

Europass Curriculum Vitae



Personal information

First name(s) / Surname(s)	Nataliia Tarelnyk		
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Nationality	Ukrainian		
Date of birth	27.03.1986		
Gender	-		

Current employment / Occupational field

**Professor of the Technical Systems Design Department,
Sumy National Agrarian University**

Work experience

Dates	2008 - 2013
Occupation or position held	University researcher;
Main activities and responsibilities	Teaching and scientific activity in the sphere of Mechanical Engineering
Name and address of employer	Sumy National Agrarian University, 160 H.Kondratiieva Str., Sumy, 40021, Ukraine
Type of business or sector	Higher Educational Institution (Mechanical Engineering Sector)
Dates	2013 - 2025
Occupation or position held	University researcher; Assistant professor at the Department of Projection of Technical Systems
Main activities and responsibilities	Teaching and scientific activity
Name and address of employer	Sumy National Agrarian University, 160 H.Kondratiieva Str., Sumy, 40021, Ukraine
Type of business or sector	Higher Educational Institution (Mechanical Engineering Sector)

Dates	01.01.26-31.09.26
Occupation or position held	Professor of the Department of Projection of Technical Systems
Main activities and responsibilities	Teaching and scientific activity
Name and address of employer	Sumy National Agrarian University, 160 H.Kondratiieva Str., Sumy, 40021, Ukraine
Type of business or sector	Higher Educational Institution (Mechanical Engineering Sector)

Dates	2026 till now
Occupation or position held	Professor of the Department of Technical Systems Design
Main activities and responsibilities	Teaching and scientific activity
Name and address of employer	Sumy National Agrarian University, 160 H.Kondratiieva Str., Sumy, 40021, Ukraine
Type of business or sector	Higher Educational Institution (Mechanical Engineering Sector)

Education and training

Dates	2003 - 2009
Title of qualification awarded	Mechanical Engineer
Principal subjects/occupational skills covered	Mechanization of agriculture
Name and type of organisation providing education and training	Sumy National Agrarian University, 160 H.Kondratiieva Str., Sumy, 40021, Ukraine
Level in national or international classification	Bachelor's degree

Dates	2008-2010
Title of qualification awarded	Mechanical Engineer
Principal subjects/occupational skills covered	Mechanization of agriculture
Name and type of organization providing education and training	Sumy National Agrarian University (University education)
Level in national or international classification	Master's degree

Dates	2008-2009
Title of qualification awarded	Master in Administrative Management (distance Learning)
Principal subjects/occupational skills covered	Administrative Management
Name and type of organization providing education and training	Sumy Regional Institute of Postgraduate Pedagogical Education (University education)
Level in national or international classification	Master's degree

Dates	2009 - 2012				
Title of qualification awarded	Post-graduate Education (distance Learning)				
Principal subjects/occupational skills covered	Money, finance and credit				
Name and type of organisation providing education and training	Sumy National Agrarian University, 160 H.Kondratiieva Str., Sumy, 40021, Ukraine				
Level in national or international classification	Dipl. Research Ing. (University)				
Dates	2012				
Title of qualification awarded	Corresponding member of the Ukrainian Technological Academy				
Dates	2013				
Title of qualification awarded	Candidate of Economic Sciences				
Principal subjects/occupational skills covered	Money, finance and credit				
Name and type of organisation providing education and training	National Scientific Center "Institute of Agrarian Economy", Ukraine				
Level in national or international classification	PhD in Economic Sciences				
Dates	2015				
Title of qualification awarded	Projection of Technical Systems Department				
Dates	2024 - 2025				
Title of qualification awarded	Doctoral Studies				
Principal subjects/occupational skills covered	Specialty: 161 Chemical Technologies and Engineering (05.17.08 – Processes and Equipment of Chemical Technology)				
Name and type of organisation providing education and training	Sumy State University, Sumy, 40021, Ukraine				
Level in national or international classification	Doctor of technical sciences, 05.02.08 - Machine building technology				
Personal skills and competences	Reliability, sociability, energy, purposefulness				
Mother tongue(s)	Ukrainian				
Other language(s)	Russian, English				
Self-assessment	Understanding		Speaking		Writing
European level (*)	Listening	Reading	Spoken interaction	Spoken production	

English	A1	Basic User	A1	Basic User	A1	Basic User	A1	Basic User	A1	Basic User
	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
(*) Common European Framework of Reference for Languages										
Additional information:	Social skills and competences									
	Organisational skills and competences									
	Computer skills and competences	Competent with most CAD/CAM/CAE/PDM programs								
	Artistic skills and competences									
	Driving licence	Category B (car), category A (tractor).								
INTERNSHIPS		Scientific internship - Laser Technologies of the Kielce University of Technology and the Polish Academy of Sciences, Kielce, Poland (3.08.20 – 25.09.20). «TRIZ POLAND Spoika z o.o.», №TPS – 2024/003, Bytom, 27 listopada - 19 stycznia 2024 r.								
Projects Experience		2021 – 2023 Development of new methods of surface nanostructuring steel surfaces with predicted quality parameters based on the electrospark alloying method. (Project participant). State registration number 0122U000771 2024-2026 Development of environmentally friendly technologies for surface modification of power plant equipment parts by combined methods based on electrospark alloying. (Project participant). State registration number 0124U000539								
Scientific Research Topic and Publications		Scientific Research Topic: Improvement of technology for restoring pump equipment operating in conditions of nuclear and thermal power plants. Main publications: Tarelnyk N.V. Technological features of surface modification of nuclear power plant pump parts: monograph. Sumy: Universytetska knyha, 2024. 200 p. ISBN 978-617-521-077-2 1.Tarelnyk V.B., Haponova O.P., Konoplianchenko Ie.V., Tarelnyk N.V., Bondarev S.G., and Mikulina M.O., Improving the Quality Parameters of Steel Surfaces by Combined Electrospark Carburizing Technologies. Pt. 2. Mathematical Models for Controlling the Properties of Metal Surfaces, <i>Progress in Physics of Metals</i>, 27, No. 3: 496–543 (2026); https://doi.org/10.15407/ufm.27.03.494 (SCOPUS, Q2) 2.Tarelnyk V.B., Haponova O.P., Tarelnyk N.V., Konoplianchenko Ie.V., Mikulina M. A., and Postolatii V.V., Improving the Quality Parameters of Steel Surfaces by Combined Electrospark Carburizing Technologies. Pt. 1. Properties of Metal Surfaces, <i>Progress in Physics of Metals</i>, 27, No. 2: 304–346 (2026). https://doi.org/10.15407/ufm.27.02.304 (SCOPUS, Q2) 3.Tarelnyk V.B., Haponova O.P., Konoplianchenko Ie.V., Tarelnyk N.V., Radionov O.V., Kolosiuk A.G., Hybrid surface engineering of impulse face seals for nuclear power equipment, <i>Problems of Atomic Science and Technology</i>. 2026. №4(164), pp.190-197; https://doi.org/10.46813/2026-164-190 (SCOPUS, Q3) 4.Tarelnyk V.B., Haponova O.P., Tarelnyk N.V., Improvement of surface layer quality parameters of steel parts after nitrocarburizing by electrospark alloying method. Part 2. Development of a mathematical model for controlling the steel part surface layer quality parameters, <i>Problems of Atomic Science and Technology</i>. 2026. №2(162), pp.130-138 https://doi.org/10.46813/2026-162-130 (SCOPUS, Q3)								

5. Haponova O. P., Tarel'nyk N. V., and Semernya O. V., Research on the Influence of Productivity on the Structure Formation of Surface Layers of Steel Parts during Nitriding by the Electrospark Alloying (ESA) Method. II. Development of a Mathematical Model for Controlling the Quality Parameters of Steel-Parts' Surface Layers during Nitriding by the ESA Method, *Metallofiz. Noveishie Tekhnol.*, vol. 48, pp. 185–203 (2026); <https://doi.org/10.15407/mfint.48.02.0185> (SCOPUS, Q3)
6. Tarel'nyk N.V., Hlushkova D.B., Haponova O.P., Konoplianchenko Ie.V., Skrypnikov V.O., Influence of electrospark alloying parameters on steel surface quality during nitrocarburizing. *Funct. Mater.* 2025; 32 (2): 223-231. <https://doi.org/10.15407/fm32.02.223> (SCOPUS, Q4)
7. Tarel'nyk V.B., Haponova O.P., Tarel'nyk N.V., Volina T.M., Zubko V.M., Dumanchuk M.Yu., Lavrenko O.M., Mikulina M.A., Dotsenko A.O., Bilyi O.Ye., Shevchenko S.S., Bondarev S.G., and Semernya O.V., Research of Influence of Productivity on Structural Formation of Surface Layers of Steel Details during Nitriding by Means of the Electrospark Alloying (ESA) Method. I. Evaluation of the Impact of Productivity on the Quality Parameters of the Surface Layers of Steel Parts during Nitriding by the ESA Method, *Metallofiz. Noveishie Tekhnol.*, 47, No. 10: 1061–1081 (2025) (in Ukrainian). <https://doi.org/10.15407/mfint.47.10.1061> (SCOPUS, Q3)
8. Haponova O.P., Tarel'nyk V.B., Konoplianchenko Ie.V., Tarel'nyk N.V., Gerasimenko V.O., Postolatii V.V., Laponog G.P., Study of Antifriction Electrospark Coatings with MoS₂ for Face Seal Elements of Nuclear Power Plants. *J. Nano- Electron. Phys.* 17 No 5, 05005 (2025) [https://doi.org/10.21272/jnep.17\(5\).05005](https://doi.org/10.21272/jnep.17(5).05005) (SCOPUS, Q3)
9. Haponova O., Tarel'nyk V., Mo'scicki T., Tarel'nyk N., Hybrid Surface Treatment Technologies Based on the Electrospark Alloying Method: A Review, *Coatings*, 2025, 15, 721, <https://doi.org/10.3390/coatings15060721> (SCOPUS, Q2)
10. Haponova O., Tarel'nyk V., Tarel'nyk N., Laponog G. Investigation of Aluminum Electrospark Alloyed Coatings on Steels. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, 2025. Vol. 56, 4204–4229, Springer Boston (United States). <https://doi.org/10.1007/s11661-025-07908-z> (SCOPUS, Q1)
11. Tarel'nyk V.B., Haponova O.P., Tarel'nyk N.V., and Konoplianchenko Ye.V., Sulphurizing of Metal Surfaces by Electrospark Discharge Alloying. Pt. 2: Tribological Properties of Electrospark Depositing Sulphur Containing Coating, *Progress in Physics of Metals*, 26, No. 2: 383–426 (2025). <https://doi.org/10.15407/ufm.26.02.383> (SCOPUS, Q2)
12. Tarel'nyk V. B., Haponova O. P., Tarel'nyk N. V., Dumanchuk M. Yu., Maifat M. M., Mikulina M. A., and Kozin V. M., Surface Properties of High-Strength Cast Iron Parts with Wear-Resistant Composite Coatings Synthesized by Electrospark Alloying Method. Pt. 2. Investigation of the Structure and Microhardness of the Treated Cast-Iron Surfaces, *Metallofiz. Noveishie Tekhnol.*, vol. 47, pp. 717-736 (2025). <https://doi.org/10.15407/mfint.47.07.0717> (SCOPUS, Q3)
13. V. B. Tarel'nyk, O. P. Haponova, N. V. Tarel'nyk, M. Yu. Dumanchuk, M. M. Maifat, V. O. Gerasimenko, M. O. Mikulina, A. D. Polyvanyi, V. O. Ohrimenko, O. V. Semernya, M. Yu. Vasylenko, and V. M. Kozin, Surface Properties of High-Strength Cast-Iron Parts with Wear-Resistant Composite Coatings Synthesized by Electrospark Alloying Method. Pt. 1. Specific Aspects of Mass Transfer; Geometric, Topographic, and Mechanical Characteristic Features of Strengthened Surfaces, *Metallofiz. Noveishie Tekhnol.*, vol. 47, pp. 427-451 (2025). <https://doi.org/10.15407/mfint.47.04.0427> (SCOPUS, Q3)
14. V.B. Tarel'nyk, O.P. Haponova, N.V. Tarel'nyk, and Ye.V. Konoplianchenko, Sulphurizing of Metal Surfaces by Electrospark-Discharge Alloying. Pt. 1: Structural–Phase State of Sulphur-Containing Coatings on Constructional Steels, *Progress in Physics of Metals*, 26, No. 1: 146–200 (2025). <https://doi.org/10.15407/ufm.26.01.151> (SCOPUS, Q2)
15. Tarel'nyk, V.B., Haponova, O.P., Tarel'nyk, N.V., Rogovskii, I.L. Improvement of Surface Layer Quality Parameters of Steel Parts After Nitrocarburizing by Electrospark Alloying Method. Part 1. Features of the Structural State and Topography of Steel Surfaces After Nitrocarburizing. *Problems of Atomic Science and Technology*, 2025 (2), pp. 131-137 (2025). <https://doi.org/10.46813/2025-156-131> (SCOPUS, Q3)