Name	Aleksandr Greben
Position, Department/Faculty	Head of Department of Geoinformation Technologies and Earth Space Monitoring, Faculty of Rocket and Space Engineering
Academic Degree, Academic Title	Doctoral degree (PhD) in Ecological Safety, Associate Professor
Email:	a.greben@khai.edu
Scopus Author ID:	57220833383
Web of Science ResearcherID:	OGM-8494-2025
ORCID iD:	0000-0002-3402-230X
Google Scholar:	VchML2UAAAAJ&hl
ResearchGate:	Aleksandr-Greben

EDUCATION:

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

National Aerospace University "Kharkiv Aviation Institute" - Department of design of aircraft radio electronic systems:

[2006-2010] Bachelor's Degree. Qualification: Junior engineer in geodesy, cartography and land management.

[2010-2011] Master's Degree - with honors. Qualification: Geoinformatics engineer.

[2011-2015] Doctoral studies (PhD).

Postgraduate/Doctoral studies:

Kyiv National University of Civil Engineering and Architecture:

[2019] PhD Degree in Ecological Safety (21.06.01).

National Aerospace University "Kharkiv Aviation Institute" - Department of geoinformation technologies and space monitoring of the Earth:

[2024] Associate professor.

Additional training, certification programs:

Vancouver Island University - Faculty of Social Sciences:

[2013] Introduction to Geographic Information Systems for Spatial Data Infrastructure.

[2014] Database management Systems for SDI

[2015] Spatial Cadastral Information Systems for SDI.

HERE Maps:

[2016] Secondary Cities Geospatial Training Workshop.

National Aerospace University "Kharkiv Aviation Institute":

[2023] Certificate of advanced training

ADD Foundation:

[2024] B2 Cambridge English Level 1 Certificate in ESOL International (first).

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

[2007-2010] Cartographer, State Scientific and Computer Center "Nature".

[2008-2010] Cartographer, Institute of Telecommunications and the Global Information Space of the National Academy of Sciences of Ukraine.

[2008-2012] GIS specialist, Navigation Geodetic Centre.

[2012-2015] Sales manager, European technologies of equipment.

[2015-2017] Assistant, National Aerospace University "Kharkiv Aviation Institute" - Department of geoinformation technologies and space monitoring of the Earth.

[2017-2021] Senior lecturer, National Aerospace University "Kharkiv Aviation Institute" - Department of geoinformation technologies and space monitoring of the Earth.

[2021-2024] Associated professor, National Aerospace University "Kharkiv Aviation Institute" - Department of geoinformation technologies and space monitoring of the Earth.

[2021-present] Automation Quality Assurance engineer, Walltech.

[2024-present] Head of department, National Aerospace University "Kharkiv Aviation Institute" - Department of geoinformation technologies and space monitoring of the Earth.

Teaching Experience:

[2015-present] National Aerospace University "Kharkiv Aviation Institute"

Experience in International or National Projects:

[2017–2019] Development of methods for determining the location of storage of domestic waste and long-term dynamics of their development by remote data (0117U006973)

[2020–2021] Methodology for processing Earth's remote sensing data for environmental monitoring tasks (0120U100530)

[2022–2024] Methodological bases of distributed systems for monitoring environmental objects creating (0122U002298)

[2025–present] Methodological foundations for creating decision support systems based on remote sensing data for evaluating and restoring ecosystems damaged by military actions (0125U000573)

RESEARCH ACTIVITIES:

Main Research Areas:

Cartography, cartographic design, ecological safety, geomarketing, geodatabase management, web-based cartographic technologies, GIS analysis, remote sensing (Earth observation), environmental and territorial monitoring, research on the dispersion of air pollutants in the atmosphere, water eutrophication processes, vegetation analysis, wildfire processes.

Number of Publications (Scopus, WoS, others):

Over 50

Monographs, Textbooks:

[None]

Participation in Scientific Conferences:

1) Greben, A. S., Krasovskaya, I. G. Synthesis of space images with geoinformation systems when conducting an analysis of dynamic changes in information characteristics of the system [Text] / A.S. Greben, I.G. Krasovskaya – Proceedings of the 10th International Scientific and Practical Conference “Modern Information Technologies for Managing Environmental Safety, Nature Management, and Emergency Measures”, 2011. – pp.267-269.

2) Greben, A. S. Information technology to support decisions of effective management of land use on the example of the territory of the steppe zone of Ukraine / A. S. Greben, S. A. Lytkevich // Modern achievements in science and education: IX International Scientific Conference (September 22-29, Netanya), Tel Aviv: KhNU, 2014. – P.43-46.
3) Greben, A. S. Water eutrofication processes that are called by using agrochemical fertilizers / A. S. Greben // Multidisciplinary approaches in solving modern problems of fundamental and applied sciences : Second International Scientific Conference of Young Scientists and Specialists (3-6 March, Baku, Azerbaijan), Baku: ANAS, 2020. – P. 89-91.
4) Greben, A. S. GIS technologies in the government management / A. S. Greben, Y. A. Izmailova // Multidisciplinary approaches in solving modern problems of fundamental and applied sciences : Second International Scientific Conference of Young Scientists and Specialists (3-6 March, Baku, Azerbaijan), Baku: ANAS, 2020. – P. 247-248.
5) Velichko, S. D. Modern approaches to monitoring forests from illegal logging / O. S. Greben, S. D. Velichko // Information society: technological, economic and technical aspects of formation (Issue 73): materials of the International Scientific Internet Conference (December 8-9, Ternopil, Ukraine - Perevorsk, Poland), 2022. – P. 113-114. Levchenko, M. A. Development of a methodology for monitoring the sanitary protection zone using the example of industrial facilities / O. S. Greben, M. A. Levchenko // Information society: technological, economic and technical aspects of formation (Issue 73): materials of the International Scientific Internet Conference (December 8-9, Ternopil, Ukraine - Perevorsk, Poland), 2022. – P. 59-62.
6) Greben, O. S. Modern approaches to monitoring forests from illegal logging / O. S. Greben // Scientific research and methods of their implementation: world experience and domestic reality: III International Scientific and Practical Conference (3 March, Bologna, Italian Republic), 2023. – P. 62-64.
7) Velichko S. D., Izmailova Y. A., Greben, A. S. Using Hansen global forest change dataset for investigation dynamics of forest cover losses / A. S. Greben, S. D. Velichko, Y. A. Izmailova // Geoinformatics, georesources and geoecology : IX International scientific conference of young scientists & students (10-13 October, Baku, Azerbaijan), Baku: GGI, 2023. – P. 82-84.
8) Siryk, D. E. Selection and analysis of sites for restaurant locations using remote sensing data / D. E. Siryk, O. S. Greben // International scientific online conference "Information society: technological, economic and technical aspects of formation" [Text]: issue 99, May 14-15, 2025, Ternopil, Ukraine - Opole, Poland, 2025. – P. 46-49.
9) Peresada, D. D. Creation of interactive maps using GIS tools based on Big Data / D. D. Peresada, O. S. Greben // International Scientific Internet Conference "Information Society: Technological, Economic and Technical Aspects of Formation" [Text]: Issue 99, May 14-15, 2025, Ternopil, Ukraine - Opole, Poland, 2025. – P. 37-40.
10) Yakovlev, V. D. Conducting aerial photography with UAVs on the territory of a forestry enterprise to create an atlas of deciphering features / V. D. Yakovlev, O. S. Hreben // International Scientific Internet Conference "Information Society: Technological, Economic and Technical Aspects of Formation" [Text]: Issue 99, May 14-15, 2025, Ternopil, Ukraine - Opole, Poland, 2025. – P. 77-80.
11) Stegailo, A. A. Determination of tree plantation losses in Kreminsk AH as a result of military actions / A. A. Stegailo, O. S. Hreben // Modern scientific research: theoretical and practical aspects [Text] : 2nd International scientific and practical conference, 26.05.2025, Riga, Latvia, p. 115-117

TEACHING ACTIVITIES:

Courses Taught:

Geoinformation systems technologies, Fundamentals of land management and cadastre, Ecological

interpretation of remote sensing data using GIS technologies, Geographical information systems and databases, GIS in ecosystems, Photogrammetry and remote sensing, GPS technologies, Land law, Thematic decoding and interpretation of remote sensing data, Design of geodatabases, Aerospace monitoring tools, Transport and navigation GIS, Algorithmic foundations of geomatics and systemology, Informatics and systemology, Geodesy, Metrology and standardization, Mathematical processing of geodetic measurements, Digital image processing, Modeling of man-made situations using geoinformation technologies.

Author Courses, Academic Programs:

GPS technologies

Methodological Materials, Textbooks:

1) Greben, A. S. (2019). GPS technologies: Textbook – Kharkiv: National Aerospace University "Kharkiv Aviation Institute".
2) Greben, A. S. (2021). Working with databases in a geographic information systems environment: Textbook – Kharkiv: National Aerospace University "Kharkiv Aviation Institute".

GRANTS AND PROJECTS:

Participation in International and National Projects:

[None]

Grants, Scholarships, Academic Mobility Programs:

[None]

PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Honorary Titles:

[None]

Distinctions, Awards, Prizes:

[2019] Nominee of the professional skills competition “Icarus of Khai” in the section “Best Student Mentor”

[2025] Gratitude of the Kharkiv Mayor - for many years of conscientious and fruitful work, high professionalism, significant contribution to the development of education and science in the city of Kharkiv, on the occasion of the Day of the Worker of the Rocket and Space Industry of Ukraine and the 95th anniversary of the founding of the university

Membership in Professional Associations:

[2020-present] Participation in the professional association "Regional Center for Earth Remote Sensing 'Slobozhanshchyna'" at the National Aerospace University KhAI

INTERNATIONAL ACTIVITIES:

Internships:

[None]

Cooperation with Foreign Universities:

[None]

Teaching/Lecturing Abroad:
[None]

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

1) Butenko, O. S. Peculiarities of determining the position of a stationary ground object in a space navigation system [Text] / O. S. Butenko, A. S. Greben, G. Ya. Krasovsky – Control, navigation and communication systems. Collection of scientific papers. Vol. 3, 2007. - pp. 11-13.
2) Butenko, O. S. The geometric factor of the space navigation system when determining the coordinates of a stationary ground object by the radial-velocity method [Text] / O. S. Butenko, A. S. Greben, G. Ya. Krasovsky - Control, navigation and communication systems. Collection of scientific papers. Vol. 1 (5), 2008. - pp. 12-14.
3) Butenko, O. S. Assessment of the potential accuracy of space navigation determined coordinates of GIS objects [Text] / O. S. Butenko, A. S. Greben, G. Ya. Krasovsky - Ecological safety and nature management. Collection of scientific works. Vol. 3, K: KNUBA, 2009. - pp. 114-123.
4) Greben, A. S. Evaluation of the possibilities of measuring the coordinates of objects of geoinformation systems using navigational spacecraft in geostationary orbit / A. S. Greben - Kh.: Ivan Kozhedub Kharkiv Air Force University, Information processing systems No. 1 (82), 2010. - 247 p., p. 21-24.
5) Greben, A. S. Information support of precision agriculture on the territory of Ukraine with the use of GPS technologies [Text] / A. S. Greben – Management, navigation and communication systems. Collection of scientific works. Vol. 1 (21), volume 1, 2012. - pp. 28-33.
6) Golkin, D. V. Mathematical model of coordinate reference of agricultural fields of Ukraine using GPS equipment in geostationary orbit / D. V. Golkin, A. S. Greben, V. G. Khudov. - Kh.: Ivan Kozhedub Kharkiv Air Force University, Information processing systems No. 9 (107), 2012. - 307 p., p. 25-30.
7) Greben, A. S. Analysis of the main methods of forecasting productivity with the help of space monitoring data, applied to grain crops of the steppe zone of Ukraine [Text] / A. S. Greben, I. G. Krasovskaya – Environmental safety and balanced resource use. Scientific and technical journal. Issue 1 (7), 2013 – pp. 105-119.
8) Greben, O.S. Assessment of the impact of solid runoff from agricultural areas on the ecological indicators of adjacent water bodies / O. S. Greben, O. M. Trofimchuk // Mathematical modeling in economics. International scientific journal. – K.: ITGIP, 2018 – No. 4 (13). – P. 27-34.
9) Greben, O. Features of reservoirs eutrophication by elements of agrochemical fertilizers / O. Greben, O. Trofimchuk // Environmental safety and environmental management. – 2018. – Issue 4 (28). – P.65-70.
10) Greben, O. S. The impact of the use of agrochemical fertilizers on the processes of vital activity of aquatic ecosystems / O. S. Greben, O. M. Trofymchuk, G. Ya. Krasovsky // ITHEA IJ and IBS Sample Sheet – Sofia, Bulgaria. - 2017. – P. 1-7.
11) O. Trofymchuk, V. Trysnyuk, A. Greben and G. Krasovskiy, "Interpretation of Remote Sensing Data for Ecological Tasks," 2020 IEEE Ukrainian Microwave Week (UkrMW), Kharkiv, Ukraine, 2020, pp. 772-775, doi: 10.1109/UkrMW49653.2020.9252736 (Scopus).
12) Vysotska, O., Greben, A., Kalashnikova, V., Rakhmetullina, S., Klochko, T., Kotyra, A., Mamyrbaev, O., and Iskakova, A. (2021). Colorimetric Parameters Modeling of Test Micro-Ecosystems for Lands Pollution Remote Sensing. Journal of Ecological Engineering, 22(2), pp.161-168 (Scopus).

Books, Chapters in Collective Monographs:

1) Greben, O. S. Topological rules and features of creating electronic topographic vector maps of scale 1:500000 / O. S. Greben // Modern information technologies for managing environmental safety, nature management, and emergency measures: trends in 2020. : Collective monograph based on the materials of the 19th International Scientific and Practical Conference / General editor. S. O. Dovhy (October 6-7, Kyiv), – K.: LLC “Yuston Publishing House”, 2020. – P.169-172.
2) Greben, O. S. Application of technologies for automated use of online services for searching aerospace survey data by given parameters / O. S. Greben // Information and communication technologies and sustainable development: Collective monograph based on the materials of the XXI International Scientific and Practical Conference / Under the general editorship of S. O. Dovgy (November 14-16, Kyiv), – K.: LLC “Yuston Publishing House”, 2022. – P.136-138.
3) Matsehor, D. M. Localization of zones of negative impact of solid runoff on aquatic ecosystems using GIS technologies / D. M. Matsehor, O. S. Greben // Mathematical modeling and information and communication technologies for strengthening and restoration: Collective monograph based on the materials of the XXIII International Scientific and Practical Conference (Kyiv, November 12-13, 2024) / General editor. S. O. Dovhy. – K.: LLC “Yuston Publishing House”, 2024. – P. 131-133.

Links to Citation Database Profiles:

ORCID: https://orcid.org/0000-0002-3402-230X
Scopus: https://www.scopus.com/authid/detail.uri?authorId=57220833383
Google Scholar: https://scholar.google.com/citations?user=VchML2UAAAAJ&hl
ResearchGate: https://www.researchgate.net/profile/Aleksandr-Greben
WOS: https://www.webofscience.com/wos/author/record/OGM-8494-2025

ADDITIONAL INFORMATION:

Language Proficiency:

Ukrainian - native,
English - B2 level

IT Skills:

[Office software]: Adobe, Microsoft Office and Google Workspace
[Graphics]: Adobe Photoshop, CoralDraw, Illustrator and other graphic editors
[GIS and spatial analysis]: QGIS, ArcGIS, ENVI, Global Mapper, Surfer, JOSM.
[Languages]: JS, TS, Ruby, SQL.
[Frameworks]: WDIO, TestCafe, Protractor, Cucumber, Playwright.
[Technologies]: Allure, TestRail, Zephyr Scale, CucumberStudio, Jira, AWS, TeamCity, Jenkins, Git.
[DB management]: DBeaver, PostgreSQL.
[IDE]: WebStorm, VS Code, Php Storm.
[QA Software]: Appium Inspector, Android Studio, Xcode, Postman, Slack.

Social and Community Activities:

[2024-present] Expert of the Ministry of Education and Science on conducting scientific expertise in the Module of competitions of the National Electronic Scientific Information System for evaluating a project for conducting applied research

[2024-present] Member of the conference program committee “Modern problems of rocket and

space engineering and technology”