



Name	Taras Mykhailenko
Position, Department/Faculty	Associate Professor, Department of Aerospace Thermal Engineering, Faculty of the Aircraft Engines
Academic Degree, Academic Title	Doctor of Philosophy, Associate Professor
Email:	t.mykhailenko@khai.edu
Scopus Author ID:	57218103709
Web of Science ResearcherID:	LNR-1521-2024
ORCID iD:	0000-0003-4708-673X
Google Scholar:	https://scholar.google.com.ua/citations?user=t7dwc4QAAAAJ
ResearchGate:	https://www.researchgate.net/profile/Taras-Mykhailenko?ev=hdr_xprf

EDUCATION:

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

Master of Science in Aerospace Thermal Engineering February 2001
National Aerospace University "Kharkiv Aviation Institute", Kharkiv, Ukraine,

Postgraduate/Doctoral studies:

Doctor of Philosophy in Technical Thermal Physics and Industrial Heat May 2006
Power Engineering
A. N. Podgorny Institute for problems in Machinery of the National Academy of Science of Ukraine, Kharkiv, Ukraine
Dissertation title: "Interphase heat-mass exchange in slurry ice generator during brine transpiration cooling"

Additional training, certification programs:

KhAI Training Program 2010 - 2013,
2018 - 2021

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

Associate Professor of Aerospace Thermal Engineering Department, September 2006 –
National Aerospace University «Kharkiv Aviation Institute» present

Vice Dean of Aircraft Engines Faculty, National Aerospace University September 2012 –
«Kharkiv Aviation Institute» August 2016



Teaching Experience:

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

- Thermodynamics and Heat Transfer;
- Heat Exchangers;
- Heat and Mass Transfer;
- Thermal Engineering Measurements and Devices.

Experience in International or National Projects:

Lecturer in NUAA's International Summer Course Program 2013 (July, 2013), NUAA's International Summer Course Program 2014 (August, 2014), NUAA's International Summer Course Program 2016 (July, 2016), NUAA's International Summer Course Program 2017 (July, 2017) provided by Nanjing University of Aeronautics and Astronautics (Nanjing, China).

RESEARCH ACTIVITIES:

Main Research Areas:

Investigation of heat and mass transfer processes in energy and technological devices, interphase heat-mass exchange theory and method of its analysis, modelling of thermal and hydraulic processes in aircraft engines elements, energy saving technologies and energy systems based on using of renewable energy sources.

Number of Publications (Scopus, WoS, others):

More than 50, some of them:

Petukhov I., Lysytsia O., Mykhailenko T., Kovalov A. Specific aspects of modeling heat and mass transfer during condensed phase precipitation on heat exchanger walls. Engineering Proceedings Journal. Proceedings of the 14th EASN International Conference on Innovation in Aviation & Space towards sustainability today & tomorrow, Engineering Proceedings, Vol. 90, Issue 1, Article 84 (27 March 2025). DOI: 10.3390/engproc2025090084. SCOPUS

T P Mykhailenko, A Yu Lysytsia, I I Petukhov and A V Kovalov. Specific aspects in numerical simulation of complex processes in gas turbine engine bearing chamber. 11TH-EASN. IOP Conf. Series: Materials Science and Engineering 1226 (2022) 012038. P. 1-8. doi:10.1088/1757-899X/1226/1/012038.

I. Petukhov, T. Mykhailenko, O. Lysytsia, A. Kovalov. Study of oil film heat transfer in gas turbine engine bearing chamber. Proceedings of the ASME Turbo Expo 2021 Turbomachinery Technical Conference and Exposition GT2021. P. 1-11. <https://doi.org/10.1115/GT2021-58964>. Scopus, WoS

Illia Petukhov, Taras Mykhailenko, Sergiy Yepifanov, Oleg Shevchuk (2020). STUDY ON ACCURACY OF HEAT TRANSFER COEFFICIENT DETERMINATION IN THE BEARING CHAMBER FOR GAS TURBINE ENGINE. Proceedings of the ASME Turbo Expo 2020, GT2020-14304. Scopus, WoS

CFD modeling of multiphase flows in the gas-turbine engines oil cavities / Douaissia Omar Hadj Aissa, O. Lysytsia, T. Mykhailenko, I. Petukhov // Eastern-European Journal of Enterprise Technologies. - 2020. - 2/5 (104) - P.12-20. - ISSN 1729-3774. DOI: 10.15587/1729-4061.2020.198328 Scopus



Monographs, Textbooks:

Термодинаміка і теплообмін. Ч. 2. Теплообмін [Текст] : консп. лекцій / К. С. Єпіфанов, П. Г. Гакал, Т. П. Михайленко. – Харків : Нац. аерокосм. ун-т ім. М. Є. Жуковського "Харків. авіац. ін-т", 2022. – 96 с.

Лисиця О.Ю. Fluid and Gas Dynamics (Гідрогазодинаміка) [Текст]: навчальний посібник / О.Ю. Лисиця, Т.П. Михайленко, Р.Ю. Турнаю – Харків: Нац. аерокосм. ун-т ім. М.Є. Жуковського «Харк. авіац. ін-т», 2015. -48 с.

Михайленко Т.П. Теплотехнические измерения и приборы: учеб. пособие / Т.П. Михайленко, А.Ю. Лисица, Ю.В. Шахов. – Х.: Нац. аерокосм. ун-т «Харьк. авиац. ин-т», 2012. – 124 с.

Петухов И.И. Теплофизические свойства веществ: учеб. Пособие / И.И. Петухов, Т.П. Михайленко. – Х.: Нац. аерокосм. ун-т «Харьк. авиац. ин-т», 2010. – 180 с.

Холодильная техника и кондиционеры / И.И. Петухов, Т.П. Михайленко, Д.В. Поздняков, А.Ю. Лисица. – Учеб. пособие по лабораторному практикуму. – Харьков: Нац. аерокосм. ун-т «Харьк. авиац. ин-т», 2008. – 50 с.

Participation in Scientific Conferences:

More than 50, some of them:

Михайленко Т.П., Горидько О.В., Петухов І.І. Вплив повітря на ефективність і надійність маслосистеми авіаційного газотурбінного двигуна. XXX Міжнародний конгрес двигунобудівників: тези доп., 2–5 верес. 2025 р. / Нац. аерокосм. ун-т ім. М. Є. Жуковського «ХАІ». – Харків, 2025

Petukhov I., Lysytsia O., Mykhailenko T., Kovalov A. Specific aspects of modeling heat and mass transfer during condensed phase precipitation on heat exchanger walls. Conference EASN 14 "Innovation in Aviation & Space towards sustainability today & tomorrow". Thessaloniki, Greece. 2024 (8-11 October). SCOPUS.

Михайленко Т.П., Горидько О.В., Петухов І.І. Особливості теплообміну при охолодженні оливи в авіаційному газотурбінному двигуні. XXVIII Міжнародний конгрес двигунобудівників: тези доп., 5–8 верес. 2023 р. / Нац. аерокосм. ун-т ім. М. Є. Жуковського «ХАІ». – Харків, 2023

T P Mykhailenko, A Yu Lysytsia, I I Petukhov and A V Kovalov. Specific aspects in numerical simulation of complex processes in gas turbine engine bearing chamber. 11TH-EASN. IOP Conf. Series: Materials Science and Engineering 1226 (2022) 012038. P. 1-8. doi:10.1088/1757-899X/1226/1/012038.

I. Petukhov, T. Mykhailenko, O. Lysytsia, A. Kovalov. Study of oil film heat transfer in gas turbine engine bearing chamber. Proceedings of the ASME Turbo Expo 2021 Turbomachinery Technical Conference and Exposition GT2021. P. 1-11. <https://doi.org/10.1115/GT2021-58964>. Scopus.

Illia Petukhov, Taras Mykhailenko, Sergiy Yepifanov, Oleg Shevchuk, Study on accuracy of heat transfer coefficient determination in the bearing chamber for gas turbine engine. Proceedings of the ASME Turbo Expo 2020 Turbomachinery Technical Conference and Exposition, September 21 – 25, 2020, Virtual, Online, GT2020-14304.



TEACHING ACTIVITIES:

Courses Taught:

The main lecture courses (National Aerospace University «Kharkiv Aviation Institute»):

- Thermodynamics and Heat Transfer;
- Heat Exchangers;
- Heat and Mass Transfer;
- Thermal Engineering Measurements and Devices.

Author Courses, Academic Programs:

The main author courses for Bachelors and Masters students:

- Thermodynamics and Heat Transfer
- Applied Thermodynamics
- Thermodynamic Analysis of Heat Machines;
- The Theory of Heat Transfer for Engineers;
- Fundamentals of Thermal Energies Transformation;

Methodological Materials, Textbooks:

Термодинаміка і теплообмін. Ч. 2. Теплообмін [Текст] : консп. лекцій / К. С. Єпіфанов, П. Г. Гакал, Т. П. Михайленко. – Харків : Нац. аерокосм. ун-т ім. М. Є. Жуковського "Харків. авіац. ін-т", 2022. – 96 с.

Лисиця О.Ю. Fluid and Gas Dynamics (Гідрогазодинаміка) [Текст]: навчальний посібник / О.Ю. Лисиця, Т.П. Михайленко, Р.Ю. Турнаю – Харків: Нац. аерокосм. ун-т ім. М.Є. Жуковського «Харк. авіац. ін-т», 2015. -48 с.

Михайленко Т.П. Теплотехнические измерения и приборы: учеб. пособие / Т.П. Михайленко, А.Ю. Лисица, Ю.В. Шахов. – Х.: Нац. аерокосм. ун-т «Харьк. авиац. ин-т», 2012. – 124 с.

Петухов И.И. Теплофизические свойства веществ: учеб. Пособие / И.И. Петухов, Т.П. Михайленко. – Х.: Нац. аерокосм. ун-т «Харьк. авиац. ин-т», 2010. – 180 с.

Холодильная техника и кондиционеры / И.И. Петухов, Т.П. Михайленко, Д.В. Поздняков, А.Ю. Лисица. – Учеб. пособие по лабораторному практикуму. – Харьков: Нац. аерокосм. ун-т «Харьк. авиац. ин-т», 2008. – 50 с.

GRANTS AND PROJECTS:

Participation in International and National Projects:

HYdrogen DEmonstrator for Aviation (HYDEA) project of HORIZON Joint Undertaking Clean-Aviation within the Horizon Europe research and innovation programme 2023 – present



Technical coordinator of AMBEC (Advanced Modelling Methodology for Bearing Chamber in Hot Environment) project of Clean Sky 2 Joint Technology Initiative within the EU Horizon 2020. 2018 – 2023

STCU Project UZB 35j « THE DEVELOPMENT OF THE EXPERIMENTAL INSTALLATION FOR FAST FREEZING OF FRUITS AND BERRIES» 2002 – 2004

National Aerospace University "Kharkiv Aviation Institute", Kharkiv, Ukraine:
Fundamentals of analysis and synthesis of thermohydraulic processes in complex systems aimed at improving the efficiency of power plants and the use of fuel and energy resources (0109U002185) 2009 – 2011

PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Distinctions, Awards, Prizes:

Honor Diploma (Graduated from KhAI with distinction), Certificate of Merit, Prize winner of «ICARY KhAI»

Membership in Professional Associations:

Member of the American Society of Mechanical Engineers (ASME), Member of the European Aerospace Science Network (EASN)

INTERNATIONAL ACTIVITIES:

Internships:

NUAA's International Summer Course Program provided by Nanjing University of Aeronautics and Astronautics (Nanjing, China)

Cooperation with Foreign Universities:

Nanjing University of Aeronautics and Astronautics (Nanjing, China)

Teaching/Lecturing Abroad:

Lecturer in NUAA's International Summer Course Program 2013 (July, 2013), NUAA's International Summer Course Program 2014 (August, 2014), NUAA's International Summer Course Program 2016 (July, 2016), NUAA's International Summer Course Program 2017 (July, 2017) provided by Nanjing University of Aeronautics and Astronautics (Nanjing, China)





SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

Petukhov I., Lysytsia O., Mykhailenko T., Kovalov A. Specific aspects of modeling heat and mass transfer during condensed phase precipitation on heat exchanger walls. Engineering Proceedings Journal. Proceedings of the 14th EASN International Conference on Innovation in Aviation & Space towards sustainability today & tomorrow, Engineering Proceedings, Vol. 90, Issue 1, Article 84 (27 March 2025). DOI: 10.3390/engproc2025090084. SCOPUS

T P Mykhailenko, A Yu Lysytsia, I I Petukhov and A V Kovalov. Specific aspects in numerical simulation of complex processes in gas turbine engine bearing chamber. 11TH-EASN. IOP Conf. Series: Materials Science and Engineering 1226 (2022) 012038. P. 1-8. doi:10.1088/1757-899X/1226/1/012038.

I. Petukhov, T. Mykhailenko, O. Lysytsia, A. Kovalov. Study of oil film heat transfer in gas turbine engine bearing chamber. Proceedings of the ASME Turbo Expo 2021 Turbomachinery Technical Conference and Exposition GT2021. P. 1-11. <https://doi.org/10.1115/GT2021-58964>. Scopus, WoS

Illia Petukhov, Taras Mykhailenko, Sergiy Yepifanov, Oleg Shevchuk (2020). STUDY ON ACCURACY OF HEAT TRANSFER COEFFICIENT DETERMINATION IN THE BEARING CHAMBER FOR GAS TURBINE ENGINE. Proceedings of the ASME Turbo Expo 2020, GT2020-14304. Scopus, WoS

CFD modeling of multiphase flows in the gas-turbine engines oil cavities / Douaissia Omar Hadj Aissa, O. Lysytsia, T. Mykhailenko, I. Petukhov // Eastern-European Journal of Enterprise Technologies. - 2020. - 2/5 (104) - P.12-20. - ISSN 1729-3774. DOI: 10.15587/1729-4061.2020.198328 Scopus

Books, Chapters in Collective Monographs:

Термодинаміка і теплообмін. Ч. 2. Теплообмін [Текст] : консп. лекцій / К. С. Єпіфанов, П. Г. Гакал, Т. П. Михайленко. – Харків : Нац. аерокосм. ун-т ім. М. Є. Жуковського "Харків. авіац. ін-т", 2022. – 96 с.

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Михайленко Т.П. Теплотехнические измерения и приборы: учеб. пособие / Т.П. Михайленко, А.Ю. Лисица, Ю.В. Шахов. – Х.: Нац. аерокосм. ун-т «Харьк. авиац. ин-т», 2012. – 124 с.

Петухов И.И. Теплофизические свойства веществ: учеб. Пособие / И.И. Петухов, Т.П. Михайленко. – Х.: Нац. аерокосм. ун-т «Харьк. авиац. ин-т», 2010. – 180 с.

Холодильная техника и кондиционеры / И.И. Петухов, Т.П. Михайленко, Д.В. Поздняков, А.Ю. Лисица. – Учеб. пособие по лабораторному практикуму. – Харьков: Нац. аерокосм. ун-т «Харьк. авиац. ин-т», 2008. – 50 с.



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Links to Citation Database Profiles:

<https://scholar.google.com.ua/citations?user=t7dwc4QAAAAJ>

https://www.researchgate.net/profile/Taras-Mykhailenko?ev=hdr_xprf

<https://orcid.org/0000-0003-4708-673X>

<https://www.scopus.com/authid/detail.uri?authorId=57218103709>

<https://www.webofscience.com/wos/author/record/LNR-1521-2024>

ADDITIONAL INFORMATION:

Language Proficiency:

Ukrainian, English, Russian

IT Skills:

Computational program: Simcenter Amesim, AxSTREAM NET, Ansys Mechanical

Programming languages and mathematical tools: Fortran, MathCAD

Computer aided design/engineering: AutoCAD, Kompas, SolidWorks

Other: MS Office

Social and Community Activities:

Member of the American Society of Mechanical Engineers (ASME), Member of the European Aerospace Science Network (EASN)