



Yuriy Semirnenko

Nationality: Ukrainian **Date of birth:** 17/01/1965

Place of birth: The village of Chervone (Stare Selo) ,Sumy district, Sumy region, Ukraine

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ABOUT ME

Candidate of Technical Sciences, Associate Professor of the Department of Transport Technologies

WORK EXPERIENCE

Associate Professor of the Department of Transport Technologies

Sumy National Agrarian University [09/2023 – Current]

City: Sumy | Country: Ukraine

Teaching the subjects Technical mechanics, Interaction of transport modes, Biofuels: production technologies and efficiency of their use.

Head and Associate Professor of the Department of "Design of Technical Systems"

Sumy National Agrarian University [10/2005 – 09/2023]

City: Sumy | Country: Ukraine

Assistant Professor of the Department "Tractors and Agricultural Machinery"

Sumy Agricultural Institute [1992]

City: Sumy | Country: Ukraine

Chief engineer

"Shpylivskiy" state farm

Country: Ukraine

EDUCATION AND TRAINING

Specialist in Production process automation

Sumy Technical School of Sugar Industry [1979 – 1983]

City: Sumy | Country: Ukraine

Specialist in Agricultural Mechanization

Sumy branch of the Kharkiv Agricultural Institute at the faculty [1985 – 1990]

City: Sumy | Country: Ukraine

Candidate of technical sciences

Topic: "Regulation of the stress-strain state of structures". [1998]

Internship

Sumy National Agrarian University [2020]

City: Sumy | Country: Ukraine

Internship

Wrocław University of Environmental Sciences [2021]

Country: Poland

MAN+HUMMEL company training

City: Sumy | Country: Ukraine

Internship

KP SMR Elektroavtotrans [21/01/2025 – 20/02/2025]

City: Sumy | Country: Ukraine

PROJECTS

"Improvement of the technology for recycling commercial sunflower waste in order to reduce the man-made burden on the environment."(0116U00381).

"Improvement of technology for the utilization of plant waste from agricultural production"(0120U00885).

"Improvement of technology for recycling commercial sunflower waste"(1-10-5).

LANGUAGE SKILLS

Mother tongue(s): Ukrainian

Other language(s):

English

LISTENING A2 READING A2 WRITING A2

SPOKEN PRODUCTION A2 SPOKEN INTERACTION A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

Semirnenko Yu. "Energy Dispersive X-Ray Microanalysis of Part Surface Layer Carburized by Electric Spark Alloying"/ V. Tarel'nyk, O. Gaponova, V. Martsynkovskyy, Ie. Konoplianchenko, V. Melnyk, V. Vlasovets, A. Sarzhanov, N. Tarel'nyk, Du Xin, Yu. Semirnenko, S. Semirnenko, T. Voloshko, O. Semernya// 2020 IEEE 10th International Conference Nanomaterials: Applications & Properties (NAP), Sumy, Ukraine, 2020, pp. 01TFC13-1-01TFC13-9. (Added to IEEE Xplore: 06 January 2021)

Semirnenko Yu. "Increasing the Efficiency of Running-In the Titanium Nitride Nanostructures Formed on R6M5 and 12KH18N10T Steels by Sulphidizing with Electric Spark Alloying Method,"/ Ie. Konoplianchenko, V. Tarel'nyk, O. Gaponova, A. Belous, S. Bondarev, O. Vasilenko, Zh. Zhang, G. Smolyarov, Yu. Semirnenko, S. Semirnenko, A. Kutakh, M. Mikulina, V. Gerasimenko, // 2020 IEEE 10th International Conference Nanomaterials: Applications & Properties (NAP), Sumy, Ukraine, 2020, pp. 01TFC14-1-01TFC14-8

Semirnenko Yu. Developing a system and criteria for directed choice of technology to provide required quality of surfaces of flexible coupling parts for rotor machines/ V. Melnyk, V. Vlasovets, Ie. Konoplianchenko, V. Tarel'nyk, M. Dumanchuk, Vas. Martsynkovskyy, Yu. Semirnenko, S. Semirnenko// Journal of Physics: Conference Series. 1741 (2021) pp. 012030-1 – 012030-15

Semirnenko, Yu.I. Improving Ecological Safety when Forming Wear-Resistant Coatings on the Surfaces of Rotation Body Parts of 12Kh18N10T/ Tarel'nyk, V.B., Gaponova, O.P., Loboda, V.B., Konoplyanchenko, E.V., Martsinkovskii, V.S., Semirnenko, Yu.I., Tarel'nyk, N.V., Mikulina, M.A., Sarzhanov B.A.//Steel Using a Combined Technology Based on Electrosark Alloying. Surf. Engin. Appl. Electrochem. 57, 173–184 (2021).

Semirnenko Yu. Constructing geometrical models of spherical analogs of the involute of a circle and cycloid/ Nesvidomin A., Pylypaka S., Volina T., Kalenyk M., Shuliak I., Semirnenko Yu., Tarelnyk N., Hryshchenko I., Kholodniak Yu., Sierykh L.// (2023). Eastern-European Journal of Enterprise Technologies, 4 (7 (124)), 6–12.

Semirnenko Yu. Construction of a mathematical model for approximating the sphere by strips of unfolding surfaces/ Nesvidomin, A., Ahmed, A. K., Pylypaka, S., Volina, T., Nesvidomin, V., Vereshchaga, V., Andrukh, S., Pavlenko, O., Semirnenko, Y., & Lysenko, K.// (2023)Eastern-European Journal of Enterprise Technologies, 6(1 (126)), 78–84.

Semirnenko Yu. Determination of the deformation of an absolutely elastic axis of curved rods under bending. Pylypaka, S., Nesvidomin, V., Volina, T., Hryshchenko, I., Pylypaka, T., Kremets, Y., Andrukh, S., Savoiskyi, O., Korzh-Usenko, L., Semirnenko, Y. (2024). Eastern-European Journal of Enterprise Technologies, 6 (7 (132)).

Semirnenko Yu. I. Research of the process of cooling and drying fuel briquettes / S.L. Semirnenko, Yu.I. Semirnenko // Bulletin of the SNAU, series Mechanization and automation of production processes, issue 1 (37), 2019, pp. 39-45.

Semirnenko Yu. I. Solving environmental problems of the region through the use of plant agricultural biomass as fuel. Yu.I. Semirnenko, S.L. Semirnenko // Bulletin of the SNAU, series Mechanization and Automation of Production Processes, issue 1(39), 2020, - P. 7-12.

Semirnenko Yu. I. Utilization of worn-out auto-tractor tires by processing into fuel briquettes. Yu.I. Semirnenko, S.L. Semirnenko // Bulletin of the SNAU, series Mechanization and Automation of Production Processes, issue 3 (41), 2020, - P. 17-20.

Semirnenko Yu. I. The role of the "Shlyakh" system in the automobile transportation system during martial law in Ukraine / Semirnenko Yu. I., Tkachenko M.F.// Modern research in science and education. Proceedings of the 3rd International scientific and practical conference. BoScience Publisher. Chicago, USA. (November 9-11, 2023). Pp. 324-329.

Semirnenko Yu. I. Reducing injury to potato tubers when loading into vehicles/ Semirnenko Yu. I., Semirnenko S.L. // Scientific Collection «InterConf», (177): with the Proceedings of the 15th International Scientific and Practical Conference «Science and Practice: Implementation to Modern Society» (November 6-8, 2023; Manchester, United Kingdom) Pp. 220-225.

Semirnenko Yu. I. The influence of the method of unloading grain from the combine hopper on the productivity of motor transport//Science and innovation of modern world. Proceedings of the 7th International scientific and practical conference. Cognum Publishing House. London, United Kingdom. 2023. Pp. 267-274.

Semirnenko S.L., Semirnenko Y. I. Transport processes of servicing grain harvesters in small-scale agricultural enterprises. Bulletin of the Ukrainian Academy of Sciences, 1(59), 2025.

Semirnenko Yu., Semirnenko S. Optimizing screw conveyor performance for consistent grain material loading // Current trends in scientific research development. Proceedings of the 8th International scientific and practical conference. BoScience Publisher. Boston, USA. 2025. Pp. 179-185.

Semirnenko Yu. "Energy Dispersive X-Ray Microanalysis of Part Surface Layer Carburized by Electric Spark Alloying"/ V. Tarelnyk, O. Gaponova, V. Martsynkovskyy, Ie. Konoplianchenko, V. Melnyk, V. Vlasovets, A. Sarzhanov, N. Tarelnyk, Du Xin, Yu. Semirnenko, S. Semirnenko, T. Voloshko, O. Semernya// 2020 IEEE 10th International Conference Nanomaterials: Applications & Properties (NAP), Sumy, Ukraine, 2020, pp. 01TFC13-1-01TFC13-9. (Added to IEEE Xplore: 06 January 2021)

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Semirnenko Yu. Developing a system and criteria for directed choice of technology to provide required quality of surfaces of flexible coupling parts for rotor machines/ V. Melnyk, V. Vlasovets, Ie. Konoplianchenko, V. Tarelnyk, M. Dumanchuk, Vas. Martsynkovskyy, Yu. Semirnenko, S. Semirnenko// Journal of Physics: Conference Series. 1741 (2021) pp. 012030-1 – 012030-15.

Semirnenko, Yu.I. Improving Ecological Safety when Forming Wear-Resistant Coatings on the Surfaces of Rotation Body Parts of 12Kh18N10T/ Tarelnyk, V.B., Gaponova, O.P., Loboda, V.B., Konoplyanchenko, E.V., Martsinkovskii, V.S., Semirnenko, Yu.I., Tarelnyk, N.V., Mikulina, M.A., Sarzhanov B.A.//Steel Using a Combined Technology Based on Electrospark Alloying. Surf. Engin. Appl. Electrochem. 57, 173–184 (2021).

Semirnenko Yu. Constructing geometrical models of spherical analogs of the involute of a circle and cycloid/ Nesvidomin A., Pylypaka S., Volina T., Kalenyk M., Shuliak I., Semirnenko Yu., Tarelnyk N., Hryshchenko I., Kholodniak Yu., Sierykh L.// (2023). Eastern-European Journal of Enterprise Technologies, 4 (7 (124)), 6–12.

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Semirnenko Yu. I. Utilization of worn-out auto-tractor tires by processing into fuel briquettes. Yu.I. Semirnenko, S.L. Semirnenko // Bulletin of the Ukrainian National Academy of Sciences, series Mechanization and Automation of Production Processes, issue 3 (41), 2020, - P. 17-20.

Semirnenko Yu. I. The role of the "Shlyakh" system in the automobile transportation system during martial law in Ukraine / Semirnenko Yu. I., Tkachenko M.F.// Modern research in science and education. Proceedings of the 3rd International scientific and practical conference. BoScience Publisher. Chicago, USA. (November 9-11, 2023). Pp. 324-329.

Semirnenko Yu. I. Reducing injury to potato tubers when loading into vehicles/ Semirnenko Yu. I., Semirnenko S.L. // Scientific Collection «InterConf», (177): with the Proceedings of the 15th International Scientific and Practical Conference «Science and Practice: Implementation to Modern Society» (November 6-8, 2023; Manchester, United Kingdom) Pp. 220-225.

Semirnenko Yu. I. The significance of the “road” system in automobile transportation // Current trends in scientific research development. Proceedings of the 3rd International scientific and practical conference. BoScience Publisher. Boston, USA. 2024. Pp. 601-605.

Semirnenko Yu. I., Semirnenko S. L. Interaction of transport types during wartime // Science and technology: challenges, prospects and innovations. Proceedings of the 3rd International scientific and practical conference. CPN Publishing Group. Osaka, Japan. 2024. Pp. 616-619.

Semirnenko S.L., Semirnenko Y. I. Transport processes of servicing grain harvesters in small-scale agricultural enterprises. Bulletin of the Ukrainian Academy of Sciences, 1(59), 2025.

Semirnenko Yu., Semirnenko S. Optimizing screw conveyor performance for consistent grain material loading // Current trends in scientific research development. Proceedings of the 8th International scientific and practical conference. BoScience Publisher. Boston, USA. 2025. Pp. 179-185.