



Name	Kateryna Msallam
Position, Department/Faculty	Associate Professor, Department of Descriptive Geometry and Computer Modeling
Academic Degree, Academic Title	Candidate of Technical Sciences, Associate Professor
Email:	k.msallam@khai.edu
Scopus Author ID:	https://www.scopus.com/authid/detail.uri?authorId=24338935400
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Google Scholar:	https://scholar.google.ru/citations?user=vAALoygAAAAJ&hl=ru&oi=sra
ResearchGate:	-

EDUCATION:

Basic education:

In 2002, she graduated from the National Aerospace University “Kharkiv Aviation Institute” with a degree in Radio-Electronic Devices, Systems, and Complexes and received a diploma with honors, earning the qualification of Research Engineer in Radio-Electronic Systems.

Postgraduate/Doctoral studies:

From 2004 to 2006, pursued postgraduate studies at the National Aerospace University “Kharkiv Aviation Institute,” specializing in Remote Aerospace Research. In 2007, defended Ph.D. dissertation in the specialty Radio Engineering and Television Systems.

Additional training, certification programs:

Certificate of Advanced Training No. PK 02066769/000829–22, dated 07.12.2022 (6 credits / 180 hours).

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

Assistant at the Department of Graphic and Computer Modeling since 2007.

Senior Lecturer at the Department of Graphic and Computer Modeling since 2009.

Associate Professor at the Department of Graphic and Computer Modeling since 2012.

Head of the Department of Descriptive Geometry and Computer Modeling since 2023.

RESEARCH ACTIVITIES:

Main Research Areas:

- Geometric and Computer Modeling;
- Computer Graphics;
- Three-Dimensional Modeling;
- Study of Modeling Features in CAD Systems.



Number of Publications (Scopus, WoS, others):
more than 20

Monographs, Textbooks:
more than 10

Participation in Scientific Conferences:

1. S. Yu. Saienko, K. P. Msallam, "Design features of liquid cable cooling systems." Interdisciplinary scientific and practical conference "Current issues in the development of Ukraine's aviation and space industry: engineering, business, law.
<https://dspace.library.khai.edu/xmlui/bitstream/handle/123456789/8358/244-249.pdf?sequence=1&isAllowed=y>
2. S. Yu. Saienko. Features of the design of fittings in the cable cooling system. S. Yu. Saienko, K. P. Msallam / Thirty-fifth All-Ukrainian Conference "NEW TECHNOLOGIES IN MACHINE BUILDING" Kharkiv: National Aerospace University named after M. Ye. Zhukovsky "Kharkiv Aviation Institute." September 2-5, 2025.
3. S. Yu. Saienko. Features of fluids in cable cooling systems. S. Yu. Saienko, K. P. Msallam / World of Scientific Research. Issue 42. [Electronic resource]. 2025 <https://www.economy-confer.com.ua/full-article/6242/>
4. S. Yu. Saienko. COMPARISON OF THE POSSIBILITIES OF COMPUTER MODELING OF THERMAL PROCESSES IN TRACEPRO AND ANSYS FLUENT. S.Yu. Saienko, K.P. Msallam. 2024. Interdisciplinary scientific and practical conference contemporary problems of development 06.2024

TEACHING ACTIVITIES:

Courses Taught:

- Geometric Modeling and Graphic Information Technologies;
- Graphic Information Technologies (Practical Course);
- Engineering and Computer Graphics;
- Design in Marketing Activities;
- Descriptive Geometry.

Author Courses, Academic Programs:

Author of educational courses in the "Mentor" system for the following disciplines:

- Geometric Modeling and Graphic Information Technologies;
- Graphic Information Technologies (Practical Course);
- Engineering and Computer Graphics;
- Design in Marketing Activities;
- Descriptive Geometry.

Methodological Materials, Textbooks:

1. Saienko, S. Yu. Introduction to the profession [Electronic resource]: textbook / S. Yu. Saienko, K. P. Msallam. – Kharkiv: National Aerospace University 'Kharkiv Aviation Institute', 2025. – 65 p.
2. Geometric modelling and graphic information technologies. Basics of working in SolidWorks [Electronic resource]: lab workshop / T. K. Muradyan, N. V. Perehrest, S. Yu. Saienko, K. P. Msallam. – Kharkiv: National Aerospace University named after M. Ye. Zhukovsky 'Kharkiv Aviation Institute', 2023. – 110 p.

PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Honorary Titles:

- Honorary Diploma of the Kharkiv City Council, 2023;
- Diploma of the Kharkiv Regional Council, 2024;
- Honorary Diploma of the Kharkiv Regional State Administration, 2025.

Membership in Professional Associations:

Public Organization "Kharkiv Aeroclub named after V. S. Gryzodubova of the Society for the Promotion of Defense of Ukraine" since 2022.

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

1. Computer Design of Innovative Liquid-Cooled Cable Systems in Electric Vehicle Charging Stations: Analysis and Prospects / S. Yu. Sayenko, K. P. Msallam, T. K. Muradyan, N. V. Perekhrest // Open Information and Computer Integrated Technologies, Issue 103. – Kharkiv, 2025. – pp. 37–45. <http://nti.khai.edu/ojs/index.php/oikit/article/view/2831> [in Ukrainian].
2. Digital Method and Algorithm for Determining the Coordinates of the “Conditional” Geometric Center of an Extended Object from Its Binary Radar Image // Radiotekhnika, 2(201), 2020, pp. 130–136. <https://doi.org/10.30837/rt.2020.2.201.11>
3. Features of Liquids in Cable Cooling Systems / S. Yu. Sayenko, K. P. Msallam // World of Scientific Research, Issue 42 [Electronic resource]. – 2025. <https://www.economy-confer.com.ua/full-article/6242/> [in Ukrainian].
4. Kyriienko P. H., Betin O. V., Msallam K. P., Zakharchenko M. I., Lobov S. O. Study of Technologies for the Extraction of Heavy Metals from Industrial Wastewater // Ecological Safety and Environmental Management, Issue 46: Collection of Scientific Papers. – Kyiv: Institute of Telecommunications and Global Information Space of the NAS of Ukraine, 2023. – pp. 54–65. <https://doi.org/10.32347/2411-4049.2023.2.54-65> [in Ukrainian].

Books, Chapters in Collective Monographs:

1. Geometric Modeling and Graphic Information Technologies. Shaft Design [Electronic resource]: textbook / K. P. Msallam, Yu. A. Kuznetsova, V. M. Stepanenko. – Kharkiv: National Aerospace University “Kharkiv Aviation Institute,” 2025. – 116 p. [in Ukrainian].
2. Introduction to the Profession [Electronic resource]: textbook / S. Yu. Sayenko, K. P. Msallam. – Kharkiv: National Aerospace University “Kharkiv Aviation Institute,” 2025. – 65 p. [in Ukrainian].
3. Geometric Modeling and Graphic Information Technologies. Cylindrical Gear Engagement: textbook / K. P. Msallam, T. K. Muradyan, N. V. Perekhrest. – Kharkiv: National Aerospace University named after N. E. Zhukovsky “Kharkiv Aviation Institute,” 2024. – 87 p. <http://library.khai.edu/library/fulltexts/metod/> [in Ukrainian].
4. Introduction to the Profession “Computer Design and 3D Modeling.” Part 1. Design in Marketing Activities: textbook / Yu. A. Kuznetsova, K. P. Msallam. – Kharkiv: National Aerospace University named after N. E. Zhukovsky “Kharkiv Aviation Institute,” 2024. – 54 p. <http://library.khai.edu/library/fulltexts/metod/> [in Ukrainian].
5. Geometric Modeling and Graphic Information Technologies. Threaded and Non-Detachable Joints: textbook / Z. O. Pohorelova, K. P. Msallam, Yu. A. Kuznetsova. – Kharkiv: National Aerospace University named after N. E. Zhukovsky “Kharkiv Aviation Institute,” 2024. – 79 p.

<http://library.khai.edu/library/fulltexts/metod/> [in Ukrainian].

6. Methods of Geometric Modeling and Their Application in Graphic Disciplines for Engineer Training: final research report / Ministry of Education and Science of Ukraine, National Aerospace University named after N. E. Zhukovsky "Kharkiv Aviation Institute"; supervisor: K. P. Msallam; performers: S. Yu. Sayenko [et al.]. – Kharkiv, 2023. – 37 p. – State Registration No. 0121U111410 – Inventory No. 0224U001668. [in Ukrainian].
7. Environmental Passport of the Enterprise: textbook [for students majoring in "Ecology and Environmental Protection"] / [P. H. Kyriienko et al.]; National Aerospace University named after N. E. Zhukovsky "Kharkiv Aviation Institute." – Kharkiv: KhAI, 2022. – 127 p.: ill., tables. – Bibliography: p. 125. – 50 copies. – ISBN 978-966-662-907-7. [in Ukrainian].
8. Workbook on Descriptive Geometry: methodological guidelines / K. P. Msallam, Yu. A. Kuznetsova, Yu. H. Andrenko. – Kharkiv: National Aerospace University named after N. E. Zhukovsky "Kharkiv Aviation Institute," 2022. – 81 p. [in Ukrainian].
9. Geometric Modeling with Elements of Descriptive Geometry: textbook for practical classes / Yu. H. Andrenko, Yu. A. Kuznetsova, K. P. Msallam, V. M. Stepanenko. – Kharkiv: National Aerospace University named after N. E. Zhukovsky "Kharkiv Aviation Institute," 2022. – 96 p. <http://library.khai.edu/library/fulltexts/metod/> [in Ukrainian].
10. Descriptive Geometry in Examples and Problems: textbook for practical classes / [K. P. Msallam et al.]; National Aerospace University named after N. E. Zhukovsky "Kharkiv Aviation Institute." – Kharkiv: KhAI, 2021. – 103 p.: ill. – Bibliography: p. 102. – 100 copies. – ISBN 978-966-662-797-4. [in Ukrainian].
11. Research of Geometric Modeling Methods and Their Application in Professional Engineering Training: final research report / Ministry of Education and Science of Ukraine, National Aerospace University named after N. E. Zhukovsky "Kharkiv Aviation Institute"; supervisor: A. Yu. Cherniavskyi; performers: S. Yu. Sayenko [et al.]. – Kharkiv, 2020. – 146 p. – State Registration No. 0118U007155 – Inventory No. 0221U105332. [in Ukrainian].

Links to Citation Database Profiles:

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=24338935400>

Google Scholar: <https://scholar.google.ru/citations?user=vAALoygAAAAJ&hl=ru&oi=sra>

ORCID: <https://orcid.org/0000-0002-3923-0650>

ADDITIONAL INFORMATION:

Language Proficiency:

Ukrainian, English

IT Skills:

Microsoft Office / Microsoft Excel / Social Media / Zoom / Google Drive / Microsoft Powerpoint / Skype / etc.

Social and Community Activities:

Member of Public Organization "Kharkiv Aeroclub named after V. S. Gryzodubova of the Society for the Promotion of Defense of Ukraine" since 2022.

