CONTENTS OF VOLUME I

I. Architecture. Urban Planning and Urbanism. Arts and Conservation of Architectural Heritage. Innovations in Education

Yesim Kamile Aktuglu THE STRUCTURAL DEFINITION OF CENTRAL MARKET HALL IN VALENCIA, WITH IRON-STEEL FRAMING IN CONSTRUCTION, THROUGH ITS ARCHITECTURAL DEFINITION	3
Katerina Despot, Vaska Sandeva COMPOSER FORMS INTERIOR AND EXTERIOR DESIGN GRAPHIS LINES	10
Katerina Despot, Vaska Sandeva SIMILARITIES AND DIFFERENCES BETWEEN DESIGN AND ARTWORK	16
Nadja Kurtović Folić, Aleksandra Mirić ARCHITECTURE IN XXI CENTURY– RE-USING ARCHITECTURAL IDEAS AND FORMS	23
Nadja Kurtović Folić, Natasa Zivaljević-Luxor ECONOMIC EVALUATION OF CULTURAL HERITAGE AS POTENTIAL OF CITY DEVELOPMENT	29
Yuliya Ilieva, Valentin Gomez-Jauregui, Cristina Manchado, Cesar Otero NEW PLANAR DOUBLE-LAYER TENSEGRITY GRIDS COMPOSED OF BASIC CUBIC MODULES	37
Natasa Zivaljević-Luxor, Nadja Kurtović-Folić HERITAGE AND INDUSTRY WITHIN CITY CORE	43
Aleksandra Mirić RETHINKING CONTEMPORARY ARCHITECTURE AS A HERITAGE OF 21ST CENTURY. SANTIAGO CALATRAVA AND HIS INSPIRATION	50
Aleksandra Mirić, Nađa Kurtović Folić CULTURAL HERITAGE OF NIŠ, THE OLD MILITARY CEMETERY IN DELIJSKI VIS	55
Vaska Sandeva, Katerina Despot APPLICATION OF POST INDUSTRIAL STYLE IN INTERIOR AND EXTERIOR	60
Vaska Sandeva, Katerina Despot CONTEMPORARY INTERIOR WITH A STRONG ECLECTIC TREND	67
Dragana Turnić, Slavko Zdravković, Predrag Petronijević, Nebojša Davidović, Nikola Stojić BRIDGES AS THE MOST IMPORTANT	
CULTURAL MONUMENTS OF MANKIND	74

Dragana Turnić, Slavko Zdravković, Miloš Marinković, Tomislav Igić, Sandra Šaković PERFORMANCE BASED DESIGN AS A NEW APPROACH FOR SEISMIC DESIGN	79
Dragan Zlatkov, Petar Mitković, Slavko Zdravković, Marija Spasojević-Šurdilović, Miloš Keković ECONOMIC CRISIS, URBAN CULTURE AND ENVIRONMENTAL AWARENESS	85
II. Structural Mechanics. Structural Engineering. Earthquake Engineering	
Stoyan Andreev SEISMIC HAZARD ASSESSMENT FOR 200 M TALL OFFICE BUILDING IN SOUTH-EAST SOFIA	93
Roland Antal, David Meri A COMPARISON OF WIND EFFECTS ON A HIGH-RISE BUILDING USING CFD SOFTWARE AND 3D WIND GENERATOR INTEGRATED IN STRUCTURAL FEM SOFTWARE	99
Roland Antal, Norbert Jendzelovsky A CFD SIMULATION OF WIND FLOW UPON A HIGH-RISE BUILDINGS COMPLEX	104
Anguel Baltov, Ana Yanakieva MECHANICS OF ELASTIC STRUCTURES REINFORCED VIA THIN LAYERS	110
Zdravko Bonev, Boyko Ranguelov, Blagovesta Ivanova, Nadejda Kirova, Liuben Petrov, Valentin Likov, Liuben Elenkov, Vesselina Dalgacheva RISK MANAGEMENT FOR THE STRUCTURES OF MONUMETS OF THE CULTURE	118
Zdravko Bonev, Boyko Ranguelov, Blagovesta Ivanova, Nadejda Kirova, Liuben Petrov, Valentin Likov, Liuben Elenkov, Vesselina Dalgacheva MONITORING SYSTEM FOR THE STRUCTURES OF MONUMETS OF THE CULTURE	124
Jana Drienovská, Katarína Tvrdá ANALYSIS OF THE CREEP OF A SIMPLE BEAM	130
Iuliana Dupir (Hudişteanu), Nicolae Țăranu, Vlad Lupășteanu, Dragoș Ungureanu COMPARATIVE ANALYSIS OF FIRST PLY FAILURE AND PROGRESSIVE FAILURE FOR SYMMETRIC COMPOSITE LAMINATES	130
Ion Florenta, Nicolae Taranu, Alexandru Secu, Vlad Lupasteanu COMPARATIVE ANALYSIS OF DESIGN METHODS FOR TIMBER SHEAR WALLS	140

Radomir Folić, Mladen Ćosić PERFORMANCE-BASED NON-LINEAR SEISMIC METHODS	
OF STRUCTURES: A REVIEW OF SCIENTIFIC KNOWLEDGE IN THE LAST 20 YEARS	146
Ivan Ivanchev EXPERIMENTAL DETERMINATION OF MAXIMUM, MEAN AND MINIMUM CRACK SPACING IN REINFORCED CONCRETE ELEMENTS, SUBJECTED TO BENDING	157
Ivan Ivanchev COMPARISON OF THE EXPERIMENTALLY DETERMINED MAXIMUM CRACK SPACING IN REINFORCED CONCRETE ELEMENTS, SUBJECTED TO BENDING AND MAXIMUM CRACK SPACING OBTAINED ACCORDING TO DIFFERENT REGULATIONS	163
Venelin Jivkov, Philip Philipoff, Anelya Paneva, Irina Didenkulova, Petar Getcov, Georgi Sotirov, Garo Mardirossian, Atanas Kovachev, Stoyan Velkoski, Petar Mandiev, Simona Doneva, Maria Elenkova APPLICATION OF NUMERICAL AND EXPERIMENTAL METHODS IN RISK MANAGEMENT OF NATURAL DISASTERS, TRANSPORT ACCIDENTS AND INDUSTRIAL CRASHES	169
Venelin Jivkov, Philip Philipoff, Anelya Paneva, Irina Didenkulova, Petar Getcov, Georgi Sotirov, Garo Mardirossian, Atanas Kovachev, Stoyan Velkoski, Petar Mandiev, Simona Doneva, Maria Elenkova MONITORING SYSTEM FOR GEOPHYSICAL AND CLIMATE FIELDS IN BULGARIA AND BLACK SEA REGION	175
Mahmoud Lasheen, Amr Shaat, Ayman Khalil EFFICIENCY OF USING LIGHTWEIGHT CONCRETE SLABS IN STEEL- CONCRETE COMPOSITE BEAMS	181
Lukáš Ledecký, Nenad Stojković,, Yvonne Ciupack, Hartmut Pasternak, Christoph Mette, Vitali Fischer, Elisabeth Stammen, Klaus Dilger SERVICE LOADING AND FATIGUE BEHAVIOR OF ADHESIVELY BONDED STEEL-STEEL FAÇADE JOINTS	187
Zheng Li, Hartmut Pasternak DEVELOPMENT OF A STOCHASTIC MATERIAL MODEL AT CONSTANT STRESS DISTRIBUTION IN STEEL CONSTRUCTION	193
Angelos Liolios, Boris Folic, Konstantinos Liolios OPTIMAL TIES-SYSTEM FOR THE SEISMIC UPGRADING OF RC STRUCTURES ENVIRONMENTALLY DEGRADED AND SUBJECTED TO EARTHQUAKES SEQUENCES	199
Vlad Lupasteanu, Nicolae Taranu, Dragos Ungureanu, Iuliana Dupir (Hudisteanu) EXPERIMENTAL EVALUATION OF THE TENSILE STRENGTH OF PULTRUDED CFRP COMPOSITE STRIPS	205
Milko Miloshev, Aleksandar Zhelyazkov, Pavel Tashev, Marin Kostov ANALYTICAL SIMULATION OF AIRCRAFT IMPACT INTO A CONCRETE TARGET	211

Biljana Mladenović, Slavko Zdravković, Marina Mijalković, Predrag Petronijević AN ANALYTICAL SOLUTION OF REISSNER'S EQUATIONS OF PLATE BENDING FOR SOME PLATE TYPES AND LOADING	217
Biljana Mladenović, Slavko Zdravković, Marina Mijalković, Dragan Zlatkov, Ivana Kostadinov EFFECT OF STIFFNESS CHANGE ON STATIC ANALYSIS OF MULTY-	
FLOOR RC FRAMES	223
Nataša Momčilović, Slavko Zdravković, Aleksandra Milijev, Kristina Bošković OBJECTIVES OF ASEISMIC DESIGN AND CONSTRUCTION	229
Nataša Momčilović, Slavko Zdravković A SPECIFICITY OF SEISMIC EFFECTS ON STRUCTURES IN TERMS OF THE DYNAMIC PROPERTIES OF SOIL	234
Enea Mustafaraj, Yavuz Yardım EXTERNAL SHEAR STRENGTHENING OF UNREINFORCED MASONRY PANELS USING FERROCEMENT JACKETING	239
Doncho Partov, Dobromir Dinev, Antoaneta Dimitrova 40 YEARS HISTORY OF THE FIRST LARGE STEEL ORTHOTROPIC BRIDGE IN BULGARIA	246
Doncho Partov, Dobromir Dinev, Milen Petkov, Ivan Ivanchev, Velyan Petkov ANALITYCAL AND NUMERICAL METHOD FOR PONDING ANALYSIS OF FLAT STEEL ROOF STRUCTURES	252
Doncho Partov, Vesselin Kantchev VOLTERRA INTEGRAL EQUATIONS IN ANALYSIS OF COMPOSITE STEEL-CONCRETE BEAMS REGARDING CREEP OF CONCRETE, ACCORDING ACI209-R2 PROVISIONS, VERSUS AGE ADJUSTED EFFECTIVE MODULUS (AAEM) METHOD OF BAŽANT	263
Doncho Partov, Velyan Petkov, Milen Petkov, Mariya Bekirova STONE ARCH BRIDGE OVER THE YANTRA RIVER NEAR BYALA IN THE LIGHT OF THE WORLD HISTORIC-CULTURE HERITAGE STRUCTURES	275
Ivanka Paskaleva, Radan Ivanov A NOTE ON THE BI-NORMALIZED RESPONSE SPECTRA FOR THE 22, MAY, 2012 EARTHQUAKE (WESTERN BULGARIA)	287
Milen Petkov, Doncho Partov, Bozidar Shilyov STRUCTURAL ANALYSIS FOR PONDING OF RAINWATER ON FLAT ROOF STRUCTURES – STATE OF ART	293
Liliya Petrova A MODEL OF BILATERAL CLAMPED ARC FINITE ELEMENT OF A PLANE CIRCUMFERENCE	305
Martin Psotny, Jozef Havran SNAP-THROUGH OF THE SHALLOW SHELL OF TRANSLATION	312

SANDWICH BEAMS MADE OF STEEL	318
Ľuboš Šnirc, Ján Ravinger STABILITY AND VIBRATION OF IMPERFECT BEAM – LABORATORY EXPERIMENTS	324
Dimitar Stefanov, Ana-Maria Mitu SEISMIC RESPONSE OF FRICTION PENDULUM BASE ISOLATED REINFORCED CONCRETE STRUCTURE	330
Jozef Sumec, Ivana Véghová PROPERTIES OF TENSORS AND TENSOR-OPERATORS IN LINEAR VISCOELASTICITY MODELING	336
Alexander Tesár FACELIFT OF DANUBE BRIDGE IN BRATISLAVA	342
Dragos Ungureanu, Nicolae Taranu, Vlad Lupasteanu, Iuliana Dupir (Hudisteanu) NUMERICAL MODELLING OF THE TENSILE STRUCTURAL RESPONSE OF PULTRUDED CARBON FIBRE REINFORCED POLYMER COMPOSITE STRIPS	346
Orkun Yılmaz, Serkan Bekiroğlu PERFORMANCE EVALUATION OF WEAK-AXIS STEEL MOMENT CONNECTIONS	352
Dragan Zlatkov, Slavko Zdravković, Predrag Petronijević, Marija Spasojević-Šurdilović, Andrija Zorić THEORETICAL AND EXPERIMENTAL ANALYSIS OF CIVIL ENGINEERING STRUCTURES	359
III. Geodesy. Geotechnical Engineering. Road & Railway Engineering Tunnelling. Hydraulic Engineering	g.
Mohammad Hasan Ali, Gupinath Bhandari, Ancuţa Rotaru, Andrei Boboc, Vasile Boboc	
A STUDY OF GEOCELL REINFORCED SOFT SOIL FOUNDATION FOR HIGH EMBANKMENTS AND HIGHWAYS	367
Andrei Boboc, Ancuţa Rotaru, Vasile Boboc, Gupinath Bhandari, Pritam Aitch AN ANALYSIS ON THE BEHAVIOUR AND PERFORMANCE OF SOME EXPERIMENTAL SEGMENTS OF ROADS IN THEIR OPERATION	373
Alexandra Alisa Găină, Ana Nicuță, Maria Solonaru ONE DIMENSION SITE CONDITIONS ANALYSIS UNDER SEISMIC ACTIONS	379
Maria Solonaru, Irina Lungu, Mihai Budescu, Alexandra Alisa Găină UNDERPINNING TECHNIQUES TO STRENGTHEN THE EXISTING BUILDING INFRASTRUCTURES	385

Darita Shlychkova, Hartmut Pasternak NUMERICAL ANALYSIS OF LIGHTWEIGHT STRUCTURED

Slavko Zdravković, Dragan Zlatkov, Milovan Stanojev, Srđan Živković	
BRIDGES AS A SYMBOL OF CONSTRUCTION	

391

IV. Building Materials. Technology, Management and Economics of Construction. Sustainable Construction. Environmental Engineering and Environmental Security

Iva Despotović, Ksenija Janković CONCRETE SHRINKAGE MECHANISM AND EXAMPLES OF CONCRETE WITH DIFFERENT RECYCLED AGGREGATES	399
Julinda Keci USING PUBLIC PRIVATE PARTNERSHIP TO IMPROVE INFRASTRUCTURE PROVISIONS: THE CASE OF ALBANIA	405
Erion Luga, Erald Saliasi AN INVESTIGATION ON THE PROPERTIES OF CULTURED MARBLE	417
Julieta Mancheva Vanina Popova THE MOST SUITABLE RISK MANAGEMENT TECHNIQUES DURING LIFE CYCLE OF THE CONSTRUCTION PROJECT	423
Julieta Mancheva THE ROLE OF THE HUMAN FACTOR OF THE RISK MANAGEMENT PROCESS	429
Anna Tasheva, Vilma Petkova, Bilyana Kostova CALORIMETRIC MEASUREMENTS OF POROUS MATERIALS WITH APPLICATIONS IN THE ECOLOGY	434
Slavko Zdravković, Stefan Conić, Ivana Kostadinov, Miloš Marinković COOPERATION OF AN ENGINEER AND AN ARCHITECT DURING BRIDGE DESIGN	440