



UNIVERSITY OF NOVI SAD | FACULTY OF SCIENCE  
DEPARTMENT OF GEOGRAPHY, TOURISM & HOTEL MANAGEMENT

INTERNATIONAL SCIENTIFIC JOURNAL

# GEOGRAPHICA PANNONICA

Volume 19, Issue 4, December 2015

INTERNATIONAL SCIENTIFIC JOURNAL  
**GEOGRAPHICA PANNONICA**  
UNIVERSITY OF NOVI SAD | FACULTY OF SCIENCE | DEPARTMENT OF GEOGRAPHY, TOURISM & HOTEL MANAGEMENT

**EDITOR IN CHIEF**

Ivana Blešić, ivana.blesic@dgt.uns.ac.rs

**TECHNICAL EDITORS**

Tin Lukić, tin.lukic@dgt.uns.ac.rs

Biljana Basarin, biljana.basarin@dgt.uns.ac.rs

Daniela Arsenović, daniela.arsenovic@dgt.uns.ac.rs

Dragan Milošević, dragan.milosevic@dgt.uns.ac.rs

**EDITORIAL BOARD**

**Armelle Decaulne**

CNRS UMR6042 - GEOLAB  
Clermont-Ferrand cedex, Paris, France &  
Natural Research Centre of North-western Iceland  
Saudarkrokur, Iceland

**Slobodan B. Marković**

University of Novi Sad  
Faculty of Science  
Novi Sad, Serbia

**Tobias Heckmann**

Department of Geography, Physical Geography  
Catholic University Eichstaett-Ingolstadt  
Eichstätt, Germany

**János Kovács**

University of Pécs  
Faculty of Science  
Department of Geology  
Pécs, Hungary

**Petru Urdea**

West University of Timișoara  
Department of Geography  
Timișoara, Romania

**Péter Domonkos**

University Rovira i Virgili de Tarragona  
Geography Department  
Center on Climate Change (C3)  
Tarragona, Spain

**Tamás Weidinger**

Eötvös Loránd University  
Institute of Geography and Earth Science  
Department of Meteorology  
Budapest, Hungary

**Thomas Borén**

Department of Human Geography  
Stockholm University  
Stockholm, Sweden

**Tadeusz Strykiewicz**

Adam Mickiewicz University  
Institute of Socio-Economic Geography and Spatial  
Management  
Poznań, Poland

**Marko Krevs**

University of Ljubljana  
Faculty of Art, Department of Geography  
Ljubljana, Slovenia

**Horst Förster**

Universität Tübingen  
Geographisches Institut  
Tübingen, Germany

**Károly Kocsis**

Geographical Research Institute  
of the Hungarian Academy of Sciences  
Budapest, Hungary

**Konstantinos Andriotis**

Cyprus University of Technology  
Department of Hotel & Tourism Management  
Cyprus

**Jung Sung-Chae**

Honam University  
Department of Tourism Management  
Gwangju, South Korea

**ADVISORY BOARD**

**Ulrich Hambach**

Geowissenschaften Universität Bayreuth  
LS Geomorphologie  
Bayreuth, Germany

**Milivoj Gavrilov**

University of Novi Sad  
Faculty of Science  
Novi Sad, Serbia

**Darko Ogrin**

University of Ljubljana  
Faculty of Art, Department of Geography  
Ljubljana, Slovenia

**Nina Nikolova**

"St. Kliment Ohridski" University of Sofia  
Faculty of Geography and Geography  
Department of Climatology, Hydrology and  
Geomorphology  
Sofia, Bulgaria

**Anna Leonowicz**

University of Zurich  
Department of Geography  
Geographic Information Science (GIS)  
Zurich, Switzerland

**Zorana Lužanin**

University of Novi Sad  
Faculty of Science  
Novi Sad, Serbia

**Gregory J. Ashworth**

University of Groningen  
Faculty of Spatial Science  
Groningen, The Netherlands

**Carlos Ferrás Sexto**

University of Santiago de Compostela  
Geography Department  
Santiago de Compostela, Spain

**Lajos Boros**

University of Szeged  
Department of Economic and Social Geography  
Szeged, Hungary

**Branislav S. Đurđev**

University of Novi Sad  
Faculty of Science  
Novi Sad, Serbia

**Milka Bubalo-Živković**

University of Novi Sad  
Faculty of Science  
Novi Sad, Serbia

**Elena Matei**

Bucharest University  
Faculty of Geography  
Bucharest, Romania

**Yoel Mansfeld**

University of Haifa  
Department of Geography and Environmental Studies  
Center for Tourism, Pilgrimage & Recreation Research  
Haifa, Israel

**Klodiana Gorica**

University of Tirana  
Faculty of Economics, Department of Marketing  
Tirana, Albania

**Damir Demonja**

Institute for Development  
and International Relations, IRMO,  
Zagreb, Croatia

**EDITORIAL OFFICE**

Faculty of Science  
Department of Geography, Tourism and Hotel Management  
Trg Dositeja Obradovića 3, 21000 Novi Sad, Serbia  
tel. +381 21 450-105  
fax +381 21 459-696  
Official site: [www.dgt.uns.ac.rs](http://www.dgt.uns.ac.rs)

**CONTACTS****Ivana Blešić, PhD, associate professor**

Department of Geography, Tourism and Hotel Management, Serbia, [ivana.blesic@dgt.uns.ac.rs](mailto:ivana.blesic@dgt.uns.ac.rs)

**Tin Lukić, PhD, assistant professor**

Department of Geography, Tourism and Hotel Management, Serbia, [tin.lukic@dgt.uns.ac.rs](mailto:tin.lukic@dgt.uns.ac.rs)

**Official mail of the Journal**

[gpscijournal@gmail.com](mailto:gpscijournal@gmail.com)

**Internet portal**

[www.dgt.uns.ac.rs/pannonica.html](http://www.dgt.uns.ac.rs/pannonica.html)

**Instructions to authors**

[www.dgt.uns.ac.rs/pannonica/instructions.htm](http://www.dgt.uns.ac.rs/pannonica/instructions.htm)

**PRINTED BY**

[www.futura.rs](http://www.futura.rs)

**CIRCULATION**

300

# Contents

---

<b>Ljubica Ivanović Bibić, Smiljana Đukićin, Tin Lukić, Đurđa Miljković, Jelena Milanković, Snežana Babić Kekez, Anđelija Ivkov Džigurski, Zorica Dubovina</b>	
Achieving Competencies with Grammar School Students through Utilisation of Selected Didactical Principles – Case Study of Geographic Features of Europe .....	153
<b>Dušan Jovanović, Miro Govedarica, Filip Sabo, Željko Bugarinović, Olivera Novović, Teo Beker, Miloš Lauter</b>	
Land Cover change detection by using Remote Sensing – A Case Study of Zlatibor (Serbia).....	162
<b>Ivan Šećerov, Stevan Savić, Dragan Milošević, Vladimir Marković, Ivana Bajšanski</b>	
Development of an Automated Urban Climate Monitoring System in Novi Sad (Serbia) .....	174
<b>Radostina Rizova, Georgi Nachev</b>	
Effect of Seismic Activity on the Gravitational Processes Through the Example of the Butrointsi Rockfall, SW Bulgaria .....	184
<b>Ladislav Novotný, Loránt Pregi</b>	
Changes in Ethnic Structure of Population in the Light of Recent Trends of Migration and Natural Reproduction .....	194
<b>Jelena Farkić, Dušan Perić, Miha Lesjak, Mitja Petelin</b>	
Urban Walking: Perspectives of Locals and Tourists .....	212