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Website: https://scholar.google.com/citations?user=Aw-U7ucAAAAJ&hl

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ABOUT ME

Sumy National Agrarian University (SNAU), Sumy, Ukraine,
Head of the Department of Technical Systems Design
Academic title:
Ph.D. in specialty standardization, certification, and metrological support, ДК No. 054565 dated October 14, 2009.
Academic degree:
Associate Professor of the Department of Mechanical Engineering Technology, Machine Tools and Tools, 12ДЦ No. 036839 dated November 21, 2013.

WORK EXPERIENCE

Engineer of the department of standardization and certification

Public Joint Stock Company «Sumy Frunze Machine-Building Science and Production Association» [22/08/2002 – 31/10/2002]

City: Sumy | **Country:** Ukraine

Carrying out work on standardization and conformity assessment of products of economic industrial and energy sectors.

Head of the technical department of the industrial-commercial enterprise, in parallel

limited liability company "Sumytkanyna", Sumy, Ukraine [01/11/2002 – 20/04/2003]

City: Sumy | **Country:** Ukraine

Organization and management of cloth manufacturing. Carrying out light industry tests in accordance with the criteria of the Ukrainian Centre for Product Certification.

Leading specialist of the conformity assessment department, in parallel

State Enterprise " "Sumystandartmetrolohiia" [10/10/2009 – 30/11/2011]

City: Sumy | **Country:** Ukraine

Conducting work on products and management systems conformity.

Vice-Head of the Department of Mechanical Engineering Technology, Machine Tools and Tools

Sumy State University [01/11/2005 – 31/08/2011]

City: Sumy | **Country:** Ukraine

Organizational and methodological work of the department, work on the department specialties' accreditation of the primary, secondary, and tertiary education.

Assistant Professor of Department of Manufacturing Engineering, Machines and Tools

Sumy State University [01/09/2011 – 30/09/2013]

City: Sumy | **Country:** Ukraine

Teaching disciplines in technical aspiration, carrying out research in automation and instrumentation, and mechanical engineering.

Doctoral Habilitatus Studies at Department of Manufacturing Engineering, Machines and Tools

Sumy State University [01/10/2013 – 30/09/2016]

City: Sumy | **Country:** Ukraine

Teaching disciplines in technical aspiration, carrying out research in various economic sectors

Assistant Professor of Department of Manufacturing Engineering, Machines and Tools

Sumy State University [01/10/2016 – Current]

City: Sumy | **Country:** Ukraine

Teaching disciplines in technical aspiration, research work in the field of automation and instrumentation, electronic engineering, and mechanical engineering.

Vice-Dean of the Faculty of Technical Systems and Energy Efficient Technologies, in parallel

Sumy State University [18/10/2019 – Current]

City: Sumy | **Country:** Ukraine

Activities' organization of the Faculty of Technical Systems and Energy Efficient Technologies in distance learning

Director of Training Centre for Personnel Certification

Sumy State University [10/10/2015 – 28/06/2021]

City: Sumy | **Country:** Ukraine

Organization, conducting, and attestation at staff advanced qualification courses.

EDUCATION AND TRAINING

Bachelor of Mechanical Engineering in the professional branch of Hydraulic and Pneumatic Machines

Sumy State University [01/09/1997 – 27/06/2001]

Address: Mykola Sumtsova street Apartment 2, 40007 Sumy (Ukraine) | **Website:** https://sumdu.edu.ua/ | **Field(s) of study:** Hydraulic and pneumatic machines | **Final grade:** CM № 16295121 | **Level in EQF:** EQF level 6 | **NQF Level:** the first level of higher education | **Type of credits:** 240 ECTS | **Number of credits:** 7163 hours | **Thesis:** Development of cantilever pumps for chemical production according to international standard ISO 2858

Bachelor of Mechanical Engineering in the professional branch of Hydraulic and Pneumatic Machines

Land-based Artillery Unit Commander

Sumy State University [01/09/1999 – 28/08/2001]

Address: 40007 Sumy (Ukraine)

Quality Assurance Engineer

Sumy State University [01/09/2001 – 02/07/2002]

Address: Mykola Sumtsova street Apartment 2, 40007 Sumy (Ukraine) | **Field(s) of study:** quality, standardization, and certification | **Final grade:** CM № 19720701 | **Level in EQF:** EQF level 7 | **NQF Level:** second level of higher education | **Type of credits:** 60 ECTS | **Number of credits:** 1348 hours | **Thesis:** Development and implementation at the machine-building enterprise of procedures for the processes of the management system: "Processes of planning, monitoring, measurement and analysis of activity"

Master in Energy Management

Sumy State University [01/09/2019 – 31/12/2020]

Address: Mykola Sumtsova street Apartment 2, 40007 Sumy (Ukraine) | **Website:** https://sumdu.edu.ua/ | **Field(s) of study:** heat power engineering, electrical engineering | **Final grade:** M20 № 188961 | **Level in EQF:** EQF level 7 | **NQF Level:** second level of higher education | **Type of credits:** 90 ECTS | **Number of credits:** 2700 hours | **Thesis:** The automated calculation system the forecasted volumes of energy consumption at designing the technological process of finishing details

Doctoral

Sumy State University [01/11/2002 – 10/2005]

Address: Mykola Sumtsova street Apartment 2, 40007 Sumy | **Field(s) of study:** machining processes, machines, and tools | **Final grade:** CA № 8.011/05 | **Level in EQF:** EQF level 8 | **NQF Level:** third level of higher education

Course EUREM “European EnergyManager (CCI)”

Kyiv Chamber of Commerce and Industry [13/10/2017 – 18/05/2018]

Address: B. Khmelnytskoho St., 55, 01054 Kyiv (Ukraine) | **Website:** http://training-center.kiev.ua | **Field(s) of study:** It is recognized in the world qualification program in the field of energy management and energy efficient technologies.http://training-center.kiev.ua | **Number of credits:** 236 hours | **Thesis:** "Energy efficiency improvement of the educational building "T" of the Sumy State University"

Training for leading management systems auditors according to ISO 50001

United Nations Industrial Development Organization (UNIDO) [27/03/2017 – 31/03/2017]

City: Kyiv | **Country:** Ukraine | **Final grade:** Certificate EnMS LA-047 dated March 31, 2017

Thermographic analysis of buildings, Feldafing, Germany

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, TOPA GmbH [26/01/2020 – 30/01/2020]

Country: Germany

Das Training beinhaltete:
Einweisung in die Handhabung einer IR-Kamera und Praxisiibungen zur
Erstellung thermographischer Gebaudeaufnahmen;
Analyse ven Objektparametern anhand von Thermogrammen;
Thermographische Analyse von Gebauden in Theorie und Praxis;
Digitalisierung von thermographischen Aufnahmen;
Auswertung von Thermographischen Aufnahmen, z.B. Nachweis vcin Mangeln in
der Wéirmedisimmung und von Warmebrficken, Bestimmung des Taupunktes,
Erkennen von Feuchtigkeit und Gebaudeschaden.

ISO 37001:2016 Anti-bribery management systems. Requirements with guidance for use

CERTIFICATION NETWORK MC GMBH (GERMANY) and LLC DQS CERTIFIC UKRAINE (UKRAINE) [09/06/2020 – 12/06/2020]

Country: Ukraine

- General understanding of requirements of ISO 37001;
- Understanding of bribery in terms of ISO 37001;
- Risk Management of bribery as the basis of ISO 37001 requirements;
- Integration of anti-bribery into the own management system;

- Process approach to combating bribery;
- Leadership and countering bribery;
- Anti-bribery and HR management;
- Counteracting bribery with external partners;
- Responding to suspicion of bribery;
- Implementation and operation of anti-bribery management system

An Approach for Cutting Tool Selection for Materials Machining in Industry 4.0

Poznan University of technology [16/11/2020 – 19/02/2021]

City: Poznan | **Country:** Poland | **Field(s) of study:** Research internship | **Thesis:** An Approach for Cutting Tool Selection for Materials Machining in Industry 4.0

Training of energy auditors to cooperate with the Energy Efficiency Fund

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH [01/09/2019 – 30/11/2019]

City: Kharkov | **Country:** Ukraine

Features of hospital's energy audit

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH [15/04/2019 – 18/04/2019]

City: Kyiv | **Country:** Ukraine

Food safety management systems. Requirements for any food chain organization, subject to the provisions of ISO 19011: 2018, ISO 22000: 2018, and ISO 31000: 2018

SE "Sumystandart-metrolohiia" [01/10/2019 – 31/10/2019]

City: Sumy | **Country:** Ukraine

Advanced course in Metrology and Information Measurement Systems on the direction Measurement Practice: Current Trends and Challenges

Sumy State University [05/11/2020 – 16/11/2020]

Address: Mykola Sumtsova street Apartment 2, 40007 Sumy |
Final grade: Certificate 51.20.18/11 dated 2020.11.16

A scientist's brand in the digital world

Innovative University, [21/11/2022 – 27/11/2022]

Address: st. Saksaganskoho, 112 b, office. 22, 01032 Kyiv (Ukraine) | **Website:** https://inun.org.ua/contacts/ | **Final grade:** Certificate № 1421 dated December 05, 2022

Successful Career of a Scientist;
Effective Communication;
Successful Presentation;
I am a brand;
How to manage emotions and cope with anxiety before a performance;
The image of a scientist in digital society;
Use of tools of open science and scientometric bases for the popularization of own scientific results;
Digital technologies and social networks for the popularization of scientific achievements.
Completed individual tasks.
A pitch was created and presented.

LANGUAGE SKILLS

Mother tongue(s): Ukrainian

PUBLICATIONS

[2024]
INFLUENCE OF THE ADDENDUM MODIFICATION ON SPUR GEAR TRANSMISSION EFFICIENCY

Dumanchuk, M. Y., Ivchenko, O. V., Zhyhylii, D., Zavhorodnii, D. M., & Kozin, V. M. (2025). INFLUENCE OF THE ADDENDUM MODIFICATION ON SPUR GEAR TRANSMISSION EFFICIENCY. *Bulletin of Sumy National Agrarian University. The Series: Mechanization and Automation of Production Processes*, (4 (58), 34-43. https://doi.org/10.32782/msnau.2024.4.5

Dumanchuk, M. Y., Ivchenko, O. V., Zhyhylii, D., Zavhorodnii, D. M., & Kozin, V. M.

[2024]

COMPARISON OF CHARACTERISTICS OF THE COUNTER-ROTOR STAGE WITH AVAILABLE CNA-180 LINE PUMPS

Kulikov, O., Ratushnyi, O., Ivchenko, O., Andrusiak, V., & Herasymenko, V. (2024). COMPARISON OF CHARACTERISTICS OF THE COUNTER-ROTOR STAGE WITH AVAILABLE CNA-180 LINE PUMPS. *Bulletin of Sumy National Agrarian University. The Series: Mechanization and Automation of Production Processes*, (3 (57), 10-17. https://doi.org/10.32782/msnau.2024.3.2

Kulikov, O., Ratushnyi, O., Ivchenko, O., Andrusiak, V., & Herasymenko, V.

[2024]

Determination of the energy efficiency of granulation equipment based on exergy analysis

Ostroha, R., Yukhymenko, M., Myshchenko, D., Skydanenko, M., Ivchenko, O., Zhyhylii, D., Ponomarova, L., & Bocko, J. (2024). Determination of the energy efficiency of granulation equipment based on exergy analysis. *Technology Audit and Production Reserves*, *5*(1(79), 6–11. https://doi.org/10.15587/2706-5448.2024.311777

Ostroha, R., Yukhymenko, M., Myshchenko, D., Skydanenko, M., Ivchenko, O., Zhyhylii, D., Ponomarova, L., & Bocko, J.

[2024]

CHARACTERISTIC FIELDS OF COUNTER-ROTATING HYDROTURBINE STAGES

Kulikov, O. A., Ratushnyi, O. V., Ivchenko, O. V., Kozin, V. M., Fesenko, D. I., & Zhyhylii, D. O. (2024). CHARACTERISTIC FIELDS OF COUNTER-ROTATING HYDROTURBINE STAGES. *Bulletin of Sumy National Agrarian University. The Series: Mechanization and Automation of Production Processes*, (1 (55), 46-54. https://doi.org/10.32782/msnau.2024.1.6

Kulikov, O. A., Ratushnyi, O. V., Ivchenko, O. V., Kozin, V. M., Fesenko, D. I., & Zhyhylii, D. O.

[2022]

An Improved Model for Integrated Management Systems

Rajabzadeh, M., Zaloga, V., Ivchenko, O., Chepizhnyi, A., Hladyshev, D. (2023). An Improved Model for Integrated Management Systems. In: Tonkonogyi, V., Ivanov, V., Trojanowska, J., Oborskyi, G., Pavlenko, I. (eds) Advanced Manufacturing Processes IV. InterPartner 2022. Lecture Notes in Mechanical Engineering. Springer, Cham. https://doi.org/10.1007/978-3-031-16651-8_15

Rajabzadeh, M., Zaloga, V., Ivchenko, O., Chepizhnyi, A., Hladyshev, D.

[2023]

An Increase in Energy Efficiency and Vibration Reliability of Centrifugal Pumps for Nuclear Power Plants

Pavlenko, I. *et al.* (2023). An Increase in Energy Efficiency and Vibration Reliability of Centrifugal Pumps for Nuclear Power Plants. In: Balog, M., Iakovets, A., Hrehova, S. (eds) EAI International Conference on Automation and Control in Theory and Practice . EAI ARTEP 2023. EAI/Springer Innovations in Communication and Computing. Springer, Cham. https://doi.org/10.1007/978-3-031-31967-9_4

Ivan Pavlenko; Vladyslav Kondus; Vitalii Ivanov; Anton Verbovyi; Oleksandr Ivchenko; Frantisek Botko; Jan Pitel

[2023]

STUDY ON THE ELECTRO-SPARK DEPOSITION PROPERTIES OF SKH51 TRANSITION COATING IN COMPOSITE GRADIENT COATING

Xin, D., AlfyorovO., Ivchenko, O., & Dumanchuk, M. (2023). STUDY ON THE ELECTRO-SPARK DEPOSITION PROPERTIES OF SKH51 TRANSITION COATING IN COMPOSITE GRADIENT COATING. *Bulletin of Sumy National Agrarian University. The Series: Mechanization and Automation of Production Processes*, (4 (54), 8-15. https://doi.org/10.32782/msnau.2023.4.2

Xin, D., AlfyorovO., Ivchenko, O., & Dumanchuk, M.

[2023]

RESEARCH ON METHODS OF IMPROVING THE QUALITY OF THE COATING OF LOW-MELTING ALLOY B83 FORMED BY ELECTROSPARK PROCESSING METHODS

Xin, D., Тарельник, В., Dumanchuk, M., Ivchenko, O., & Gerasimenko, V. (2023). RESEARCH ON METHODS OF IMPROVING THE QUALITY OF THE COATING OF LOW-MELTING ALLOY B83 FORMED BY ELECTROSPARK PROCESSING METHODS. *Bulletin of Sumy National Agrarian University. The Series: Mechanization and Automation of Production Processes*, (3 (53), 3-10. https://doi.org/10.32782/msnau.2023.3.1

Xin, D., Тарельник, В., Dumanchuk, M., Ivchenko, O., & Gerasimenko, V.

[2023]

Energy Efficiency Indicator of Pumping Equipment Usage

Ivchenko, O., Andrusiak, V., Kondus, V., Pavlenko, I., Petrenko, S., Krupińska, A., Włodarczak, S., Matuszak, M., & Ochowiak, M. (2023). Energy Efficiency Indicator of Pumping Equipment Usage. *Energies*, *16*(15), 5820. https://doi.org/10.3390/en16155820

Ivchenko, O., Andrusiak, V., Kondus, V., Pavlenko, I., Petrenko, S., Krupińska, A., Włodarczak, S., Matuszak, M., & Ochowiak, M.

[2023]

Determining a model of the blade in a wind turbine for regions with low wind speeds

Yurchenko, O., Radchuk, O., Barsukova, H., Savchenko-Pererva, M., Ivchenko, O., Kolodnenko, V., & Fesenko, D. (2023). Determining a model of the blade in a wind turbine for regions with low wind speeds. *Eastern-European Journal of Enterprise Technologies*, *2*(8 (122), 44–52. https://doi.org/10.15587/1729-4061.2023.277896

Yurchenko, O., Radchuk, O., Barsukova, H., Savchenko-Pererva, M., Ivchenko, O., Kolodnenko, V., & Fesenko, D.

[2023]

An Increase in the Energy Efficiency of a New Design of Pumps for Nuclear Power Plants

Pavlenko, I.; Ciszak, O.; Kondus, V.; Ratushnyi, O.; Ivchenko, O.; Kolisnichenko, E.; Kulikov, O.; Ivanov, V. An Increase in the Energy Efficiency of a New Design of Pumps for Nuclear Power Plants. *Energies* **2023**, *16*, 2929. https://doi.org/10.3390/en16062929

Pavlenko, I.; Ciszak, O.; Kondus, V.; Ratushnyi, O.; Ivchenko, O.; Kolisnichenko, E.; Kulikov, O.; Ivanov, V.

PROJECTS

[01/05/2024 – 30/04/2025]

Monodisperse systems in the production of foodstuff and compound (combined) fertilizers

Through EURIZON H2020 project, grant agreement 871072, 2024

[03/2017 – 25/12/2017]

Розроблення національних стандартів щодо рідинних насосів для устаткування для перероблення сільськогосподарської продукції та щодо безсальникових циркуляційних відцентрових насосів (ДСТУ EN 16297-1; ДСТУ EN 16297-2; ДСТУ EN 16297-3; ДСТУ EN 13951)

№ держреєстрації 0117U007108 (2017 р.) «Розроблення національних стандартів щодо рідинних насосів для устаткування для перероблення сільськогосподарської продукції та щодо безсальникових циркуляційних відцентрових насосів» (ДСТУ EN 16297-1; ДСТУ EN 16297-2; ДСТУ EN 16297-3; ДСТУ EN 13951)

[03/2018 – 25/12/2018]

Розроблення національного стандарту стосовно вимог та настанов до застосування системи управління щодо протидії корупції (ДСТУ ISO 37001)"

№ держреєстрації 0118U100028 (2018 р.) «Розроблення національного стандарту стосовно вимог та настанов до застосування системи управління щодо протидії корупції» (ДСТУ ISO 37001)

[05/2021 – 25/12/2023]

Послуги з розробки нормативного документу. Розроблення стандарту підприємства «Верстати колесотокарні. Методика вібродіагностичного обстеження

Договір № 4/16-21 від 08.06.2021 між Сумським державним університетом та Акціонерним товариством «Українська залізниця» «Послуги з розробки нормативного документу. Розроблення стандарту підприємства «Верстати колесотокарні. Методика вібродіагностичного обстеження»

[04/2022 – 31/12/2023]

Виконання завдань перспективного плану розвитку наукового напряму «Технічні науки» Сумського державного університету», що фінансується Міністерством освіти і науки України

№ держ. реєстр. 0121U112684 (2022–2023) «Виконання завдань перспективного плану розвитку наукового напряму «Технічні науки» Сумського державного університету», що фінансується Міністерством освіти і науки України»