

Curriculum vitae Europass



Personal information

First name(s) / Surname(s) **ONIGA Valeria-Ersilia**
 Address(es) Victoriei Street, Number 5A, Balciu, Miroslava, Romania
 Telephone(s) Mobile (+40-745) 634 472
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 E-mail valeria-ersilia.oniga@academic.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 Ph.D theses,
- scientific coordinator of master theses,
- 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

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	<ul style="list-style-type: none"> - 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**” (2016-2019,2023), “**Georeferencing and processing of UAS images and UAS/LiDAR-UAS point clouds**” (2023), “**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 - 2023).

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 , for graphic applications, TopoLT , TopoSys and MapSys software for topographic measurements computation and Leica Cyclone , Maptek Point Studio , Lisa , Opals , CloudCompare , Imagine Photogrammetry , 3DF Zephyr , Pix4DMapper , Reality Capture , PhotoScan , QGIS and Snap for photogrammetry and remote sensing data processing. Flight planning for UAV platforms A good grasp of Matlab and Python programming languages.
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 34 scientific papers "in extenso" and co-author of 33 scientific papers
Author of 8 specialized books
Web of Science Citation Index: h-index: 6 -23 papers/178 citations; 100 verified peer reviews
<https://www.webofscience.com/wos/author/record/34535590>
Scopus: h-index: 8 -23 papers/218 citations;
<https://www.scopus.com/authid/detail.uri?authorId=55837374900>
Google Scholar Citation Index: h-index: 11 - 74 papers/597 citations
<https://scholar.google.com/citations?user=nKEBZFMAAAAJ&hl=en>

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

Four awards for research results -UEFISCDI

1. „Proposed Methodology for Accuracy Improvement of LOD1 3D Building Models Created Based on Stereo Pléiades Satellite Imagery”, PN-IV-P2-2.3-PRECISI-2023-73092
2. „3D Modeling of Urban Area Based on Oblique UAS Images—An End-to-End Pipeline”, PN-IV-P2-2.3-PRECISI-2023-70848
3. “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
4. “3D Calibration Test-Field for Digital Cameras Mounted on Unmanned Aerial Systems (UAS)”, PN-III-P1-1.1-PRECISI-2019-29928

Each year, between 2014 and 2024, 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 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 the low-cost UAV „DJI Phantom 4 Pro v2" and "DJI Mavic Mini 2" for "Photogrammetry, Remote Sensing and Digital Cartography" laboratory (TU Iasi)

Acquisition of the UAV digital oblique camera „SHARE 102S Pro" 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 in the Senate of "Gheorghe Asachi" Technical University of Iasi (2024-2029)

Member of the Council of Department of "Terrestrial Measurements and Cadastre" (2020-2029)

Member of the Council of Faculty of Hydrotechnical Engineering, Geodesy and Environmental Engineering (2016-2029)

President of Commission 8 "Spatial Planning and Development" of the Union of Romanian Surveyors

President of Commission 7 "Education" of the 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"

Certificate of Competence - Remote Pilot (A1/A3 and A2 categories)

Member of international scientific review committees for conferences

1. International Conference on Multidisciplinary Academic Research & Global Innovation (MARGI-2016-2023) Beijing, China
2. International Conference on Multidisciplinary Innovation in Academic Research (MIAR-2016-2023) Almaty, Kazakhstan
3. International Conference on "Global Issues in Multidisciplinary Academic Research" (GIMAR-2016-2023), Dubai-UAE;
4. International Conference on "Multidisciplinary innovation in business engineering science & technology" (MI-BEST-2016-2023), Manila Philippines
5. International Conference on "Trends in Multidisciplinary business & economic research" (TMBER-2016-2023), Bangkok, Thailand
6. International Conference on "New directions in Multidisciplinary research & practice" (NDMRP-2016-2023), Istanbul, Turkey
7. International Conference on „Multidisciplinary trends in academic research" (MTAR-2016-2023), Bangkok, Thailand.
8. International Conference on Global Trends in Academic Research, (GTAR-2016-2023), Bandung, Indonesia
9. International Conference on Multidisciplinary Innovation for Sustainability and Growth (MISG-2016-2023) Kuala Lumpur, Malaysia
10. International Conference on „Multidisciplinary trends in academic research" (MTAR-2015-2023), Bangkok, Thailand.
11. International Conference on „Innovative trends in multidisciplinary academic research" (ITMAR-2015-2023), Istanbul, Turkey.
12. Emerging trends in academic research (ETAR-2015-2023), Bali Indonesia.
13. International Conference on Innovation Challenges in Multidisciplinary Research & Practice (ICMRP-2015-2023) Kuala Lumpur, Malaysia

Organizer of national and international scientific manifestations

1. Member of organizing committee of "Scientific Symposium with International participation **Geomat**" (2013–2019, 2021–2023), 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 UAS images and UAS/LiDAR-UAS point clouds**" workshop, 09-10 November 2023, 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, Vth ed.**" workshop, 03-05 May 2023, Faculty of Hydrotechnical Engineering, Geodesy and Environmental Engineering, Department of "Terrestrial Measurements and Cadastre", Iasi.
5. 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.
6. 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.
7. Main organizer of „**Learn more about Photogrammetry and Remote Sensing, III^d ed.**" workshop, 19-20 April 2018, Faculty of Hydrotechnical Engineering, Geodesy and Environmental Engineering, Department of "Terrestrial Measurements and Cadastre", Iasi.
8. Project manager of „**Learn more about Photogrammetry and Remote Sensing, second ed.**", 27-28 April 2017 (winner of a national competition).
9. 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.
10. 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. Dr. Eng. Viena University of Technology
- Fabio Remondino, researcher at 3D Optical Metrology unit from Fondazione Bruno Kessler: FBK, Trento, Italy
- Associate Professor. Dr. Constantin Chirilă, "Gheorghe Asachi" Technical University of Iasi, Romania

Appendix Scientific activity



Appendix

Scientific papers (ISI journals)

1. Sestras, P.; Badea, G.; Badea, A. C.; Salagean, T.; Oniga, V.-E.; Roșca, S.; Bilașco, Ș.; Bruma, S.; Spalević, V.; Kader, S.; Billi, P.; Nedevschi, S. (2025). **A novel method for landslide deformation monitoring by fusing UAV photogrammetry and LiDAR data based on each sensor's mapping advantage in regards to terrain feature**, Engineering Geology, Volume 346, 10.1016/j.enggeo.2024.107890
2. Lavric I., Oniga V.-E., Loghin A.-M., Covatariu G., Males G.-C. (2025). **Evaluating BIM and Mesh-Based 3D Modeling Approaches for Architectural Heritage: The Dosoței House in Iasi City, Romania**, Applied Sciences, Volume 15, Issue 17, 10.3390/app15179409
3. Loghin A.-M., Oniga V.-E., Chirilă C. (2025). **Exploring river geomorphology dynamics using airborne and terrestrial laser scanning technologies**, Environmental Engineering & Management Journal (EEMJ), Volume 24, no. 25, 10.30638/eemj.2025.081
4. Oniga, V.-E.; Loghin, A.-M.; Macovei, M.; Lazar, A.-A.; Boroianu, B.; Sestras, P. **Enhancing LiDAR-UAS Derived Digital Terrain Models with Hierarchic Robust and Volume-Based Filtering Approaches for Precision Topographic Mapping**. Remote Sens. 2024, 16, 78. <https://doi.org/10.3390/rs16010078>
5. 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>
6. 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>
7. 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
8. 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
9. 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>.
10. 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.
11. 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.
12. 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)

13. 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.
14. Oniga, E., Macovei, M., Negriță, 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.
15. 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>
16. 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.
17. Oniga, E., Chirila, 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. 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)

23. Males G.-C., Oniga V.-E., Lavric I., Loghin A.-M., Miron C.-O., Padure D. (2025). **Performance Analysis of the Ouster OS1-32 LiDAR sensor for Indoor Mapping**, Journal of Physics: Conference Series, Volume 3071, Computational Civil Engineering 2025 (CCE 2025) 07/05/2025 - 09/05/2025 Iasi, Romania, 10.1088/1742-6596/3071/1/012018
24. Oniga, E., Boroianu, B., Morelli, L., Remondino, F., and Macovei, M. (2024). **BEYOND GROUND CONTROL POINTS: COST-EFFECTIVE 3D BUILDING RECONSTRUCTION THROUGH GNSS-INTEGRATED PHOTOGRAMMETRY**, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLVIII-2/W4-2024, 333–339, <https://doi.org/10.5194/isprs-archives-XLVIII-2-W4-2024-333-2024>, 2024.

25. Oniga, V. E., Morelli, L., Macovei, M., Chirila, C., Breaban, A. I., Remondino, F., and Sestras, P. (2023). **PPK processing to boost UAS accuracy in cadastral mapping**, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLVIII-1/W1-2023, 345–352, <https://doi.org/10.5194/isprs-archives-XLVIII-1-W1-2023-345-2023>, 2023.
26. 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.
27. Oniga, V. E., Breaban, A. I., Alexe, E. I., and Văsiu, C. (2021). **INDOOR MAPPING OF A COMPLEX CULTURAL HERITAGE SCENE USING TLS AND HMLS LASER SCANNING**, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLIII-B2-2021, 605–612, <https://doi.org/10.5194/isprs-archives-XLIII-B2-2021-605-2021>, 2021.
28. Oniga V.-E, Crenganiș 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, Tomme: 66 (70), Issue 4, pp. 59-70.
29. Chirila C., Oniga V.-E, Diac M., Crenganiș 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, Tomme: 66 (70), Issue 4, pp. 85-98.
30. Moca V., Oniga V.-E., Onu C., Macovei M., Oprea R., Hutanu 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.
31. 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).
32. 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.
33. 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
34. 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.
35. 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.
36. 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.
37. 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.
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Scientific papers (journals unindexed)

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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 nr. 30/20/09/2024 – tip UEFISCDI PN-IV-P2-2.2-MCD-2024-0362, Mobility projects for experienced researchers from the diaspora (8 750 RON)
2. CONTRACT Grant – type PN III- Research projects to stimulate young independent teams (TE), **“Testing different UAS equipments and sensor integration for obtaining high precision cadastral and photogrammetric products (UAS4PRECISECAD)”** financed by contract no. 142TE/2022- project manager (446 430 RON)
3. CONTRACT Intern grant– type PUBLICATION- financed by contract no. GI/P1/01.07.2021 - project manager (45 000 RON)
4. CONTRACT Grant – type PN III-Mobility projects for researchers, financed by contract no. 203/29.10.2019-project manager (7 109.67 RON)
5. CONTRACT Grant – type PN III-Mobility projects for researchers, financed by contract no. 138/05.07.2018-project manager (10 274 RON)
6. 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)
7. Member in research team: 2020-2022 – **“Integrated Networks for Hazard Risk Management – HAZARM”**, (294000 euro)
8. 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 conferences and workshops

1. Scientific workshop with international participation **“3D-ARCH-10th International ISPRS/CIPA Workshop”** (<https://3darch.fbk.eu/programme>), 19-26 February 2024, Siena, Italy.
2. Scientific symposium with international participation **“12th International Symposium on Mobile Mapping Technology (MMT 2023)”** (<https://www.cirgeo.unipd.it/mmt/#program>), 24-26 May 2023, Padova, Italy.
2. Scientific summer school with international participation **“VOLTA”**, 25-28 September, 2018, Vienna, Austria.
3. Scientific workshop with international participation **“56th Photogrammetric Week”**, 11-15 September, 2017, Stuttgart, Germany.
4. Scientific workshop with international participation **“3D Arch -3D Virtual Reconstruction and Visualization of Complex Architectures”** -1-3 March 2017, Nafplio, Greece.
5. Scientific symposium with international participation **GEOMAT-2016-2019**, Iasi, Romania.
6. Scientific conference with international participation **„The 3rd International Conference ModTech 2015 -Modern Technologies in Industrial Engineering”**, 17-20 June, 2015, Mamaia, Romania.

- 7 Scientific conference with international participation **“Conference of Agriculture and Food Engineering”**, 22-24 October 2015, U.S.A.M.V., Iasi, Romania.
- 8 Scientific symposium with international participation **„GeoPreVi-2015”**, 8-9 May 2015, Bucharest, Romania.
- 9 Scientific symposium with international participation **“Horticulture science, quality, variety, harmony”**, 24- 26 May 2012, U.S.A.M.V. Iasi.
- 10 Scientific symposium with international participation **„GeoCAD 2012”**, 11-12 May, Alba-Iulia, Romania.
- 11 Scientific symposium with international participation **„Achievements and prospects in hydrotechnical, geodesy and environmental engineering”**, 25-26 Octombrie, 2012, Iasi, Romania.
- 12 Scientific symposium with international participation **„The 3rd Conference of the young researchers”**, Technical University of Constructions Bucharest, 15-16 November, Bucharest, Romania, 2012.
- 13 Scientific conference with international participation **„XXII International Society for Photogrammetry & Remote Sensing Congress”** 25 August - 1 September 2012, Melbourne, Australia.
- 14 Scientific symposium with international participation **„GeoPreVi-2011”**, 12-13 May 2011, Bucharest, Romania.
- 15 Scientific symposium with international participation **„The 2ndConference of the Young Researchers”** Technical University of Civil Engineering Bucharest, 17-18 November 2011, Bucharest, Romania.
- 16 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 “Visualisation Tools for Teaching in STEM BIP”** at TTK University of Applied Sciences, on-line: 26.09.2025 - 31.10.2025, on-site 03.11.2025 - 07.11.2025, Tallin, Estonia
2. **Training “University Leadership Program-SEED România**, supported by experts from Babson College, USA, 18.09.2025-20.09.2025, Iasi, România
3. **Training at National Technical University of Athens**, 11.07.2025- 16.07.2025, Athens, Greece
4. **Training at Institut National de l'Information Géographique et Forestière (IGN) and Ecole Nationale des Sciences Géographiques (ENSG)**, 23.06.2025 - 26.06.2025, Paris, France
5. **European Spatial Data Research (EuroSDR), “From Traditional to AI-based 3D Scene Capture and Modeling”** Online, hosted by the University of Ljubljana, Faculty of Civil and Geodetic Engineering from 17 March until 28 March 2025
6. **European Spatial Data Research (EuroSDR), “Point Cloud Processing with Laser Scanning”** Online, hosted by the University of Ljubljana, Faculty of Civil and Geodetic Engineering from 7 April 2025 until 18 April 2025
7. **Training at IHE Delft Institute for Water Education**, 30.09.2024- 4.10.2024, Delft, The Netherlands
8. **Training “Embedding communication skills for successful international projects”** 14-15 June 2024, “Gheorghe Asachi” Technical University of Iasi
9. **Training at 3D Optical Metrology (3DOM) research unit/ Bruno Kessler Foundation (FBK)**, 19-23 June 2023, Trento, Italy
10. **Training at 3D Optical Metrology (3DOM) research unit/ Bruno Kessler Foundation (FBK)**, 24-28 September 2022, Trento, Italy
11. **EU Drone Pilot Training Specific Category – Level 3**, 12-15 June 2022, BCN Drone Center, Barcelona (Moia), Spain
12. **Workshop for “Vulcan” and “Maptek-I Site Studio” software- „Train the trainer”**, 9-11 July 2019, Edinburgh, UK
13. **Training workshop for “3DF ZEPHYR software”**- 30 September-2 October 2019, Verona, Italy
14. **“Tran-Atlantic Training- Integration of Radar and Optical Remote Sensing in Studying Land Cover/Land Use Change”**-7-11 June 2018, Zagreb, Croatia
15. **Remote sensing-from basics to advanced methods**-Uwe Sorgel and Norbert Haala- Stuttgart University, 10 September 2017, Stuttgart, Germany
16. **Training for „Maptek I-Site Studio” software—** Charles Xandri- “Gheorghe Asachi” Technical University of Iasi, 8 -10 April 2016, Iasi, Romania
17. **Training for „Erdas Imagine” software—** Intergraph Computer Services, “Gheorghe Asachi” Technical University of Iasi, 27 June – 1 July 2016, Iasi, Romania
18. **Monitoring Climate from Space —** European Space Agency, 25 July-28 August 2016, FutureLearn- Online
19. **Stereoscopy-An Introduction to Victorian Stereo Photography —** University of Edinburgh, 1 August-14 August 2016, FutureLearn- Online
20. **Earth Observation from Space —** European Space Agency, 12 September-10 October 2016, FutureLearn- Online
21. **Monitoring the Oceans from Space—** Eumetsat, 24 October-21 November 2016, FutureLearn- Online
22. **Training for “Pix4D Mapper Pro” software —** SysCAD Solutions, “Gheorghe Asachi” Technical University of Iasi, 5-6 November 2015, Iasi, Romania
23. **Training for „Maptek I-Site 8820” terrestrial laser scanner—** Comservice company, “Gheorghe Asachi” Technical University of Iasi, 13 November – 15 November 2015, Iasi, Romania
24. **LiDAR Waveform: The potential and benefits for topographic mapping –** CHARLES TOTH - XXII ISPRS Congress, 25 August – 01 September 2012, Melbourne, Australia
25. **Point clouds from ALS and aerial images for vegetation analysis –** Technische Universität Wien, 2012
26. **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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