



Name	Vitalii Chmovzh
Position, Department/Faculty	Professor, Department of Aerohydrodynamics / Faculty of Aircraft Construction
Academic Degree, Academic Title	Candidate of Technical Sciences (PhD), Associate Professor
Email:	v.chmovzh@khai.edu , v.chmovzh@gmail.com
Scopus Author ID:	55192300800
Web of Science ResearcherID:	O-8738-2014
ORCID iD:	0000-0001-6366-243X
Google Scholar:	https://scholar.google.com/citations?user=s-tupQIAAAAJ&hl=uk&oi=ao
ResearchGate:	https://www.researchgate.net/profile/Vitaly-Chmovzh?ev=hdr_xprf

EDUCATION:

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

Kharkov Aviation Institute, Mechanical Engineering,
1984 – 1992, Student Study

Postgraduate/Doctoral studies:

Kharkov Aviation Institute, Department of Aerohydrodynamics,
PhD (Mechanics of Fluid, Gas and Plasma), 1995 – 1998, Post-graduate Study

National Aerospace University, Department of Software Engineering, 2017 – 2019, Doctoral studies

Additional training, certification programs:

Massachusetts Institute of Technology, January 22, 2016, 16.101x_2: Intro to Aerodynamics
<https://courses.edx.org/certificates/9e1c8e4dbff647f694cb8b17961f8506>

Delft University of Technology, March 11, 2016, AE1110x: Introduction to Aeronautical Engineering
<https://verify.edx.org/cert/f8cad39d3c3741e8928f67abf8e45ad3>

Massachusetts Institute of Technology, June 2, 2016, 16.110x_2: Flight Vehicle Aerodynamics
<https://courses.edx.org/certificates/b2d2a376f7454934b10fa8d0d957f3c5>

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

Kharkov Aviation Institute, Department of Aerohydrodynamics, 1992 – 1995, Engineer
Kharkov Aviation Institute, Department of Aerohydrodynamics, 1995 – 1998, Post-graduate Study
State Aerospace University, Department of Aerohydrodynamics, 1998 – 2001, Assistant professor
National Aerospace University, Department of Aerohydrodynamics, 2001 – 2008, Associate professor
National Aerospace University, 2008 – 2016, Head of the Department of Aerohydrodynamics
National Aerospace University, Department of Aerohydrodynamics, 2016 – 2017, Professor
National Aerospace University, Department of Software Engineering, 2017 – 2019, Professor



LLC “VBR-KOM”, 2019 – 2025, Design engineer
National Aerospace University, Department of Aerohydrodynamics, 2025, Professor

Teaching Experience:

Teaching experience of over 20 years

Experience in International or National Projects:

Experience in international or national projects more than 5 years

RESEARCH ACTIVITIES:

Main Research Areas:

1. Aerodynamics and flight dynamics of aircraft
2. Transport aerodynamics
3. Aerodynamics of buildings and structures
4. Experimental aerodynamics (Wind Tunnel Test)

Number of Publications (Scopus, WoS, others):

Total number: More than 50 publications.

Scopus:

1. On the optimal model configuration for aerodynamic modeling of open cargo railway train, DOI: 10.1016/j.jweia.2012.03.035
2. Experimental Investigation of the Influence of the Shape of Ice Outgrowths on the Aerodynamic Characteristics of the Wing, DOI: 10.1007/s10891-019-01955-1

Participation in Scientific Conferences:

Total number: More than 20 publications.

TEACHING ACTIVITIES:

Courses Taught:

1. Hydropneumatic devices of aircraft systems
2. Aerodynamics of aviation and rocket-space technology
3. Flight dynamics
4. Aircraft aerodynamics
5. Mathematical modeling in hydraulics problems

Methodological Materials, Textbooks:

1. Hydraulics and hydraulic systems of aircraft, 2001
2. Aerodynamics and flight dynamics, 2003
3. Aerohydrodynamics, 2006
4. Experimental Aerodynamics, 2007
5. Experimental hydraulics, 2012
6. Aerodynamics of helicopters, 2012
7. Helicopter flight dynamics, 2014
8. Fundamentals of numerical methods in mechanics, 2015
9. Experimental hydraulics, 2017

GRANTS AND PROJECTS:



NATIONAL AEROSPACE UNIVERSITY
«KHARKIV AVIATION INSTITUTE»



Participation in International and National Projects:

Curtin University of Technology, 2008 – 2011,

Project Plan Name: Novel Railway Haulage Aerodynamics

Project Description:

1. To ascertain the influence of the shape of railway wagon for transportation of dry bulk commodities and consist design on the aerodynamic properties of the railway consist and provide recommendations on the optimum method/s or a combination of methods for reducing the air drag of the railway wagon/consist.
2. Computational modeling of various aerodynamic regimes of rail wagons aimed at selecting wagon design configurations with most potential for reducing air drag for further, physical modeling in wind tunnel.
3. Physical, i.e. wind tunnel modeling of rail wagons with various aerodynamic attachments aimed at selecting wagon design configurations with the most potential for reducing air drag.

PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Honorary Titles:

Academic title: Professor of the Department of Aerohydrodynamics of the National Aerospace University, 2015

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

1. On the optimal model configuration for aerodynamic modeling of open cargo railway train, DOI: 10.1016/j.jweia.2012.03.035
2. Experimental Investigation of the Influence of the Shape of Ice Outgrowths on the Aerodynamic Characteristics of the Wing, DOI: 10.1007/s10891-019-01955-1

Links to Citation Database Profiles:

<https://scholar.google.com/citations?user=s-tupQIAAAAJ&hl=uk&oi=ao>

ADDITIONAL INFORMATION:

Language Proficiency:

Russian (native speaker)

Ukrainian (fluent, reading)

English (fluent, reading)

IT Skills:

Operation in Windows, Microsoft Office, Adobe, Corel

Development of SCADA systems

Java, C++, C# Programming (Middle)

Social and Community Activities:

Member of the Ukrainian national team in aircraft modeling in the F1Q class

