Name	Olga Semenenko
Position, Department/Faculty	Assistant of Department of Theoretical Mechanics, Engineering and Robomechanical Systems
Academic Degree, Academic Title	-
Email:	o.semenenko@khai.edu
Scopus Author ID:	-
Web of Science ResearcherID:	-
ORCID iD:	0009-0001-8425-562X
Google Scholar:	https://scholar.google.com/citations?user=b1gjg3cAAAAJ&hl=ru
ResearchGate:	-

EDUCATION:

Basic education (university, major, year of graduation):

Master of Science in Robotics (with honours) National Aerospace University “Kharkiv Aviation Institute”, June 2017, Kharkiv, Ukraine

Postgraduate/Doctoral studies:

Postgraduate studies National Aerospace University “Kharkiv Aviation Institute”, August 2024, Kharkiv, Ukraine

Additional training, certification programs:

Advanced training "Big Course on Artificial Intelligence in Education" Total course volume: 1.5 ECTS credits (45 hours) Course period: 26.05.2025 – 09.06.2025

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

Assistant of Department of Theoretical Mechanics, Engineering and Robomechanical Systems, National Aerospace University “Kharkiv Aviation Institute” September 2024 – Present

Teaching Experience:

Assistant of Department of Theoretical Mechanics, Engineering and Robomechanical Systems, National Aerospace University “Kharkiv Aviation Institute”

Lecturer, the main lecture courses (National Aerospace University «Kharkiv Aviation Institute»):

- Electrical engineering;
- Fundamentals of engineering logistics
- Functional complexes of logistics systems
- Economic and mathematical methods and models in logistics

RESEARCH ACTIVITIES:

Main Research Areas:
Robotics, physical methods of deposition of coatings, mechanical characteristics materials and coatings, plasma surface treatment, plasma physics and nanotechnology (carbon-on-oxide nanostructures), electrical engineering.

Number of Publications (Scopus, WoS, others):
Over 10 scientific publications

Participation in Scientific Conferences:
Regular participant (more 15) and speaker at international and national scientific conferences.

TEACHING ACTIVITIES:

Courses Taught:
Electrical engineering; Fundamentals of engineering logistics, Functional complexes of logistics systems, Economic and mathematical methods and models in logistics

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

Improving the quality of electricity in the traction network of railway transport of Ukraine / Semenenko Yu.O., Semenenko O. D. // X International Scientific and Technical Conference “THEORY AND PRACTICE OF RATIONAL USE OF TRADITIONAL AND ALTERNATIVE FUEL AND LUBRICANT MATERIALS”, which will be held on July 1-4, 2025 – Kyiv. P. 49-50.

Semenenko O. I. Research of an active filter-stabilizer based on a pulse-width converter / O. I. Semenenko, Yu. O. Semenenko, O. D. Semenenko // Collection of scientific works of the Ukrainian State University of Railway Transport. – 2025. – Issue 212. P. 292-300.

Two-phase pulse-width converter of a DC unit of a distributed power supply system / Semenenko O.I., Semenenko Yu.O., Semenenko O.D. // Scientific and practical student conference "Modern problems of engine engineering, power engineering and intellectual mechanics - 2025" May 15 - 16, 2025 - Kharkiv: NAU "Khaylovarskyi Academy of Sciences". 2025. - P. -93-94.

2. Application of an active closed-loop automatic system for improving the output voltage of a rectifier unit / Semenenko Yu.O., Semenenko O.D. // XV International Scientific and Practical Conference "Integrated Quality Assurance of Technological Processes and Systems" May 22 - 23, 2025 - Chernihiv. 2025. – P. 198.

Efficiency of nanostructure formation on the surface of hard alloy B3 and the method of setting thermophysical and thermomechanical characteristics / G. I. Kostyuk, O. D. Semenenko, Yu. V. Shiroky, E. A. Volyaks // Proceedings of XIII International conference on science and education, January 4–13. – Hajduszoboszlo (Hungary). – Khmelnytskyi: KhNU, 2019. – P. 63–67.

The removable material volume for the durability period, cutting tools durability and processing productivity depending on the grain size of the coating or cutting tool base material / G. I. Kostyuk, M. V. Nechyporuk, O. D. Semenenko // Modern Achievements of Science and Education: XIV International Conference, September 26 – October 3, 2019, Netanya, Israel. – Khmelnytskyi : KhNU, 2019. – P. 75–78.

Comparison of temperature regimes in the zone of laser femtosecond processing of the hard alloy "Volkar" using thermophysical and thermomechanical characteristics, stochastic values calculated by the quantum-mechanical method / G. I. Kostyuk, O. D. Grigor // Bulletin of the National Technical University "KhPI". Series: Technologies in Mechanical Engineering. – Kharkiv, 2018. – Issue

6 (1282). – P. 90–94.

The influence of the method of setting the thermophysical and thermomechanical characteristics of the B3 hard alloy on the nature and efficiency of nanostructure formation / G. I. Kostyuk, O. D. Semenenko // Bulletin of the National Technical University "KhPI". Series: Technologies in Mechanical Engineering. – Kharkiv, 2018. – Issue 34 (1310). – P. 40–46.

The influence of the nature of the setting of the thermophysical and thermomechanical characteristics of magnesium alloys during processing to obtain nanostructures with ions using stochastic values and obtained by the quantum-mechanical method / G. I. Kostyuk, O. D. Grigor, A. V. Matveev // Bulletin of the National Technical University "KhPI". Series: Technologies in Mechanical Engineering. – Kharkiv, 2017. – Issue 17 (1239). – P. 78–82.

ADDITIONAL INFORMATION:

Language Proficiency:
Ukrainian, English

IT Skills:
Programming languages and mathematical packages: Matlab, MathCAD, Turbo Pascal, Python
Computer aided design/engineering: SolidWorks, Kompas
Other: Linux, Windows OS
Microsoft Office / Microsoft Excel / Social Media / Zoom / Google Drive / Microsoft Powerpoint / Skype / Organizational and planning skills