

## Dr.-Ing. Dorota Iwaszczuk (PhD)

### List of publications

#### PEER-REVIEWED JOURNAL PAPERS

1. Pipelidis G, Moslehirad O, Iwaszczuk D, Prehofer Ch, Hugentobler U (2018) Dynamic Vertical Mapping with Crowdsourced Smartphone Sensor Data. *Sensors* 18(2), 480  
[DOI: 10.3390/s18020480]
2. Iwaszczuk D, Stilla U (2017) Camera pose refinement by matching uncertain 3D building models with thermal infrared image sequences for high quality texture extraction. *ISPRS Journal of Photogrammetry and Remote Sensing*. Volume 132, 2017, pp. 33-47, ISSN 0924-2716,  
[DOI: 10.1016/j.isprsjprs.2017.08.006]
3. Avbelj J, Iwaszczuk D, Müller R, Reinartz P, Stilla U (2014) Coregistration refinement of hyperspectral images and DSM: An object-based approach using spectral information. *ISPRS Journal of Photogrammetry and Remote Sensing*. Volume 100, 2015, pp. 23-34, ISSN 0924-2716,  
[DOI: 10.1016/j.isprsjprs.2014.05.010]
4. Iwaszczuk D, Hoegner L, M. Schmitt, Stilla U (2012) Line based Matching of Uncertain 3D Building Models with IR Image Sequences for Precise Texture Extraction. *Photogrammetrie, Photogrammetrie, Fernerkundung, Geoinformation (PFG)* vol. 5/2012, pp. 511-522  
[DOI: 10.1127/1432-8364/2012/0135]
5. Avbelj J, Iwaszczuk D, Stilla U, Ostir K (2011) Samodejna Koregistracija Trirazsežnih Modelov Stavb Z Grafičnimi Gradniki (Automatic Co-Registration of Three-Dimensional Building Models with Image). *Geodetski vestnik*, ISSN 0351-0271
6. Iwaszczuk D, Hoegner L, Stilla U (2011) Detection of windows in building textures from airborne and terrestrial infrared image sequences. *Archives of Photogrammetry, Cartography and Remote Sensing*, Vol. 22, ISSN 2083-2214, pp. 215-226

#### PEER-REVIEWED CONFERENCE PAPERS (FULL-PAPER-REVIEW)

7. Pipelidis G, Moslehi Rad OR, Prehofer Ch, Iwaszczuk D, Hugentobler U (2017) A Novel Approach for Dynamic Vertical Indoor Mapping through Crowd-sourced Smartphone Sensor Data. *Proceedings of Indoor Positioning and Indoor Navigation - IPIN 2017*, September 18-21, 2017  
[DOI: 10.1109/IPIN.2017.8115902]
8. Iwaszczuk, D and Stilla, U (2016) Quality assessment of building textures extracted from oblique airborne thermal imagery. *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume III-1, 2016, pp. 3-8. *Proceedings of the XXII ISPRS Congress, Prague, Czech Republic*  
[DOI: 10.5194/isprs-annals-III-1-3-2016]

9. Iwaszczuk D, Hoegner L, Stilla U (2015) Quality-based building-texture selection from different sensors. Proceedings of Joint Urban Remote Sensing Event (JURSE), Lausanne, 2015, pp. 1-4  
[DOI: 10.1109/JURSE.2015.7120352]
10. Iwaszczuk D, Stilla U (2014) Alignment of 3D building models and TIR video sequences with line Tracking. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Vol. II-1/2014, 2014, pp.17-24.  
[DOI: 10.5194/isprsannals-II-1-17-2014]
11. Stilla U, Iwaszczuk D, Pail R (2014) Photogrammetry and Remote Sensing in the MSc Program. ISPRS Annals of Photogrammetry, Remote Sensing and Spatial Information Sciences, vol. II-6, 2014, pp. 13-18  
[DOI: 10.5194/isprsannals-II-6-13-2014]
12. Iwaszczuk D, Hoegner L, Stilla U (2011) Detection of windows in IR building textures using masked correlation. In: Stilla U, Rottensteiner F, Mayer H, Jutzi B, Butenuth M (Eds.) Photogrammetric Image Analysis, ISPRS Conference - Proceedings. Lecture Notes in Computer Science, Vol. 6952, Springer: 133-146  
[DOI: 10.1007/978-3-642-24393-6\_12]
13. Iwaszczuk D, Hoegner L, Stilla U (2011) Matching of 3D building models with IR images for texture extraction. In: Stilla U, Gamba P, Juergens C, Maktav D (eds) JURSE 2011 - Joint Urban Remote Sensing Event: 25-28  
[DOI: 10.1109/JURSE.2011.5764710]

#### **OTHER CONFERENCE PAPERS (ABSTRACT-REVIEW)**

14. Iwaszczuk D, Koppányi Z, Gard NA, Zha B, Toth C, Yilmaz A (2018) Semantic Labeling of Structural Elements in Buildings by Fusing RGB and Depth Images in an Encoder-Decoder CNN Framework. International Archives of the Photogrammetry, Remote Sensing & Spatial Information Sciences, XLII-1, 225-232  
[DOI: 10.5194/isprs-archives-XLII-1-225-2018]
15. Moslehirad O, Pipelidis G, Iwaszczuk D, Prehofer Ch, Hugentobler U (2018) Crowdsourced Vertical Indoor Mapping. 38. Wissenschaftlich-Technische Jahrestagung der DGPF und PFGK18 Tagung in München – Publikationen der DGPF, Band 27, pp. 729-742, 2018
16. Iwaszczuk D, Koch T, Stilla U (2017) Innenraumrekonstruktion aus semantisch angereicherten 3D Punkten und Linien. 37. Wissenschaftlich-Technische Jahrestagung der DGPF in Würzburg – Publikationen der DGPF, Band 26, 2017
17. Iwaszczuk D, Stilla U (2014) Identification of Errors in 3D Building Models by a Robust Camera Pose Estimation. The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XL-3, 2014, pp. 133-137. Proceedings of Photogrammetric Computer Vision - PCV 2014
18. Iwaszczuk D, Stilla U (2014) Texturierung von 3D Gebäudemodellen unter Verwendung von Schrägsichtaufnahmen flugzeuggetragener TIR-Kameras. Gemeinsame Tagung 2014 der DGfK, der DGPF, der GfGI und des GiN. Publikationen der DGPF, Band 23 / 2014
19. Iwaszczuk D, Helmholz P, Belton D, Stilla U (2013) Model-to-Image Registration and Automatic Texture Mapping Using a Video Sequence Taken by a Mini UAV. The International

Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XL-1/W1, pp. 151-156. ISPRS Hannover Workshop 2013

20. Avbelj J, Iwaszczuk D, Müller R, Reinartz P, Stilla U (2013) Line-Based Registration of DSM and Hyperspectral Images. The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XL-1/W1, pp. 13-18. ISPRS Hannover Workshop 2013
21. Iwaszczuk D, Hoegner L, Stilla U (2013) Zuordnung von 3D Gebäudemodellen und IR-Videosequenzen mit Linienerfolgung. In: Seyfert H (Hrsg) 33. Wissenschaftlich-Technische Jahrestagung der DGPF, 22: 220-227
22. Iwaszczuk D, Hoegner L, Schmitt, Stilla U (2012) Hierarchical matching of uncertain building models with oblique airborne IR image sequences. . The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XXXIX-B6, pp. 117-122. Proceedings of XXII International Society for Photogrammetry & Remote Sensing Congress
23. Hoegner L, Iwaszczuk D, Stilla U (2012) Quality Assessment for Building Textures from Infrared Image Sequences. The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XXXIX-B3, pp.391-396 Proceedings of XXII International Society for Photogrammetry & Remote Sensing Congress
24. Michaelsen E, Iwaszczuk D, Sirmacek B., Hoegner L, Stilla U (2011) Gestalt Grouping on Façade Textures from IR Image Sequences: Comparing Different Production Systems. The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XXXIX-B3, pp. 303-308. Proceedings of XXII International Society for Photogrammetry & Remote Sensing Congress
25. Iwaszczuk D, Hoegner L, M. Schmitt, Stilla U (2012) Linienbasiertes Matching von 3D-Gebäudemodellen mit IR Luftbildsequenzen zur automatischen Texturgewinnung. 32. Wissenschaftlich-Technische Jahrestagung der DGPF (on CD)
26. Iwaszczuk D, Hoegner L, Stilla U (2011) Detection of windows in building textures from airborne and terrestrial infrared image sequences. Proceedings of Mobile Mapping Technology - MMT'11 (on CD)
27. Avbelj J, Iwaszczuk D, Stilla U (2010) Matching of 3D wire-frame building models with image features from infrared video sequences taken by helicopters or UAVs. In: Paparoditis N., Pierrot-Deseilligny M., Mallet C., Tournaire O. (Eds), The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Vol. XXXVIII, Part 3B: 149-154
28. Iwaszczuk D, Stilla U (2010) Quality measure for textures extracted from airborne IR image sequences. In: Paparoditis N., Pierrot-Deseilligny M., Mallet C., Tournaire O. (Eds) Proceedings of PCV 2010 - Photogrammetric Computer Vision and Image Analysis. International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences, Vol. XXXVIII, Part 3A, pp. 79-84
29. Iwaszczuk D, Stilla U (2010) Anreicherung der Gebäudehüllen mit Oberflächenstrukturen in CityGML. Mitteilungen des Bundesamtes für Kartographie und Geodäsie, Frankfurt: Bundesamt für Kartographie und Geodäsie, 45: 82-91
30. Iwaszczuk D, Avbelj J, Stilla U (2010) Matching von 3D Gebäudemodellen mit Wärmebildern einer flugzeuggetragenen IR-Kamera. In: Kohlhofer G, Franzen M (Hrsg) Dreiländertagung, 30. Wissenschaftlich-Technische Jahrestagung der DGPF, 19: 334-341

31. Iwaszczuk D, Stilla U (2010) A concept for assignment of textures to partially occluded faces of 3D city models stored in CityGML. In: Kolbe T, Koenig G, Nagel C (eds) Proceedings of International Conference on 3D Geoinformation (3D GeoInfo). International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XXXVIII-4/W15: 57-62
32. Kolecki J, Iwaszczuk D, Stilla U (2010) Calibration of an IR camera system for automatic texturing of 3D building models by direct geo-referenced images. Proceedings of Eurocow 2010 (on CD)
33. Iwaszczuk D, Stilla U (2009) Erfassung von Objekten der Gebäudehülle in CityGML. In: Götting R, Schubert G (Hrsg.) Forum3D. 3D Technologien an der Technischen Universität München: 31-42
34. Iwaszczuk D (2009) Modelling of urban areas with regard to complex building documentation using CityGML. Publikacje laureatów X edycji konkursu "Diamenty AGH". Wydawnictwo Studenckiego Towarzystwa Naukowego, ISSN 1732-0925, Kraków
35. Iwaszczuk D (2008) Modelowanie zabudowy miasta w języku CityGML z uwzględnieniem kompleksowego dokumentowania budynków. Zeszyty Naukowe SNT, Kraków
36. Iwaszczuk D, Rączka A (2006) Wykorzystanie tekstury obiektów przy ulepszaniu systemu bezpieczeństwa w dużych zakładach chemicznych w Niemczech. Proceedings of XI International Scientific and Technical Symposium - Geoinformation Monitoring of Environment: GPS and GIS Technologies, Alushta, Ukraine, September 7-13, 2006

#### **PHD THESIS**

Iwaszczuk, D (2015) Automatic texturing of 3D models of urban areas using image sequences from airborne TIR cameras. PhD Thesis. Technical University of Munich

#### **MASTER'S THESIS**

Iwaszczuk D (2008) Modelowanie zabudowy miasta w języku CityGML z uwzględnieniem kompleksowego dokumentowania budynków. Master's Thesis. AGH University of Science and Technology / Technical University of Munich