

# Curriculum Vitae - dr. Jaroslav BURIAN

## PERSONAL INFORMATION

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Residence Address Jarmily Glazarové 17, Olomouc, 779 00, Czech Republic  
E-mail Jaroslav.burian@gmail.com  
Phone +420 724 712 953  
Born February 2, 1983, Třebíč, Czech Republic



## EDUCATION

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- 2019 doc. (assoc. prof.)** – Technical University of Ostrava, habilitation in Geoinformatics  
*Thesis:* Spatial analysis and modelling in GIS for city development planning
- 2012 Ph.D.** - Faculty of Science, Charles University, Prague, Cartography, geoinformatics and Remote sensing  
*Thesis:* Implementation of geospatial technologies into modeling of urbanization processes in strategic planning of city development
- 2009 RNDr.** - Faculty of Science, Charles University, Prague, Cartography and geoinformatics  
*Thesis:* Geospatial technologies in urban planning
- 2005 - 2007 MSc.** - Faculty of Science, Palacký University, Olomouc, Applied geoinformatics  
*Thesis:* Integration of urban plans of Hranicko micro-region for development activities evaluation
- 2002 - 2005 BSc.** - Faculty of Science, Palacký University, Olomouc, Geography and geoinformatics  
*Thesis:* Web solution of Náměšť nad Oslavou urban plan

## WORK EXPERIENCE

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- 2019 – present Palacký University, Olomouc**, Department of Geoinformatics (**associate professor**, head of the research group “Spatial modeling of geographical phenomena in GIS”)
- 2019 – present Moravian Business College Olomouc**, Department of Computer Science and Applied Mathematics (**associate professor**)
- 2019 – present Charles University**, Faculty of Science (**external researcher**)
- 2012 – 2019 Palacký University, Olomouc**, Department of Geoinformatics (**assistant professor**, head of the research group “Spatial modeling of geographical phenomena in GIS”)
- 2007 - 2012 Palacký University, Olomouc**, Department of Geoinformatics (**lecturer**)
- 2007 - 2014 Springwinter, Inc.** (editorial board member, journalist - Journal GeoBusiness)
- 2007 – present freelancer**
- 2015 – present Urban Planner, Inc.** (CEO)

## TEACHING EXPERIENCES IN ABROAD (ERASMUS program)

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- 12/2019** Comenius University in Bratislava (Slovakia)  
**03/2019** University of Debrecén (Hungary)  
**11/2014** Yildiz Technical University, Istanbul (Turkey)  
**09-10/2014** University of California Berkeley (USA)  
**04/2014** Jagiellonian University Krakow (Poland)  
**11/2013** UCL London - Center for Advanced Spatial Analysis (Great Britain)  
**09/2012** Norwegian University of Science and Technology (Norway)  
**03/2012** Polytechnic University of Valencia (Spain)  
**05/2011** West university of Timisoara (Romania)  
**03/2011** Ruhr-Universität Bochum (Germany)  
**05/2010** Sofia University St.Kliment Ohridski (Bulgaria)  
**03/2009** Marie Curia University in Lublin (Poland)  
**04/2008** University of Salzburg, Centre for Geoinformatics (Austria)  
**10-12/2004** Maria Curie-Skłodowska University in Lublin (Poland - student)

## TEACHING EXPERIENCES IN ABROAD (Summer schools)

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- 05/2019 Ruhr-Universität Bochum (Německo) – Summer school – ERASMUS+ Project  
 07/2018 Eberswalde University for Sustainable Development, Eberswalde (Německo) – Summer school – ERASMUS+ Project  
 03/2018 Maribor University (Slovinsko) – Summer school – ERASMUS+ Project  
 06/2017 Asian Institute of Technology, Bangkok (Thailand) – Summer school – ERASMUS+ Project  
 06/2017 Maribor University (Slovinsko) – Summer school – ERASMUS+ Project  
 02/2017 Ruhr-Universität Bochum (Německo) – Summer school – ERASMUS+ Project

## PROJECTS (research)

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- 2020 - 2021 Advanced application of geospatial technologies for spatial analysis, modelling, and visualization of the phenomena of the real world - **Internal Grant Agency, Palacký University**, project no. **IGA\_PrF\_2020\_027** (project leader)  
 2019 - 2022 Spationomy 2.0: Spatial and economic science in higher education – addressing the playful potential of simulation games, ERASMUS+, project no. 2019-1-CZ01-KA203-061374 (team leader)  
 2018 - 2022 Evolutionary spatial dynamics of segregation and social exclusion – **Technology Agency of the Czech Republic**, project no. TL02000479 (researcher)  
 2018 - 2021 Geoparticipatory spatial tools in the decision making processes of local administrations – **Czech Science Foundation**, project no. 19-14506S (researcher)  
 2018 - 2020 A research of the motivations of the creative industries stakeholders in Olomouc region and strategy proposal for development of the area – **Technology Agency of the Czech Republic**, project no. TL02000403 (researcher)  
 2017 - 2018 Cloud-based Platform for Integration and Visualisation of Different Kind of Geodata - **Internal Grant Agency, Palacký University**, project no. **IGA\_PrF\_2017\_024** (researcher)  
 2016 - 2019 Spatial exploration of economic data – methods of interdisciplinarity analytics (Spationomy) - **ERASMUS+**, 2016-1-CZ01-KA203-024040 (team leader)  
 2016 - 2018 GeoS4S GeoServiced-4-Sustainability - **ERASMUS+**, project no. 561716-EPP-1-2015-1-AT-EPPKA2-CBHE-JP (researcher)  
 2016 - 2017 Advanced monitoring, spatial analysis and visualization of urban landscape - **Internal Grant Agency, Palacký University**, project no. **IGA\_PrF\_2016\_008** (project leader)  
 2014 - 2016 Spatial simulation modelling of accessibility - **Czech Science Foundation**, project no. 14-26831S (researcher)  
 2012 - 2015 Building of Research Team in the Field of Environmental Modeling and the Use of Geoinformation Systems with the Consequence in Participation in International Networks and Programs (StatGISTeam) - **EU Social Fund**, project no. CZ.1.07/2.3.00/20.0170 (project manager)  
 2012 - 2015 Creating the quality management system of international student placements of Palacký University - **EU Social Fund**, project no. CZ.1.07/2.2.00/28.0176 (researcher)  
 2011 Advanced network analysis and logistics in geoinformatics - **Ministry of Education**, project no. 2968/2011 (project leader)  
 2010 - 2011 SDI EDU for regional and urban planning - **Leonardo da Vinci**, project no. CZ/09/LLP-LdV/TOI/134010 (researcher)  
 2010 - 2012 Quantification of the risk to the traffic infrastructure of the Czech Republic by natural hazards - **Ministry of Interior**, project no. 1F84B/019/120 (researcher)  
 2010 - 2013 Increasing competitiveness of students of geoinformatics by computationally demanding methods (Geocomputation) - **EU Social Fund**, project no. CZ.1.07/2.2.00/15.0276 (project leader)  
 2010 - 2011 Research of the citizen movement between urban and suburban space of the Olomouc region - **Internal Grant Agency, Palacký University**, project no. PrF\_2010\_14 (project leader)  
 2007 - 2012 Coordinator of **CEEPUS** and **ERASMUS** mobility's (Department of Geoinformatics)  
 2006 - 2007 Strategic Spatial Planning and Sustainability Environment (STRA.S.S.E) - **INNOREF** (researcher)

## PROJECTS (contract research)

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- 2019 Survey of transport behavior of citizens of Olomouc city - Municipality of Olomouc (project leader)  
 2015 Analysis and evaluation of the content of regional analytical material for planning - Regional Authority of the Olomouc region (project leader)  
 2014 - 2015 Development of web map client for municipalities - Innovation voucher of Olomouc region - Geocentrum, Inc. (project leader)  
 2011-2013 Creation of map included in analytical material for planning in Olomouc region -  
 2010 Analysis of data model used in Olomouc region for analytical material for planning - Regional Authority of the Olomouc region (project leader)

<b>2009</b>	Design of map symbology of analytical material for planning - Regional Authority of the Olomouc region (project leader)
<b>2008</b>	Detection of important observation points in Olomouc region - Municipality of Olomouc (project leader)

## SELECTED CONTRACTS

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<b>2019</b>	Transport accessibility analysis, Regional Authority of the Olomouc region
<b>2019</b>	Digitalization of master plans of Znojmo region (city of Znojmo)
<b>2016-2018</b>	Analytical material for planning update, Regional Authority of the Olomouc region
<b>2015</b>	Implementation of Urban Planner software for Plzeň region, Vysočina region a City of Jihlava
<b>2010 - 2015</b>	Tourist maps and city plans of Mostenska region, Hribeci hory region, Lipensko region
<b>2012</b>	Urban plans georeferencing, Urban plans data model modification - City of Prerov
<b>2008</b>	Creation of analytical material for planning of Jihlava region (Berit, a. s.)

## TEACHING ACTIVITIES

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**Continuous teaching between 2007 and 2019, an average of 12 hours of classes per week in each semester.**

### Present

Geoinformatics - *course guarantor, lecture* (2013 - present)  
 Geoinformatics in human geography - *course guarantor, lecture, exercise* (2007 - present)  
 Land information systems - *course guarantor, lecture, exercise* (2007 - present)  
 Project design GIS - *lecture, exercise* (2014 - present)  
 Geoinformatics - *course guarantor, lecture* (2010 - present)  
 New Issues of Geoinformatics - *course guarantor* (2010 - present)  
 Human geography 1 - *course guarantor, lecture, exercise* (2014 - present)  
 Excursion in geoinformatics - *course guarantor* (2010 - present)

### In past

Geographical information systems - *course guarantor, lecture, exercise* (2014 - 2015)  
 GIS in local government - *course guarantor, lecture* (2007 - 2014)  
 Geoinformatics, GIS - *lecture, exercise* (2010 - 2013)  
 Urban planning a GIS - *course guarantor, lecture, exercise* (2007 - 2012)  
 Spatial planning - *course guarantor, lecture, exercise* (2012 - 2017)  
 Cadaster - *course guarantor, lecture, exercise* (2007 - 2011)  
 GIS 1 software - *course guarantor, exercise* (2007 - 2013)  
 GIT in outdoor - *course guarantor, lecture, exercise* (2016 - 2019)

### Invited presentations

- International Day of Science (duben 2018) – workshop „Scientometrics“
- Geodesign Summit Salzburg (říjen 2015) - presentation „Optimal Land Use Scenario Modelling in ArcGIS Extension - Urban Planner“ (dr. Frank Holsmuller, Esri)
- Presentations at Masaryk University Brno, Technical University Ostrava, University of West Bohemia in Pilsen (all in the Czech Republic, presentation focused on spatial planning and GIS)

### ERASMUS+ and CEEPUS mobilities coordinator (2007-present)

- CEEPUS programme coordinator (10 partners, 3 incoming and 3 outgoing mobilities per year)
- ERASMUS+ programme coordinator (14 partners, 8 incoming and 8 outgoing mobilities per year)

## THESIS SUPERVISING

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**BSc.** Totally 33 bachelor thesis supervised.  
**MSc.** Totally 23 master thesis supervised.

## MEMBERSHIPS

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### Organizations

Czech Association for GeoInformation (2010 - present) – member of GIS and spatial planning group  
 Czech Geographical Society (2015 - present)

Smart City and Information Technology Commission, Statutory City of Olomouc (2018 - present)

### Journal Editorial Boards

Editorial board of EMI Journal

### Journals Reviews

- Geografie, Moravian Geographical Reports, International Journal of Geoinformatics, Sustainability, GIS Ostrava Conference, Cartocon Conference, Barometr Regionalny, Bulletin of Geography, ISPRS – Journal of Geoinformation
- ISPRS International Journal of Geo-Information – guest editor of special Issue "GIS for Safety & Security Management"

### Publications Reviews

- Novotná, M. (2014): Geografické informační systémy v humánní geografii. Plzeň: Západočeská univerzita, 100 s. ISBN 978-80-261-0466-7.
- Novotná, M.; Čechurová, M.; Bouda, J. (2012): Geografické informační systémy ve školách. Plzeň: Vydavatelství a nakladatelství Aleš Čeněk, 154 s. ISBN 978-80-7380-385-8
- Halounová, L. - Vepřek, K. - Řehák, M. - Holubec, V. - Těhle, M. (2013): Atlas of urban development in Czech cities (since 60-ies of the 20th century). 1. ed. Prague: Faculty of Civil Engineering, 116 p. ISBN 978-80-01-05177-1.

### State Examinations Committee

- Bachelor studies of Geoinformatics and geography (2012 - present) – Palacký University, Olomouc, Czech Republic
- Master studies of Geoinformatics (2012 - present) – Palacký University, Olomouc, Czech Republic
- Doctoral studies of Geoinformatics (2012 - present) – Palacký University, Olomouc, Czech Republic
- Bachelor studies of Geoinformatics (since 2018) – Technical University Ostrava, Czech Republic
- Bachelor studies of Geoinformatics in English (since 2018) – Technical University Ostrava, Czech Republic
- Master studies of Geoinformatics (since 2018) – Technical University Ostrava, Czech Republic

### Conference Organization Committee

- GIS in cities and regions planning (GIS v plánování měst a region) 2019
- GIS in cities and regions planning (GIS v plánování měst a region) 2018
- GIS in cities and regions planning (GIS v plánování měst a region) 2017 – 14. 9. 2017
- GIS in cities and regions planning (GIS v plánování měst a region) 2016 – 15. 9. 2016
- GIS in cities and regions planning (GIS v plánování měst a region) 2015 – 10. 9. 2015
- Urban Planning and GIS (Územní plánování a GIS) 2013 – 29. 5. – 1. 6. 2013
- Urban Planning and GIS (Územní plánování a GIS) 2012 – 6. - 9. 6. 2012
- Urban Planning and GIS (Územní plánování a GIS) 2011 – 8. - 11. 6. 2011
- StatGIS Conference (Konference StatGIS) 2013 – 18. - 21.11 2013
- StatGIS Conference (Konference StatGIS) 2014 – 10. - 13.11 2014

### Summer Schools Organization

- Summer school GeoComputation in GIS (Urban Modelling) – 24. 6. - 28. 6. 2013, 35 participants.
- Summer school GeoComputation in GIS (Urban Modelling) – 27. 6. - 2. 7. 2011, 33 participants.

### Conference Scientific Committee

- International Days of Science 2019, 2020
- GIS Ostrava 2020 – Spatial data for Smart City and Smart Regions
- GIS Ostrava 2019 – Smart City, Smart Regions
- GIS Ostrava 2018 – Geoinformatics for Safety & Security Management
- GIS Ostrava 2017 – Dynamics in GIScience
- GIS in cities and regions planning (GIS v plánování měst a regionů) 2015, 2016, 2017, 2018
- Urban Planning and GIS (Územní plánování a GIS) 2011, 2012, 2013
- StatGIS Conference 2013, 2014

### CERTIFICATES AND AWARDS

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2018

Migration from ArcMap to ArcGIS Pro - ARCDATA PRAHA (Czech Republic)

<b>2017</b>	Best fakulty teacher – Award of the dean of the Faculty of Science, Palacký University in Olomouc, Czech Republic
<b>2015</b>	Tools and models programming for data management - VARS Brno (Czech Republic)
<b>2015</b>	Scripting in Python in ArcGIS - VARS Brno (Czech Republic)
<b>2009</b>	ArcGIS Server - ARCDATA PRAHA (Czech Republic)
<b>2007</b>	Esri geodatabases - ARCDATA PRAHA (Czech Republic)

## LANGUAGE SKILLS

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**English** - advanced (IELTS test - equivalent to CAE - Certificate in Advanced English)

**Polish** - advanced

**German** - passive knowledge

## PUBLICATIONS

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<b>H-index:</b>	<b>9</b>
<b>Citations WoS:</b>	<b>172</b>
<b>Citations Scopus:</b>	<b>193</b>
<b>WoS records:</b>	<b>38</b>
<b>Scopus records:</b>	<b>42</b>
<b>ORCID ID:</b>	<b>0000-0003-0729-9757</b>
<b>ResearcherID:</b>	<b>K-8583-2012</b>

### Publications in journals - Web of Science

- Pászto, V., Burian, J. & Macků, K. (2021): **Changing Mobility Lifestyle : A Case Study on the Impact of COVID-19 Using Personal Google Locations Data**. International Journal of E-Planning Research, 10(2), 66–7966–79. <https://doi.org/10.4018/IJEPR.20210401.oa6>
- Burian, J., Macků, K., Zimmermannová, J., & Néték, R. (2020): **Sustainable Spatial and Temporal Development of Land Prices: A Case Study of Czech Cities**. ISPRS International Journal of Geo-Information 2020, Vol. 9, Page 396, 9(6), 396396. <https://doi.org/10.3390/IJGI9060396>
- Pászto, V., Burian, J. & Macků, K. (2020): **COVID-19 data sources : evaluation of map applications and analysis of behavior changes in Europe ’ s population**. GEOGRAFIE, 125(2), 3939.
- Doležalová, J., Burian, J. & Popelka, S. (2019): **SimUrb – software for identifying similar municipalities by comparing Urban indices using a graph algorithm**. Earth Science Informatics, 16. <https://doi.org/10.1007/s12145-019-00399-8>
- Ivan, I., Horák, J., Zajíčková, L., Burian, J. & Fojtík, D. (2019): **Factors Influencing Walking Distance to the Preferred Public Transport Stop in selected urban centres of Czechia**. GeoScape, 13(1), 16–3016–30. <https://doi.org/10.2478/geosc-2019-0002>
- Pászto, V., Macků, K., Burian, J., Pánek, J., & Tuček, P. (2019): **Capturing cross-border continuity: The case of the Czech-Polish borderland**. Moravian Geographical Reports, 27(2), 122–138122–138. <https://doi.org/10.2478/mgr-2019-0010>
- Burian, J., Macků, K., Zimmermannová, J., & Kočvarová, B. (2018): **Spatio-Temporal Changes and Dependencies of Land Price Development: A Case Study of the City of Olomouc**. Sustainability, 10(12), 1–191–19. <https://doi.org/10.3390/su10124831>
- Burian, J., Stachova, M., & Vondrakova, A. (2018): **Land suitability assessment of the Olomouc region: an application of an Urban Planner model**. Journal of Maps, 14(1), 73–8073–80. <https://doi.org/10.1080/17445647.2018.1493407>
- Burian, J., Popelka, S., & Beitlova, M. (2018): **Evaluation of the Cartographical Quality of Urban Plans by Eye-Tracking**. ISPRS International Journal of Geo-Information 2018, Vol. 7, Page 192, 7(5), 192192. <https://doi.org/10.3390/IJGI7050192>
- Burian, J., Brychtová, A., Vávra, A., Hladišová, B. (2016): **Analytical Material for Planning in Olomouc, Czech Republic**. Journal of Maps, Vol.:12, Issue: 4, p. 649-654 , DOI:10.1080/17445647.2015.1060177
- Pászto, V., Burian, J., Marek, L., Voženílek, V., Tuček, P. (2016): **Membership of Czech municipalities to rural and urban areas - a fuzzy based approach**. Geografie, 121(1), s. 156-186.
- Burian, J., Šťastný, S., Brus, J., Pechanec, V., Voženílek, V. (2015): **Urban Planner: model for optimal land use scenario modelling**, Geografie, 120, No. 3, pp. 330-353.



- Pászto, V., Brychtová, A., Tuček, P., Marek, L., Burian, J. (2015): **Using a fuzzy inference system to delimit rural and urban municipalities in the Czech Republic in 2010**. *Journal of Maps*, 11(2), s. 231-239.
- Burian, J., Brus, J., Voženílek, V. (2013): **Development of Olomouc City in 1930 - 2009: Based on Analysis of Functional Areas**. *Journal of Maps*, DOI:10.1080/17445647.2013.778800
- Pechanec, V., Burian, J., Kilianová, H., Němcová, Z. (2011): **Geospatial analysis of the spatial conflicts of flood hazard**. *Moravian Geographical Reports*. Vol. 19, 1/2011.
- Burian, J., Štávová, Z. (2009): **The difficulties of using urban plans for cartographers and geoinformatists**. *Geografie*, 114 (3), 179-191 s. ISSN: 1212-0014
- Hašler, P., Štěpánková, J., Špačková, J., Neustupa, J., Kitner, M., Hekera, P., Veselá, J., Burian, J., Poulíčková, A. (2008): **Epipelic cyanobacteria and algae: a case study from Czech ponds**. *Fottea* 8(2), Palacký University, Olomouc, 133-146 p.

### Publication in journals - Scopus

- Burian, J., Zajíčková, L., Ivan, I., & Macků, K. (2018): **Attitudes and Motivation to Use Public or Individual Transport: A Case Study of Two Middle-Sized Cities**. *Social Sciences 2018*, Vol. 7, Page 83, 7(6), 8383. <https://doi.org/10.3390/SOCSCI7060083>

### Books

- Horák, J., Burian, J. a kol. (2019): **Spatial simulation modelling of transport accessibility with empirical study of Olomouc and Ostrava Region** (Prostorové simulační modelování dopravní dostupnosti s empirickou studií Olomoucka a Ostravska). Česká geografická společnost, Praha.
- Burian, J., Pászto, V., Tuček, P. a kol. (2013): **Geoinformatics for rural and urban areas analysis** (Geoinformatika při analýzách rurálního a urbánního prostoru). Palacký University, Olomouc, 120 pp., ISBN 978-80-244-3783-5
- Mikulík, O., Voženílek, V., Vaishar, A. a kol. (2008): **Research of the development of the region based on geodatabases visualization** (Studium rozvoje regionu založené na vizualizaci geoinformačních databází). Palacký University, Olomouc, 181 pp. ISBN 978-80-244-1928-2.
- Voženílek, V., Kilianová, H., Kadlíčková, J., Burian, J. (2008): **Hranicko - atlas of development of microregion (Hranicko - atlas rozvoje mikroregionu)**. Palacký University, Olomouc, 174 pp., ISBN: 978-80-244-1696-0

### Chapter in books (C)

- Redecker, A., Burian, J., Moos, N., & Macků, K. (2020): **Spatial Analysis in Geomatics** In V. Pászto, C. Jürgens, P. Tominc, & J. Burian (Eds.), *Spationomy*, 65–9265–92. Springer International Publishing. [https://doi.org/10.1007/978-3-030-26626-4\\_3](https://doi.org/10.1007/978-3-030-26626-4_3)
- Pánek, J., & Burian, J. (2020): **Online Visualisation** In V. Pászto, C. Jürgens, P. Tominc, & J. Burian (Eds.), *Spationomy*, 221–231221–231. Springer International Publishing. [https://doi.org/10.1007/978-3-030-26626-4\\_10](https://doi.org/10.1007/978-3-030-26626-4_10)
- Burian, J., Zimmermannová, J., & Macků, K. (2020): **Demographic Development Planning in Cities** In V. Pászto, C. Jürgens, P. Tominc, & J. Burian (Eds.), *Spationomy*, 271–281271–281. Springer International Publishing. [https://doi.org/10.1007/978-3-030-26626-4\\_14](https://doi.org/10.1007/978-3-030-26626-4_14)
- Pászto, V., Tuček, P., Marek, L., Kuprová, L., Burian, J. (2010): **Statistical inferences - visualization possibilities and fuzzy approach computing**, In: *Advances in Geoinformation Technologies 2010*, VŠB - Technical University of Ostrava, ISBN 978-80-248-2357-7
- Burian, J., Voženílek, V. (2012): **Identification and analysis of urbanization and suburbanization in Olomouc region - possibilities of GIS analytical tools**, In: *Advances in Spatial Planning* (ed. Burian, J.), InTech, 366 pp., ISBN 979-953-307-412-1.

### Books and Proceeding (editor)

- Pászto, V., Jurgens, C., Tominc, P., Burian, J. (ed.), (2020): **Spationomy: Spatial Exploration of Economic Data and Methods of Interdisciplinary Analytics**. B.m.: Springer, Cham. ISBN 978-3-030-26625-7. doi:10.1007/978-3-030-26626-4
- Burian, J. (ed.), (2014): **Second StatGIS Conference Proceedings**. Palacký University, Olomouc, 137 pp., ISBN 978-80-244-4273-0
- Burian, J. (ed.), (2013): **Proceedings from summer school Geocomputation in GIS**. Palacký University, Olomouc, 134 pp., ISBN: 978-80-244-3652-4
- Burian, J. (ed.), (2013): **First StatGIS Conference Proceedings**. Palacký University, Olomouc, 171 pp., ISBN: 978-80-244-3879-5
- Burian, J. (ed.), (2012): **Advances in Spatial Planning**. InTech, 366 pp., ISBN 979-953-307-412-1.
- Burian, J. a kol. (2011): **Proceedings from summer school GEOCOMPUTATION IN GIS**. Palacký University, Olomouc, 72 pp., ISBN: 978-80-244-2982-3

### Textbooks

- Burian, J. (2014): **Geoinformatics in spatial planning (Geoinformatika v prostorovém plánování)**. Palacký University, Olomouc, 130 pp., ISBN 978-80-244-4104-7
- Dobešová, Z., Burian, J., Miřijovský, J., Vávra, A., Néték, R., Popelka, S. (2013): **Implementation of municipality information system** (Tvorba geografického informačního systému malého území). Palacký University, Olomouc, 106 pp.
- Burian, J. (2013): **Territorial preconditions of innovation processes** (Územní předpoklady inovačních procesů). MVŠO, Olomouc, 29 pp.

### Specialized maps

- Burian, J., Stachová, M. (2016): **Land suitability for development of Olomouc region in 2016**. Palacky University, Olomouc.
- Burian, J., Zapletalová, Z., Brus, J., Svobodová, J., Hladišová, B., Vondráková, A. (2010): **Suburbanization and urbanization in Olomouc according urban plans in 1985, 1999 and 2009** (Projevy urbanizace a suburbanizace v Olomouci podle stavů územních plánů z let 1985, 1999 a 2009). Palacký University, Olomouc
- Burian, J., Zapletalová, Z., Brus, J., Svobodová, J., Hladišová, B., Vondráková, A. (2010): **Changes of functional areas in Olomouc in 1930 - 2009** (Změny funkčních ploch v Olomouci v období 1930 - 2009). Palacký University, Olomouc
- Burian, J., Zapletalová, Z., Brus, J., Svobodová, J., Hladišová, B., Vondráková, A. (2010): **Stable functional areas in Olomouc in 1930 - 2009** (Stabilní funkční plochy v Olomouci v období 1930 - 2009). Palacký University, Olomouc

### Conference Proceedings - WoS or Scopus

- El Quadhriri, A. A., Burian, J., Andaloussi, S. J., El Morabet, R., Ouchetto, O., & Sekkari, A. (2018): **Fast-Tracking Application for Traffic Signs Recognition** In Lecture Notes in Computer Science, Proceedings of ICCVG 2018.
- El Morabet, R., El Ouadrhiri, A. A., Burian, J., Andaloussi, S. J., El Mouak, S., & Sekkaki, A. (2018): **Automatic Classification of Air Pollution and Human Health** In Y. Tabii, M. Lazaar, M. Al Achhab, & N. Enneya (Eds.), Big Data, Cloud and Applications. BDCA 2018. Communications in Computer and Information Science, vol 872. Springer, Cham. [https://doi.org/10.1007/978-3-319-96292-4\\_13](https://doi.org/10.1007/978-3-319-96292-4_13)
- Caha, J., Burian, J. (2018): **Comparison of fuzzy AHP algorithms for land suitability assessment**. In: Igor, I. (ed): Proceedings Dynamics in GIScience. Symposium GIS Ostrava 2017, Ostrava, Czech Republic, Springer, 11 s.
- Macků, K., Zimmermannová, J., & Burian, J. (2018): **Economic and spatial analysis of population ageing** In P. Dvořáková & B. Baisa (Eds.), Proceedings of the 22nd International Conference Current Trends in Public Sector Research, Masaryk University, Brno, 291-298.
- Burian, J., Zimmermannová, J., Macků, K. (2017): **Urban Planner jako Nástroj pro Plánování Demografického Rozvoje Měst**. In Proceedings from the 8th Annual International Scientific conference "Region in the Development of Society 2017," 15. Mendel University in Brno.
- Zajíčková, L., Burian, J., Voženílek, V., Ivan, I., Horák, J. (2017): **City population's behavior in public transportation**, 17th International Multidisciplinary Scientific GeoConference SGEM 2017, [www.sgem.org](http://www.sgem.org), SGEM2017 Conference Proceedings, ISBN 978-619-7408-03-4 / ISSN 1314-2704, 29 June - 5 July, 2017, Vol. 17, Issue 23, 417-424 pp, DOI: 10.5593/sgem2017/23/S11.051
- Pászto, V., Burian, J., Pánek, J., Macků, K. (2017): **Mapping the economic data - case studies and best practices**, 17th International Multidisciplinary Scientific GeoConference SGEM 2017, [www.sgem.org](http://www.sgem.org), SGEM2017 Conference Proceedings, ISBN 978-619-7408-01-0 / ISSN 1314-2704, 29 June - 5 July, 2017, Vol. 17, Issue 21, 975-982 pp, DOI: 10.5593/sgem2017/21/S08.123
- Pour, T., Burian, J., Miřijovský, J. (2016): **Advanced extraction of spatial information from high resolution satellite data**, XXIII ISPRS Congress, Commission III (Volume XLI-B3), 12–19 July 2016, Prague, Czech Republic, p. 905-907
- Pour, T., Burian, J., Miřijovský, J. (2016): **Application of seath algorithm on high resolution data sets of selected cities**, 16th International Multidisciplinary Scientific GeoConference SGEM 2016, [www.sgem.org](http://www.sgem.org), SGEM2016 Conference Proceedings, Book 2, Vol I, pp. 585-592, doi:10.5593/sgem2016B23
- Burian, J., Zajíčková, L., Popelka, S., Rypka, M. (2016): **Spatial aspects of movement of Olomouc and Ostrava citizens**, 16th International Multidisciplinary Scientific GeoConference SGEM 2016, [www.sgem.org](http://www.sgem.org), SGEM2016 Conference Proceedings, Book 2, Vol III, pp. 439-446, doi:10.5593/sgem2016B23
- Burian, J., Pászto, V., Havlová, P. (2016): **Delimiting the central areas of the cities by using GIS methods**, 16th International Multidisciplinary Scientific GeoConference SGEM 2016, [www.sgem.org](http://www.sgem.org), SGEM2016 Conference Proceedings, Book 2, Vol I, pp. 633-640, doi:10.5593/sgem2016B23
- Voženílek, V., Burian, J. (2016): **Accessibility zones of the university according to students' transportation preferences**, 16th International Multidisciplinary Scientific GeoConference SGEM 2016, [www.sgem.org](http://www.sgem.org), SGEM2016 Conference Proceedings, Book 2, Vol III, pp. 19-26, doi:10.5593/sgem2016B23

- Burian, J., Brus, J., Šťastný, S. (2015): **Urban Planner - model for land use suitability assessment**, New Developments in Environmental Science and Geoscience, Proceedings of the International Conference on Environmental Science and Geoscience (ESG 2015), INASE, ISBN: 978-1-61804-283-5
- Burian, J., Brychtová, A., Vávra, A. (2015): **Proposal of urban plan symbology standardization: Olomouc region case study**. 15th International Multidisciplinary Scientific GeoConference SGEM 2015, www.sgem.org, SGEM2015 Conference Proceedings, ISBN 978-619-7105-35-3 / ISSN 1314-2704, June 18-24, 2015, Book2 Vol. 2, 1051-1062 pp
- Vozenilek, V., Koutný, D., Zajickova, L., Burian, J., Tucek, P. (2014): **Spatial analyses of outgoing data of fire brigade rescue service**. 14th SGEM GeoConference on Informatics, Geoinformatics and Remote Sensing, www.sgem.org, SGEM2014 Conference Proceedings, ISBN 978-619-7105-12-4 / ISSN 1314-2704, June 19-25, 2014, Vol. 3, 869-876 pp., DOI: 10.5593/SGEM2014/B23/S11.110
- Zajickova, L., Vozenilek, V., Burian, J., Tucek, P. (2014): **Demand specifications for geodata within a public transport system**. 14th SGEM GeoConference on Informatics, Geoinformatics and Remote Sensing, www.sgem.org, SGEM2014 Conference Proceedings, ISBN 978-619-7105-10-0 / ISSN 1314-2704, June 19-25, 2014, Vol. 1, 555-562 pp., DOI: 10.5593/SGEM2014/B21/S8.071
- Tuček, P., Rypka, M., Tučková, M., Marek, L., Zajíčková, L., Burian, J. (2014): **Spatial complexity of transport infrastructure in Czech Republic**. 14th SGEM GeoConference on Informatics, Geoinformatics and Remote Sensing, www.sgem.org, SGEM2014 Conference Proceedings, ISBN 978-619-7105-12-4 / ISSN 1314-2704, June 19-25, 2014, Vol. 3, 877-884 pp., DOI: 10.5593/SGEM2014/B23/S11.111
- Burian, J., Pászto, V., Langrová, B. (2014): **Possibilities of the delimitation of city boundaries in GIS - Case study of medium-sized city**, 14th SGEM GeoConference on Informatics, Geoinformatics and Remote Sensing, www.sgem.org, SGEM2014 Conference Proceedings, ISBN 978-619-7105-12-4 / ISSN 1314-2704, June 19-25, 2014, Vol. 3, 777-784 pp., DOI: 10.5593/SGEM2014/B23/S11.099
- Burian, J., Zajíčková, L., Tuček, P., Voženilek, V., Langrová, B., Boori, M. (2014): **Traffic intensity changes and their influence on spatial distribution of suburbanization**. 14th SGEM GeoConference on Informatics, Geoinformatics and Remote Sensing, www.sgem.org, SGEM2014 Conference Proceedings, ISBN 978-619-7105-10-0 / ISSN 1314-2704, June 19-25, 2014, Vol. 1, 895-902 pp., DOI: 10.5593/SGEM2014/B21/S8.114
- Pechanec, V., Burian, J., Dobešová, Z. (2014): **Integration neural networks and GIS in modeling landscape changes**. 14th SGEM GeoConference on Informatics, Geoinformatics and Remote Sensing, www.sgem.org, SGEM2014 Conference Proceedings, ISBN 978-619-7105-10-0 / ISSN 1314-2704, June 19-25, 2014, Vol. 1, 651-658 pp., DOI: 10.5593/SGEM2014/B21/S8.084
- Singh Boori, M., Voženilek, V., Burian, J. (2014): **Land Cover Disturbance due to Tourism in Czech Republic**. In Kömer, P., Abraham, A., Snášel, V.: Proceedings of the Fifth International Conference on Innovations in Bio-Inspired Computing and Applications IBICA 2014. Springer International Publishing. DOI 10.1007/978-3-319-08156-4\_7, Advances in Intelligent Systems and Computing Volume 303, 2014, pp 63-72
- Horák, J., Ivan, I., Fojtík, D., Burian, J. (2014): **Large scale monitoring of public transport accessibility in the Czech Republic**. 15th International Carpathian Control Conference - ICC 2014, p. 157 - 163, IEEE, DOI: 10.1109/CarpathianCC.2014.6843589, ISBN: 978-1-4799-3527-7
- Burian, J., Marek, L., Pászto, V., Tučková, M., Tuček, P., Zajíčková, L., Chrudimská, J. (2013): **Quantification of threat of selected natural hazards to transport infrastructure: Case study of the Zlin region**. SGEM2013 Conference Proceedings, ISBN 978-954-91818-9-0 / ISSN 1314-2704, June 16-22, 2013, Vol. 1, 535 - 542 pp
- Tuček, P., Tučková, M., Marek, L., Burian, J. (2013): **Statistical processing of laminar water flow data - nonlinear regression based approach**. SGEM2013 Conference Proceedings, ISBN 978-954-91818-9-0 / ISSN 1314-2704, June 16-22, 2013, Vol. 1, 543 - 550 pp
- Nétek, R., Burian, J., Pechanec, V. (2012): **Location based services and monitoring physiological characteristic during the sport performance for obesity and healthy reasons**. Conference Proceedings SGEM 2012, 12th International Multidisciplinary Scientific GeoConference STEF92 Technology Ltd., Sofia, Bulgaria, 393-400s. ISSN 1341-2704, DOI: 10.5593/sgem2012
- Nétek, R., Burian, J. (2012): **Analysis of elevation data with time aspects for athletes**. In: Růžička J. (ed): Proceedings Surface models for geosciences. Symposium GIS Ostrava 2012, Ostrava, Czech Republic, 10 p., 2012.
- Nétek, R., Burian, J., Pechanec, V. (2012): **Location based services and monitoring physiological characteristic during the sport performance for obesity and healthy reasons**. Conference Proceedings SGEM 2012, 12th International Multidisciplinary Scientific GeoConference STEF92 Technology Ltd., Sofia, Bulgaria, 393-400s, ISSN 1341-2704, DOI: 10.5593/sgem2012

## Certified Methodology



Burian, J., Hladišová, B., Chrudimská, J.: **Methodology of maps creation for analytical material for planning - no. KÚOK/OSR/ÚAP-3** (Metodika č. KÚOK/OSR/ÚAP-3 "Symbologie výkresů ÚAP obcí"), published April 15, 2010

### Research reports

Burian, J., Stachová, M. (2015): **Analysis and evaluation of the content of regional analytical material for planning** (Analýza a vyhodnocení obsahu územně analytických podkladů krajů). Palacký University, Olomouc, 26 pp.

### Conference Proceedings (only in English)

Pászto, V., Macků, K., Burian, J., Pánek, J. (2017): Cross-Border Continuity of Socio-economic Indicators: Case Study of Czechia and Poland, GISRUK 2017 conference proceedings, 6 p.

Burian, J., Stastny, S. (2015): **Urban Planner - ArcGIS extension for land use modelling**. In. Bacao, F., Santos, M. Y., Painho, M.: Geographic Information Science as an Enabler of Smarter Cities and Communities, Geographic Information Science as an Enabler of Smarter Cities and Communities Conference proceeding, Lisboa, Portugal, ISBN: 978-3-319-16787-9

Brus, J., Burian, J., Popelka, S. (2013): **Visualization of uncertainty in determining the rate of suburbanization on the example of the Olomouc city**. Proceedings of the 12 th SEASC: Geospatial Cooperation Towards a Sustainable Future ASEAN FLAG, 6 pp.

Netzband, M., Burian, J., Pászto, V., Miřijovský, V. (2013): **Geospatial analysis for Middle eastern european urban regions in transition**. Spatial transformation processes in Central Europe in XXI century conference proceedings.

Marjanović, M., Burian, J., Miřijovský, J., Harbula, J. (2012): **Urban Land Cover Change of Olomouc City Using LANDSAT Images**. Issue 71, Conference Proceedings World Academy of Science, Engineering and Technology, 75-81pp., eISSN: 2010-3778

Burian, J., Sorbiová, K., Tuček, P., Tučková, M. (2012): **Possibilities of Delimitation of City Centers Using GIS**. Issue 71, Conference Proceedings World Academy of Science, Engineering and Technology, 81-90 pp. eISSN: 2010-3778

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