Name	Oleksii Lysytsia
Position, Department/Faculty	associated professor of the aerospace thermal engineering department, Aerospace thermal engineering department/ Faculty of Aircraft Engines
Academic Degree, Academic Title	Ph.D., associated professor
Email:	a.lisitsa@khai.edu
Scopus Author ID:	57218092798
Web of Science ResearcherID:	NZO-4889-2025
ORCID iD:	0000-0002-5679-8459
Google Scholar:	IWTkQQQAAAAJ https://scholar.google.ru/citations?hl=ru&user=IWTkQQQAAAAJ&view_op=list_works&sortby=pubdate
ResearchGate:	https://www.researchgate.net/profile/Oleksii-Lysytsia?ev=hdr_xprf

EDUCATION:

Basic education (university, major, year of graduation):
Graduated with honors from the National Aerospace University "Kharkiv Aviation Institute" with a degree in "Aerospace Thermal Engineering" in 2005. Obtained the qualification of a research engineer (Master's degree of Kharkiv Aviation Institute No. 25954573 dated February 28, 2005).

Postgraduate/Doctoral studies:
Graduated from the National Aerospace University in 2008. Candidate of Technical Sciences since (Ph.D.) November 10, 2011. The dissertation was defended on May 20, 2011 in the specialized academic council D 64.088.01 in the specialty 05.18.12. Received diploma DK No. 001712.

Additional training, certification programs:
Received a certificate of English proficiency at level B2 (ITEP Academic-Plus Exam diploma ID#13808A66AP dated 10/12/2020).

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):
Oleksii Lysytsia have been working at the National Aerospace University "Kharkiv Aviation Institute" since 2004 to the present. Work experience is 21 years. Oleksii Lysytsia was appointed to the position of Associated Professor of the Aerospace thermal engineering department on October 7, 2014. Order dated 09.10.2014 No. 1893-VK.

Teaching Experience:
Teaching experience as of 2025 is 15 years.

Experience in International or National Projects:
1. International research project P789 "Hydrogen DEmonstrator for Aviation (HYDEA)". HORIZON-JU-Clean-Aviation project HYDEA, (grant agreement No. 101102019) from 2023 to 2027.
2. International research project "Advanced Modeling Methodology for Hot Environment Bearing Chamber (AMBEC)" of the European Union Framework Program "Horizon 2020" (grant agreement No. 785493) from 2018 to 2023.

RESEARCH ACTIVITIES:

Main Research Areas:
CFD-modeling of thermohydraulic processes in energy systems, processes of heat and mass transfer and fluid dynamics in complex systems, multiphase flows, hydrogen energy.

Number of Publications (Scopus, WoS, others):
More than 70 publications.

Monographs, Textbooks:

Participation in Scientific Conferences:
1. International conference EASN 14 “Innovation in Aviation & Space towards sustainability today & tomorrow”. Thessaloniki, Greece.
2. International conference ASME Turbo Expo 2021 Turbomachinery. Technical Conference and Exposition GT2021.
3. International conference EASN 11. IOP Conf. Series: Materials Science and Engineering.
4. International Propulsion Engineering Congress. KhAI. Kharkiv.
5. International conference "Integrated Computer Technologies in Mechanical Engineering ICTM". KhAI. Kharkiv.
6. Power Plants and Alternative Energy Sources". KhPI. Kharkiv
7. International Conference "Power Plants and Alternative Energy Sources 2025" KhNADU. Kharkiv.
8. International Scientific and Technical Conference "Energy and Heat Engineering Processes and Equipment". KhPI. Kharkiv.
9. VIII International Scientific and Technical Conference "Current State and Problems of Engine Engineering" Mykolaiv.
10. Scientific and Technical Conference "Computer Modeling in High-Intensity Technologies". Karazin National University, Kharkiv.

TEACHING ACTIVITIES:

Courses Taught:
- Thermal protection of power plants and aircraft;
- Computational hydromechanics;
- Technical means of thermophysical experiment;
- Thermal measurements and devices;
- Hydraulics;
- Scientific and technical foundations of hydrogen energy;
- Technical thermodynamics;

- Thermotechnical measurements and devices;
- Fluid and Gas Dynamics.

Author Courses, Academic Programs:
- Thermal protection of power plants and aircraft;
- Computational hydromechanics;
- Hydraulics;
- Scientific and technical foundations of hydrogen energy.

Methodological Materials, Textbooks:
1. Refrigeration and air conditioning manual Kharkiv: KhAI, 2008. – 56 p. 56/20 I. I. Petukhov, T. P. Mikhailenko, O. Yu. Lysytsia, D. V. Pozdnyakov.
2. Thermal measurements and instruments manual Kharkiv: KhAI, 2012. – 124 p. 124/41 T. P. Mykhailenko, Yu. V. Shakhov, O. Yu. Lysytsia.
3. Fluid and Gas Dynamics manual Kharkiv: KhAI, 2015. – 48 p. 48/24 T. Mykhailenko, O. Lysytsia, R. Turna.

GRANTS AND PROJECTS:

Participation in International and National Projects:
1. International research project P789 "Hydrogen DEmonstrator for Aviation (HYDEA)". HORIZON-JU-Clean-Aviation project HYDEA, (grant agreement No. 101102019) from 2023 to 2027.
2. International research project "Advanced Modeling Methodology for Hot Environment Bearing Chamber (AMBEC)" of the European Union Framework Program "Horizon 2020" (grant agreement No. 785493) from 2018 to 2023.

PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Honorary Titles:

Distinctions, Awards, Prizes:
1. Scholarship of the Cabinet of Ministers for young scientists.
2. Award "Icarus KhAI" in the nomination "Young scientific and pedagogical worker".

Membership in Professional Associations:
1. Expert of the National Agency for Quality Assurance in Higher Education. Ministry of Education of Ukraine.
2. Member of the one-time specialized academic council for the degree of Doctor of Philosophy. National Aerospace University KhAI.

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):
1. Petukhov I., Lysytsia O., Mykhailenko, T., Kovalov A. Specific Aspects of Modelling Heat and Mass Transfer During Condensed Phase Precipitation on Heat Exchanger Walls. Eng. Proc. 2025, 90, 84.

https://doi.org/10.3390/engproc2025090084 SCOPUS.
2. Petukhov I., Parafeinyk P., Lysytsia O. Novel Approach to Estimate the Efficiency of Real Gas Compression Process in Uncooled Centrifugal Compressor. ICTM 2024, LNNS 1474, pp. 1–12, 2025. https://doi.org/10.1007/978-3-031-94852-7_27. SCOPUS.
3. Mykhailenko T., Lysytsia A., Petukhov I. and Kovalov A. 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. SCOPUS.
4. Petukhov I., Mykhailenko T., Lysytsia O., Kovalov A. 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.
5. Korohodskiy V., Rogovyi A., Voronkov O., Polivyanchuk A., Gakal P., Lysytsia O., Khudiakov I., Makarova T., Hnyp M., Haiek Y. Three-zone combustion model of the engine with spark ignition and stratification of the fuel-air charge. Eastern-European Journal of Enterprise Technologies. – 2021. – № 2/5 (110). – P. 46–57. https://doi.org/10.15587/1729-4061.2021.228812. SCOPUS.
6. Douaissia Omar Hadj Aissa, Lysytsia O., Mykhailenko T., Petukhov I. CFD modeling of multiphase flows in the gas-turbine engines oil cavities. Eastern-European Journal of Enterprise Technologies. – 2020. – № 2/5 (104). – P. 12–20. https://doi.org/10.15587/1729-4061.2020.198328. SCOPUS.

Books, Chapters in Collective Monographs:

Links to Citation Database Profiles:
Scopus Author ID: 57218092798
Web of Science Researcher ID: NZO-4889-2025
ORCID iD: 0000-0002-5679-8459
Google Scholar: IWTkQQQAAAAJ
https://scholar.google.ru/citations?hl=ru&user=IWTkQQQAAAAJ&view_op=list_works&sortby=pubdate
ResearchGate: https://www.researchgate.net/profile/Oleksii-Lysytsia?ev=hdr_xprf

ADDITIONAL INFORMATION:

Language Proficiency:
Ukrainian language - perfect.
English - level B2 (ITEP Academic-Plus Exam diploma ID#13808A66AP dated 10/12/2020).

IT Skills:
1. Program ANSYS Fluent.
2. Fortran Program

Social and Community Activities:
1. Career guidance work with applicants.
2. Educational work with students.
3. Scientific research.