

**15th INTERNATIONAL MULTIDISCIPLINARY
SCIENTIFIC GEOCONFERENCE
S G E M 2 0 1 5**



**SCIENCE AND TECHNOLOGIES IN GEOLOGY,
EXPLORATION AND MINING
CONFERENCE PROCEEDINGS
VOLUME III**

EXPLORATION AND MINING

APPLIED AND ENVIRONMENTAL GEOPHYSICS

**18-24, June, 2015
Albena, BULGARIA**

DISCLAIMER

This book contains abstracts and complete papers approved by the Conference Review Committee. Authors are responsible for the content and accuracy.

Opinions expressed may not necessarily reflect the position of the International Scientific Council of SGEM.

Information in the SGEM 2015 Conference Proceedings is subject to change without notice. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of the International Scientific Council of SGEM.

Copyright © SGEM2015

All Rights Reserved by the International Multidisciplinary Scientific GeoConferences SGEM
Published by STEF92 Technology Ltd., 51 “Alexander Malinov” Blvd., 1712 Sofia, Bulgaria
Total print: 5000

ISBN 978-619-7105-33-9

ISSN 1314-2704

DOI: 10.5593/sgem2015B13

**INTERNATIONAL MULTIDISCIPLINARY SCIENTIFIC GEOCONFERENCE SGEM
Secretariat Bureau**

Phone: +359 2 4051 841

Fax: +359 2 4051 865

E-mails: sgem@sgem.org | sgem@stef92.com

URL: www.sgem.org

ORGANIZERS

- BULGARIAN ACADEMY OF SCIENCES
- ACADEMY OF SCIENCES OF THE CZECH REPUBLIC
- LATVIAN ACADEMY OF SCIENCES
- POLISH ACADEMY OF SCIENCES
- RUSSIAN ACADEMY OF SCIENCES
- SERBIAN ACADEMY OF SCIENCES AND ARTS
- SLOVAK ACADEMY OF SCIENCES
- NATIONAL ACADEMY OF SCIENCES OF UKRAINE
- INSTITUTE OF WATER PROBLEM AND HYDROPOWER OF NAS KR
- NATIONAL ACADEMY OF SCIENCES OF ARMENIA
- SCIENCE COUNCIL OF JAPAN
- THE WORLD ACADEMY OF SCIENCES (TWAS)
- EUROPEAN ACADEMY OF SCIENCES, ARTS AND LETTERS
- ACADEMY OF SCIENCES OF MOLDOVA
- MONTENEGRIN ACADEMY OF SCIENCES AND ARTS
- CROATIAN ACADEMY OF SCIENCES AND ARTS, CROATIA
- GEORGIAN NATIONAL ACADEMY OF SCIENCES
- ACADEMY OF FINE ARTS AND DESIGN IN BRATISLAVA
- TURKISH ACADEMY OF SCIENCES
- BULGARIAN INDUSTRIAL ASSOCIATION
- BULGARIAN MINISTRY OF ENVIRONMENT AND WATER

HONORED ORGANIZER



BULGARIAN ACADEMY OF SCIENCES

EXCLUSIVE SUPPORTING PARTNER



INTERNATIONAL SCIENTIFIC COMMITTEE

Science and Technologies in Geology, Exploration and Mining

- PROF. JEAN-PIERRE BURG, SWITZERLAND
- ACAD. DMITRY Y. PUSHCHAROVSKY, RUSSIA
- PROF. YEVGENY KONTAR, USA

- PROF HELMUT WEISSERT, SWITZERLAND
- PROF. KOEN BINNEMANS, BELGIUM
- PROF. PROSUN BHATTACHARYA FIL. DR., SWEDEN
- PROF. DR UNSAL YALCIN, GERMANY
- PROF. VLADICA CVETKOVIC, SERBIA
- PROF NIKOLAY I. LEONYUK, RUSSIA
- PROF. DR RADOSLAV NAKOV, BULGARIA
- PROF. DR ZDENEK KALAB, CZECH REPUBLIC
- PROF. DSC JORDAN MARINSKI, BULGARIA
- PROF. VICTOR ARAD, ROMANIA
- PROF. YURY STEPIN, RUSSIA
- PROF. DR SNEZANA KOMATINA PETROVIC, SERBIA
- PROF. KUVVET ATAKAN, NORWAY
- PROF. K.N. MILOVIDOV, RUSSIA
- ASSOC. PROF. GERARDO BRANCUCCI, ITALY
- ASSOC. PROF. MARIAN MARSCHALKO, CZECH REPUBLIC
- ING. SLAVOMIR HREDZAK, PHD, SLOVAKIA
- DR. DIEGO PERUGINI, ITALY

CONFERENCE PROCEEDINGS CONTENTS**EXPLORATION AND MINING**

- 1. A PROPOSAL FOR SOLVING THE PROGNOSIS OF ROCKBURSTS IN EXTRACTION USING THE ROOM AND PILLAR METHOD**, Assoc. Prof. Eva Jirankova, Prof. Vladimir Petros, Ing. Jiri Golasowski, Ing. Robert Vochta, VSB-Technical University of Ostrava, Czech Republic3
- 2. A STUDY OF POSSIBILITIES TO INCREASE EFFORT CAPACITY FOR THE UNDERGROUND MINING INDUSTRY PERSONEL**, PhD Student Cristian Ilioni, Assoc. Prof. PhD.Ioan Stelescu, Prof. Eng. PhD. Marin- Silviu Nan ,PhD Student Diana Salasan, University of Petrosani, Romania..... 11
- 3. ALTERNATIVE SOLUTION OF THE OLŠANY MINING AREA RECLAMATION - ECONOMIC BALANCE OF COSTS ASSOCIATED WITH RECLAMATION WORKS**, Ing.Maria Jarolimova Ph.D., Ing.Dagmar Cechova Ph.D., Doc.Ing.Milan Mikolas Ph.D., Ing.Lukas Zizka, Ing. Andrea Policka , VSB-Technical University of Ostrava, Czech Republic 19
- 4. AN EMPIRICAL APPROACH TO PREDICT THE GEOMECHANICAL PARAMETERS OF GRANITES. CASE STUDY**, Lecturer Nistor Marian Catalin, Assoc. Prof. Goldan Tudor, Lecturer Danciu Ciprian, Assist. Faur Florin, Nistor Cristian Daniel, Radu Nistor Imobilinvest Srl, Romania27
- 5. ANALYSES OF “AURUL” TAILING POND SURFACE REHABILITATION – BY USING REGIONAL RESOURCES**, Assoc. Prof. Dr. Simona Duma, Prof. Dr. Ioan Bud, Assis. Prof. Dr. Dorel Gusat, Assoc. Prof. Dr. Iosif Ioan Pasca, Eng. Adina Bud, Technical University of Cluj-Napoca, Romania.....33
- 6. ANALYSIS OF RADIATION RISKS OF REMAINING DUMPS AFTER URANIUM MINING IN KRKONOSE-JIZERA CRYSTALLINE COMPLEX IN CZECH REPUBLIC**, Ing. Ladislav Pasek, Prof. Vlastimil Hudecek CSc., VSB-Technical University of Ostrava, Czech Republic41
- 7. ANALYSIS OF THE ROTARY DRILLING VIBRATIONAL SIGNAL**, Edita Lazarova, Milan Labas, Vitazoslav Krupa, Maria Krulakova, Katarina Feriancikova, Institute of Geotechnics, Slovak Academy of Sciences, Slovakia49
- 8. ANALYSIS OF TUNNEL EXCAVATION MONITORING DATA FOR PREDICTION OF TBM PERFORMANCE - STATISTICAL DISTRIBUTION FUNCTIONS OF ROCK STRENGTH**, Lucia Ivanicova, Milan Labas, Maria Krulakova, Institute of Geotechnics, Slovak Academy of Sciences, Slovakia55

9. ANALYSIS OF UTILIZATION AND SECURING OF OLD MINE WORKINGS IN THE CZECH REPUBLIC, Ing. Adela Cibulcova, Ing. Beata Gibesova, Ing. Veronika Duskova, Ing. Jiri Koranda, VSB-Technical University of Ostrava, Czech Republic	63
10. ANALYSIS THE NATURAL STRESS STATE OF SALT MASSIVE FROM PRAID MINE, ROMANIA, Assoc. Prof. Dr. Mihaela Toderas, University of Petrosani, Romania.....	73
11. APPLICATION OF GPS TECHNOLOGY TO THE BUCKET WHEEL EXCAVATOR, Assoc. Prof. Ing. Jiri Fries, Ph.D., Ing. Tomas Hapla, Mgr. Ivana Onderkova, Ph.D., VSB-Technical University of Ostrava, Czech Republic	81
12. ARTIFICIAL NEURAL NETWORK MODELING OF CUT DEPTH IN ROCK CUTTING BY ABRASIVE WATERJET, Izzet Karakurt, Gokhan Aydin, Serkan Kaya, Coskun Hamzacebi, Karadeniz Technical University, Turkey	89
13. ASSESSMENT OF IGNITION SENSITIVITY OF GASEOUS EXPLOSIVE ATMOSPHERES FROM UNDERGROUND FIREDAMP MINES, PhD. Eng. Marius Darie, PhD. Eng. Mihai Magyari, PhD. Eng. Sorin Burian, PhD. Eng. Jeana Ionescu, PhD. Eng. Tiberiu Csaszar, National Institute for Research and Development in Mine Safety and Protection to Explosion - INSEMEX, Romania	97
14. ASSESSMENT OF MORAVIAN-SILESIA INVESTMENT IN COLOMBIA’S MINING INDUSTRY, Ing. Igor Cerny, Ph.D. , Ing. Lucie Krcmarska. Ph.D., Ing. Katerina Spakovska, Ing. Marketa Rolcikova, Ph.D., VSB-Technical University of Ostrava, Czech Republic	103
15. ASSESSMENT RESULTS ON GEOMECHANICAL STATE OF NEAR-WALL ROCK MASS IN OPEN-PITS OF THE KOLA REGION BY INTEGRATED INSTRUMENTAL METHODS, prof. Anatoliy Kozyrev, PhD Vadim Rybin, Konstantin Konstantinov, Mining Institute of the Kola Science Centre of the Russian Academy of Sciences, Russia	111
16. CALCULATION OF VARIATION AND ORE-BEARING COEFFICIENTS IN THE PLAVICA EPITHERMAL POLYMETALLIC DEPOSIT, EASTERN MACEDONIA, Full Prof. Todor Serafimovski; Goce Zlatkov; Doc. Goran Tasev, Genezis Resources International, FYR of Macedonia.....	119
17. CALORIFIC VALUE SENSOR, Assoc. Prof. Ing. Jan Spisak, PhD., Ing. Andrej Olijar, PhD., Ing. Miroslav Zelko, PhD., Technical University of Kosice, Slovakia ...	129
18. CHEMICAL STABILITIES STUDIES REGARDING “AURUL” TAILING POND – CURRENT STATE AND PROGNOSIS AFTER REHABILITATION, Prof. Dr. Ioan Bud, Assis. Prof. Dr. Dorel Gusat, Assoc. Prof. Dr. Simona Duma, Assoc. Prof. Dr. Iosif Ioan Pasca, Ing. Adina Bud, North University Centre of Baia Mare, Romania	135

19. COALFACE 063 608 AT THE MINING PLANT 3, OKD, A. S. „EXPERIMENT?“, Ing. Lucie Martinkova, Ing. Beata Gibesova, Doc.Ing.Pavel Zapleta, RNDr.EvaVavrikova, Ing.Veronika Duskova, VSB-Technical University of Ostrava, Czech Republic	141
20. CONTROVERSIAL HISTORY OF CYANIDE UTILIZATION IN MINING INDUSTRY. ROMANIAN SPECIFIC ISSUES, Prof. Dr. Ioan Bud, Assoc. Prof. Dr. Simona Duma, Assis. Prof. Dr. Dorel Gusat, Assoc. Prof. Dr. Iosif Ioan Pasca, Eng. Adina Bud, Technical University of Cluj-Napoca, Romania	149
21. CREATION AND USE OF FINANCIAL RESERVES FOR RECLAMATION OF SURFACE MINES IN ZACLER, Ing.Kristyna Cerna, Ph.D, Prof. Ing. Vlastimil Hudecek, CSc, Ing. Hana Ruckova, Ing. Zdenek Adamec, Ph.D., VSB-Technical University of Ostrava, Czech Republic	155
22. CRITICAL ANALYSIS OF THE TRENDS IN USE OF CLASSICAL ENERGETIC RESOURCES, Assist.Ph.D. Florin Faur, Prof.Ph.D. Maria Lazar, Assoc. Prof. Dr. Eng. Emilia Dunca, Lecturer Dr. Eng. Daniela-Ionela Ciolea, University of Petrosani, Romania.....	163
23. DECISION MAKING INFLUENCE OF SOME MACROECONOMIC FACTORS CONCERNING PROSPECTIVE SALES OF FINE SILICON CARBIDE, Jakub Chlopecky, Marketa Rolcikova, Michal Kratochvil, VSB-Technical University of Ostrava, Czech Republic	171
24. DECISION SUPPORT SYSTEMS FOR INDUSTRIAL WASTE MANAGEMENT, Eng. Karina Hermann, Assoc. Prof. Witold Bialy, Silesian University of Technology, Poland.....	179
25. DEEP SEA MINING OF POLYMETALLIC NODULES - BASIC PRINCIPLES, Assoc. Prof. Lucia Domaracka, PhD, Dr.h.c. prof. Pavol Rybar, PhD., Technical University of Kosice, Slovakia	187
26. DESIGN OF MINING MACHINE PARTS IN VIEW OF FATIGUE LIFE, Ing. Tomas Hapla, Assoc. Prof. Ing. Jiri Fries, Ph.D., Mgr. Ivana Onderkova, Ing. Tomas Neumann, VSB-Technical University of Ostrava, Czech Republic.....	195
27. DESIGN OF TECHNOLOGICAL FLOWSHEETS FOR ORE PRECONCENTRATION AND WASTE ROCKS DISPOSAL IN MINED SPACE, Researcher Evgenii Gromov, researcher Oleg Belogorodcev, Mining Institute of the Kola Science Centre of the Russian Academy of Sciences, Russia	203
28. DETERMINATION OF THE DYNAMIC PHENOMENA IN BOREHOLES AFTER BLASTING, Doc. Ing. Milan Mikoláš, Ph.D., Ing. Pavel Hrbáč, Ing. Martin Mikoláš, Ing. Andrea Polická, Ing. Bohumil Neč, VSB-Technical University of Ostrava, Czech Republic.....	211

- 29. DIRECTIONS OF POST-MINING AREAS REVITALIZATION IN A SELECTED AREA OF POLISH-CZECH BORDERLAND**, Ph D Katarzyna Midor, Ph D. Michal Zasadzien, Silesian University of Technology, Poland219
- 30. DISPOSAL OF MUDDY SEDIMENTS AND THEIR EFFECT ON THE OVEERBURDEN DUMP BODY STABILITY WITHIN THE ENVIRONMENT OF OPENCAST BROWN COAL MINES**, Ing. Ivan Bily, Ph.D., Ing. Jiri Brabenec, Ph.D., Ing. Petr Vanek , Severoceske doly a.s., Czech Republic229
- 31. DISPOSAL OF OVERBURDEN FROM THE FIRST ECS SYSTEM AFTER FLOODING IN THE WORKING AREA AT OPEN CAST MINE TAMNAVA WEST FIELD**, M.Sc Nadica Drljevic, Goran Tomic, Mining Basin Kolubara, Serbia.....237
- 32. IMPACT OF LOCATION OF THE BELT CONVEYORS SERVICE WORKSTATION, DURING THE MAIN HAULAGE LEVEL IN THE COAL MINE, ON THE LEVEL OF EXPOSURE TO NOISE**, PhD Marek Profaska, Silesian University of Technology, Poland.....247
- 33. EFFEFFECTIVE DISPOSAL OF DUST BY SPRAYING**, Ing.Beata Gibesova, Ing. Adela Cibulcova, Ing. Jiri Koranda, Ing. Michal Kratochvil, Ing. Hana Nadkanska, VSB-Technical University of Ostrava, Czech Republic255
- 34. ENVIRONMENTAL NOISE IMPACT FROM OPENCAST QUARRIES: A COMPARISON BETWEEN STOCHASTIC AND DETERMINISTIC APPROACHES**, Full Prof. M. Pinzari, Assoc. Prof. G. Alfaro Degan, Assist. Prof. D. Lippiello, Engineering Department – University of Roma Tre, Italy..... 263
- 35. ESTABLISHING THE STRUCTURE OF VENTILATION NETWORKS AFFECTED BY UNDERGROUND EXPLOSIONS**, PhD. Eng. Doru Cioclea, PhD. Eng. Constantin Lupu, Eng. Ion Gherghe, Eng. Emeric Chiuzan, Eng. Corneliu Boanta, National Institute for Research and Development in Mine Safety and Protection to Explosion - INSEMEX, Romania271
- 36. EVALUATION OF THE POTENTIAL APATITE-BEARING CARBONATITE GEORESOURCES OF THE TIKSHEOZERO MASSIF, REPUBLIC OF KARELIA**, Skamnitskaya L.S., Bubnova T.P. Shchiptsov V.V., Institute of geology of KarRC RAS, Russia.....279
- 37. EXPERIMENTAL - ANALYTICAL ESTIMATION OF UNDERMINED SAFETY PILLAR**, Vasily Baryshnikov PhD Eng, Dmitry Baryshnikov, Lidia Gakhova, Institute of Mining Siberian Branch Russian Academy of Science, Russia285
- 38. FACTORS AFFECTING EMPLOYEES’ SATISFACTION IN A MINING COMPANY**, eng. Marketa Rolcikova, PhD, Simona Kozarova, VSB-Technical University of Ostrava, Czech Republic291

39. FLOTATION OF MINING WATER SLUDGE IN ORDER TO RECOVER LEAD TO THE CONCENTRATE , Ing.Jaroslav Zavada, Ph.D, Ing. Veronika Duskova, Ing. Hana Nadkanska, Ing. Beata Gibesova, Ing. Matej Kovarik, VSB-Technical University of Ostrava, Czech Republic	299
40. FORECASTING OF GEODYNAMIC HAZARDS AT POTASH MINES USING REMOTE SENSING DATA: A CASE STUDY OF THE TUBEGATAN DEPOSIT, UZBEKISTAN , Kopylov I.S., Kovin O.N., Konoplev A.V., Perm State National Research University, Russia	305
41. FREE OF STRESS MASSIF AS A SOURCE FOR DIMENSIONAL STONE DEPOSIT , Dr. Vitali Shekov, Institute of Geology of KarRC RAS, Russia.....	313
42. GEOCHEMISTRY OF IRON ORE DEPOSITS FROM THE SINGHBHUM-ORISSA CRATON (INDIA) , PhD Student Azimuddin Mirza, Assoc.Prof.Dr. Nurdane Ilbeyli, Prof.Dr. M. Gurhan Yalcin, Res.Assist. Ebru Paksu, MSc Student Daniel G. Nyamsari, Akdeniz University, Turkey.....	321
43. GEOMECHANICAL MODELING AS A BASIS FOR INCREASING MINING SAFETY IN THE STRELTSOVSKOE ORE DEPOSITS , Prof. Dr. Sci. (Eng.) Anatoly A. Kozyrev, Ph. D. (Eng.) Ivan M. Avetisian, Ph. D. (Eng.) Inna E. Semenova, Mining Institute of the Kola Science Centre of the Russian Academy of Sciences, Russia	329
44. GEOPHYSICAL FOOTPRINTS OF ENDOGENIC ORE DEPOSITS: SORSKOE COPPER-MOLYBDENUM COMPLEX CASE STUDY , Spichak V.V.,Goidina A.G., Geoelectromagnetic Research Centre, Russia.....	337
45. GOB METHANE ACCUMULATION AND TRANSIENT GAS OCCURRENCES IN LONGWALL COAL FACES , Prof.Dr.Eng. Roland Iosif Moraru, Assoc.Prof.Dr.Eng. Gabriel Bujor Babut, Phd.Stud.Eng. Mihai Popescu-Stelea, University of Petrosani, Romania.....	345
46. GROUP WINNING BLASTING AS A ROCKBURST CONTROL METHOD , Prof. Witold Pytel, Piotr Mertuszka, M.Sc., Min.Eng., Bogusław Cenian, M.Sc., Min.Eng., Kghm Cuprum Ltd, Poland	353
47. THE HAZARD OF MERCURY CONTAMINATION OF THE ENVIRONMENT AKM Page 1 30/05/2015RESULTING FROM THE DISPOSAL OF MINING WASTE , Dr Anna Michalska, Prof.dr hab.inz. Barbara Bialecka, Dr Arkadiusz Bauerek, Central Mining Institute (GIG), Poland.....	361
48. HG REDUCTION POTENTIAL IN COAL CLEANING PROCESSES – A FEW CASE STUDIES , PhD Ireneusz Pyka, Prof.D.Sc.Eng., Barbara Bialecka, PhD Krzysztof Wierzchowski, Central Mining Institute (GIG), Poland.....	369

- 49. HISTORICAL ORE DEPOSITS AND ORE-BEARING MINERALISATION OCCURRENCES IN THE POLISH PART OF THE OUTER CARPATHIANS IN THE ASPECT OF A NEW RESEARCH PERSPECTIVES**, Assoc.Prof. Barbara Radwanek-Bak, Polish Geological Institute-National Research Institute, Poland.....377
- 50. IMPLEMENTING MODERN PHYSICAL TRAINING METHODS FOR MINE RESCUERS AT INSEMEX ROMANIA**, PhD Student Cristian Costa, PhD Scientific researcher Daniel Pupazan, PhD Lecturer Ciprian Danciu, PhD Lecturer Catalin Nistor, University of Petrosani, Romania383
- 51. INFLUENCE OF HEIGHT-TO-DIAMETER RATIO SAMPLES AND HUMIDITY ON THE GEOMECHANICAL PROPERTIES OF SANDSTONES**, Assoc. Prof. DSc. Mirosława Bukowska, Central Mining Institute (GIG), Poland391
- 52. INFLUENCE OF MOTIVATION ON WORK PERFORMANCE AND LOYALTY OF EMPLOYEES IN INDUSTRIAL ENTERPRISES**, Katerina Spakovska, Marek Ballarin, Michal Vanek, Jakub Chlopek, VSB-Technical University of Ostrava, Czech Republic399
- 53. INNOVATION OF THE ANTHRACITE CALCINATION PROCESS**, Assoc. Prof. Ing. Jan Spisak, PhD., Ing. Jan Mikula, PhD., Ing. Jan Glocek, PhD., Technical University of Kosice, Slovakia.....407
- 54. INNOVATIVE APPLICATION OF QUALITY MANAGEMENT TOOLS IN A HARD COAL MINE**, PhD Michal Zasadzien, PhD Katarzyna Midor, Silesian University of Technology, Poland.....415
- 55. INSTRUMENTAL ASSESSMENT OF STRESS IN CONCRETE**, Vasily Baryshnikov, Dmitry Baryshnikov , Institute of Mining Siberian Branch Russian Academy of Science, Russia423
- 56. INTEGRATED PROCESSING OF THE PARTOMCHORR DEPOSIT ORES: ASSESSMENT OF INVESTMENT ATTRACTIVENESS BASED ON SPATIAL AND MATHEMATICAL-ECONOMIC MODELING**, Researcher Evgenii Gromov, Prof. Andrey Bilin, Mining Institute of the Kola Science Centre of the Russian Academy of Sciences, Russia.....429
- 57. MATHEMATIC MODEL FOR THE ESTABLISHMENT OF COAL EXTRACTION PROCESSES THROUGH FRONT STOPES**, Prof. Ph.D eng. Florian Buse, Lect. Ph.D eng.ec. Iuliu Sorin Mangu, Lect. Ph.D eng.ec. Gheorghe Florin Buse, University of Petrosani, Romania.....437
- 58. MEASUREMENTS POSSIBILITIES OF COAL STOCKPILE TEMPERATURE**, Prof. PhD. Luminita Georgeta Popescu, Prof PhD Mihai Cruceru, Assoc. prof. Florin Grofu, Constantin Cercel, Constantin Brancusi University of Targu-Jiu, Romania.....445

59. MERCURY IN THE EXHALATION GASES FROM THERMALLY ACTIVE COAL MINING WASTE DUMPS , Prof. Dr Hab. Inz. Barbara Bialecka, Dr Inz. Jacek Grabowski, Central Mining Institute (GIG), Poland	453
60. MINERALOGY, GEOCHEMISTRY AND RADIOACTIVITY OF THE URANIUM MINERALIZATION AND DETERMINATION OF LITHOLOGICAL CHARACTERIZATION IN THE DADAĞI TOWN, CENTRAL ANATOLIAN, TURKEY , Omer Nedim Alcicek, Leyla Kalender, Firat University, Turkey	461
61. MODELLING AND OPTIMIZATION OF A VENTILATION NETWORK IN UNDERGROUND MINES , Jorge Castilla-Gomez, Juan Herrera-Herbert, Alberto Campillos-Prieto, Technical University of Madrid - UPM, Spain	469
62. MONITORING OF TECHNOGENIC ARRAYS AND EFFECTIVE DUST SUPPRESSION METHODS APPLIED IN MINING OPERATIONS , Dr. Aleksandr Danilov, Assoc. prof., Dr. Yuri Smirnov, Prof., Dr. Maria Pashkevich, Mining University of Saint Petersburg, Russia	477
63. MULTI SCALE SEISMICITY AT POTASH MINES. MAIN RESULTS OF THE LONG-TERM SEISMIC MONITORING AT VERKHNEKAMSKOYE DEPOSIT , Dr. Alexey Malovichko, Dr. Dmitriy Malovichko, Dr. Denis Shulakov, Dr. Ruslan Dyagilev, Mining Institute of the Ural Branch of the Russian academy of sciences, Russia	485
64. MULTICRITERIA ANALYSIS OF COAL MINE , Eng. Magdalena Bogacka, Silesian University of Technology, Poland	493
65. OPTIMAL HORIZONTAL WELL SPACING FOR DISPLACING HEAVY OIL BY HEAT CARRIER INJECTION , Prof. A.A. Lipaev, D.V. Shevchenko, L.Kh. Vasilyeva, Almet'yevsk State Oil Institute, Russia	501
66. POSSIBILITY OF CONVEYOR BELTS TRANSPORT UNDER HOISTING CAGE , Assoc. Prof. Ing. Jiri Fries, Ph.D., Ing. Tomas Hapla, Mgr. Ivana Onderkova, Ph.D., VSB-Technical University of Ostrava, Czech Republic	509
67. POSTMINING LANDSCAPE IN THE BORDER AREA OF CZECH REPUBLIC AND POLAND , doc.Ing.Milan Mikoláš, PhD., prof.Ing.Vlastimil Hudeček, CSc., doc.Ing.Barbara Štalmachová, CSc., Ing.Roman Danel, Ph.D., Doc.Dr.Ing. Zdeněk Neustupa, VSB-Technical University of Ostrava, Czech Republic	515
68. PRACTICAL EXPERIENCE USING CEMENT MIXTURE DURING THE EXCAVATION OF THE MINE WORKINGS NO. 5053 ON THE MINING PLANT 1 WITHIN THE OKR (OSTRAVA-KARVINA COAL DISTRICT) CONDITIONS , Ing.Vaclav Zubicek, PhD, Prof. Ing. Vlastimil Hudecek, CSc., Ing. Beata Gibesova, VSB-Technical University of Ostrava, Czech Republic	523

69. RAW MATERIAL MOTION CONTROL AND MONITORING IN MINING AND RAW MATERIAL PROCESSING , Assoc.Prof. Dr. Ing. Zdenek Neustupa, Ing. Roman Danel, VSB-Technical University of Ostrava, Czech Republic	529
70. RECONFIGURATION OF LIGNITE DEPOSITS IN OPEN PITS FROM OLTENIA IN ORDER TO IMPROVE COAL SUPPLY , Assoc. Prof. Dr. Eng. Ec. Goldan Tudor, Lecturer Dr. Eng. Nistor Marian Catalin, Lecturer Dr. Eng. Danciu Ciprian, Assist. Dr. Eng. Faur Florin, Radu Nistor Imobilinvest SRL, Romania	537
71. REDUCING ENVIRONMENTAL IMPACT GENERATED BY THE EXTRACTION OF ROCK SALT IN SOLUTION AT THE OCNELE MARI, ROMANIA , Ph.D. Student Sorin Mihut, Min.Eng., Lecturer Dacian-Paul Marian, Min.Eng.Ph.D., Prof. Eugen Cozma, Min.Eng.Ph.D., Prof. Ilie Onica, Min.Eng.Ph.D., University of Petrosani, Romania.....	543
72. REDUCING THE IMPACT OF SOLID WASTE POLLUTION USING INERTIZATION , Camelia Badulescu, Diana Marchis, Mihai Alexandru, University of Petrosani, Romania.....	551
73. RESEARCH ON DECREASING THE SEISMIC EFFECT GENERATED BY BLASTING WORKS PERFORMED IN QUARRIES , Eng. Edward Gheorghiosu, PhD Eng. Gabriel Vasilescu, PhD Eng. Emilian Ghicioi, PhD Eng. Attila Kovacs , PhD Eng. Daniela Carmen Rus, National Institute for Research and Development in Mine Safety and Protection to Explosion - INSEMEX, Romania.....	559
74. RESEARCH ON INCREASING THE LABOUR SAFETY LEVEL IN COAL MINING UNITS BY USING SPECIAL EXPLOSIVE CHARGES , PhD Eng. Gabriel Vasilescu, PhD Eng. Attila Kovacs, PhD Eng. Emilian Ghicioi, Eng. Edward Gheorghiosu, Eng. Ilie Ciprian Jitea, National Institute for Research and Development in Mine Safety and Protection to Explosion - INSEMEX, Romania	567
75. ROCK AND FLAME PARAMETERS AND EXPERIMENTS IN RESEARCH OF ROCK DISINTEGRATION BY THERMAL SPALLING , Milan Labas, Edita Lazarova, Katarina Feriancikova, Institute of Geotechnics, Slovak Academy of Sciences, Slovakia	575
76. SECONDARY ENERGY PRODUCTS (VEPs) STORAGE AREAS IN BÍLINA MINE INTERNAL DUMP , Jiri Brabenec, Ph.D.; Ivan Bily, Ph.D., Petr Vanek , Revitrans , Czech Republic	583
77. SHUT-IN PRESSURE DETERMINATION FOR STRESS STATE MEASUREMENTS , PhD. Andrey Patutin, PhD. St. Tatyana Shilova, PhD. St. Leonid Rybalkin, Eng. Regina Chechurova, Dr. Sc. Sergey Serdyukov, Institute of Mining Siberian Branch Russian Academy of Science, Russia.....	589
78. STABILITY ANALYSIS OF THE UNDERGROUND STRUCTURES FROM THE OCNELE MARI SALINE , Phd Student Sorin Mihut, Phd Dacian-Paul Marian; Prof. Ilie Onica, Prof. Eugen Cozma, University of Petrosani, Romania	595

79. STUDY OF COAL TRANSPORTATION FLOW FROM THE FACE TO THE GROUND IN LONEA MINE , PhD, Eng. Assoc. Prof. Dumitrescu Iosif, PhD, Eng. Cozma Bogdan Zeno, PhD, Eng. Urdea Gheorghe Bogdan, University of Petrosani, Romania.....	603
80. STUDY OF RESTORING RESISTENCE STRUCTURE OF MOTOR WHEEL OF THE MK 2,1x4 WINDING MACHINE WITH SKIP IN LONEA MINE , PhD, Eng. Assoc. Iosif Dumitrescu, Prof, Bogdan-Zeno Cozma, PhD, Eng., Mihai-Carmelo Ridzi, PhD, Eng. Assoc. Prof, Vilhelm Itu, PhD, Eng., University of Petrosani, Romania.....	611
81. STUDY OF THE POSSIBILITY OF MINING SUPPORTS , Ph.D. Martin Hummel, Mgr. Ilona Hummelova, VSB-Technical University of Ostrava, Czech Republic.....	619
82. STUDY ON THE RECLAMATION OF MINE WASTE DUMPS IN THE SLOVINKY VILLAGE (SLOVAKIA) , Dr. Vladimir Cech, Dr. Juliana Krokusova, Prof. Eva Michaeli, Dr. Milos Blahut, Ing. Juraj Fazekas, University of Presov in Presov, Slovakia	625
83. SUBSTANTIATION OF CORRECTION OF OPEN-PIT BOUNDARIES WHEN CONSTRUCTING OPEN-PIT WALLS HAVING BENCHES WITH VERTICAL SLOPES , Bilin A.L., Toropov D.A. , Mining Institute of the Kola Science Centre of the Russian Academy of Sciences, Russia	633
84. TECHNICAL SOLUTIONS TO REHABILITATE THE SUBSOIL OF CENTRAL TAILING POND IN BAIA MARE AFTER ITS EXPLOITATION , Prof. Dr. Ioan Bud, Assoc. Prof. Dr. Simona Duma, Assis. Prof. Dr. Dorel Gusat, Assoc. Prof. Dr. Iosif Ioan Pasca, Eng. Adina Bud, Technical University of Cluj-Napoca, Romania.....	641
85. TECHNOLOGY PROCESSING OF AU MINERALS FROM LOCALITY KASPERSKE MOUNTAINS , Doc. Ing. Botula Jiří, Ph.D., Ing. Kratochvíl Michal, Ing. Dušková Veronika, Ing. Chlopecký Jakub, Ing. Koranda Jiří, VSB-Technical University of Ostrava, Czech Republic	649
86. THE EFFECT OF COAL MINING ON THE ENVIRONMENT OF THE TOWN OF BHLINA AND ITS SURROUNDINGS , Ing. Maria Jarolimova Ph.D., Ing. Dagmar Cechova Ph.D., Ing. Pavlína Sachová, Ing. Milan Komárek, Ing. Martin Procházka, VSB-Technical University of Ostrava, Czech Republic.....	659
87. EFFECT OF THE ADDITION OF ADDITIVES ON ASH THERMOPLASTIC PROPERTIES , Ing. Hana Nadkanská, Ing. Jaroslav Zavada, Ph.D. Ing. Nikola Smatanova, Ph.D., VSB-Technical University of Ostrava, Czech Republic	667

- 88. INFLUENCE OF COAL WASTE HEAPS ON WATER ENVIRONMENT IN UPPER SILESIAN BORDERLAND AREAS – CASE STUDY**, Assoc. prof. Witold Bialy, Eng. Patrycja Mroczkowska , Silesian University of Technology, Poland675
- 89. THE INFLUENCE OF INTRINSIC FACTORS ON THE MECHANICAL CHARACTERISTICS OF ANDESITES FROM SOUTHERN APUSENI MOUNTAINS**, Lecturer Danciu Ciprian, Assoc.Prof. Goldan Tudor, Lecturer Nistor Marian Catalin, Assist. Faur Florin, Assist. Costa Cristian Aliodor, Imobilinvest SRL, Romania.....683
- 90. THE ISSUE OF IMPACT BENCH DESIGN FOR BELT CONVEYORS**, Ing. Tomas Hapla, Assoc. Prof. Ing. Jiri Fries, Ph.D., Mgr. Ivana Onderkova, Ing. Tomas Neumann, VSB-Technical University of Ostrava, Czech Republic.....691
- 91. THE KAYENMYVAAM AU-AG PROSPECTIVE DISTRICT, CHUKCHI PENINSULA, RUSSIA: CHARACTERISTICS OF MINERALIZATION**, Phd Ildar Kalko, Phd Evgeny Vlasov, Prof. Vsevolod Prokofiev, S. Geol. Viktor Usenko, Prof. Yury Nikolaev, Lomonosov Moscow State University, Russia699
- 92. THE POSSIBILITY TO OPEN A SECURED GRAVEL PIT**, Ing. Andrea Policka, doc. Ing. Milan Mikolas, Ph.D., Ing. Monika Mikovcakova, Ing. Maria Jarolimova, Ph.D., VSB-Technical University of Ostrava, Czech Republic707
- 93. THE PROBLEMS OF RAILWAYS IN THE UNDERMINED AREAS**, Ing. Leopold Hudecek, Ph.D., Ing. Denisa Cihlarova, Ph.D., VSB-Technical University of Ostrava, Czech Republic713
- 94. THE UNROLLING METHOD AS A TOOL FOR ORE RESERVES ESTIMATION IN DEPOSITS OF VARIABLE DIP**, Dr. Dimitris Drymonitis, Private, Greece.....719
- 95. UNCONVENTIONAL METHODS OF RECOVERING URANIUM**, Bc.Michaela Juroskova, Ing. Veronika Duskova, Ing. Hana Nadkanska, Ing. Jaroslav Zavada,Ph.D., Ing. Beata Gibesova , VSB-Technical University of Ostrava, Czech Republic.....727
- 96. USE OF GRADED EXTRACTION METHOD TO DETERMINE THE SOURCE OF HEAVY METALS (ZN & FE) IN BEACH SAND ALONG THE MANAVGAT-ALANYA COASTLINE OF ANTALYA (TURKEY)**, Prof.Dr. M. Gurhan Yalcin, PhD Student Azimuddin Mirza, Assoc.Prof.Dr. Nurdane Ilbeyli, Res.Assist. Ebru Paksu, Prof.Dr. Ibrahim Narin, Akdeniz University, Turkey735
- 97. USE OF THERMOGRAPHY FOR DIAGNOSTIC EQUIPMENT IN QUARRIES**, Assoc. Prof. Dr. Ing. Zdenek Neustupa, Ing. Roman Danel, Petr Holec, Ing. Silvestr Ulmann, VSB-Technical University of Ostrava, Czech Republic.....743

- 98. VOCATIONAL VOCABULARY USED AT SELECTED WORKPLACES OF THE BHLINA MINES**, Mgr. Barbora Schneiderova, Ing. Ivan Bily Ph.D., Univerzita Jana Evangelisty Purkyne, Czech Republic751
- 99. WORDWIDE EXAMPLES OF COAL MINE METHANE EMISSION AND GOB GAS PRODUCTION MODELING**, MSc. Eng. Jacek Hendel, DSc. PhD. Eng. Jan Macuda, PhD. Eng. Jaroslaw Checko , AGH University of Science and Technology, Poland.....759
- 100. “AURUL” ACCIDENT HIGHLIGHTS CYANIDE UTILIZATION IN MINING INDUSTRY. AFTER FIFTEEN YEARS CONSEQUENCES...**, Assoc. Prof. Dr. Simona Duma, Prof. Dr. Ioan Bud, Assis. Prof. Dr. Dorel Gusat, Assoc. Prof. Dr. Iosif Ioan Pasca, Eng. Adina Bud, Technical University of Cluj-Napoca, Romania.....767
- APPLIED AND ENVIRONMENTAL GEOPHYSICS**
-
- 101. A FAST COMPONENTWISE GRADIENT METHOD FOR SOLVING STRUCTURAL INVERSE GRAVITY PROBLEM**, Prof. DSc. Elena N. Akimova, PhD student Vladimir E. Misilov, Ural Federal University, Russia775
- 102. APPLICATION OF GEOPHYSICAL METHODS DURING INVESTIGATION OF ABANDONED MINE WORKINGS IN THE LOCALITY STRIBRNE HORY IN THE CZECH REPUBLIC**, Assoc. Prof. Nada Rapantova, Assoc. Prof. Pavel Pospisil, , Dr. Ales Polacek, VSB-Technical University of Ostrava, Czech Republic.....783
- 103. APPLIED SOLUTIONS FOR DRAINAGE SYSTEM OF LANDFILLS USING GEOSYNTHETIC MATERIALS**, Buta Constantin, Mihai Geanina, Gelmambet Sunai, Mihai Gabriel, Ovidius University of Constanta, Romania.....791
- 104. CRUSTAL SEISMICITY AND ACTIVE FAULT SYSTEMS IN WESTERN PART OF ROMANIA**, Dr. Andrei Bala, Dr. Victor Raileanu, National Institute for Earth Physics, Romania.....799
- 105. DYNAMIC RESPONSE OF A SPECIAL BRIDGE IN ROMANIA USING DIFFERENT TYPES OF SEISMIC ISOLATORS**, Ionut Radu Racanel, Technical University of Civil Engineering Bucharest, Romania807
- 106. ELABORATION OF GROUND MOTION DIRECTIVITY IN UNDERMINED AREA BASED ON SEISMIC NOISE MEASUREMENT**, Eng. Marketa Lednicka, PhD, Institute of Geonics AS CR, v.v.i., Czech Republic815

- 107. ELECTRICAL PROPERTIES OF GROUNDWATER RESOURCES AND ITS IMPORTANCE FOR GEOPHYSICAL PROSPECTION**, Lecturer.Dr.Eng Florina Chitea, Prof.Dr.Eng. Dumitru Ioane, PhD Adrian Serban, University of Bucharest - Faculty of Geology and Geophysics, Romania.....823
- 108. ENERGETIC AND DYANMIC ANALYSIS OF MODERN AND ORIGINAL MASONRY BUILDINGS**, Claudiu-Sorin Dragomir, Alina Codita, Elena Constantin, Augustina-Sandina Tronac, University of Agronomic Sciences and Veterinary Medicine in Bucharest, Romania.....831
- 109. ERT INVESTIGATION OF A BURIED WATER RESERVOIR**, PhD Adrian Serban, Assoc. Lect. Dr. Eng. Florina Chitea, Prof. Dr. Eng. Dumitru Ioane, University of Bucharest, Romania839
- 110. EVALUATION OF SEISMIC ENERGY IN STRUCTURES USING PASSIVE FLUID DAMPERS**, Dr. Septimiu - George Luca, Dr. Cristian Pastia , Prof. Eng. Dr. Mihai Budescu , Dr. Iancu-Bogdan Teodoru , Dr. Florin Bejan, Gheorghe Asachi Technical University of Iasi, Romania.....847
- 111. EVALUATION OF VIBRATION EFFECT IN SHALLOW MINE CAUSED BY NATURAL AND TECHNICAL SEISMICITY**, Prof. Dr. Zdenek Kalab, PhD.; Eng. Marketa Lednicka, PhD.; Eng. Tomas Kalab; Eng. Jaromir Knejzlik, PhD., Institute of Geonics AS CR, v.v.i., Czech Republic.....855
- 112. FOCAL MECHANISM ANALYSIS FOR THE SEISMIC SWARM RECORDED IN GALATI AREA (ROMANIA) BETWEEN SEPTEMBER – NOVEMBER 2013**, Dr. Andreea Craiu, Dr. Alexandru Marmureanu, Phd. Mihail Diaconescu, Dr. Marius Craiu, Dr. Constantin Ionescu, National Institute for Earth Physics, Romania863
- 113. GEOPHYSICAL STUDIES FOR HAZARD DELINEATION IN SALT MINE ENVIRONMENTS**, Lecturer.Dr.Eng. Florina Chitea, Prof.Dr.Eng. Dumitru Ioane, Alexandru Damian, University of Bucharest - Faculty of Geology and Geophysics, Romania.....871
- 114. INDUCED SEISMICITY AND SEISMIC HAZARD IN MINING REGIONS**, Dr. Ruslan Dyagilev, Mining Institute of the Ural Branch of the Russian academy of sciences, Russia879
- 115. MANIFESTATION OF THE PREDURALS DEPRESSION STRUCTURES IN THE MAGNETIC FIELD OF THE ARCTIC URALS**, Prof. Peter Martyshko, Valentin Pyankov, Alexey Rublev, Institute of Geophysics UB RAS, Russia887
- 116. MANUFACTURING IMPERFECTIONS IMPORTANCE IN RECTANGULAR HOLLOW SECTION WELDED JOINTS BEHAVIOUR**, Assist. Prof. Eng. Dorin Radu, Transilvania University of Brasov, Romania895

- 117. MITIGATION OF SEISMIC RISK CONSIDERING SOIL-STRUCTURE INTERACTION ANALYSIS FOR BUCHAREST METROPOLIS**, PhD. Stefan Florin Balan, PhD. Bogdan Felix Apostol, National Institute for Earth Physics, Romania903
- 118. NEW INSIGHTS INTO THE SEIMICITY AND CRUSTAL STRUCTURE OF WESTERN ROMANIA USING DIFFERENT ANALYSIS TECHNIQUES**, Dr. Dragos Tataru, Dr. Bogdan Grecu, Dr. Bogdan Zaharia, Dr. Eugen Oros, Dr. Andrei Bala , National Institute for Earth Physics, Romania911
- 119. PARALLEL IMPLEMENTATION OF SEISMIC TRAVELTIME COMPUTATIONS FOR 3D TOMOGRAPHY**, Alexandr A. Nikitin, Alexandr S. Serdyukov, Anton A. Duchkov, Anton V. Azarov, Alexandr V. Yablokov, Trifimuk Institute of Petroleum Geology and Geophysics of SB RAS, Russia919
- 120. REAL TIME EARTHQUAKE LOCATION PERFORMANCE OF ROMANIAN SEISMIC NETWORK (RONET) FOR VRANCEA INTERMEDIATE DEPTH EARTHQUAKES, AS THE FIRST STEP IN EEWS**, Dr. Marius George Craiu, Dr. Alexandru Marmureanu, Dr. Andreea Craiu, Dr. Constantin Ionescu, National Institute for Earth Physics, Romania925
- 121. REAL TIME PERFORMANCE OF THE VRANCEA EARLY WARNING SYSTEM**, Dr. Alexandru Marmureanu, Dr. Constantin Ionescu, Dr. Marius Craiu, Dr. Andreea Craiu, Phd. Veronica Andreea Tolea, National Institute for Earth Physics, Romania.....933
- 122. SATELLITE OBSERVATIONS AND THE MITIGATION OF SEISMIC RISK**, PhD. Stefan Florin Balan, Msc. Valentin Poncos, PhD. Delia Teleaga, PhD. Bogdan Felix Apostol, National Institute for Earth Physics, Romania939
- 123. SEISMIC ACTIVITY AND FOCAL MECHANISMS ANALYSIS FOR DIFFERENT SEISMIC ZONES OF ROMANIA (2010-2014)**, Dr. Andreea Craiu, Dr. George Marius Craiu, Dr. Mihail Diaconescu, Dr. Alexandru Marmureanu, National Institute for Earth Physics, Romania947
- 124. SEISMIC INSTRUMENTATION ON VIBRATIONS TO DETERMINE THE DYNAMIC CHARACTERISTICS OF BUILDINGS**, Claudiu Sorin Dragomir, Daniela Dobre, Emil-Sever Georgescu, N.I.R.D. URBAN-INCERC, Romania957
- 125. SEISMIC MONITORING AND THE EFFECTS OF SOIL-STRUCTURE INTERACTION FROM RESPONSE SPECTRA**, Daniela Dobre, Claudiu Sorin Dragomir, Emil-Sever Georgescu, N.I.R.D. URBAN-INCERC, Romania965
- 126. SEISMIC POTENTIAL OF THE UNITED KINGDOM**, Dr. Tatiana Blinova, Dr. Russ Evans, Dr. David Booth, Dr. Irina Semerikova, Yuri Baranov, Mining Institute of the Ural Branch of the Russian academy of sciences, Russia.....971

- 127. SEISMIC VULNERABILITY OF UNDERGROUND STRUCTURES: ANALYTICAL DESIGN METHOD FOR PARALLEL TUNNELS OF NON-CIRCULAR CROSS SECTION SHAPE**, Associate Prof. Petr Deev, Assist. Prof. Oksana Levischeva, Maksim Petruhin, Tula State University, Russia983
- 128. SEISMICITY OF THE OLT VALLEY (ROMANIA) AND SURROUNDING AREA**, PhD. Mihail Diaconescu, PhD. Dragos Toma-Danila, Dr. Andreea Craiu, National Institute for Earth Physics, Romania991
- 129. SIMPLE METHOD OF ABSOLUTE GEOPHONE CALIBRATION BY DISPLACEMENT STEP**, Petr A. Dergach, Vyacheslav I. Yushin, Anton A. Duchkov, Trofimuk Institute of Petroleum Geology and Geophysics of Siberian Branch RAS, Russia999
- 130. SPECTRAL DESCRIPTION OF ELEMENTARY GEOELECTRIC MODELS OF KARST INHOMOGENEITIES.**, associate Prof. Arterm Bykov, Prof. Oleg Kuzichkin, Vladimir State University named after Alexander Grigoryevich and Nickolay Grigoryevich Stoletovs - Faculty of Information Technology, Russia.....1005
- 131. STATIC AND DYNAMIC TESTING OF A CONCRETE BRIDGE IN BUCHAREST**, Ionut Radu Racanel, Technical University of Civil Engineering Bucharest, Romania.....1011
- 132. STRESSED ROCK MASS IN NEAR-WALL OPEN-PIT'S ZONE: MICROSEISMIC MONITORING RESULTS**, Prof Anatoly Kozyrev, Mikhail Kagan, Dmitry. Chernobrov, Mining Institute of the Kola Science Centre of the Russian Academy of Sciences, Russia1019
- 133. STUDY OF SITE EFFECT IN THE MOST BASIN AREA, CZECH REPUBLIC**, Eng. Marketa Lednicka, PhD.; Prof. Dr. Zdenek Kalab, PhD.; Eng. Jaromir Knejzlik, PhD., Institute of Geonics AS CR, v.v.i., Czech Republic.....1027
- 134. THE ASSESSMENT OF SEISMIC NETWORKS DISTRIBUTION FROM A RISK ANALYSIS PERSPECTIVE. ROMANIA CASE STUDY.**, PhD Dragos Toma-Danila,Dr. Carmen Ortanza Cioflan,Dr. Stefan Florin Balan, Dr. Bogdan Felix Apostol, National Institute for Earth Physics, Romania.....1035
- 135. HIGH SEISMICITY SEQUENCE IN THE IZVOARELE AREA (GALATI COUNTY) - ROMANIA**, Prof. Dumitru Ioane, PhD Adrian Serban, PhD Mihail Diaconescu, Assoc. Prof. Florina Chitea, Eng. Irina Caragea, University of Bucharest, Romania.....1043
- 136. THE NEW 3D VELOCITY MODEL OF Khibiny AND LOVOZERO MOUNTAIN MASSIFS FOR ACCURATE LOCATION ROCK BURSTS AND EXPLOSIONS IN UNDERGROUND MINES AND QUARRIES**, Dr. Yury Vinogradov, Prof. Anatoliy Kozyrev, Dr. Vladimir Asming, Kola Branch of Geophysical Survey RAS, Russia1051

137. THE NEW METHOD OF SHORT-TERM EARTHQUAKE PREDICTION (RADON ANOMALY ON SAN-ANDREAS FAULT), Prof. Peter Martyshko, Valentin Pyankov, Alexey Rublev, Institute of Geophysics UB RAS, Russia1059

138. “NATIVE” WAVELET TRANSFORM FOR SOLUTION INVERSE PROBLEM OF GRAVIMETRY ON THE SPHERICAL MANIFOLD, Natalia Matveeva, Eduard Utemov, Danis Nurgaliev, Kazan (Volga Region) Federal University, Russia1067

139. VARIABILITY OF STRONG GROUND MOTION IN BUCHAREST AREA DUE TO VRANCEA EARTHQUAKES, Andrei Bala, Bogdan Grecu, Cristian Arion, Emilia Popescu, Dragos Toma, National Institute for Earth Physics, Romania1075