World Meteorological Day - 2016  
09.55 - 10.10: Presentation of ”Someș” Water Company  
10.10 - 10.25: HIDROELECTRICA Presentation  
10.25 - 10.50: Coffee break

***Plenary Session***

Hall 43, Amphitheatre „George Vâlsan”, 1<sup>st</sup> floor /  
Sala 43, Amfiteatrul „George Vâlsan”, Etajul I

**Chairmen: PhD. Prof. J. Mika, PhD. Assoc. Prof. Gheorghe ȘERBAN**

**10.50 - 11.15**

Martina ZELENÁKOVÁ, Maria Manuela PORTELA, P. PURCZ, P. BLIŠŤAN, Helena HLAVATA: *Hydrological Hazards Assessment and Management in Slovakia*

**11.15 – 11.40**

Y. ZHANG, K. WANG, C. JENA, K. DUAN, G. SUN, S. McNULTY, F. YAN, Z.-F. LU, D. STREETS: *Impacts of Projected Climate Scenarios on Future Air Quality and Water-Carbon Cycle in the United States*

**11.40 – 12.05**

I. S. RÎNDAȘU-BEURAN – *Considerations on flood risk in Romania*

**12.05 – 12.30: Poster session**

**12.30 – 14.00: Lunch** (Hașdeu University Restaurant, Petru Friciu Hall)

**14.15 – 18.00: Thematic sessions**

**18.00 – 18.30: Conclusions**

**Session 1. Air and water environment monitoring / Monitoringul mediului aerian și hidric**  
**Session 3. Water resources management / Gospodărirea resurselor de apă**

**14.15 - 16.00**

Hall 30, Ground floor / Sala 30, Parter

**Chairmen: PhD. Assoc Prof. F. MOLDOVAN, PhD. Assoc. Prof. I. MINEA**

**14.15 - 14.30**

Anita CONSTANTIN: *Landsat Images Analysis of the Extension of Water Vegetation on the Brădeni Lakes in the Hârtibaciu River Basin*

**14.30 – 14.45**

Diana A. GIURGIU: *Rainfall and Flow Variation in Călnău's Watershed*

**14.45 - 15.00**

I. MINEA, L. SFÎCĂ: *Assessment of Hydrological Drought in The North-Eastern Part of Romania. Case Study – Bahlui Catchment Area*

**15.00 - 15.15**

I. MARINICĂ, F. MOLDOVAN, Andreea MARINICĂ: *Saharan Dust Transport over Romania*

**15.15. - 15.30**

Dana Maria (OPREA) CONSTANTIN, Elena GRIGORE, Elena BOGAN, D. R. MANTA, R. ILEA: *The Influence of the Synoptic Conditions in the Dispersion of the Air Pollution Indicator – the Sulphur Dioxide (SO<sub>2</sub>) in the Slatina Area*

**15.30 - 15.45**

A. D. SABĂU, R. BĂTINAȘ, I. ROȘU, GH. ȘERBAN: *Fresh Water Resources in the Natura 2000 Pricop-Huta Certeze and Tisa Superioară Protected Areas*

**15.45 - 16.00**

G. PANDI, Melinda VIGH, Cs. HORVATH: *Seasonal Flow Characteristics in the Apuseni Mountains*

**16.00 - 16.30 Coffee break**

**Session 1. Air and water environment monitoring / Monitoringul mediului aerian și hidric**  
**Session 3. Water resources management / Gospodărirea resurselor de apă**

**16.30 - 18.30**

Hall 30, Groundfloor / Sala 30, Parter

**Chairmen: PhD. Prof. G. ROMANESCU, PhD. Prof. W. MARSZELEWSKI**

**16.30 - 16.45**

W. MARSZELEWSKI, S. BRÓZDA, M. MARSZELEWSKI: *The Usefulness of Archival Cartographic Materials in the Legal Classification of Lakes in Poland*

**16.45 - 17.00**

G. ROMANESCU: *Backwater Floods – Case Studies with Punctual and Extremely Rare Manifestation on the Romanian Territory. A review*

**17.00 - 17.15**

Boglarka CZELLE CZ, I. GÁBOR, N. SZOPOS, G. SCHIOPU, L. RAVASZ, L. GOMBOS: *Mineral Waters from Upper Trotuș River Basin*

**17.15 - 17.30**

L. NYITRAI, R. TÓTH: *Findings on the Atmospheric Humidity Balance over Europe on the Basis of Aerological Measurements*

**17.30 - 17.45**

A. SEDRATI, B. HOUHA, G. ROMANESCU: *Evaluation of the groundwater contamination in the Sebkhia area, Khenchela, Algeria*

**17.45 - 18.00**

Gabriela-Adina MOROȘANU, Liliana ZAHARIA, PH. BELLEUDY, Gabriela-Ioana TOROIMAC: *Methodology to Identify the Leading Factors of Rivers' Electrical Conductivity. Case Study: Jiu Catchment (Romania).*

**18.00 - 18.15**

Cristina COVALIU, Mariana IONESCU, G. PETRESCU, Corina MOGA, Alina DIACONU, G. PARASCHIV, M. MATACHE: *Effects of oxide nanomaterials used in flotation process.*

**Session 2. Climatic and Hydrological Hazards / Hazarde Climatice și Hidrologice**

**14.15-16.00**

Hall 43 (George Vîlsan), 1<sup>st</sup> Floor / Sala 43 (George Vîlsan), etajul I

**Chairmen: PhD. Assoc. Prof. L. LAKATOS, PhD. Assoc. Prof. Martina ZELEŇÁKOVÁ**

**14.15 - 14.30**

L. LAKATOS, S. MOLJÁK., R. NAGY: *Analyses of Autumnal, Winter and Spring Frost Damage at the Wine Regions of Hungary*

**14.30 - 14.45**

Z. MAGYARI-SÁSKA, Șt. DOMBAY: *Changes in Europe's Temperature Extreme Values*

**14.45 - 15.00**

Manasi DESAI, A. G. DHORDE: *Changing Thermal Comfort over Southern India under Warming Environment: an Analysis of Heat Index*

**15.00 - 15.15**

A. PAȘOL, C. GRECU, U. RECKERTH: *Winter Extreme Events – Romanian Carpathian Avalanches*

**15.15 - 15.30**

Yuliia HAVRYLIUK, Yuliia CHORNOMORETS: *The Influence of Climate Changes on the Water Balance in the Western Bug River Basin – Kamianka Buzka*

**15.30 - 15.45**

J. SZENDI: *Effects of the Heat Wave to the Object Security*

**15.45 - 16.00**

Mojtaba ZOLJOODI, A. DIDEVARASL: *The Study of the Tropical Cyclone Tracks Over the Western Indian Ocean Up to the Mokran Region and Oman Sea*

**16.00 – 16.30 Coffee break**

**Session 4. Climatic changes and their impact / Schimbări climatice și impactul acestora**

**14.15 – 16.00**

Hall 46, 1<sup>st</sup> Floor / Sala 46, etajul I

**Chairmen: PhD. Prof. Mika J, PhD. Prof. D. A. PEPPER**

**14.15 – 14.30**

J. MIKA: *Meteorological and Hydrological Changes Based on European Environment Agency (2017)*

**14.30 – 14.45**

T. SZABÓ, L.T. LAKATOS, B. VASZILY, L. LAKATOS: *Climate Change Effects on Apple and Sour Cherry Phenology in a Gene Bank Plantation of Hungary*

**14.45 – 15.00**

D. A. PEPPER: *Variation in El Niño Circulation Patterns and Winter Storm Impacts in Southern California*

**15.00 – 15.15**

I. KOSIK, J. MIKA, A. RAZSI, L. GAL: *Climate Signals in Wine Quality Time-Series of North-East Hungary*

**15.15-15.30**

A. S. PRASAD, B. W. PANDEY: *Climate Change, Land Use and Land Cover Change Detection and Its impact on Hydrological Hazards and Sustainable Development: A Case Study of Alaknanda River Basin, Uttarakhand, India*

**15.30-15.45**

Anastasiia CHYHAREVA: *Seasons' Lengths and Dates of Temperature Transition under the Climate Change*

**15.45-16.00**

A. RÁZSI, Boglárka TÓTH: *A Playful Program to Rise Climate Change Awareness in the Primary School*

**16.00-16.30 Coffee break**



**Session 4. Weather and Hydrological Forecast / Prognoze meteorologice și hidrologice**

**16.30 – 18.30**

Hall 43, 1<sup>st</sup> Floor / Sala 43, etajul I

**Chairmen: PhD. Prof. Svitlana KRAKOVSKA, PhD. Assoc. Prof. A.A. TIȘCOVSCHI**

**16.30 – 16.45**

D.R. MANTA, A.A. TIȘCOVSCHI, Z. ȘIPOȘ, Raluca-Maria ȘTEFAN: *Mediterranean Cyclone with an Atypical Trajectory: Characteristics and Outcome (12-14 November 2016)*

**16.45 – 17.00**

C. GRECU, A. PAȘOL, Narcisa MILIAN, U. RECKERH: *Synoptic Conditions Generating Important Snowfalls and Their Relation with Avalanches in 2015-2016 Winter*

**17.00 – 17.15**

Svitlana KRAKOVSKA, I. BUKSHA, A. SHVIDENKO: *Climate Change Scenarios for an Assessment of Vulnerability of Forests in Ukraine in the 21<sup>st</sup> Century*

**17.15 – 17.30**

A.F. CIUPERTEA, A. PITICAR, V. DJURDJEVIC, Adina-Eliza CROITORU, Blanka BARTOK: *Future Changes in Extreme Temperature Indices in Cluj-Napoca, Romania*

**17.30 – 17.45**

CARINA STRAPAZAN, M. PETRUT: *Application of Arc Hydro and HEC HMS Model Techniques for Runoff Simulation in the Headwater Areas of Covasna Watershed*

**17.45 – 18.00**

S. CHEVAL, L. SFICA, Adina CROITORU: *Review and challenges for urban climate research in Romania*

**Session 5. Pollution and protection of air and water environment /  
Poluarea și protecția mediului aerian și hidric**

**14.15 – 16.00**

Hall 52, 1<sup>st</sup> Floor / Sala 52, Etajul I

**Chairmen: PhD. Assoc. Prof. Z. NOUACEUR, PhD. R. TANDLICH**

**14.15 – 14.30**

Z. NOUACEUR: *The Particle Pollution in France in December 2016: Exceptional or Normal Situation?*

**14.30 – 14.45**

D. COCIORVA, Mihaela Andreea MITIU, Mariana MINCU, Natalia Simona RAISCHI: *Emissions of Pollutants and Air Quality in the Area of Influence of High Voltage Overhead Electrical Lines*

**14.45 – 15.00**

Mihaela OPREA, Elia G. DRAGOMIR, C. IANACHE, R. IANACHE: *An Analysis Of PM<sub>2.5</sub> Related Air Pollution in Ploiești City*

**15.00 – 15.15**

Bianca BUZ, A. FEKETE, S. NACU: *Zeolite Usage for Interventions in Accidental Pollutions by Mine Waters in Maramureș County*

**15.15 – 15.30**

Thandiswa NQOWANA, C. S. DUBE, R. TANDLICH: *Monitoring of Potable Water Quality in Makana Local Municipality, South Africa*

**15.30 – 15.45**

Tererai NHOKODI, Thandiswa NQOWANA, C. S. DUBE, R. TANDLICH: *Identification of Bacteria in Rainwater Samples from Makana Local Municipality in South Africa*

**15.45 – 16.00**

A. DUMITRU GRIVEI, D.A. GIURGIU: *Heavy Metals Content in PM<sub>10</sub> Samples at Two Urban Romanian Sites*

**16.00 – 16.30 Coffee break**

**Session 7. Tourism potential of hydro - climatic resources /  
Potențialul turistic al resurselor hidro-climatice**

**16.30 – 18.00**

Hall 46, 1<sup>st</sup> Floor / Sala 46, etajul I

**Chairmen: PhD. Prof. Liliana ZAHARIA, PhD. Prof. Florina GRECU**

**16.30 – 16.45**

Ioana Alexandra CIUPE, Laura Andreea LAZĂR: *The Impact of Tourism with Vacation Homes (Second Homes) on the Natural Environment at the Fântânele Reservoir - Apuseni Nature Park*

**16.45 – 17.00**

F. KOVÁCS: *The Role of Salt Water and the Political-Economic Conditions on the Evolution of Sovata Resort (Romania)*

**17.00 – 17.15**

Laura Andreea LAZĂR, Ioana Alexandra CIUPE: *The Hydro-Tourism Potential of the Land of Beiuș*

**17.15 – 17.30**

Rodica MEREȚ, Liliana ZAHARIA, Florina GRECU: *Characteristics and Use of Mineral Waters and Therapeutic Muds from Grid Village Area (Brașov County)*

**17.30 – 17.45**

A. G. DHORDE, Ashish NAVALE, Manasi DESAI: *Application of Heat Index (HI) and Physiological Equivalent Temperature (PET) Index for Mumbai and Pune Cities, India*

**17.45 – 18.00**

Vilda GRYBAUSKIENĖ, Gitana VYCIENĖ, A. GRUBAS: *Leachate Dynamics from Municipal Jerubaiciai Landfill: Management and Clarification*

**Session 9. Poster session / Sesiunea de postere**

**10.30 – 18.00**

Hall 43, 1st Floor / Sala 43, etajul I

1. Adriana BĂBĂU, V. MICLE, I.M. SUR: *Research on Underground Water Quality from Almaşu Mare Area*
2. András RÁZSI, Boglárka TÓTH: *An opportunity to raise awareness of climate change at school*
3. Andreea MIHALCEA: *Olăneşti catchment historical flood analysis.*
4. Andreea-Mihaela DUNCA, Codruţa BĂDĂLUŢĂ-MINDA: *The Complex Hydrotechnic Structure in Banat Hydrographical Area*
5. B. URÎTESCU, N. IONAC, G. GRIGORAŞ: *The Influences of Land Use on the Urban Heat Island in Bucharest*
6. Danut TANISLAV, Cristiana RADULESCU, Petre BRETAN, Alin POHOATA, Raluca STIRBESCU: *Assessment of drinking water quality in Targoviste Plain using statistical analysis*
7. G. S. TUDORACHE, Nicoleta IONAC, A. DUMITRESCU, Ancuţa MANEA: *Analysing the Homogeneity of Air Temperature, Relative Air Humidity, Precipitation and Wind Data Series Using “CLIMATOL” and Meteorological Metadata*
8. I. IORDACHE, L. APOSTOL, P. ICHIM: *The Land Surface Temperature Distribution during August 7<sup>th</sup>, 2012 Using Modis Imagery in Iaşi Metropolitan Area*
9. Ileana TĂNASE, Cătălina PETRE: *A Regionalization Method of Flow Duration Curve for Estimating Streamflow in Ungauged Catchments*
10. Ioana Mihaela IAMANDEI: *The role of water in the speological tourism in Mehedinti Plateau*
11. Iulia LUPU, Marinela MOLDOVEANU, Ruth PERJU, Andreea C. GALIE: *An Approach for Hydro-Morphological Monitoring of River Water Bodies*
12. Marina Aurelia ANTONESCU, Miruna Crista SAMOILĂ, Roxana Andreea MIHAI: *Considerations regarding air temperature regime in the Central Baragan Plain*
13. Melinda VIGH: *The Variation of Several Water Quality Indicators in Red Lake*
14. Mihaiela STĂNCESCU, Narcisa MILIAN: *Extreme Precipitation Events in the Mountain*

*and Sub-Mountain Areas of the Făgăraș Mountains in June 10 to 11, 2011*

15. Otilia RUSZ, M. STĂNCESCU, I. NAGY: *Unusual Meteorological Phenomena at Târgu Mureș in the Last Years*
16. P. KAPALO, C. BACOTIU, F. DOMNITA, Martina ZELENKOVA: *Renovation of the building and its impact on air pollution*
17. ROȘCA Sanda, BILAȘCO Ștefan, PETREA Dănuț, VESCAN Iuliu, FODOREAN Ioan, FILIP Sorin: *Stream Power Index Modelling with Effects on the River Channel for Medium and Maximum Discharge Using Hec-Ras. A Case Study*
18. Simona BRETCAN, Danut TANISLAV, Cristiana RADULESCU, Petre BRETCAN, Alin BUCURICA, Ioana DULAMA: *Physical and chemical properties of ice from the salt lakes. Case study -lakes from Prahova SubCarpathians*
19. TRAN THI HONG NGOC, PHAN TRUONG KHANH, NGUYEN VAN TUAN, K. PHILLIPS: *Modulation and Application of Chitosan to Adsorb Lead ( $Pb^{2+}$ ) In Wastewater*
20. Valentina-Mariana MANOIU, A. BARSOIANU, Mădălina NEDA: *Water Quality Changes in Ialomița River under the Influence of Human Settlements and Activities*

## Partners



Administrația Bazinală de Apă Someș-  
Tisa



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



S.C. HIDROELECTRICA S.A. SUCURSALA  
CLUJ

## Supporting exhibitors / organizations



Cluj-Napoca City Hall