



Name	Kseniia Nezhalska
Position, Department/Faculty	Associate professor of Aerospace Radioelectronic Systems Department
Academic Degree, Academic Title	Candidate of Sciences
Email:	k.nezhalska@khai.edu
Scopus Author ID:	https://www.scopus.com/authid/detail.uri?authorId=57191220899
Web of Science ResearcherID:	[-]
ORCID iD:	https://orcid.org/0000-0001-9349-8861
Google Scholar:	https://scholar.google.com.ua/citations?user=bMA2k4YAAAAJ&hl=uk
ResearchGate:	[-]

EDUCATION:

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

National Aerospace University «Kharkiv Aviation Institute», 2003

Postgraduate/Doctoral studies:

National Aerospace University «Kharkiv Aviation Institute»

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

National Aerospace University «Kharkiv Aviation Institute», 2007, engineer.

Teaching Experience:

National Aerospace University «Kharkiv Aviation Institute», 2008 – now, assistant, senior lecturer, associate professor.

RESEARCH ACTIVITIES:

Main Research Areas:

- radio-technical systems for remote sensing of the earth's surface;
- electrodynamic and empirical models of the relationship between reflected and intrinsic radiation and the parameters of the surface under study.

Number of Publications (Scopus, WoS, others):

Nezhalska, K., Volosyuk, V., Bilousov, K., Kolesnikov, D., Cherepnin, G. Relation Models of Surface Parameters and Backscattering (or Radiation) Fields as a Tool for Solving Remote Sensing Problems. *Computation*, 2024, 12(5), 104.
<https://doi.org/10.3390/computation12050104>



Nezhalska, K., Volosyuk, V., Bilousov, K., Kolesnikov, D., Cherepnin, G. Study on potential application of brightness temperature models in passive remote. *Radioelectronic and Computer Systems*, 2024, no. 1(109), pp. – 55-64.

[DOI: 10.32620/reks.2024.1.05](https://doi.org/10.32620/reks.2024.1.05)

Volosyuk, V., Zhyla, S., Pavlikov, V., Inkarbaieva, O., Nezhalskaya, K. Optimal Radar Cross Section Estimation in Synthetic Aperture Radar With Planar Antenna Array. *Radioelectronic and Computer Systems*, 2021, (1), pp. 50–59.

<http://dx.doi.org/10.32620/reks.2021.1.04>

Monographs, Textbooks:

Participation in Scientific Conferences:

K. Nezhalska, K. Belousov, V. Volosyuk, S. Zhyla and O. Mazurenko, "Algorithm for Selecting a Surface Model for Remote Sensing of Earth's Surfaces," *2023 IEEE 13th International Conference on Electronics and Information Technologies (ELIT)*, Lviv, Ukraine, 2023, pp. 232-236.

<https://doi.org/10.3390/computation12050104>

Nezhalska, K., Mazurenko, O., Belousov, K. Analysis of Brightness Temperature Models for Describing Surfaces by Passive Remote Sensing Methods. *2023 IEEE 13th International Conference on Electronics and Information Technologies, ELIT 2023 - Proceedings*, 2023, pp. 237–241.

<http://dx.doi.org/10.1109/ELIT61488.2023.10310712>

Zhyla, S., Volosyuk, V., Pavlikov, V., Vasylchenko, D., Nezhalskaya, K. Optimal Signal Processing in a Cognitive Synthetic Aperture Radar. *Proceedings of the 2022 IEEE 12th International Conference on Dependable Systems, Services and Technologies, DESSERT 2022*, 2022.

<https://doi.org/10.1109/dessert58054.2022.10018683>

Volosyuk, V., Zhyla, S., Ruzhentsev, N., Nezhalskaya, K., Cherepnin, G. Statistical Optimization of Imaging Technique in Radar Scatterometer with Planar Antenna Array. *2020 IEEE Ukrainian Microwave Week, UkrMW 2020 - Proceedings*, 2020, pp. 299–304, 9252656.

<http://dx.doi.org/10.32620/reks.2021.1.04>

TEACHING ACTIVITIES:

Courses Taught:

Signals and processes, Theory of electrical circuits, Mathematical methods of modeling and optimal solutions.

Author Courses, Academic Programs:



Methodological Materials, Textbooks:

Сигнали та процеси в радіотехніці. Навчальний посібник з лабораторних робіт / В. А. Душепа, К. М. Нежальська ; М-во освіти і науки України, Нац. аерокосм. ун-т ім. М. Є. Жуковського "Харків. авіац. ін-т". - Харків. - Нац. аерокосм. ун-т ім. М. Є. Жуковського "Харків. авіац. ін-т", 2021. - 48 с. - <http://library.khai.edu/library/fulltexts/metod/>

PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Membership in Professional Associations:

European Microwave Association, Membership Number: AM4278.

INTERNATIONAL ACTIVITIES:

Cooperation with Foreign Universities:

NCIAE, "Signals and systems"

ADDITIONAL INFORMATION:

Language Proficiency:

Certificate of completion IELTS A2-B2 - Reading, Listening, Writing and Speaking 90 academic hours (3 ECTS credits), Mariupol University, VERIFICATION: HXGLH5CZuUaB