

Curriculum vitae Europass



Personal information

First name(s) / Surname(s) **ONIGA Valeria-Ersilia**
 Address(es) Splai Bahlui Street, Number 12, Block B11, Staircase A, Apartment 18, Iasi, Postal code 700163, Romania
 Telephone(s) Mobile (+40-745) 634 472
 Fax(es) -
 E-mail ersilia.oniga@tuiasi.ro
 Nationality Romanian
 Date of birth 12 October 1983
 Gender Female

Current position / Occupational field

Professor at TU Iasi/ Photogrammetry and Remote Sensing

Dates February 2022 → present

Occupation or position held **Professor**

Main activities and responsibilities

- teaching lectures, projects and practical laboratory works,
- organization of practical activities for students,
- head of “Photogrammetry, Remote Sensing and Digital Cartography” laboratory,
- member in doctoral guidance boards and doctoral commissions,
- scientific coordinator of bachelor theses,
- scientific coordinator of master theses.

Name and address of employer **“Gheorghe Asachi” Technical University of Iasi**, Dimitrie Mangeron Boulevard, no.67, 700050, Iasi, Romania, Phone/Fax +40232231041, <http://www.tuiasi.ro>

Type of business or sector Engineer, Civil Engineering, Geodetic Engineering

Professional experience

Dates February 2018 → February 2022

Occupation or position held **Associate Professor**

Main activities and responsibilities

- teaching lectures, projects and practical laboratory works,
- organization of practical activities for students,
- head of “Photogrammetry, Remote Sensing and Digital Cartography” laboratory,
- member in doctoral guidance boards and doctoral commissions,
- scientific coordinator of bachelor theses,
- scientific coordinator of master theses.

Name and address of employer **“Gheorghe Asachi” Technical University of Iasi**, Dimitrie Mangeron Boulevard, no.67, 700050, Iasi, Romania, Phone/Fax +40232231041, <http://www.tuiasi.ro>

Type of business or sector Engineer, Civil Engineering, Geodetic Engineering



Dates **October 2014 → February 2018**

Occupation or position held **Lecturer**

Main activities and responsibilities

- teaching lectures, projects and practical laboratory works,
- organization of practical activities for students,
- head of “Photogrammetry, Remote Sensing and Digital Cartography” laboratory,
- member in doctoral guidance boards,
- scientific coordinator of bachelor theses,
- scientific coordinator of master theses.

Name and address of employer **“Gheorghe Asachi” Technical University of Iasi**, Dimitrie Mangeron Boulevard, no.67, 700050, Iasi, Romania, Phone/Fax +40232231041, <http://www.tuiasi.ro>

Type of business or sector Engineer, Civil Engineering, Geodetic Engineering

Dates **February 2009 → October 2014**

Occupation or position held **Teaching Assistant**

Main activities and responsibilities

- teaching projects and practical laboratory works,
- organization of practical activities for students,
- scientific coordinator of bachelor theses.

Name and address of employer **“Gheorghe Asachi” Technical University of Iasi**, Dimitrie Mangeron Boulevard, no.67, 700050, Iasi, Romania, Phone/Fax +40232231041, <http://www.tuiasi.ro>

Type of business or sector Engineer, Civil Engineering, Geodetic Engineering

Dates **February 2007 → March 2011**

Occupation or position held **Geodesy Dipl. Engineer**

Main activities and responsibilities Land survey and measurements processing, ground plans preparation.

Name and address of employer **S.C. „AQUAPROIECT” S.R.L.**, Arcu Street, no. 51, Iasi, Romania
Phone/Fax: +40 232 410394, :+40 232 410394
E-mail: aqua@mail.dntis.ro

Type of business or sector Hydrotechnical Construction Design

Dates **May 2008 → May 2009**

Occupation or position held **Geodesy Dipl. Engineer**

Main activities and responsibilities Carrying out works related to geodesy and cadastre domains

Name and address of employer **S.C. „S.C ”TOPOCAD COMPANY” S.R.L.”**, Petre Țuțea Street 2B, Bl. 907, Tr.1, et.4, ap.14, Iasi, Romania
Phone/Fax: +40 232 225191

Type of business or sector Carrying out works related to Geodesy, Topography, Cadastre and Cartography domains

Education and training

Period **2021**

Title of qualification awarded **Certificate of habilitation in GEODESIC ENGINEERING**, by Order no. 4560 MD of the Ministry of Education, Research and Innovation, from 3.08.2021

Disciplines approach/competence Habilitation thesis title: „Research regarding the creation and accuracy assesement of 3D models obtained by using digital images, TLS and ALS point clouds”

Name and type of organisation providing education and training Technical University of Civil Engineering Bucharest, Bd. Lacul Tei, no. 124, 020396, Bucharest, Phone/Fax 021 242 1208, <http://www.utcb.ro/>

Period **October 2009 → September 2013**

Title of qualification awarded **PhD in Civil Engineering**, by Order no.5581 MD of the Ministry of Education, Research and Innovation from 3.12.2013

Disciplines approach/competence Ph.D.Thesis title: „Comparative study on methods for 3D modelling of urban area” (295 pages with annexes), 2013; scientific coordinator: Prof. univ. Ph.D Eng. Dumitru Onose

Name and type of organisation providing education and training Technical University of Civil Engineering Bucharest, Bd. Lacul Tei, no. 124, 020396, Bucharest, Phone/Fax 021 242 1208, <http://www.utcb.ro/>



Period **October 2003→ June 2007**

Title of qualification awarded **Graduation certificate of psycho-pedagogical module, level I and II**

Disciplines approach/competence Educational Psychology; Pedagogy, Methodology of teaching specialty; Teaching practicum; Counselling and school orientation; Classroom management.

Name and type of organisation providing education and training **“Gheorghe Asachi” Technical University of Iasi**, Romania, Bd. Dimitrie Mangeron, no.67, 700050, Iasi, Romania, Phone/Fax +40232231041, <http://www.tuiasi.ro/>, Department for teacher’s preparation

Period **October 2002→ July 2007**

Title of qualification awarded **Diplomat Eng., profile of Geodetics, Cadastre specialization**

Disciplines approach/competence

- Photogrammetry and Remote Sensing, Cartography, Topography, Geodesy, GIS, Mathematics, Programming, Statistics,
- Design and development of projects for geodetic networks implementation by means of satellite and terrestrial technologies,
- Achievement of topo-geodetic measurements for drawing up topographic plans for different objectives, preparation of cadastral documentation for real estate, new construction staking and their behavioural monitoring over time,
- Development of single and integrated cartographic products in a Territorial Information System,
- Using information technology in solving engineering problems, regarding both the numerical methods applications and the computer assisted graphics.

Name and type of organisation providing education and training **“Gheorghe Asachi” Technical University of Iasi**, Romania, Bd. Dimitrie Mangeron, no.67, 700050, Iasi, Romania, Phone/Fax +40232231041, <http://www.tuiasi.ro/>, Faculty of Hydrotechnical Engineering, Geodesy and Environmental Engineering, Department of “Terrestrial Measurements and Cadastre”

Level in national or international classification ISCED 6

Personal skills and competences

Mother tongue **Romanian**

Other languages **English, French**

Self-assessment	Understanding		Speaking				Writing	
European Level (*)	Listening	Reading	Spoken interaction		Spoken production		Written Expression	
English language	C1 Proficient user	C2 Proficient user	C1	Proficient user	C1	Proficient user	B2	Independent user
French language	B2 Independent user	B2 Independent user	B2	Independent user	B2	Independent user	B2	Independent user

Social skills and competences Sociable, team spirit, born leader

Organisational skills and competences As a student I was involved in many extracurricular activities.
Facile interactions with the academic, economic and geodetic domains.
Scientific coordinator of the bachelor theses, master theses and Ph.D theses
Main organizer of workshops: **“Learn more about photogrammetry and remote sensing”** (2016-2019), **“Georeferencing and processing of laser scanning data”** (2017), **“Georeferencing and processing of terrestrial laser scanner point clouds (TLS) and UAV images”** (2019) and member of **GEOMAT Symposium** organizing committee (2013 - 2019).

Technical skills and competences Usage of modern tools for topographic measurements and processing.
Usage of open-source and commercial software for processing and multitemporal analysis of satellite images, aerial images, UAS images, terrestrial laser scanner point clouds (TLS) and aerial laser scanner point clouds (ALS).
Usage of open-source and commercial software for 3D building model creation.

Computer skills and competences Mastering the **Autodesk Map, Corel Draw**, for graphic applications, **TopoLT, TopoSys** and **MapSys** software for topographic measurements computation and **Leica Cyclone, Maptek I-Site Studio, Lisa, Opals, CloudCompare, PhotoModeler Scanner, Imagine Photogrammetry, 3DF Zephyr, Pix4D Mapper, PhotoScan, QGIS** and **Snap** for photogrammetry and remote sensing data processing.
Flight planning for UAV platforms
A good grasp of Matlab programming language.



Artistic skills and competences	Passionate of painting, design and 3D graphic
Driver certificate	Authorization certificate D category, Driving licence B category
Other skills and competences	Extremely high workforce, with a constant desire of self-sufficiency, creative, with a special ability to find solutions to technical problems Understanding methods for rapid assessment of damages for different disaster scenarios (e.g. landslides, flooding); Collaboration with local governments, universities, non-profits, building code bodies etc. in developing codes and public policies around resilience Supporting dynamic hazard and resilience assessment done by other partners with damage information.

Additional information

Author of 29 scientific papers "in extenso" and co-author of 30 scientific papers

Author of 8 specialized books

Web of Science Citation Index: h-index: 4 - 19 papers/64 citations;

Scopus: h-index: 4 - 15 papers/76 citations;

<https://www.scopus.com/authid/detail.uri?authorId=55837374900>

Google Scholar Citation Index: h-index: 8 - 59 papers/288 citations

<https://scholar.google.com/citations?user=nKEBZFMAAAJ&hl=en>

Publons: 48 verified reviews

<https://publons.com/researcher/1348354/ersilia-oniga/>

Patent application entitled "INNOVATIVE CALIBRATION AND TESTING FIELD FOR THE DIGITAL CAMERAS MOUNTED ON UAS (Unmanned Aerial System)" from 18/10/2017, no. A / 00834

Patent application entitled "Innovative method for filtering, segmenting and classifying point clouds for the derivation of digital terrain models (DTM) based on Airborne Laser Scanner (ALS) data" from 21/07/2017, no. A / 00501

Two awards for research results -UEFISCDI

1. "Determining the Suitable Number of Ground Control Points for UAS Images Georeferencing by Varying Number and Spatial Distribution", PN-III-P1-1.1-PRECISI-2020-49630
2. "3D Calibration Test-Field for Digital Cameras Mounted on Unmanned Aerial Systems (UAS)", PN-III-P1-1.1-PRECISI-2019-29928

In May 2014, May 2016, June 2017, June 2018 and June 2019 I had power point presentations, organized as seminars and lectures in the field of 3D modelling of urban area and camera calibration at the Department of Geodesy and Geoinformation, Vienna University of Technology

In May 2015 and May 2022, I had power point presentations, organized lectures in the field of 3D modelling of urban area, at Universidade de Lisboa, Departamento de Engenharia Geográfica, Geofísica e Energia

Donation of "Opals" software (Department of Geodesy and Geoinformation, Vienna University of Technology - Prof. Univ. Ph.D Eng. Norbert Pfeifer) for "Photogrammetry, Remote Sensing and Digital Cartography" laboratory (TU Iasi)

Acquisition of a low-cost UAV „DJI Phantom 3 Standard" for "Photogrammetry, Remote Sensing and Digital Cartography" laboratory (TU Iasi)

Designing and implementation of a 3D calibration object for digital non-metric cameras calibration for "Photogrammetry, Remote Sensing and Digital Cartography" laboratory (TU Iasi)

Member of the Council of Department of "Terrestrial Measurements and Cadastre"

Member of the Council of Faculty of Hydrotechnical Engineering, Geodesy and Environmental Engineering

Member of Romanian Union of Geodetic Engineers

Member of Romanian Society of Photogrammetry and Remote Sensing

Member of international scientific review committees for conferences and journals

President and founding member of "Young Photogrammetrist Society"



Member of international scientific review committees for conferences

1. International Conference on Multidisciplinary Academic Research & Global Innovation (MARGI-2016-2021) Beijing, China
2. International Conference on Multidisciplinary Innovation in Academic Research (MIAR-2016-2021) Almaty, Kazakhstan
3. International Conference on "Global Issues in Multidisciplinary Academic Research" (GIMAR-2016-2021), Dubai-UAE;
4. International Conference on "Multidisciplinary innovation in business engineering science & technology" (MI-BEST-2016-2021), Manila Philippines
5. International Conference on "Trends in Multidisciplinary business & economic research" (TMBER-2016-2021), Bangkok, Thailand
6. International Conference on "New directions in Multidisciplinary research & practice" (NDMRP-2016-2021), Istanbul, Turkey
7. International Conference on „Multidisciplinary trends in academic research" (MTAR-2016-2021), Bangkok, Thailand.
8. International Conference on Global Trends in Academic Research, (GTAR-2016-2021), Bandung, Indonesia
9. International Conference on Multidisciplinary Innovation for Sustainability and Growth (MISG-2016-2021) Kuala Lumpur, Malaysia
10. International Conference on „Multidisciplinary trends in academic research" (MTAR-2015-2021), Bangkok, Thailand.
11. International Conference on „Innovative trends in multidisciplinary academic research" (ITMAR-2015-2021), Istanbul, Turkey.
12. Emerging trends in academic research (ETAR-2015-2021), Bali Indonesia.
13. International Conference on Innovation Challenges in Multidisciplinary Research & Practice (ICMRP-2015-2021) Kuala Lumpur, Malaysia

Organizer of national and international scientific manifestations

1. Member of organizing committee of "Scientific Symposium with International participation **Geomat" (2013-2019, 2021,2022)**, Faculty of Hydrotechnical Engineering, Geodesy and Environmental Engineering, Iasi.
2. Member of organizing committee of "Scientific Symposium with International participation **Geoprevi 2015**", Faculty of Geodesy, Technical University of Civil Engineering Bucharest.
3. Main organizer of „**Georeferencing and processing of terrestrial laser scanner point clouds (TLS) and UAV images**" workshop, 28-29 March 2019, Faculty of Hydrotechnical Engineering, Geodesy and Environmental Engineering, Department of "Terrestrial Measurements and Cadastre", Iasi.
4. Main organizer of „**Learn more about Photogrammetry and Remote Sensing, IVth ed.**" workshop, 11-12 April 2019, Faculty of Hydrotechnical Engineering, Geodesy and Environmental Engineering, Department of "Terrestrial Measurements and Cadastre", Iasi.
5. Main organizer of „**Learn more about Photogrammetry and Remote Sensing, IIIrd ed.**" workshop, 19-20 April 2018, Faculty of Hydrotechnical Engineering, Geodesy and Environmental Engineering, Department of "Terrestrial Measurements and Cadastre", Iasi.
6. Project manager of „**Learn more about Photogrammetry and Remote Sensing, second ed.**", 27-28 April 2017 (winner of a national competition).
7. Main organizer of „**Learn more about Photogrammetry and Remote Sensing, first ed.**" workshop, 21-22 April 2016, Faculty of Hydrotechnical Engineering, Geodesy and Environmental Engineering, Department of "Terrestrial Measurements and Cadastre", Iasi.
8. Main organizer of „**Georeferencing and processing of laser scanning data**" workshop, 11-12 May 2017, Faculty of Hydrotechnical Engineering, Geodesy and Environmental Engineering, Department of "Terrestrial Measurements and Cadastre", Iasi.

Reference persons

- Norbert Pfeifer, Prof. Univ. Ph.D Eng. Viena University of Technology
- Petre Iuliu Dragomir, Prof. Univ. Ph.D Eng. Technical University of Civil Engineering Bucharest, Romania

Appendix

Scientific activity



Appendix

Scientific papers (ISI journals)

1. Breaban, A.-I.; Oniga, V.-E.; Chirila, C.; Loghin, A.-M.; Pfeifer, N.; Macovei, M.; Nicuta Precul, A.-M. Proposed Methodology for Accuracy Improvement of LOD1 3D Building Models Created Based on Stereo Pléiades Satellite Imagery. *Remote Sens.* **2022**, *14*, 6293. <https://doi.org/10.3390/rs14246293>
2. Oniga, V.-E.; Breaban, A.-I.; Pfeifer, N.; Diac, M. 3D Modeling of Urban Area Based on Oblique UAS Images—An End-to-End Pipeline. *Remote Sens.* **2022**, *14*, 422. <https://doi.org/10.3390/rs14020422>
3. Pradeep G.S., Danumah Jean Homian, Nikhil S., Prasad Megha K., Patel Nilanchal, Mammen Pratheesh C., Rajaneesh A., **Oniga Valeria-Ersilia**, Ajin R. S., Kuriakose Sekhar L. (2022)- **Forest Fire Risk Zone Mapping of Eravikulam National Park in India: A Comparison Between Frequency Ratio and Analytic Hierarchy Process Methods**, Croatian Journal of Forest Engineering 43(1), pp. 22, (IF 2.088), DOI: 10.5552/crojfe.2022.1137
4. E., Oniga, A.-I., Breaban, N. Pfeifer, C., Chirilă, (2020)- **Determining the Suitable Number of Ground Control Points for UAS Images Georeferencing by Varying Number and Spatial Distribution**, Remote Sensing (IF 4.118), DOI: 10.3390/rs12050876
5. E., Oniga, N. Pfeifer, A., Loghin, (2018)- **3D calibration test-field for digital cameras mounted on Unmanned Aerial Systems (UAS)**, Remote Sens. 2018, 10(12), 2017; <https://doi.org/10.3390/rs10122017>.
6. Oniga, E., Chirilă, C. (2016), **Analogous vs. digital cameras for buildings 3D models creation**, Environmental Engineering and Management Journal, Volume 15/2016, no. 6, pag. 1293-1303, June 2016, Iasi, Romania, ISSN 1582-9596.
7. Oniga, E., Diac, M. (2013)- **Metric and non-metric cameras calibration for the improvement of real-time monitoring process results**, Environmental Engineering and Management Journal, Volume 12/2013, no. 4, pag. 719-726, April 2013, Iasi, Romania, ISSN 1582-9596.
8. Moca, V., Popia, A., Oniga, E., Sălceanu G. (2013)- **Analysis of deformations in cartographic projections used in cadastral works performed in the city of Iasi**, Environmental Engineering and Management Journal, Volume 12/2013, no. 4, pag. 699-708, April 2013, Iasi, Romania, ISSN 1582-9596.

Scientific papers (ISI Proceedings)

9. Oniga, E., Chirilă, C., Stătescu, F. (2017), **Accuracy Assessment of a complex building 3D Model reconstructed from images acquired with a low-cost UAV**, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLII-2/W3, pp. 551-558, doi:10.5194/isprs-archives-XLII-2-W3-551-2017, 2017.
10. Oniga, E., Macovei, M., Negrila, A. (2017), **Accuracy assessment of a 3D model reconstructed from images acquired with a low-cost UAV**, Modern Technologies for the 3rd Millennium (23-24 March, 2017 – Oradea, Romania), 61-66.
11. Oniga, E., Cardei, M. (2015), **A new method for the accuracy evaluation of a manufactured piece**, Published under licence by IOP Publishing Ltd., IOP Conference Series: Materials Science and Engineering, Volume 95 (1), 012088, (double blind peer-review article), <http://iopscience.iop.org/article/10.1088/1757-899X/95/1/012088/meta>
12. Diac, M., Chirilă, C., Oniga, E., Hogas H. (2016)- **Creating hydrological risk maps based on the rectified digital terrain model in the Nicolina Hydrographical basin**, 16th International Multidisciplinary Scientific Geo Conference, SGEM 2016, Albena, Bulgaria, Book 2 Water Resources, forest, marine and ocean ecosystems, Volume I, ISSN: 1314-2704, doi: 10.5593/sgem2016B31, pp. 219-226.
13. Oniga, E., Chirilă, C., Macovei, M. (2016)- **Low-cost aerial unmanned aerial systems in cadastral applications**, 16th International Multidisciplinary Scientific Geo Conference, SGEM 2016, Albena, Bulgaria, Book 2 Informatics, Geoinformatics and Remote Sensing, Volume II, , ISSN: 1314-2704, DOI : 10.5593/sgem2016B22, pp. 947-954.
14. Chirila, C., Oniga, E., Dumitru, P. D. (2014)- **Quasigeoid fitting to the GNSS/levelling benchmarks in Iasi city area**, 14th International Multidisciplinary Scientific Geo Conference, SGEM 2014, 17 – 26 June, 2014, Albena, Bulgaria, Environmental Economy, ISSN: 1314-2704, Conference proceedings, Volume II, pp. 411-418.
15. Oniga, E., Chirila, C. (2013)- **Object based digital non-metric images accuracy**, 13th International Multidisciplinary Scientific Geo Conference, SGEM 2013, Albena, Bulgaria, Volume II, Environmental Economy, ISSN: 1314-2704, Cross Ref, SCOPUS, pp. 655-662.
16. Chirila, C., Oniga, E., Mihalache, R. M. (2013)- **Local quasigeoid modelling in Iasi city area**, 13th International Multidisciplinary Scientific Geo Conference, SGEM 2013, Albena, Bulgaria, Volume II, Environmental Economy, ISSN: 1314-2704, Cross Ref, SCOPUS, pp. 301-308.
17. Oniga, E. (2012)- **Comparative study on methods for 3D modeling of urban areas**, International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XXXIX-B6, 2012, pp. 155-160, XXII ISPRS Congress, 25 August – 01 September 2012, Melbourne, Australia, eISSN 2194-9034.
18. Oniga, E. (2012)- **A new approach for the semi-automatic texture generation of the buildings facades, from terrestrial laser scanner data**, International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XXXIX-B6, 2012, pp. 161-166, XXII ISPRS Congress, 25 August – 01 September 2012, Melbourne, Australia, eISSN 2194-9034.

Scientific papers (indexed BDI)

19. Breaban, A.-I.; Oniga, V.-E.; Stătescu, F. (2021) – **A machine learning approach for urban area mapping**, International Multidisciplinary Scientific GeoConference: SGEM Sofia, Vol. 21, Iss. 2.1, (2021), pp. 391-398. DOI:10.5593/sgem2021/2.1/s11.78.
20. Oniga V.-E., Crengăniș L., Diac M., Chirila C. (2020) – **Overview on remote sensing methods and data sources for floods and landslides management**, Bulletin of the Polytechnic Institute of Iasi-Construction & Architecture Section, Tome: 66 (70), Issue 4, pp. 59-70.
21. Chirila C., Oniga V.-E., Diac M., Crengăniș L. (2020) – **Overview of Spatial Reference Systems for Hazard Risk Management in the NE Region of Romania**, Bulletin of the Polytechnic Institute of Iasi-Construction & Architecture Section, Tome: 66 (70), Issue 4, pp. 85-98.
22. Moca V., Oniga V.-E., Onu C., Macovei M., Oprea R., Hutănu C. (2020)- **Analysis of the Deformations Recorded in the Extreme Geographical Administrative – Territorial Units of Romania Using the National 1970 Stereographic Projection System**, American Journal of Engineering Research (AJER), Vol 9 (5), pp. 58-70.
23. E., Oniga, A. Breaban, F., Stătescu, (2018) -**Determining the optimum number of ground control points for obtaining high precision results based on UAS images**, Proceedings, 2(7) (doi: 10.3390/ecrs-2-05165).
24. A. Loghin, E. Oniga, C.-R. Giurma-Handley, (2018) – **3D point cloud classification of natural environments using Airborne Laser Scanning Data**, American Journal of Engineering Research, Volume-7, Issue-2, pp-191-197, e-ISSN: 2320-0847.
25. Iurist, N.V., Oniga, V.E., Stătescu, F. (2017) -**Tree-crown delineation based on very high resolution satellite images**, Proceedings of the Biennial International Symposium. Forest and sustainable development, Brasov, 7-8th October 2016, pp. 61-67
26. Păun, C. D., Oniga, V.E., Dragomir, P. I. (2017)- **Three-dimensional transformation of coordinate systems using nonlinear analysis-Procustes algorithm**, International Journal of Engineering Sciences & Research Technology, 6(2): February 2017, pp. 355-363, DOI: 10.5281/zenodo.291839, ISSN: 2277-9655, Impact Factor: 4.116.



27. N.V. Iurist (Dumitrașcu), V.E. Oniga, F. Stătescu, C. Marcu (2017), *Floods Damage estimation using Sentinel-1 satellite images. Case study-Galati county, Romania*, Journal of Geodesy and Cadastre RevCAD, no. 22, pp. 115-122, Alba Iulia, Romania, ISSN 1583-2279.
28. Păun, C. D., Oniga, V.E., Dragomir, P. I., Diac, M. (2017) – *The remotely piloted aircraft system for 3D modelling of a cultural heritage building*, Journal of Geodesy and Cadastre RevCAD, no. 22, pp. 203-212, Alba Iulia, Romania, ISSN 1583-2279.
29. A. Loghin, I. Giurma, E. Oniga (2017) – *Digital Surface Models derivation from Airborne Laser Scanning Data*, Journal of Geodesy and Cadastre RevCAD, no. 22, pp. 141-150, Alba Iulia, Romania, ISSN 1583-2279.
30. E. Oniga, A. Savu, A. Negrilă (2016)-*The evaluation of CloudCompare software in the process of TLS point clouds registration*, Journal of Geodesy and Cadastre RevCAD, no. 21, pp. 117-124, Alba Iulia, Romania, ISSN 1583-2279.
31. A. Loghin, E. Oniga, Wieser, M. (2016), *Analysing and modelling terrain surface changes using airborne laser scanning data*, World Journal of Engineering Research and Technology WJERT, Vol. 2, Issue 3, pp. 87-95, ISSN 2454-695X.
32. E. Oniga, A. Loghin, Păun, C. D. (2016), *Crashed vehicle profile creation based on digital close-range photogrammetry*, World Journal of Engineering Research and Technology WJERT, Vol. 2, Issue 4, pp. 16-29, ISSN 2454-695X.
33. A. Loghin, E. Oniga (2015) -*Digital images and total station measurements fusion for 3D buildings models creation*, Journal of Geodesy and Cadastre RevCAD, no. 18, pp. 64-71, Alba Iulia, Romania, ISSN 1583-2279.
34. E. Oniga, M.-B. (2015), *Testing the accuracy of different calibration methods*, Journal of Geodesy, Cartography and Cadastre, Bucuresti, Romania, pp.8-17.
35. Păun, C. D., Oniga, V. E., Ciobanu, L. E. (2015), *Testing a new method of digital images acquisition in the process of 3D reconstruction of an object*, Journal of Geodesy, Cartography and Cadastre, Bucuresti, Romania, pp.28-36.
36. A. Loghin, E. Oniga (2015) - *A comparative study on camera calibration algorithms*, Journal of Geodesy and Cadastre RevCAD, no. 19, pp. 135-144, Alba Iulia, Romania, ISSN 1583-2279.
37. A. Loghin, Ajin, R.S, E. Oniga (2015) –*The three-dimensional geodetic networks adjustment automation using Matlab*, Journal of Geodesy and Cadastre RevCAD, no. 19, pp. 15-22, Alba Iulia, Romania, ISSN 1583-2279.
38. N.V. Iurist (Dumitrașcu), E. Oniga, Stătescu, F. (2015) – „*Comparative study on digital terrain models created based on ALS data and Pleiades images*”, Journal of Geodesy and Cadastre RevCAD, no. 19, pp. 127-134, Alba Iulia, Romania, ISSN 1583-2279.
39. Butnariu, D. G., E. Oniga, Stătescu, F. (2015)- *A new expeditious method for buildings 3D models creation*, Journal of Geodesy and Cadastre RevCAD, no. 19, pp. 103-112, Alba Iulia, Romania, ISSN 1583-2279.
40. Butnariu, D. G., E. Oniga, Stătescu, F. (2015)- *Tracking down the modifications of the right bank of the Prut river in the territorial administrative unit of Prisacani commune-Iasi county*, journal "Scientific papers", Vol. 58 (1) 2015, series Agronomy, pp.147-150, Iasi, Romania, electronic ISSN 2069-6727.
41. E. Oniga, Cardei, M. (2015)- *Vertical accuracy evaluation of digital terrain models created based on line-following digitization of contour maps*, revista "Lucrări Stiințifice", Vol. 58 (1) 2015, seria Agronomie, pp.171-176, Iasi, Romania, electronic ISSN 2069-6727.
42. Oniga, E. Păun, C. D., Cardei, M. (2015)– *Airborne laser scanning data for urban area analysis*, Proceedings of the Biennial International Symposium. Forest and sustainable development, October 24-25, Brasov, Romania, pp. 322-327, ISSN 1843-505X.
43. Loghin, A. Oniga, E. (2014) - *The influence of camera calibration parameters on 3D buildings models creation*, Journal of Geodesy and Cadastre RevCAD, no. 16, pp. 178-185, Alba Iulia, Romania, ISSN 1583-2279.
44. Oniga, E. (2014) - *A new method for buildings 3D models comparison*, Journal of Geodesy and Cadastre RevCAD, no. 17, pp. 60-67, Alba Iulia, Romania, ISSN 1583-2279.
45. Păun, C. D., Oniga, E. (2013) - *ALS data for vegetation analysis*, Journal of Geodesy and Cadastre RevCAD, no. 15, pp. 329-337, Alba Iulia, Romania, ISSN 1583-2279.
46. Oniga, E., Chirilă C. (2013) - *Hausdorff distance for the differences calculation between 3D surfaces*, Journal of Geodesy and Cadastre RevCAD, no. 15, pp. 193-202, Alba Iulia, Romania, ISSN 1583-2279.
47. Oniga, E., Șutu, M. (2012)– *On automatic texture growing from Voronoi computed building facade surfaces using color similarity detection*, Journal of Geodesy and Cadastre RevCAD, no. 12, pp. 133-139, Alba Iulia, Romania, ISSN 1583-2279.
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53. Moca, V., Oniga, E., (2011) – *The adoption of some local stereographic projections in the general cadastre work from geographically extreme localities of Romania*, Scientific symposium with international participation "Horticulture science, quality, variety, harmony - 60 years of higher education in Horticulture science on Iasi", 26 to 28 May 2011, U.S.A.M.V. Iasi, volume 54, Horticulture Series, "Ion Ionescu de la Brad" Editura, Iasi, (ISSN 1454-7376), pp. 543-550.

Scientific papers (journals unindexed)

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55. Ilioi, D., Oniga, E., Sandulache, G. (2010) - *The influence of tropospheric refraction in GPS determinations*, Bul. I.P. Iasi, Tom LVI (LX), Fasc 3, Hydrotechnics section.
56. Hogăș, H., Ilioi, D., Oniga, E., (2010)- *Considerations on parcel maps elaboration for cadastral sectors in rural administrative territories*, Bul. I.P. Iasi, Tom LVI (LX), Fasc. 2, Hidrotechnics section.

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57. Oniga, E. (2011) - *The methodology for 3D model creation based on LiDAR and photogrammetric data-partial results*, Volume of International Symposium "GEOPREVI 2011", 12 to 13 May 2011, Bucharest, Conspress Press, 2011 (ISBN 979-973-100-162-3), page 205-216.



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59. Oniga, E., Bargan, L. (2010) – *Comparative analysis of the results of preliminary calculations for design process- case study – Ibaneasa III, Botosani county*, International Symposium CMEQF-01, 23-27, Iasi, ISSN 2069-2145.

Books

1. Oniga E., Breaban A-I (2020) – *Application using Aerial Laser Scanning point clouds*, ISBN 978-606-25-0613-1, Matrixrom, Bucharest, 2020
2. Oniga E. (2020) – *Photogrammetry. Practical works (Part I)*, ISBN 978-606-68-5749-9, Performantica, Iasi, 2020
3. Oniga E. (2019) – *Advanced photogrammetry*, ISBN: 978-606-25-0476-2, Matrixrom, Bucharest, 2019.
4. Oniga E. (2017) – *Comparative studies on methods for 3D modelling of urban area*, ISBN 978-3-330-87728-3, Editions Universitaires Europeennes.
5. Oniga E., Păun C. (2017) – *Matlab applications for geomatics*, ISBN 978-606-25-0352-9, Matrixrom, Bucharest, 256 pp.
6. Oniga E. (2017) – *Digital photogrammetry. Practical works*, ISBN 978-606-25-0346-8, Matrixrom, Bucharest, 297 pp.
7. Zăvoianu F., Oniga E. (2017) – *Digital photogrammetry*, ISBN 978-606-25-0373-4, Matrixrom, Bucharest, 323 pp., 2017.
8. Oniga E. (2014) – *Buildings 3D modelling by clasical and digital photogrammetry*, ISBN 978-606-687-119-8, Tehnopress, Iasi, Romania, 282 pp.

Research contracts

1. CONTRACT Grant – type PN III- Research projects to stimulate young independent teams (TE), financed by contract no. 142TE/2022-project manager (446 430 RON)
2. CONTRACT Intern grant– type PUBLICATION- financed by contract no. GI/P1/01.07.2021 - project manager (45 000 RON)
3. CONTRACT Grant – type PN III-Mobility projects for researchers, financed by contract no. 203/29.10.2019-project manager (7 109.67 RON)
4. CONTRACT Grant – type PN III-Mobility projects for researchers, financed by contract no. 138/05.07.2018-project manager (10 274 RON)
5. CONTRACT Grant – type PN III-Innovation check, with the title “*Innovative calibration and testing field for the non-metric digital cameras mounted on Unmanned Aerial Vehicles*”, financed by contract no. 121CI/2017-project manager (44.464 RON)
6. Member in research team: 2020-2022 – “*Integrated Networks for Hazard Risk Management – HAZARM*”, (294000 euro)
7. Member in research team: 2014-2015- “*Environmental Research Center for Risk Management/ Acronym GRIM*” POSCCE – A2-O2.2.1.-2013-1; Operation 2.2.1, ID 1942, no. 663/14.08.2014.

Research grants with research institutes or companies

1. CONTRACT of providing services, Beneficiary University of Bucharest by contract no. 10209/10.09.2021, project manager (20 000 RON)

Participation at symposiums and workshops

- 1 Scientific summer school with international participation “**VOLTA**”, 25-28 September, 2018, Vienna, Austria.
- 2 Scientific workshop with international participation “**56th Photogrammetric Week**”, 11-15 September, 2017, Stuttgart, Germany.
- 3 Scientific workshop with international participation “**3D Arch -3D Virtual Reconstruction and Visualization of Complex Architectures**” -1-3 March 2017, Nafplio, Greece.
- 4 Scientific symposium with international participation **GEOMAT-2016-2019**, Iasi, Romania.
- 5 Scientific conference with international participation „**The 3rd International Conference ModTech 2015 -Modern Technologies in Industrial Engineering**”, 17-20 June, 2015, Mamaia, Romania.
- 6 Scientific conference with international participation “**Conference of Agriculture and Food Engineering**”, 22-24 October 2015, U.S.A.M.V., Iasi, Romania.
- 7 Scientific symposium with international participation „**GeoPreVi-2015**”, 8-9 May 2015, Bucharest, Romania.
- 8 Scientific symposium with international participation “**Horticulture science, quality, variety, harmony**”, 24- 26 May 2012, U.S.A.M.V. Iasi.
- 9 Scientific symposium with international participation „**GeoCAD 2012**”, 11-12 May, Alba-Iulia, Romania.
- 10 Scientific symposium with international participation „**Achievements and prospects in hydrotechnical, geodesy and environmental engineering**”, 25-26 October, 2012, Iasi, Romania.
- 11 Scientific symposium with international participation „**The 3rd Conference of the young researchers**”, Technical University of Constructions Bucharest, 15-16 November, Bucharest, Romania, 2012.
- 12 Scientific conference with international participation „**XXII International Society for Photogrammetry & Remote Sensing Congress**” 25 August - 1 September 2012, Melbourne, Australia.
- 13 Scientific symposium with international participation „**GeoPreVi-2011**”, 12-13 May 2011, Bucharest, Romania.
- 14 Scientific symposium with international participation „**The 2nd Conference of the Young Researchers**” Technical University of Civil Engineering Bucharest, 17-18 November 2011, Bucharest, Romania.
- 15 Conference of the project finalization - „Online university collaboration network to develop the ability to provide higher skills in geodesy”, 17 September 2012, Ramada Hotel, Iasi, Romania.

Courses and training

1. **Training at 3D Optical Metrology (3DOM) research unit/ Bruno Kessler Foundation (FBK)**, 24-28 September 2022, Trento, Italy
2. **EU Drone Pilot Training Specific Category – Level 3**, 12-15 June 2022, BCN Drone Center, Barcelona (Moia), Spain
3. **Workshop for “Vulcan” and “Maptek-I Site Studio” software- „Train the trainer”**, 9-11 July 2019, Edinburgh, UK
4. **Training workshop for “3DF ZEPHYR software”**- 30 September-2 October 2019, Verona, Italy
5. “**Tran-Atlantic Training- Integration of Radar and Optical Remote Sensing in Studying Land Cover/Land Use Change**”-7-11 Iunie 2018, Zagreb, Croatia
6. **Remote sensing-from basics to advanced methods**-Uwe Sorgel and Norbert Haala- Stuttgart University, 10 September 2017, Stuttgart, Germany
7. **Training for „Maptek I-Site Studio” software**— Charles Xandri- “Gheorghe Asachi” Technical University of Iasi, 8 -10 April 2016, Iasi, Romania
8. **Training for „Erda Imagine” software**— Intergraph Computer Services, “Gheorghe Asachi” Technical University of Iasi, 27 June – 1 July 2016, Iasi, Romania
9. **Monitoring Climate from Space** — European Space Agency, 25 July-28 August 2016, FutureLearn- Online
10. **Stereoscopy-An Introduction to Victorian Stereo Photography** — University of Edinburgh, 1 August-14 August 2016, FutureLearn- Online
11. **Earth Observation from Space** — European Space Agency, 12 September-10 October 2016, FutureLearn- Online
12. **Monitoring the Oceans from Space**— Eumetsat, 24 October-21 November 2016, FutureLearn- Online
13. **Training for “Pix4D Mapper Pro” software** — SysCAD Solutions, “Gheorghe Asachi” Technical University of Iasi, 5-6 November 2015, Iasi, Romania

14. **Training for „Maptek I-Site 8820” terrestrial laser scanner**— Comservice company, “Gheorghe Asachi” Technical University of Iasi, 13 November – 15 November 2015, Iasi, Romania
15. **LiDAR Waveform: The potential and benefits for topographic mapping** – CHARLES TOTH - XXII ISPRS Congress, 25 August – 01 September 2012, Melbourne, Australia
16. **Point clouds from ALS and aerial images for vegetation analysis** – Technische Universität Wien, 2012
17. **Training for „E-learning” platform**- “Gheorghe Asachi” Technical University of Iasi, Faculty of Hydrotechnical Engineering, Geodesy and Environmental Engineering, within POS-DRU_E-learning project, 12.03-16.03 and 26.03.-30.03.2012.

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