Name	Valentyna Ostapchuk
Position, Department/Faculty	Senior Lecturer , Composite Structures and Aviation Materials, Rocket Space Technologies
Academic Degree, Academic Title	
Email:	v.ostapchuk@khai.edu
Scopus Author ID:	56938588900
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Google Scholar:	https://scholar.google.com/citations?user=MHZGMcIAAAAJ&hl=ru
ResearchGate:	

EDUCATION:

Basic education (university, major, year of graduation):
Kharkiv Aviation Institute, Engineer-Mechanics in Aviation Engines and Power Plants, 1999
National Aerospace University "KhAI", Philology, Applied Linguistics, 2020

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):
2006 – Present, Senior Lecturer, Composite Structures and Aviation Materials Science Department, National Aerospace University "KhAI", Kharkiv (Ukraine)
2002 – 2006, Junior Lecturer, Department of Aviation Materials Science, National Aerospace University "KhAI", Kharkiv (Ukraine)

2004 – Present, Deputy of Dean of Faculty of Rocket and Space Engineering, National Aerospace University "KhAI", Kharkiv (Ukraine)

Teaching Experience:
Experience of educational and teaching work (in years) – 23

Experience in International or National Projects:
EU Funded FP7 R&D project WASIS
EU Funded HORIZONT- 2020 R&D project DiCoMi

RESEARCH ACTIVITIES:

Main Research Areas:
Materials Science

Number of Publications (Scopus, WoS, others):

1. Metal Alloys for Fasteners of Hybrid Joints / O. G. Popova, V. V. Ostapchuk // Open Information and Computer Integrated Technologies - Collection of scientific papers National Aerospace University "Kharkiv Aviation Institute", 2025. doi: 10.32620/oikit.2025.105.0

2. Research of Structural Features of Wear-Resistant High-Chromium Alloys / O. G. Popova, V. V. Ostapchuk, N. O. Lalazarova // Open Information and Computer Integrated Technologies - Collection of scientific papers National Aerospace University "Kharkiv Aviation Institute", 2025. doi: 10.32620/oikit.2025.105.0

3. Popova O., Lalazarova N., Ostapchuk V. Estimation of the Stress State of Rolls Operational Layer by the Coercimetric Express Method // Open Information and Computer Integrated Technologies - Collection of scientific papers National Aerospace University "Kharkiv Aviation Institute", 2023. – P. 91- 98.

4. Ostapchuk V.V., Popova O.G. Development of the Manufacturing Technology of the Metal Part of the Hybrid Joints / Issues of design and manufacture of flying vehicles: coll. of scien. works National Aerospace University "Kharkiv Aviation Institute". – 2(98), 2019. - P. 141-149.

5. Ostapchuk V.V Energy of the Plastic Deformation Process Taking into Account the Formation of a Localized Shear Band / Issues of design and manufacture of flying vehicles: coll. of scien. works National Aerospace University "Kharkiv Aviation Institute". – 3(87), 2016. - P. 99-104.

6. Ostapchuk V.V. Mathematical Description of the Geometry of the Shape of Defects in Sheet Metal Parts of Aircraft // Issues of design and manufacture of flying vehicles: coll. of scien. works National Aerospace University "Kharkiv Aviation Institute". - 4(84), 2015. - P. 69-78.

7. Ostapchuk V.V. Analysis of Methods for Forming Residual Deformations in the Process of Manufacturing Sheet Metal Parts of Aircraft / Issues of design and manufacture of flying vehicles: coll. of scien. works National Aerospace University "Kharkiv Aviation Institute". - 1(85), 2016. – P. 81-86.

8. Ostapchuk V.V. Mathematical Model of Deformation During Calibration of Sheet Parts by Pulse Loading / Issues of design and manufacture of flying vehicles: coll. of scien. works National Aerospace University "Kharkiv Aviation Institute". – 2(86), 2016. – P. 48-55.

9. Neveshkin Yu.A., Ostapchuk V.V., Solomyany A.U. Determination of Forces During Hydraulic Blast in a Limited Volume. I. Calculation of Forces from the Action of Shock Waves. // Metallophysics and Advanced Technologies: Research Journal. G. V. Kurdyumov Institute for Metal Physics of the National Academy of Sciences of Ukraine. 37, 2, 2015. – P. 221 - 231.

10. Ostapchuk V.V. Classification of Probable Shape Defects of Sheet Parts of Aircraft / Issues of design and manufacture of flying vehicles: coll. of scien. works National Aerospace University "Kharkiv Aviation Institute". – 3(83), 2015. – P. 41-44.

11. Karpov Ya.S., Ostapchuk V.V. The Mechanism of Plastic Deformation Implementation During Pulse Calibration of Sheet Metal Parts of Aircraft / Issues of design and manufacture of flying vehicles: coll. of scien. works National Aerospace University "Kharkiv Aviation Institute". - 3(79), 2014. - P. 40 - 46.

12. Ostapchuk V.V. Effect of Heat Treatment on the Phase Structure and Mechanical Properties of Ti-Al-V and Ti-Al-Mo-V Alloys / Issues of design and manufacture of flying vehicles: coll. of scien. works National Aerospace University "Kharkiv Aviation Institute". - 1 (73), 2013. - P. 109-114.

13. Ostapchuk V.V. Research of the Structure and Properties of Al-Mg-Si Alloys After Explosive Deformation / Issues of design and manufacture of flying vehicles: coll. of scien. works National Aerospace University "Kharkiv Aviation Institute". - 4 (72), 2012. - P. 149 - 154.

14. Ostapchuk V.V. Effect of Heat Treatment on the Susceptibility to Intercrystalline Corrosion of Deformable Aluminum Alloys / Issues of design and manufacture of flying vehicles: coll. of scien. works National Aerospace University "Kharkiv Aviation Institute". - 1 (65), 2011. - P. 96 - 101.

15. Ostapchuk V.V., Semishov N.I. Influence of Hardening Heat Treatment Modes on the Structure and Properties of Titanium Alloy BT22 / Issues of design and manufacture of flying vehicles: coll. of scien. works National Aerospace University "Kharkiv Aviation Institute". - 2 (62), 2010. - P. 38 - 43.

Monographs, Textbooks:

1. Functional Properties of Aviation Materials: textbook / O. G. Popova, V. V. Ostapchuk. – Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2025. – 152 p.
2. Engineering Materials Science. Metals, Polymers, Ceramics, Composites: textbook / Ya. S. Karpov, V. V. Ostapchuk, O. G. Popova, I. M. Taranenko. - Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2020. - 384 p.
3. Engineering Materials Science: textbook. In 3 parts. Part 3. Methods of Changing the Properties of Structural Materials / Ya. S. Karpov, Yu. A. Nikolaeva, V. V. Ostapchuk and others. - Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2018. - 140 p.
4. Engineering Materials Science: in 3 parts: textbook / Ya. S. Karpov, Yu. A. Nikolaeva, V. V. Ostapchuk and others – Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2017. Part 1: Properties and Structure of Materials – 96 p.
5. Engineering Materials Science: in 3 parts: textbook / Ya. S. Karpov, Yu. A. Nikolaeva, V. V. Ostapchuk and others – Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2017. – Part 2: Dependence of Materials Properties on their Structure. – 172 p.
6. Application of Non-Metallic and Composite Materials in Aerospace Engineering Products: textbook / V. V. Ostapchuk, E. G. Popova, V. Ya. Samoilov, I. M. Taranenko. – Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2015. – 132 p.

Participation in Scientific Conferences:

1. Ostapchuk V. Research of the Phase Structure and Mechanical Properties of Alloys of the Ti-Al-V and Ti-Al-Mo-V Systems // XX International scientific and practical conference «Scientific Research: Modern Challenges and Prospects» (April 24-26, 2024) Prague, Czech Republic. International Scientific Unity, 2024 P. 191 - 194.
2. Ostapchuk V. Research of the Structure and Hardness of Alloys of the Ti-Al-Mo-V-Cr-Fe System // Perspectives of contemporary science: theory and practice. Proceedings of the 3rd International scientific and practical conference. SPC "Sci-conf.com.ua". Lviv, Ukraine. 2024. P. 454 - 458.
3. Ostapchuk V. The Structure and Properties of Stainless Steel after High-Speed Deformation // XXII International scientific and practical conference «Modern Scientific Research: Theoretical and Practical Aspects» (May 8-10, 2024) Oslo, Norway. International Scientific Unity, 2024 – P. 238 - 240.
4. Ostapchuk V. Determination of External Loading During Explosive Calibration with Unsymmetrical Charge Placement // XXIX International scientific and practical conference «Science and Technology of the Future: Advanced Views» (June 26-28, 2024) Madrid, Spain. International Scientific Unity, 2024 – P. 144 – 146.
5. Ostapchuk V. Research of the Effect of Heat Treatment of Aluminum Alloys on their Susceptibility to Intergranular Corrosion // Modern research in world science. Proceedings of the 11th International scientific and practical conference. SPC "Sci-conf.com.ua". Lviv, Ukraine. 2023. P. 425-429.
6. Ostapchuk V. Research *of the influence of impulse deformation on the structure and properties of aluminum* alloys // Modern research in world science. Proceedings of the 1st International scientific and practical conference. SPC "Sci-conf.com.ua". Lviv, Ukraine. 2022. P. 472-476.
7. Ostapchuk V. Peculiarities of Implementation of Plastic Deformation During Impulse Calibration of Sheet Parts // Topical issues of modern science, society and education. Proceedings of the 6th International scientific and practical conference. SPC "Sci-conf.com.ua". Kharkiv, Ukraine. 2021. P. 445-449.

8. Ostapchuk V. The Influence of the Forming Temperature on the Properties of the Metal Part of Metal-Composite Heterogeneous Structures // Modern directions of scientific research development. Proceedings of the 7th International scientific and practical conference. BoScience Publisher. Chicago, USA. 2021. P. 279-285.

9. Ostapchuk V. Research of Grammatical Features of Translation for Mathematical Texts // I International scientific and practical conference «Achievements and Prospects of Modern Scientific Research». – 2020. – P. 502–506.

TEACHING ACTIVITIES:

Courses Taught:
Materials Science, Aviation Materials, Engineering Materials Science

Methodological Materials, Textbooks:

1. Functional Properties of Aviation Materials: textbook / O. G. Popova, V. V. Ostapchuk. – Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2025. – 152 p.
2. Ostapchuk V., Popova O., Taranenko I. Materials Science - workbook for laboratory course - Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2022. – 129 p.
3. Engineering Materials Science. Metals, Polymers, Ceramics, Composites: textbook / Ya. S. Karpov, V. V. Ostapchuk, O. G. Popova, I. M. Taranenko. - Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2020. - 384 p.
4. Tests for Control Measures in Materials Science: workbook / V. V. Ostapchuk, O. G. Popova, I. M. Taranenko. - Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2020. - 256 p.
5. Ostapchuk V., Popova O. Materials Science - workbook for laboratory course - Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2019. – 134 p.
6. Engineering Materials Science: textbook. In 3 parts. Part 3. Methods of Changing the Properties of Structural Materials / Ya. S. Karpov, Yu. A. Nikolaeva, V. V. Ostapchuk and others. - Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2018. - 140 p.
7. Engineering Materials Science: in 3 parts: textbook / Ya. S. Karpov, Yu. A. Nikolaeva, V. V. Ostapchuk and others – Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2017. Part 1: Properties and Structure of Materials – 96 p.
8. Engineering Materials Science: in 3 parts: textbook / Ya. S. Karpov, Yu. A. Nikolaeva, V. V. Ostapchuk and others – Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2017. – Part 2: Dependence of Materials Properties on their Structure. – 172 p.
9. Application of Non-Metallic and Composite Materials in Aerospace Engineering Products: textbook / V. V. Ostapchuk, E. G. Popova, V. Ya. Samoilov, I. M. Taranenko. – Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2015. – 132 p.
10. Non-Metallic and Composite Materials: workbook for laboratory course / O. O. Vambol, V. V. Ostapchuk, V. Ya. Samoilov, M.I. Semishov, M.A. Shevtsova – Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2010. – 108 p.

GRANTS AND PROJECTS:

Participation in International and National Projects:

International internship within the framework of the «Directional composites through manufacturing innovation (DiCoMI)», European Commission's Horizon 2020, grant No 778068, - 2019, 2020, 2022 -Scientific Researcher

FP7, WASIS Project of Composite Wafer Section of Airplane Fuselage Design, Scientific Researcher

Grants, Scholarships, Academic Mobility Programs:

Academic mobility within the framework of the European Erasmus+ program, (Adana University of Science and Technology, Turkey), 2023.

Academic mobility within the framework of the European Erasmus+ program, (Riga Technical University (RTU), Latvia), 2024.

PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Distinctions, Awards, Prizes:

Certificate of Honor Award of Kharkiv City Council, 2023

Membership in Professional Associations:

Member of the Ukrainian Materials Science Society named after I.M. Frantsevich
№UMRS-2024-144, №UMRS-2025-045

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

Neveshkin Yu.A., Ostapchuk V.V., Solomyany A.U. Determination of Forces During Hydraulic Blast in a Limited Volume. I. Calculation of Forces from the Action of Shock Waves. // Metallophysics and Advanced Technologies: Research Journal. G. V. Kurdyumov Institute for Metal Physics of the National Academy of Sciences of Ukraine. 37, 2, 2015. – P. 221 - 231.

Ostapchuk V.V. Mathematical Model of Deformation During Calibration of Sheet Parts by Pulse Loading / Issues of design and manufacture of flying vehicles: coll. of scien. works National Aerospace University "Kharkiv Aviation Institute". – 2(86), 2016. – P. 48-55.

Ostapchuk V.V., Popova O.G. Development of the Manufacturing Technology of the Metal Part of the Hybrid Joints / Issues of design and manufacture of flying vehicles: coll. of scien. works National Aerospace University "Kharkiv Aviation Institute". – 2(98), 2019. - P. 141-149.

Books, Chapters in Collective Monographs:

Engineering Materials Science. Metals, Polymers, Ceramics, Composites: textbook / Ya. S. Karpov, V. V. Ostapchuk, O. G. Popova, I. M. Taranenko. - Kharkiv: National Aerospace University "Kharkiv Aviation Institute", 2020. - 384 p.

ADDITIONAL INFORMATION:

Language Proficiency:

Ukrainian
English

IT Skills:

MS Office