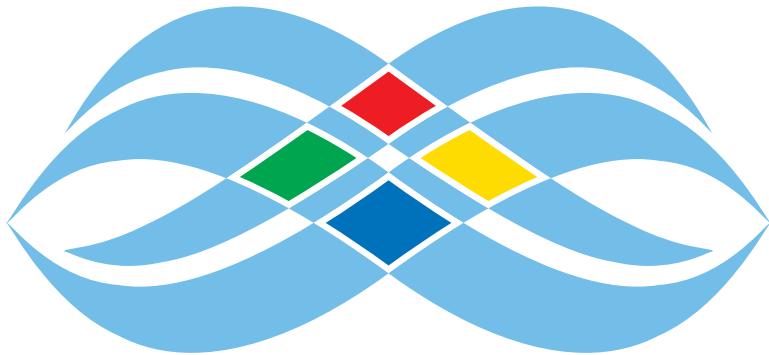


FOURTH

**ROMANIAN-BULGARIAN-HUNGARIAN-SERBIAN**

CONFERENCE



Geographical Research and Cross-Border  
Cooperation within the Lower Basin of the Danube

**ABSTRACTS**  
**of the oral and poster presentations**

**VIDIN – BULGARIA**  
**15–17 September 2016**

**FOURTH**  
**ROMANIAN-BULGARIAN-HUNGARIAN-SERBIAN**  
**CONFERENCE**



Geographical Research and Cross-Border  
Cooperation within the Lower Basin of the Danube

**ABSTRACTS**  
**of the oral and poster presentations**

**VIDIN – BULGARIA**  
**15–17 September 2016**

**FOURTH ROMANIAN-BULGARIAN-HUNGARIAN-SERBIAN CONFERENCE**  
Abstracts of the oral and poster presentations

Editor in chief: Prof. Nelly Hristova

Editors:

Prof. Boengiu Sandu

Assoc. prof. Slavoljub Dragićević

Assoc. prof. Nina Nikolova

Peter Bajmoc

Logo design: assoc. prof. Stevan Savic

Printed by Tip-top press

ISBN 978-954-723-179-5

FOURTH ROMANIAN-BULGARIAN-HUNGARIAN-SERBIAN CONFERENCE is jointly organized by Faculty of Geology and Geography, Sofia University and Association of Professional Geographers and Regionalists, Bulgaria. Co-organizers – „St. Cyril and St. Methodius“ University of Veliko Tarnovo, National Institute of Geophysics, Geodesy and Geography, Bulgarian Academy of Sciences. The conference is supported by Sofia University Scientific Fund (contract 125/2016).

## **FOREWORD**

**Dear conference participants**

**Dear conference guests**

**Dear friends and colleagues**

It is our great pleasure and honor to warmly welcome all of you to the 4th ROMANIAN-BULGARIAN-HUNGARIAN-SERBIAN CONFERENCE. We are delighted to have you here in Vidin, Bulgaria, to share your scientific achievements and expertise. Thank you very much for your participation!

We would like to remember the success of the previous conferences held in 2010, 2012 and 2014 where we have experienced a growing number of participants. Following this success we organize the 4th conference as a multidisciplinary and intercultural scientific event which presents the results from research work in all fields of geography and related disciplines with the accent on cross-border cooperation within the lower basin of the Danube. Our aim is to draw the attention of the researchers and the society to the environmental and socio-economic processes which have specific regional importance.

One of the main tasks of the science in the modern society is to improve the interaction between researchers, government institutions, NGOs and business. We have no doubt that previous studies of geographical sciences have achieved high public recognition and they have contributed significantly to the constructive participation of the academic community in the development of an effective policy for solving the problems related to the interaction in the system "human – environment"

The 4th Romanian-Bulgarian-Hungarian-Serbian Conference offers the participants the chance to meet old and new friends, to strengthen the relationships and to start collaborations. We sincerely hope that this conference will lead to deepening and improvement of the cooperation between research institutions and the society on different territorial levels and will bring to further development of geographical sciences.

We wish all the participants attending the conference the fruitful discussions and new academic contacts for expansion of international collaboration. We hope that all participants will have a memorable experience and a wonderful time in Vidin, Bulgaria, and will carry pleasant memories of the Bulgarian hospitality.

Organising Committee

## **Scientific Advisory Committee**

<b>Romania</b>	Alina Vlăduț, University of Craiova Boengiu Sandu, University of Craiova Dan Bălteanu, Institute of Geography, Romanian Academy Ioan Ianos, University of Bucharest Liliana Popescu, University of Craiova Monica Dumitrascu, Institute of Geography, Romanian Academy Petru Urdea, West University of Timisoara
<b>Bulgaria</b>	Atanas Dermendzhiev, "St. Cyril and St. Methodius" University of Veliko Tarnovo Boian Kulov, National Institute of Geophysics, Geodesy and Geography, BAS Kosyo Stoychev, Sofia University "St. Kliment Ohridski" Mariana Nikolova, National Institute of Geophysics, Geodesy and Geography, BAS Milen Penerliev, Constantine of Preslav University of Shumen Nelly Hristova, Sofia University "St. Kliment Ohridski" Nina Nikolova, Sofia University "St. Kliment Ohridski"
<b>Serbia</b>	Lazar Lazić, University of Novi Sad Marko Petrović, Geographical Institute „Jovan Cvijić“, SASA Milan Radovanović, Geographical Institute „Jovan Cvijić“, SASA Nenad Živković, University of Belgrade Slavoljub Dragičević, University of Belgrade Snežana Djurdjić, University of Belgrade Stevan Savić, University of Novi Sad Vanja Dragičević, University of Novi Sad Vesna Lukić, Institute of Social Sciences, Demographic Research Center
<b>Hungary</b>	Dénes Lóczy, DSc, University of Pécs János Unger, University of Szeged Jozsef Szátmari, University of Szeged
<b>Croatia</b>	Sanja Klempić Bogadi, Institute for Migration and Ethnic Studies
<b>Slovakia</b>	Marian Melo, Comenius University Michal Klaúčo, Matej Bel University
<b>Slovenia</b>	David Bole, Slovenian Academy of Sciences and Arts
<b>Moldova</b>	Dorin Lozovanu, Moldova State University

## **Local Organising Committee**

Kosyo Stoychev, Assoc. Prof., Sofia University "St. Kliment Ohridski", APGR, Co-chair  
Nina Nikolova, Assoc. Prof., Sofia University "St. Kliment Ohridski", Co-chair  
Marin Rusev, Assoc. Prof., Sofia University "St. Kliment Ohridski", APGR  
Ivan Penkov, Assoc. Prof., Sofia University "St. Kliment Ohridski"  
Dessislava Poleganova, Assist. Prof., Sofia University "St. Kliment Ohridski"  
Kalina Radeva, Assist. Prof., Sofia University "St. Kliment Ohridski"  
Atanas Dermendzhiev, Prof., St. Cyril and St. Methodius University of Veliko Tarnovo, APGR  
Boris Kazakov, Assist. Prof., National Institute of Geophysics, Geodesy and Geography, BAS  
Aleksandar Penkov, PhD student, Sofia University "St. Kliment Ohridski"  
Mario Petkov, PhD student, Sofia University "St. Kliment Ohridski"  
Miglena Klisarova, PhD student, Sofia University "St. Kliment Ohridski"

## **CONFERENCE AIMS**

This interdisciplinary and cross-cultural meeting welcomes presentations on geographic research and cross border cooperation within the Danube basin. The event targets a broad spectrum of participants, recognizing the multidisciplinary research in geography and other related disciplines. The conference aims to:

***Present the status of scientific approaches within the Danube lower basin***

***Discuss the role of geographical research in cross-border issues***

***Bring together scientists, academics, practitioners with a view to strengthening and promoting the cross-border co-operation***

***Define the priorities concerning various aspects of geographical research***

## **CONFERENCE THEMES**

- I. Geography, Governance and Local Development
- II. Cross-border and Transnational Cooperation
- III. Environment, Risk Assessment and Management
- IV. Climate Change and Water Resources
- V. GIS, Landscape Analysis and Landscape Planning
- VI. Cultural and Political Challenges in Geography
- VII. Population trends, Human Mobility and Emigration
- VIII. Sustainable Tourism Policy, Planning and Development
- IX. Geography Education

## **CONFERENCE TIME**

15–17 September 2016

## **CONTENTS**

---

<b>PLENARY SESSION</b>	<b>1</b>
OBSTACLES AND STRENGTHS FOR A COMPETITIVE SOUTH-EASTERN EUROPEAN SPACE	
<i>Ioan Ianos.....</i>	1
FLOODPLAIN REHABILITATION IN HUNGARY	
<i>Dénes Lóczy, József Dezső, Szabolcs Czigány.....</i>	2
BORDERS AND BORDER REGIONS WITHIN THE DANUBE BASIN	
<i>Gyula Ocskay, Teodor Gyelník, Márton Pete.....</i>	3
FOREIGN DIRECT INVESTMENTS IN SERBIA AS A FORM OF CROSS-BORDER COOPERATION	
<i>Stefana Babović, Suzana Lović Obradović, Milan Radovanović.....</i>	4
THE GEOGRAPHIC PASSPORT – A SYNTHESIS BETWEEN ISARD'S INDEX OF LOCALIZATION AND MATHEMATICAL PROPERTIES OF PROPORTIONS	
<i>Marin Roussev, Kosyo Stoychev.....</i>	5
<b>I SESSION     GEOGRAPHY, GOVERNANCE AND LOCAL DEVELOPMENT</b>	<b>6</b>
CHALLENGES OF SCIENCE-SOCIETY INTERACTIONS IN THE FRAME OF SUSTAINABLE DEVELOPMENT	
<i>Aneliya Paneva .....</i>	6
ASSESSMENT OF HUMAN PRESSURE ON THE ENVIRONMENT. CASE STUDY: GRECEŞTI (DOLJ COUNTY, ROMANIA)	
<i>Daniel Simulescu, Oana Ionuș, Sandu Boengiu, Emil Marinescu .....</i>	7
NEW PARADIGMS OF THE TERRITORY MANAGEMENT FOR 21TH CENTURY. SHARING SOLUTIONS OF SUSTAINABLE MANAGEMENT AND PROMOTION OF RIVERS AREAS. A CHALLANGE FOR LOWER DANUBE AREAS	
<i>Adriano Ciani, Massimo Bastiani .....</i>	8

FACTORS FOR THE ECONOMIC MARGINALIZATION  
OF NORTHWESTERN STATISTICS REGION  
AND THE INSTRUMENTS FOR ITS OVERCOME

*Dimitar Dimitrov* ..... 9

GEODIVERSITY AND GEOHERITAGE IN GEOGRAPHY TEACHING  
FOR THE PURPOSE OF IMPROVING STUDENTS' COMPETENCES  
IN EDUCATION FOR SUSTAINABLE DEVELOPMENT

*Dobrila Lukic, Sladjana Andjelkovic, Vojislav Dedjanski* ..... 10

MEASURING THE COMPLEX SOCIO-ECONOMIC DEVELOPMENT  
OF THE DANUBE-ADJACENT NUTS2 REGIONS

*Hristo Dokov, Ivaylo Stamenkov* ..... 11

COMPARATIVE ANALYSIS OF THE FDI'S SPATIAL LOCALIZATION  
MODELS IN THE DANUBE PROVINCES OF BULGARIA

*Kalina Milkova, Hristo Dokov* ..... 12

THE ROLE OF RURAL INNOVATION IN HUNGARIAN VILLAGES

*Iren Szörényiné Kukorelli* ..... 13

INDUSTRIAL AREAS IN BULGARIA – CONSERVATION, RENNOVATION  
AND SMARTH GROWTH

*Kosyo Stoychev* ..... 14

CROSS-BORDER SHOPPING OF SLOVAK CONSUMERS IN AUSTRIA:  
CASE STUDY FROM HAINBURG AN DER DONAU (AUSTRIA)

*František Križan, Peter Barlík, Kristína Bilková* ..... 15

GEOGRAPHICAL CHANGES OF THE BOSUT RIVER BASIN

*Siniša Maričić, Tatjana Mijušković-Svetinović* ..... 16

URBANIZATION IN THE AREA OF DANUBE RIVER IN SERBIA

*Jelena Milanković Jovanov, Smiljana Đukićin,  
Tijana Đorđević, Ljubica Bibić Ivanović* ..... 17

PUBLIC INFRASTRUCTURE POLICIES  
AND INDUSTRIAL (ECONOMIC) GEOGRAPHY

*Onik Arabyan* ..... 18

TERRITORIAL DISPARITIES IN THE SERVICE INFRASTRUCTURE  
IN ROMANIAN DANUBE VALLEY

*Nicoleta Damian, Irena Mocanu, Bianca Mitrică,  
Paul Ţerban, Mihaela Persu, Daniela Nancu,  
Radu Săgeată* ..... 19

THE "LOWER DANUBE" SYNTAGMA – A KEY FOCUS IN THE ROMANIAN PROJECTS FOR EUROPEAN FUNDING IN SOUTH-EASTER REGION OF ROMANIA <i>Violeta Pușcașu</i> .....	20
POST EARLY PLISTOCENE PATTERN OF THE SOUTH MOESIAN MORPHOSTRUCTURAL ZONE <i>Svetla Stankova, Tzanko Tzankov</i> .....	21
CIRCULAR AND ELLIPSOIDAL TECTONIC STRUCTURES IN THE HINOVA – NEGOTIN – VRATA AND SALCIA – WEST VIDIN – LOM AREAS <i>Mircea Țicleanu, Radu Nicolescu, Flori Culescu and Octavian Colțoi</i> .....	22
URBAN EXPANSION OF "ERBIL" CITY & ENVIRONMENTAL PROBLEMS RESULTING <i>Azad Mohammed Ameen Kakashek</i> .....	23
STUDIES ON PALEOENVIRONMENTAL CHANGES ON THE IV. AND V. TERRACES OF RED HILL (MORAVIA) <i>Éva Kis, Ferenc Schweitzer, Dénes Lóczy, János Balogh, József Szeberényi, István Viczián, Tímea Prodán</i> .....	24
INVESTIGATIONS OF BANK EROSION ALONG THE LOWER TISZA IN HUNGARY <i>Éva Kis, Dénes Lóczy, Ferenc Schweitzer, János Balogh, József Szeberényi, István Viczián, Tímea Prodán</i> .....	25
PETROGRAPHICAL GRAVEL ANALYSE IN THE VISEGRAD GORGE, HUNGARY <i>József Szeberényi, Éva Kis, Sándor Józsa, István Simon, János Balogh, Klaudia Kiss, György Varga, István Viczián, Tímea Prodán, Ernő Prácsér</i> .....	26
ENGINEERING GEOMORPHOLOGICAL METHODS USED IN THE REHABILITATION PROJECTS OF DANUBE'S LANDSLIDE-THREATENED BLUFFS- AT KULCS AND RÁCALMÁS (HUNGARY) <i>István Viczián, Tímea Prodán, János Balogh, Balázs Füsi, Éva Kis, Ernő Prácsér, József Szeberényi</i> .....	27
<b>II SESSION CROSS-BORDER AND TRANSNATIONAL COOPERATION</b>	<b>29</b>
CULTURAL ROUTES – TRANS-BORDER TOURIST DESTINATIONS WITHIN SOUTHEASTERN EUROPE <i>Željko Bjeljac, Aleksandra Terzić</i> .....	29

SOME ASPECTS OF THE REGIONAL COOPERATION ON THE BALKANS <i>Mariya Grozeva</i> .....	30
THE DIVIDING ROLE OF THE DANUBE: THE GEOPOLITICAL BACKGROUND OF FLUVIAL BORDERS AND BRIDGES <i>Tamás Hardi</i> .....	31
FLOOD FREQUENCY ANALYSIS OF TISZA RIVER IN PANNONIAN BASIN <i>Igor Leščen, Dragan Dolinaj, Marko Urošev, Milana Pantelić, Telbisz Tamás, Varga György</i> .....	32
THE ROLE OF INTERFIRM TRANSACTIONS ON CROSS BORDER INTEGRATION IN EAST ASIA: A CASE STUDY OF INTERLINK AGES BETWEEN BUSAN AND FUKUOKA <i>Jonghyun Park, Masahiko Fujimura</i> .....	33
A POSSIBLE COOPERATION SUPPORTED BY THE INTERREG DANUBE PROGRAMME: GUIDE FOR FLOODPLAIN MANAGEMENT, BLUE AND GREENWAY PLANNING IN DANUBE REGION COUNTRIES <i>Peter Szilassi, Gabor Mezosi</i> .....	34
CBC PROGRAMMES IMPACT IN NORTHWEST NUTS II REGION OF BULGARIA IN THE PERIOD 2007-2013 <i>Veselina Georgieva</i> .....	35
ENVIRONMENTAL COHESION ACROSS THE HUNGARIAN-CROATIAN BORDER: DISCUSSIONS AND COOPERATION ON DIFFERENT INSTITUTIONAL LEVELS <i>Viktor Varjú</i> .....	36
ON THE POSSIBILITY OF EXTENDING THE EUROPEAN GREEN BELT TO THE BULGARIAN-ROMANIAN BORDER REGION <i>Zoltán Zakota, Tamás Z. Zakota</i> .....	37
GLOBAL ENVIRONMENTAL CHANGE RESEARCH IN THE LOWER DANUBE BASIN – COLLABORATIVE PERSPECTIVES <i>Dan Balteanu, Wolfram Mauser, Christoph Heinzeller, Monica Dumitrascu, Mihaela Sima, Diana Dogaru</i> .....	38
TERRITORIAL DISPARITIES IN THE DEVELOPMENT OF ROMANIA'S BORDER AREAS. EU VS. NON-EU <i>Monica Dumitrascu, Bianca Mitică, Irena Mocanu, Ines Grigorescu, Costin Dumitrascu</i> .....	39

<b>III SESSION ENVIRONMENT, RISK ASSESSMENT AND MANAGEMENT</b>	<b>40</b>
GEOMORPHOLOGICAL STUDY OF GJUMJURDZHINSKI SNEZHNICKI RIDGE (PAPIKIO OROS/KARLAL DAĞI), EASTERN RHODOPES MTS.	
<i>Aleksandar Sarafov, Ahinora Baltakova, Rossitza Kenderova .....</i>	40
CHOROLOGY OF VULNERABLE BRYOPHYTES SPECIES FROM THE REPUBLIC OF MOLDOVA	
<i>Adam Begu, Ala Donica .....</i>	41
A KINEMATIC MODEL OF SEISMIC EARLY WARNING SYSTEM FROM VRANCEA DEEP EARTHQUAKE SOURCE	
<i>Boyko Ranguelov .....</i>	42
GEOECOLOGICAL EVALUATION OF THE AREA OF SPECIAL NATURE RESERVE "STARI BEGEJ - CARSKA BARA", SERBIA	
<i>Branko Protić.....</i>	43
RECONSTRUCTING THE RECENT EVOLUTION OF THE PRUT RIVER CHANNEL IN IAŞI COUNTY SECTOR (NE ROMANIA) USING CARTOGRAPHIC, REMOTE SENSING AND GPS DATA	
<i>George Daniel Butnariu, Florian Stătescu, Mihai Ciprian Mărgărint and Mihai Niculită.....</i>	44
IMPORTANCE OF IBAS, IPAS AND PBAS FOR PROCESS OF NATURE CONSERVATION HARMONIZATION IN CROSS-BORDER REGIONS WITHIN THE LOWER BASIN OF THE DANUBE	
<i>Snežana Djurdjić, Sanja Stojković, Marija Belij, Jelena Belij .....</i>	45
THE PRESENCE OF SOME SPECIES IN THE FAMILY TRICHONISCIDAE SARS, 1899 (ISOPODA, ONISCIDEA) AS A BIOINDICATOR OF CALCIUM IN THE ENVIRONMENT, PRELIMINARY RESULTS	
<i>Dragan Dolinaj, Mladen Horvatović, Uglješa Stankov, Milana Pantelić.....</i>	46
DATA ANALYSIS OF WAHASTRAT MONITORING SYSTEM-TYPOLOGY, ACQUISITION AND DATA INTEROPERABILITY (FROM DATA TO INFORMATION)	
<i>Srđan Popov, Dragan Dolinaj, Uglješa Stankov, Dragoslav Pavić, Đorđe Čosić, Tanja Armenski, Ljiljana Popović.....</i>	47
CONSERVATION AND RESTORATION OF VEGETATION AND HABITATS THROUGH THE MANAGEMENT PLAN OF MANAGED RESERVE „IBISHA“	
<i>Dimitar Pavlov, Petar Petrov, Ekaterina Pavlova, Elena Georgieva.....</i>	48

PROFILE OF THE FLOOD RISK IN THE DANUBE FLOODPLAIN – DOLJ AREA (ROMANIA)	49
<i>Oana Ionuș, Mihaela Licurici, Cristiana Vîlcea .....</i>	
PRELIMINARY ASSESSMENT OF THE ECOLOGICAL HAZARD FOR HEAVY METAL AND ARSENIC POLLUTION OF THE LOWER DANUBE LOWLANDS	50
<i>Tsvetan Kotsev, Velimira Stoyanova, Mariyana Nikolova, Marian Varbanov.....</i>	
THE MEDITERRANEAN OSCILLATION (MOI) AND THE FOREST FIRES IN ROMANIA IN THE PERIOD 1986-2014	51
<i>Milan Milenković, Vladan Ducić, Violeta Babić.....</i>	
TWO EXAMPLES OF MODERN LANDSLIDE ACTIVITY IN SOUTHWEST BULGARIA	52
<i>Miroslav Ivanov, Georgi Manolev, Krasimir Stoianov .....</i>	
EXTREME PRECIPITATION IN PROVADIYSKA RIVER BASIN (NORTHEASTERN BULGARIA) FOR THE PERIOD 1994–2008	53
<i>Nina Chenkova, Dimitar Vladev .....</i>	
PRESSURE AND RELEASE AND SWISS CHEESE: A COMPARISON OF DISASTER MODELS FOR FLOOD AREAS ALONG THE LOWER DANUBE RIVER	54
<i>Iuliana Armas, Radu Ionescu, Cristina Nenciu Posner.....</i>	
INTEGRATING LAND USE /COVER ASSESSMENT AND FLOOD RISK MANAGEMENT IN BURGAS REGION, BULGARIA	55
<i>Rumiana Vatseva, Lyubka Pashova .....</i>	
FROM RESOURCES TO SERVICES – MAPPING PROVISIONING ECOSYSTEM SERVICES IN THE DANUBE PLAIN (VIDIN REGION)	56
<i>Rositsa Yaneva .....</i>	
CLIMATE CHANGE AND ASSESSMENT OF RISKY BICLIMATIC PHENOMENA	57
<i>Zoya Mateeva .....</i>	
USE OF THE UNMANNED AERIAL SYSTEMS IN CONDITIONS OF CRISIS SITUATIONS	58
<i>Anton Filipov .....</i>	
<b>IV SESSION CLIMATE CHANGE AND WATER RESOURCES</b>	<b>59</b>
ESTIMATION OF FLOOD EXTREMES IN THE SERBIAN PART OF THE DANUBE	
<i>Ana Milanović Pešić .....</i>	59

LOW-FLOW PERIOD SEPARATION OF DANUBE TRIBUTARIES IN BULGARIA FOR A DRY AND A WET YEAR	
<i>Nelly Hristova</i> .....	60
PRECIPITATION PROJECTIONS FOR THE 21 <sup>ST</sup> CENTURY OVER THE CARPATHIAN BASIN	
<i>Anett Csorvási</i> .....	61
CLIMATE CHANGE AND DROUGHT IMPACTS IN THE CARPATHIAN BASIN	
<i>Viktória Blanka, Zsuzsanna Ladányi, Gábor Mezősi, János Rakonczai</i> .....	62
CHANGES IN HEAT WAVES INDICES IN SOUTHERN ROMANIA	
<i>Adina-Eliza Croitoru, Adrian Piticar, Flavius Antoniu Ciupertea, Cristina Florina Roșca</i> .....	63
OUTDOOR HUMAN THERMAL COMFORT IN THE CITY OF NOVI SAD (SERBIA)	
<i>Dragan Milošević, Stevan Savić</i> .....	64
PRELIMINARY CHARACTERIZATION OF KARST WATER REGIME IN THE DANUBE RIVER CATCHMENT AREA AT THE BULGARIAN TERRITORY	
<i>Evelina Damyanova, Aleksey Benderev</i> .....	65
MULTI YEAR CHANGES OF THE RIVER DANUBE WATER LEVEL IN THE BULGARIAN SECTION	
<i>Kristina Gartsianova, Marian Varbanov</i> .....	66
LOCAL CLIMATES OF VARDAR, STRUMA AND MESTA VALLEYS ACCORDING TO KÖPPEN CLIMATE CLASSIFICATION	
<i>Hristo Popov</i> .....	67
ASSESSMENT OF KARST WATER IN NORTHWEST BULGARIA	
<i>Maria Temelkova</i> .....	68
WATER RESOURCES DETERMINATION OF SURFACE WATER BODIES AT THE BULGARIAN BASINS OF THE LOWER DANUBE	
<i>P. Ninov, Tz. Karagiozova, M. Rankova</i> .....	69
THE EXTREME WINTER OF 1783/1784 AND FLOODS IN CENTRAL EUROPE	
<i>Marián Melo, Ingrid Damborská, Peter Pišút, Peter Škoda</i> .....	70
SHIFT OF CLIMATIC ZONES IN THE DANUBIAN LOWLAND IN SLOVAKIA BASED ON KONČEK'S CLASSIFICATION	
<i>Marián Melo, Milan Lapin, Martin Gera, Ingrid Damborská</i> .....	71

FAUNISTIC STUDY OF THE DANUBE ISLAND TSIBAR <i>Roumiana Metcheva, Michaela Beltcheva, Borislav Naumov, Yordan Yankov, Tanio Mitchev, Lyubomir Profirov, Plamen Mitov, Lyubomir Kenderov, Elena Georgieva, Petar Petrov, Stoyan Goranov.....</i>	72
WATER QUALITY OF THE DANUBE RIVER IN SERBIA DOWNSTREAM FROM THE DJERDAP LAKE <i>Dragana Milijašević .....</i>	73
IMPACT OF VOLCANIC ERUPTIONS IN EUROPEAN AREA ON THE CHANGE IN CONCENTRATION OF CARBON DIOXIDE – CASE STUDY OF BASIC ENVIRONMENTAL OBSERVATORY “MOUSSALA” <i>Nina Nikolova, Christo Angelov, Todor Arsov, Spasimir Pilev, Nina Nikolova.....</i>	74
THERMAL BEHAVIOUR OF LOCAL CLIMATE ZONES UNDER IDEAL AND AVERAGE CONDITIONS IN SZEGED BASED ON A ONE-YEAR MONITORING NETWORK DATASET <i>Nóra Skarbit, Tamás Gál, János Unger, Attila Kovács .....</i>	75
CLIMATIC INDEXES DERIVED FROM METEOROLOGICAL STATION ZEMEN AND THEIR APPLICATION IN AGROCLIMATOLOGICAL AND GEOMORPHOLOGICAL RESERCH <i>Hristo Popov, Petko Bozhkov, Aleksandar Peichev, Alexandar Sarafov.....</i>	76
CHANGES IN COLD WAVES PARAMETERS IN SOUTHERN ROMANIA <i>Adrian Piticar, Adina-Eliza Croitoru, Gabriela Victoria Harpa, Andrea Sabina Scripcă.....</i>	77
HYDRO-METEOROLOGICAL DROUGHT IN THE DANUBE PLAIN, BULGARIA <i>Kalina Radeva, Nina Nikolova .....</i>	78
ONE YEAR INTRA-URBAN CLIMATE OBSERVATION IN NOVI SAD (SERBIA) <i>Stevan Savić, Dragan Milošević .....</i>	79
ALTERATION OF SPATIAL PATTERNS OF NOCTURNAL CLIMATE INDICES DURING THE 21 <sup>TH</sup> CENTURY IN CASE OF SZEGED, HUNGARY <i>Tamás Gál, Nóra Skarbit .....</i>	80
ASSESSING FLOOD RISK USING GIS IN KANJIZA (SERBIA) <i>Vladimir Markovic, Ugljesa Stankov, Imre Nagy .....</i>	81

ANALYSIS OF THE MEAN OF DAILY MAXIMUM TEMPERATURE WITHIN THE ROMANIAN PLAIN (1961 – 2015)	
<i>Alina Vladut.....</i>	82
<b>V SESSION GIS, LANDSCAPE ANALYSIS AND LANDSCAPE PLANNING</b>	<b>83</b>
GIS SPATIAL ANALYSIS OF THE DISTRIBUTION OF SNOW DEPTH: A STUDY OF WESTERN RHODES, BULGARIA	
<i>Valentina Nikolova, Aleksandar Penkov .....</i>	83
APPLICATION OF GIS TECHNIQUES FOR THE QUANTIFICATION OF LAND DEGRADATION EXPOSED TO FLOOD RISK AND URBAN DEVELOPMENT. CASE: DOLJ COUNTY (ROMANIA)	
<i>Cristian Emil IONICA .....</i>	84
ASSESSMENT OF THE SOIL LOSS CAUSED BY RIVERBANK EROSION IN SERBIA	
<i>Slavoljub Dragičević, Nenad Živković, Ivan Novković, Radislav Tošić.....</i>	85
COMPLEX AND MULTISCALE LANDSCAPE STUDIES IN THE NORTHWESTERN BULGARIA WITH APPLICATION FOR ENVIRONMENTAL HIGHER EDUCATION	
<i>Natalia Kalutskova, Nicolay Dronin, Natalia Telnova .....</i>	86
FLOOD VULNERABLE AREAS IN SLOVAKIA BASED ON MULTICRITERIA ANALYSIS	
<i>Martina Zeleňáková, Peter Blíšťan, Pavol Purcz.....</i>	87
AN ATTEMPT TO RECONSTRUCT HISTORICAL ANTHROPIC LAKES NETWORK IN NORTHERN PART OF THE MOLDAVIAN PLATEAU (NE ROMANIA) BASED ON HIGH RESOLUTION LIDAR DEM INVENTORY AND GEOMORPHOMETRIC ANALYSES OF ABANDONED DAMS	
<i>Mihai Ciprian Mărgărint, Mihai Niculitel .....</i>	88
GIS ASSESSMENT AND PLANNING OF CONSERVATION PRIORITIES OF HISTORICAL CENTERS OF INDUSTRIAL CITIES. CASE STUDY: REŠIĆA MUNICIPALITY	
<i>George-Laurentiu Merciu, Vlad Păunescu, Cristina Merciu, Loreta Cercleux.....</i>	89
MAPPING AND ANALYSES OF STRUCTURAL INDICES OF THE TOPOLOVETS RIVER BASIN	
<i>Mitko Mitev.....</i>	90

SPATIAL ANALYSIS OF LINEAR MORPHOMETRIC PARAMETERS OF ARCHAR RIVER BASIN	
<i>Mitko Mitev, Velimira Stoyanova .....</i>	91
THE EFFECTS OF ROAD DENSITY ON HABITATS FROM THE NATURA 2000 SITES IN ROMANIA	
<i>Mihaita Iulian Niculae, Gabriel Ovidiu Vanau, Sorin Avram, Maria Patroescu .....</i>	92
OPEN SOURCE WEB-BASED GIS VISUALIZATION TOOL OF WATER RELATED DATA FOR THE RIVER BASIN OF YANTRA	
<i>Tanya Trenkova.....</i>	93
LANDSCAPE PLANNING: LANDSCAPE CHARACTER ASSESSMENT OF THE NATIONAL PARK FRUŠKA GORA	
<i>Nevena Vasiljević, Boris Radić, Dejan Djordjević.....</i>	94
<b>VI SESSION CULTURAL AND POLITICAL CHALLENGES IN GEOGRAPHY</b>	<b>95</b>
„LIMES ROUTE“ THE NEXT WORLD HERITAGE SITE IN HUNGARY	
<i>Bulcsú Remenyik, Lajos Szabó, László Guth .....</i>	95
THE EMPIRE AS A HERITAGE (TURKEY – THEN, NOW AND ...)	
<i>Atanas Dermendzhiev, Plamen Parashkevov, Martin Doykov .....</i>	96
BEHAVIOURAL GEOGRAPHY OR BEHAVIOURAL APPROACH – CURRENT CHALLENGES AND PROBLEMS	
<i>Dessislava Poleganova.....</i>	97
<b>VII SESSION POPULATION TRENDS, HUMAN MOBILITY AND EMIGRATION</b>	<b>98</b>
DEVELOPMENT OF URBAN AND RURAL AREAS OF THE LOWER DANUBE AREA IN SERBIA	
<i>Aleksandra Gajić, Nikola Krunić .....</i>	98
VILLAGES ON THE EDGE OF EXTINCTION – THE HUNGARIAN SITUATION	
<i>Péter Bajmócy, Zsófia Makra .....</i>	99
EDUCATIONAL STRUCTURE AND DEMOGRAPHIC POTENTIAL OF THE POPULATION IN VIDIN DISTRICT IN RELATION TO THE EDUCATIONAL INFRASTRUCTURE	
<i>Boris Kazakov .....</i>	100

DEPOPULATION IN RURAL AREAS OF DOBRUDZA REGION AND ITS IMPACT ON THE SCHOOL NETWORK	
<i>Milen Penerliev, Leyla Shefka, Veselin Petkov, Gergana Hristova .....</i>	101
ETHNIC DIVERSITY LINKED TO DWELLING QUALITY ALONG THE ROMANIAN DANUBE VALLEY	
<i>Bianca Mitrică, Irena Mocanu, Mihaela Persu, Nicoleta Damian, Săgeată Radu, Daniela Nancu .....</i>	102
CONSIDERATIONS ON INTERNATIONAL MIGRATION OF POPULATION FROM BOTOSANI COUNTY IN MADRID CITY (SPAIN)	
<i>Petru Bunduc, Tatiana Bunduc, Vadim Cujbă .....</i>	103
INCIDENCE OF EXTRAMARITAL BIRTHS IN BORSKA AREA AT THE TURN OF THE CENTURY	
<i>Radmila Veljović.....</i>	104
SERBIA IN A MOBILE WORLD: REFRAMING THE MIGRATION QUESTION	
<i>Vesna Lukić .....</i>	105
<b>VIII SESSION      SUSTAINABLE TOURISM POLICY,                           PLANNING AND DEVELOPMENT</b>	<b>106</b>
THE IMPLICATIONS OF URBAN REGENERATION IN TOURISM. CRAIOVA CITY AS A CASE STUDY	
<i>Amalia Bădită, Liliana Popescu .....</i>	106
SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL PROTECTION IN THE REGION OF THE DANUBE THROUGH SERBIA, WITH A FOCUS ON TOURISM	
<i>Selim Sacirovic, Andjelina Maric, Redzep Skrijelj.....</i>	107
EVALUATION OF CHANGE IN TOURISM CLIMATE POTENTIAL IN HUNGARY	
<i>Attila Kovács, János Unger.....</i>	108
SUSTAINABLE DEVELOPMENT OF TOURISM AND PROTECTION OF THE DANUBE CORRIDOR – RELATIVIZING THE CONFLICT OF INTEREST	
<i>Jelena Basaric, Jasmina Djurdjevic, Sasa Milijic .....</i>	109
RAMSAR SITES IN VOJVODINA AS DESTINATIONS OF SUSTAINABLE TOURISM – PLANNING AND DEVELOPMENT	
<i>Marija Belij, Jelena Belij, Snežana Đurđić, Sanja Stojković, Marina Ilinčić.....</i>	110

TOURISM IN THE AREA OF SPECIAL NATURE RESERVE "DELIBLATSKA PEŠČARA" (SERBIA)	
<i>Jovana Brankov, Tamara Jović Glavonjić, Milan Milenković, Željko Bjeljac .....</i>	111
RURAL TOURISM AND AGRITOURISM: AS DRIVER OF THE SUSTAINABLE RURAL DEVELOPMENT IN THE LOWER DANUBE BASIN AREAS. PROPOSAL FOR CROSS-BORDER COOPERATION STRATEGY	
<i>Adriano Ciani, Mihály Lászlo Vörös .....</i>	112
BULGARIAN LEGISLATION ON TOURISM COMPLAINTS – GUIDELINES FOR UPDATE	
<i>Desislava Hineva.....</i>	113
CONTEMPORARY PROBLEMS AND PERSPECTIVES IN THE DEVELOPMENT OF URBAN TRANSPORT IN SOFIA	
<i>Kaloyan Tsvetkov .....</i>	114
CYCLING TOURISM ROUTES AS INSTRUMENT FOR REGIONAL DEVELOPMENT AND TRANS-NATIONAL COOPERATION WITHIN THE LOWER BASIN OF THE DANUBE	
<i>Kiril Kaloyanov .....</i>	115
THE RIVER AS A SUSTAINABLE ATTRACTION WITHIN THE OFFERING OF RIVERSIDE HOTELS LOCATED IN CITIES OF THE DANUBE'S LOWER BASIN	
<i>Ákos Kátay .....</i>	116
THE STRUCTURE OF AGRI-TOURISTIC MODEL FOR SUSTAINABLE DEVELOPMENT OF LOCAL COMMUNITIES ALONG THE DANUBE BETWEEN OSTROV AND TOPALU, ROMANIA	
<i>Marius Popescu, Romulus Gruia .....</i>	117
SUSTAINABLE TOURISM POLICY, PLANNING AND DEVELOPMENT IN VIEW OF THE DANUBE STRATEGY	
<i>Mirela Mazilu, Sabina Gheorghesci .....</i>	118
THE EUROGITES STANDARDS' ROLE IN EVALUATION OF AGRITOURIST SERVICES – THE CASE OF SERBIA	
<i>Marko D. Petrović, Aleksandra Terzić, Ana Jovičić, Aleksandra Vujko, Jovana Brankov .....</i>	119
A HOLISTIC APPROACH OF AGRITOURISM DEVELOPMENT ANALYSIS	
<i>Marko D. Petrović, Aleksandra Vujko, Darko Vuković, Dunja Demirović, Snježana Gagić.....</i>	120

COMPETITIVENESS OF TOURISM DESTINATIONS. OLTEANIA (ROMANIA) AS CASE STUDY <i>Liliana Popescu, Amalia Badita, Costela Iordache, Cristina Sosea</i>	121
EDUCATION THROUGH EXCURSIONS IN THE FUNCTION OF SUSTAINABLE DEVELOPMENT OF TOURISM IN THE CASE OF NATIONAL PARK ĐERDAP <i>Sara Stanić Jovanović, Milena Cvetković</i>	122
USING THE EXPERIENCE OF NATURAL PARK SPESSART, GERMANY, FOR THE MARKETING OF GEOLOGICAL HERITAGE AT THE ASPIRING GEOPARK BELOGRADCHISHKI SKALI <i>Yana Mateeva</i>	123
SUSTAINABLE TOURISM DEVELOPMENT WITHIN THE DISTRICT OF VIDIN – KEY DEVELOPMENT CATEGORIES AND FACTORS <i>Miglena Klisarova</i>	124
<b>IX SESSION GEOGRAPHY EDUCATION</b>	<b>125</b>
GUIDE TO THE SELF-EVALUATION OF TEACHING ACTIVITIES AND SCHOOL ACTIVITIES AS AN INSTRUMENT OF EDUCATION QUALITY IMPROVEMENT <i>Ljubica Ivanović Bibić, Smiljana Đukićin, Andđelija Ivkov-Džigurski, Aleksandra Dragin, Jelena Milanković, Olja Maričić, Ivan Stojšić</i>	125
AN OPTION FOR CREATIVE DIDACTICAL MODELING IN TEACHING GEOGRAPHY – CASE-STUDY <i>Stela Dermendzhieva, Petya Sabeva, Lachezar Yordanov</i>	126
CONTEMPORARY EDUCATIONAL POTENTIAL OF THE “REGIONAL DEVELOPMENT AND GEOFINANCE” DEGREE AT THE “ST. CYRIL AND ST. METHODIUS” UNIVERSITY OF VELIKO TARNOVO <i>Atanas Dermendzhiev, Dimitar Simeonov, Martin Doykov</i>	127
“CUBE JENA” – ABOUT THE PERSPECTIVES IN GEOGRAPHY EDUCATION <i>Maya Vasileva, Dessislava Poleganova, Lucila Tzankova</i>	129
COMPARATIVE SITUATIONAL ANALYSIS OF THE GEOGRAPHY OF SOUTH EAST EUROPEAN COUNTRIES IN SECONDARY EDUCATION <i>Stella Dermendzhieva, Tamara Draganova</i>	130

# **ABSTRACTS**

**of the oral and poster presentations**



## **DEVELOPMENT OF URBAN AND RURAL AREAS OF THE LOWER DANUBE AREA IN SERBIA**

**Aleksandra Gajić, Nikola Krunić**

*Institute of Architecture and Urban & Spatial Planning of Serbia,  
Belgrade, Serbia  
gajicaleksandra@ymail.com*

River Danube represents one of the main axis for spatial development and functional networking of settlements in Europe, both at the national and international level. However, despite the central position of Serbia in Danube area in Europe and potentials for integration of the territory in this area, these advantages are not yet valorised appropriately in spatial development of the territory. This paper examines the emergence and development of urban and rural areas within the Lower Danube area in contemporary network of settlements in Serbia. This re-

search is based on the analysis of relevant demographic, spatial, and socio-economic indicators with the aim to identify and critically examine the role and importance of the Danube development axis in linking and integration of urban centers with their surroundings. Results of the research presented in this paper may be significant for further spatial development of Danube area in Serbia. In that context some recommendation and conceptual frameworks are suggested.

**Key words:** Lower Danube area, urban and rural areas, Serbia

**FOURTH  
ROMANIAN-BULGARIAN-HUNGARIAN-SERBIAN  
CONFERENCE**

Geographical Research and Cross-Border  
Cooperation within the Lower Basin of the Danube

**ABSTRACTS  
of the oral and poster presentations**

**VIDIN – BULGARIA  
15–17 September 2016**

Editor in chief: Prof. Nelly Hristova  
Editors:  
Prof. Boengiu Sandu  
Assoc. prof. Slavoljub Dragićević  
Assoc. prof. Nina Nikolova  
Peter Bajmoci

Printed by Tip-top press

ISBN 978-954-723-179-5

