

# CONTENTS

## Volume L/2

### Applied Geology

#### *Engineering Geology, Hydrogeology, Urban Geology*

LANDSLIDES IN VITSI (FLORINA) TERRITORY Ambas V.Ch., Katsaros E.E., Alexoudi M.N., Olassoglou E.M., Tsapanos T.M., Koravos G.Ch., Drakatos G.N. and Tzamos E.I.....	577
APPLICATION OF TERRESTRIAL LASER SCANNING (LIDAR) IN ROCK SLOPE STABILITY. AN EXAMPLE FROM NORTHERN GREECE Ampatzi G., Chatzigogos N., Makedon M., Papathanassiou G. and Marinos V. ....	586
GEOCHEMICAL CHARACTERISTICS OF THE GEOTHERMAL FLUIDS IN THE AKROPOTAMOS AREA (MACEDONIA, NORTHERN GREECE) Arvanitis A., Dotsika E. and Kolios N. ....	596
GEOTHERMAL EXPLORATION IN THE ALEXANDRIA AREA, THESSALONIKI BASIN (MACEDONIA, NORTHERN GREECE) Arvanitis A., Kolios N. and Ntokos D. ....	606
THERAPEUTIC MUD OCCURRENCES IN GREECE: MINERALOGICAL AND GEOCHEMICAL COMPOSITION OF THE SAGIADA MUD (THESSALY PREFECTURE) Athanasoulis C., Zaimis S., Chatziapostolou A. and Agalaniotou S. ....	616
INVESTIGATION OF FAILURES AND VERTICAL DISPLACEMENTS OCCURRING AT THE CHOREMI VILLAGE, NEAR THE MEGALOPOLIS' MINES Avramidou E., Psychari E., Kanaris D., Tzampoglou P. and Loupasakis C.....	625
GEOLOGICAL 3D MODELING OF THE COPPER ORE MINERALIZATION AT KCIRA, ALBANIA Bele S. and Bele M.....	631
THE USE OF THE DRASTIC METHOD AND GIS IN ASSESSING THE VULNERABILITY OF THE GROUNDWATER, IN THE VELIPOJA -ZADRIMA AQUIFER, ALBANIA Bele S. ....	639
SIMULATION OF A QUAY WALL FOUNDATION ON AN IMPROVED SEABED. THE EXAMPLE OF THE NEW PORT OF PATRAS Botsou I., Botsou M. and Loupasakis C.....	648
ASSESSMENT OF WATER LOSSES FROM BADOVC LAKE, KOSOVO: ISOTOPIC IMPLICATIONS Skender B. and Arjan B.....	656
ASSESSMENT OF SEAWATER INTRUSION IN FUSHE KUQE AQUIFER, ALBANIA Cenameri S. and Beqiraj A. ....	665

NUMERICAL MODELLING OF SLOPE STABILITY IN OPEN PIT LIGNITE MINES: A COMPARATIVE STUDY Deliveris A.V., Zevgolis I.E. and Koukouzas N.C. ....	671
MAPPING AND CLASSIFICATION OF DIRECT EFFECTS OF THE FLOOD OF OCTOBER 2014 IN ATHENS Diakakis M., Deligiannakis G., Katsetsiadou K., Lekkas E., Melaki M. and Antoniadis Z. ....	681
HYDROGEOCHEMISTRY FOR THE ASSESSMENT OF GROUNDWATER QUALITY OF SPRINGS ON ANDROS: AN ISLAND OF THE CYCLADES COMPLEX, GREECE Filippidis F., Stamatis G., and Mantaloufa I. ....	691
GROUNDWATER RESOURCES ASSESSMENT OF GRANULAR AQUIFERS IN GREECE Kallioras A., Pliakas F. and Marinos P. ....	701
HYDROCHEMICAL STUDY OF THE HOT GROUNDWATER OF AMPELIA AREA, EASTERN THESSALY, GREECE. A NEW AREA WITH GEOTHERMAL INTEREST Kanellopoulos C., Christopoulou M., Vakalopoulos P., Efthimiopoulos Th. and Xenakis M. ....	710
HYDROCHEMICAL CHARACTERISTICS AND GEOTHERMOMETRY APPLICATIONS OF HOT GROUNDWATER IN EDIPSOS AREA, NW EUBOEA (EVIA), GREECE Kanellopoulos C., Christopoulou M., Xenakis M. and Vakalopoulos P. ....	720
KINEMATIC ANALYSIS EVOLUTION OF EXTENDED LANDSLIDES: TWO CASE STUDIES FROM WESTERN GREECE Kavoura K., Anagnostopoulou S., Servou K., Depoundis N., Nikolakopoulos K. and Sabatakakis N. ....	730
SIMULATION OF THE GEOTHERMAL RESERVOIR OF THERMA - NIGRITA, CENTRAL MACEDONIA, GREECE Kavouri K., Arvanitis A., Athanassoulis C. and Xenakis M. ....	740
GIS: A USEFUL TOOL FOR MANAGING OF TRANSBOUNDARY AQUIFERS: A CASE STUDY FROM PRESPA LAKE BASIN Kiri E. ....	750
ENGINEERING GEOLOGICAL CONDITIONS OF THESSALONIKI BASIN FOR UNDERGROUND WORKS Kokkala A. and Marinos V. ....	760
SAND AS A SOIL STABILIZER Kollaros G. and Athanasopoulou A. ....	770
LIQUID LIMIT VALUES OBTAINED BY DIFFERENT TESTING METHODS Kollaros G. ....	778
CORRELATIONS BETWEEN PHYSICAL PROPERTIES AND POINT LOAD STRENGTH INDEX OF PRASINITES: A CASE STUDY FROM EAST ATTICA PREFECTURE Kotsanis D., Nomikos P.P., Rozos D. and Sofianos A.I. ....	788
GROUNDWATER VULNERABILITY ASSESSMENT TO SEAWATER INTRUSION THROUGH GIS - BASED GALDIT METHOD. CASE STUDY: ATALANTI COASTAL AQUIFER, CENTRAL GREECE Lappas I., Kallioras A., Pliakas F. and Rondogianni Th. ....	798

SEASONAL STOCHASTIC SIMULATION AND TIMESERIES MODELLING - ANALYSIS OF A KARSTIC SPRING IN CENTRAL MACEDONIA, GREECE	
Lappas I. and Lazaridou M. ....	808
GROUNDWATER GEOCHEMISTRY OF RROGOZHINA AQUIFER (WESTERN ALBANIA)	
Luzati S., Beqiraj A. and Jaupaj O. ....	818
IMPLEMENTATION OF DPSIR FRAMEWORK IN THE MANAGEMENT OF THE ALMYROS BASIN, MAGNESIA PREFECTURE	
Lyra A., Pliakas F., Skias S. and Gkiougkis I. ....	825
AN ENGINEERING GEOLOGICAL ASSESSMENT USING TERRESTRIAL LASER SCANNING FOR THE STABILIZATION OF A VOLCANIC SLOPE IN SANTORINI ISLAND	
Marinos V., Papathanassiou G., Kaklis T., Proutzopoulos G., Asteriou P., Pantazis G., Lambrou E., Grendas N. and Pavlides S. ....	835
LANDSLIDE GEOHAZARD FOR PIPELINES OF NATURAL GAS TRANSPORT	
Marinos V., Stoumpos G., Papathanassiou G., Grendas N., Papouli D. and Papazachos C. ....	845
GROUNDWATER QUALITATIVE CHARACTERISTICS OF MYGDONIA BASIN. INVESTIGATION OF THE POLLUTION SOURCES AND SUITABILITY FOR HUMAN USE	
Mattas Ch., Kaklis T., Devlioti K. and Vouvalidis K. ....	854
OVEREXPLOITATION OF GROUNDWATER RESOURCES IN THE COASTAL AQUIFER SYSTEM OF ARGOLIS	
Mitropapas A., Koumantakis I., Vasileiou E., Perdikaki M. and Kallioras A. ....	865
ENGINEERING GEOLOGICAL CHARACTERISATION OF BLOCK-IN-MATRIX ROCKS	
Nikolaidis G. and Saroglou C. ....	874
ACTIVE GEOTHERMAL SYSTEMS IN THE CONTINENTAL RIFT ZONES OF THE MENDERES MASSIF, WESTERN ANATOLIA, TURKEY	
Özgür N. and Arife Çalışkan T. ....	885
ASSESSING THE SUITABILITY OF GROUNDWATER FOR DRINKING AND AGRICULTURAL USES IN THE ZACHARO BASIN, SW PELOPONNESUS	
Panagopoulos G., Lambrakis N., Chalvantzis C., Bekiari V. and Avramidis P. ....	899
PRELIMINARY GEOTHERMAL INVESTIGATION IN THE BASIN OF KATERINI (NORTHERN GREECE)	
Papachristou M., Arvanitis A. and Kolios N. ....	907
KARSTIC AQUIFER OF ORFANA-IPERIA OF WEST THESSALY. THE RESEARCH AND ANALYSIS OF THE HYDRODYNAMIC AND HYDROCHEMICAL STATUS BEFORE THE APPLICATION OF ARTIFICIAL GROUND WATER RECHARGE	
Papagiannis N., Koumantakis I. and Vasileiou E. ....	917
SEAWATER INTRUSION AND NITRATE POLLUTION IN COASTAL AQUIFER OF MARATHON BASIN	
Papazotos P., Koumantakis I. and Vasileiou E. ....	927
DESALINATION AND BOREHOLE CONSTRUCTION FOR ABSTRACTION OF SALINE WATER AND CHANNELING BRINE DISPOSAL	
Sampatakakis P., Manthos G. and Kepas A. ....	938
COASTAL CLIFF INSTABILITY, A CASE STUDY FROM THE UK	
Saroglou C. and Alexandrou D. ....	949

HYDROGEOLOGICAL CONDITIONS AND GROUNDWATER QUALITY IN VAGIA BASIN (VIOTIA/GREECE)	
Stamatis G., Davou I., Hermides D. and Karavitis C. ....	959
CONTRIBUTION TO HYDRAULIC CHARACTERISTICS OF PLIO-PLEISTOCENE DEPOSITS OF THRIASSION PLAIN OF ATTICA	
Hermides D., Mimides T. and Stamatis G. ....	967
DISTRIBUTION OF RARE EARTH ELEMENTS IN METAMORPHIC ROCKS OF PLATTENKALK GROUP AT CENTRAL CRETE, GREECE	
Stathogianni F., Manoutsoglou E., Staboliadis I., Pantelaki O. and Kallithrakas-Kontos N.....	977
LABORATORY INVESTIGATION ON THE CORRELATION BETWEEN THE FRICTION ANGLE OF ROCK JOINTS AND THE CONSTANT $M_1$ OF THE HOEK AND BROWN CRITERION	
Tsirikis A., Papaliangas T. and Marinos V. ....	987
FLOOD HAZARD ASSESSMENT AND DELIMITATION OF THE LIKELY FLOOD HAZARD ZONES OF THE UPPER PART IN GALLIKOS RIVER BASIN	
Tsitroulis I., Voudouris K., Vasileiou A., Mattas C., Sapountzis M. and Maris F.....	995
NEW DATA REGARDING THE GROUND WATER LEVEL CHANGES AT THE AMYNTAIO BASIN- FLORINA PREFECTURE, GREECE	
Tzampoglou P. and Loupasakis C. ....	1006
GRANULAR AQUIFER SYSTEM OF WEST CHALKIDIKI AREA, REGION OF CENTRAL MACEDONIA, NORTHERN GREECE	
Veranis N., Nimfopoulos M., Christidis C. and Chrysafi A.....	1016
GEOLOGICAL MAPPING IN URBAN AREAS. A CASE STUDY FROM THE INNER CITY OF THESSALONIKI, GREECE	
Zervopoulou A. and Pavlides S. ....	1027

## **Meteorology, Climatology, Atmospheric Environment**

FUTURE DROUGHT PROJECTION FOR THE GREEK REGION	
Anagnostopoulou C. ....	1038
MINERALOGICAL COMPOSITION OF SUSPENDED PARTICLES PM10 IN THE PTOLEMAIS-KOZANI AREA, MACEDONIA, GREECE	
Nikolaidou P., Triantafyllou A., Kantiranis N. and Filippidis A.....	1046
MODELING THE TRANS-ATLANTIC TRANSPORTATION OF SAHARAN DUST	
Tsikerdekis A., Zanis P., Steiner L.A., Amiridis V., Marinou E., Katragkou E., Karacostas Th. and Solmon F. ....	1052
CHANGES IN PARAMETERIZATIONS OF REGIONAL CLIMATE MODEL REGCM4.4.5: THE ROLE OF LAND COVER ON REGIONAL CLIMATE OVER MEDITERRANEAN	
Velikou K., Tolika K. and Anagnostopoulou Ch.....	1062
IMPACTS OF CLIMATE CHANGES ON HYDROLOGIC BALANCE: A CASE STUDY OF VOCHA PLAIN, KORINTHIA	
Venetsanou P., Anagnostopoulou C. and Voudouris K.....	1068

*Special Session*

**Recent advances in Earth Sciences: monitoring networks, services and products – what do scientists deliver and what does society need**

ACCELEROMETRIC DATA AND WEB PORTAL FOR THE VERTICAL CORINTH GULF SOFT SOIL ARRAY (CORSSA) Kassaras I., Roumelioti Z., Ktenidou O.-J., Pitilakis K., Voulgaris N. and Makropoulos K. ....	1081
DIONYSOS SATELLITE OBSERVATORY AND HIGHER GEODESY LABORATORY: HISTORY AND PERSPECTIVES Marinou A., Anastasiou D., Papanikolaou X., Paradissis D. and Zacharis V.....	1091
THE HELLENIC NATIONAL TSUNAMI WARNING CENTER: RESEARCH, OPERATIONAL AND TRAINING ACTIVITIES Papadopoulos G.A., Tselentis G.A., Charalampakis M. and all the scientific staff of the Institute of Geodynamics.....	1100
THE ACCELEROMETRIC NETWORK OF THE INDES-MUSA PROJECT IN THE KALOCHORI AREA: CONFIGURATION, DOCUMENTATION AND PRELIMINARY DATA INTERPRETATION Rovithis Emm., Makra K., Savvaidis A. and Kirtas Emm. ....	1110
SCISOLA: REAL-TIME MOMENT TENSOR MONITORING FOR SEISCOMP3 Triantafyllis N., Sokos E. and Ilias A.....	1120