

## TABLE OF CONTENTS

Csaba HORVÁTH: <i>World Water Day – March 22, 2025</i> .....	VIII
Traian TUDOSE: <i>World Meteorological Day – March 23, 2025</i> .....	X

### I. Climatic and Hydrological Hazards

1. Răzvan BĂTINAȘ, Ionel Sorin RÎNDAȘU-BEURAN, Viorel CHENDEȘ Bogdan Gabriel PITICARI, Cristiana Georgiana ZANFIR, Ionela DĂNILĂ (Vâzdoagă), Silvia RĂVDAN (Oprea) , Simion NACU, Alexandru SÎNTU-LĂSAT: <i>Spatio-Temporal Analysis of Floods in Galați County, Romania, between 2013-2024</i> .....	1
2. Narcisa MILIAN, Maria-Luiza PIEPTENARU, Paul CIOBAN, Dorian-Udo RECKERH: <i>Variations of Nivometeorological Parameters During the Winter Season 2023-2024</i> .....	17
3. Maria-Luiza PIEPTENARU, Raul-Marian STOICA, Szilárd HALADA, Narcisa MILIAN: <i>Temperature Records in the Summer of 2024 in Transylvania</i> .....	27

### II. Air and Water Environment Monitoring

4. Doruța CIURLĂU, Mihaela BORCAN, Isabelle COICIU, Rodica Georgiana CIOBOATĂ, Aurel DUMITRAȘCU: <i>Spatiotemporal Analysis of Cold-Season Minimum Runoff in the Argeș-Vedea River Basin</i> .....	43
5. Andrei DANILĂ, Robert STRECHE, Oana ORZA, Cristina DOBRE, George SUCIU: <i>Intelligent System for Monitoring and Optimizing Viticultural Processes</i> .....	57
6. Mert SABANCIOGLU, Mustafa DEMIRCI, Yunus Ziya KAYA: <i>Estimation of Beginning Points of Cross-Shore Sandbars Using Artificial Neural Network</i> .....	69

7. Lucian SFÎCĂ , Andrei BÂRLEA, Pavel ICHIM, Robert HRIȚAC: *Thermal Profile of a Carpathian Cold-Air Pool: Teșnița Valley from Dorna Depression*.....77
8. Raul-Marian STOICA, Dorian-Udo RECKERH, Florin-Gheorghe BUGNER, Raul-Cristian CIOC: *Episodes of Instability in Transylvania in Summer 2024*.....89
9. Fatih ÜNEŞ, Bestami TASAR, Hakan VARÇIN: *Forecasting of Suspended Sediment in River Using Artificial Intelligence Methods*.....101
10. Adrienn VARGA-BALOGH, Ádám LEELŐSSY, Róbert MÉSZÁROS: *Identifying Precipitation Types From Surface Meteorological Variables With Machine Learning*.....109

### **III. Water Resource Management**

11. Aysu AYAR, Fatih ÜNEŞ, Bestami TAŞAR, Hakan VARÇIN: *Lake Water Level Estimation with Artificial Intelligence Methods*.....115
12. Özden Nur ŞENTÜRK, Mustafa DEMIRCI, Yunus Ziya KAYA, Hasan GUZEL, Mustafa ÇALISICI: *Dam Lake Water Level Estimation Using Different Artificial Intelligence Methods*.....123

### **IV. Pollution and protection of air and water environment**

13. Hany F. ABD-ELHAMID, Martina ZELENÁKOVÁ, Tatiana SOĽÁKOVÁ, Matej OVCIARKA: *Assessment of Meteorological Drought Risks in Eastern Slovakia in Response to Climate Change Utilizing Reconnaissance Drought Index* .....131
14. Irina Monica SIMO, Mihaela-Cătălina HERGHELEGIU, Vlad Alexandru PĂNESCU, Mihail Simion BELDEAN-GALEA: *Ecological Risk Associated with Heavy Metals in the Hydrographic Basin of the Cerna River, Hunedoara County*.....145
15. Patrik NAGY, Katarzyna KUBIAK-WÓJCICKA, Martina ZELENÁKOVÁ, Pavol PURCZ: *Deficit Water Volume in Hnilec River in Slovakia* .....157