



# Curriculum Vitae

Karpenko O.

## PERSONAL INFORMATION



### Karpenko Oleksii

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 [http://www.geol.univ.kiev.ua/ua/lecturers/index.php?dept=oilgas&name=karpenko\\_o\\_m](http://www.geol.univ.kiev.ua/ua/lecturers/index.php?dept=oilgas&name=karpenko_o_m)

Sex M | Birthdate 05/06/1958 | Nationality *Ukraine*

Scientific Degree	Doctor of Sciences, speciality "Geophysics"
Academic status	Professor
Position	Professor
Department	Petroleum Geology
Faculty/Institute	Educational and Scientific Institute "Institute of Geology"
Part-time position	-

## Educational disciplines involved:

This year	<ol style="list-style-type: none"><li>1. "Perophysics of rock-reservoirs", bachelor's degree, 4 year course, lectures.</li><li>2. "Technologies of oil and gas extraction", bachelor's degree, 4 year course, lectures.</li><li>3. "Geological bases of hydrocarbon deposits development", master's degree, 1 year coure, lectures, practical.</li><li>4. "Well-logging data interpretation ", master's degree, 2 year course, lectures, practical, seminars.</li><li>5. " Estimation of oil and gas reserves", master's degree, 2 year course, lectures, practical.</li><li>6. "Actual problems of petroleum geology", master's degree, 2 year course, lectures, seminars.</li><li>7. "Well logging", bachelor's degree, 4 year course, lectures.</li><li>8. «Geology and unconventional hydrocarbons research", master's degree, 1 year course, lectures,</li></ol>
In previous periods	<ol style="list-style-type: none"><li>1. "Perophysics of rock-reservoirs", bachelor's degree, 4th year course, lectures.</li><li>2. "Technologies of oil and gas extraction", bachelor's degree, 4th year course, lectures.</li><li>3. "Geological bases of hydrocarbon deposits development", master's degree, 1st year coure, lectures, practical.</li><li>4. "Processing and interpretation of well-logging data", master's degree, 2nd year course, lectures, practical.</li><li>5. " Estimation of oil and gas reserves", master's degree, 2nd year course, lectures, practical.</li><li>6. " Shale oil and gas, tight gas, methane of coal basins", master's degree, 1st year course, lectures, seminars.</li><li>7. "Well logging", bachelor's degree, 4th year course, lectures.</li><li>8. "Actual problems of petroleum geology ", bachelor's degree, 4th year course, lectures.</li><li>9. "Complexification of geophysical methods", bachelor's degree, 4th year course, lectures, practical.</li><li>10. "Research workshop", master's course, 2nd year.</li></ol>

	11. "Educational practice in specialization", bachelor's degree, 3th year.
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## EXPERIENCE OF SCIENTIFIC AND SCIENTIFIC PEDAGOGICAL WORK

Years	Position
(2023 - 2024)	Professor of Petroleum Geology Department Taras Shevchenko National University of Kyiv (60 Vladimirsky St., Kyiv, 01033, <a href="http://www.univ.kiev.ua/">http://www.univ.kiev.ua/</a> ) Head of Petroleum Geology Department
(2010 - 2023)	Head of Petroleum Geology Department Taras Shevchenko National University of Kyiv (60 Vladimirsky St., Kyiv, 01033, <a href="http://www.univ.kiev.ua/">http://www.univ.kiev.ua/</a> ) <a href="#">Scope of business or sector</a> Education
(September 2008 - 2010)	Professor of Department of Geophysics Taras Shevchenko National University of Kyiv (60 Vladimirsky St., Kyiv, 01033, <a href="http://www.univ.kiev.ua/">http://www.univ.kiev.ua/</a> ) <a href="#">Scope of business or sector</a> Education
(2006 – August 2008)	Head of Field Oil and Gas Geophysics Department Ivano-Frankivsk National Technical University of Oil and Gas (76019, Ivano-Frankivsk, 15 Karpatska st., <a href="http://new.nung.edu.ua/">http://new.nung.edu.ua/</a> ) <a href="#">Scope of business or sector</a> Education
(2005 - 2006)	Professor of Field Oil and Gas Geophysics Department Ivano-Frankivsk National Technical University of Oil and Gas (76019, Ivano-Frankivsk, 15 Karpatska st., <a href="http://new.nung.edu.ua/">http://new.nung.edu.ua/</a> ) <a href="#">Scope of business or sector</a> Education
(1992 - 2004) (from 2004 to 2005 - part-time)	Associate Professor of the Well-logging Department Ivano-Frankivsk State / National Technical University of Oil and Gas (76019, Ivano-Frankivsk, 15 Karpatska st., <a href="http://new.nung.edu.ua/">http://new.nung.edu.ua/</a> ) <a href="#">Scope of business or sector</a> Education
(1987 -1991)	Senior Researcher Ivano-Frankivsk Oil and Gas Institute / Ivano-Frankivsk State Technical University of Oil and Gas (76019, Ivano-Frankivsk, 15 Karpatska st., <a href="http://new.nung.edu.ua/">http://new.nung.edu.ua/</a> ) <a href="#">Scope of business or sector</a> Science
(1986 -1987)	Junior Researcher Ivano-Frankivsk Oil and Gas Institute / Ivano-Frankivsk State Technical University of Oil and Gas (76019, Ivano-Frankivsk, 15 Karpatska st., <a href="http://new.nung.edu.ua/">http://new.nung.edu.ua/</a> ) <a href="#">Scope of business or sector</a> Science
(1981 -1983)	Assistant of Oil-field Geology and Well-logging Department Ivano-Frankivsk Oil and Gas Institute (76019, Ivano-Frankivsk, 15 Karpatska st., <a href="http://new.nung.edu.ua/">http://new.nung.edu.ua/</a> ) <a href="#">Scope of business or sector</a> Education

## LEARNING AND TRAINING

Years	Position
(2004 - 2005)	Doctorate (D. of Sciences) Ivano-Frankivsk National Technical University of Oil and Gas (76019, Ivano-Frankivsk, 15 Karpatska st., <a href="http://new.nung.edu.ua/">http://new.nung.edu.ua/</a> ) Obtained qualification Doctor of Geological Sciences, speciality 04.00.22 – Geophysics; dissertation "Scientific and methodological bases of estimation of reservoir properties of the rocks in the thin-layered sections of hydrocarbon deposits according to geophysical research data"
(1983 - 1986)	Graduate (PhD) school Ivano-Frankivsk Oil and Gas Institute (76019, Ivano-Frankivsk, 15 Karpatska st., <a href="http://new.nung.edu.ua/">http://new.nung.edu.ua/</a> )

	Obtained qualification PhD (geological sciences), speciality 04.00.17 – Geology and exploration of oil and gas fields; thesis "Application of elemental analysis for evaluation of lithological and reservoir characteristics of rocks (on example of oil and gas deposits of the Yamal Peninsula)"
(1980 - 1981)	Trainee teacher Ivano-Frankivsk Oil and Gas Institute (76019, Ivano-Frankivsk, 15 Karpatska st., <a href="http://new.nung.edu.ua/">http://new.nung.edu.ua/</a> ) Obtained qualification of assistant, teacher of higher education
(1975 - 1980)	Training (student) Ivano-Frankivsk Oil and Gas Institute (76019, Ivano-Frankivsk, 15 Karpatska st., <a href="http://new.nung.edu.ua/">http://new.nung.edu.ua/</a> ) Qualified mining engineer-geophysicist, speciality "Geophysical methods of exploration of mineral deposits"

## PERSONAL SKILLS

Denomination	Level
Native language	Ukrainian
Foreign language 1	English (level B1), Secondary School No.1 with Advanced Study of English, Ivano-Frankivsk
Foreign language 2	Russian
Communication competence	The skills of good communication were received while working as an Trainee teacher, assistant, senior researcher, associate professor, professor, head of departments
Organizational / managerial competence	Received organizational / managerial skills while working as head of the department at IFNTUNG (18 people), the head of the department at the Taras Shevchenko National University (9 people + members) and the scientific head of the state budget theme (13 full-time researchers and 3 others)
Digital competencies	<b>Data processing:</b> Skills and practical experience with a number of specialized software products for the processing of geological and geophysical information (AS "Geopoisk", "Interactive Petrophysics", "PetroMod"). <b>Communication:</b> experience of communication with the audience, researchers, specialists of the oil and gas industry. <b>Creating content (programs, sites):</b> - <b>Network and Software Security:</b> - <b>Problem solving:</b> -
Other computer skills	Experience in using MathCAD, Statistica, Surfer, CorelDraw, Photoshop, MS Office software
Professional skills (not listed above)	Expert of the State Commission of Mineral Resources of Ukraine ( geological and economical evaluation of oil and gas fields )
Areas of professional interest	Educational activity (preparation of highly professional personnel for the oil and gas industry), geological and geophysical modeling, petrophysics, interpretation of well-logging data, modeling of petroleum systems, exogenous geological processes

## ADDITIONAL INFORMATION

Denomination	(titles of publications, presentations, projects, conferences, seminars, names of awards and prizes, membership in Academies, professional and scientific associations, etc.)
Publications	180 scientific and 12 educational and methodological works. <ul style="list-style-type: none"> <li>• Karpenko I., <b>Karpenko A.</b>, Dumenko S., Rudnik B. Petroleum systems and yet-to-find discoveries of Carpathian foredeep and Western margin of East-European Platform: deep dive through regional multi-basin 3D PS modelling. // Матеріали AAPG European Regional Conference «Paratethys Petroleum System Between Central Europe and the Caspian Region» (Vienna, Austria, March 26-27, 2019). <a href="https://www.researchgate.net/publication/332353639">https://www.researchgate.net/publication/332353639</a></li> <li>• Sviatenko, H., <b>Karpenko, O.</b>, Bukhtaty, V. Oil and gas bearing potential of crystalline basement in Dnieper-Donets Basin – unbiased view. Naukovyi Visnyk Natsionalnoho Hirnychoho Universytetu. 2022, (3). 24–29 <a href="https://doi.org/10.33271/nvngu/2022-3/024">https://doi.org/10.33271/nvngu/2022-3/024</a></li> <li>• <b>Karpenko O.</b> Neural networks technologies in oil and gas well logging // Матеріали XII міжнар. наук.конф. "Геоінформатика: Теоретичні та прикладні аспекти", (Київ, 2018). [Електронний ресурс]. DOI: 10.3997/2214-4609.201801798</li> </ul>

- **Карпенко О.**, Тунік О. Уточнення меж стрибкоподібних катагенетичних змін порід на прикладі окремих родовищ вуглеводнів ДДЗ // Вісник КНУ імені Тараса Шевченка. Сер. Геологія. – 3(82). – К.: 2018. – С. 29 – 35. [http://nbuv.gov.ua/UJRN/VKNU\\_geol\\_2018\\_3\\_6](http://nbuv.gov.ua/UJRN/VKNU_geol_2018_3_6)
- Використання приповерхневих геохімічних методів для уточнення будови родовищ нафти і газу // Багрій І., **Карпенко О.**, Куліш А., Глонь В. - Вісник КНУ імені Тараса Шевченка. Сер. Геологія. – 1(76). – К.: 2017. 14 – 18. [http://nbuv.gov.ua/UJRN/VKNU\\_geol\\_2017\\_1\\_4](http://nbuv.gov.ua/UJRN/VKNU_geol_2017_1_4)
- Прогнозування зсувів. Монографія / Кузьменко Е.Д., Блінов П.В., **Карпенко О.М.**, Вдовіна О.П., Демчишин М.Г., Журавель О.М. та ін. - Івано-Франківськ: ІФНТУНГ, 2016. 601 с.
- **Карпенко О.**, Михайлов В., Карпенко І. До прогнозу освоєння вуглеводневих ресурсів східної частини ДДЗ. - Вісник КНУ імені Тараса Шевченка. Сер. Геологія. – 1(68). – К.: 2015.- С. 49 – 54. [http://nbuv.gov.ua/UJRN/VKNU\\_geol\\_2015\\_1\\_11](http://nbuv.gov.ua/UJRN/VKNU_geol_2015_1_11).
- **Карпенко О.М.**, Башкіров Г.Л., Карпенко І.О. Визначення вмісту органічної речовини в гірських породах за геофізичними даними. - Вісник КНУ імені Тараса Шевченка. Сер. Геологія. – 3(66). – К.: 2014. 71 – 76. [http://nbuv.gov.ua/UJRN/VKNU\\_geol\\_2014\\_3\\_15](http://nbuv.gov.ua/UJRN/VKNU_geol_2014_3_15).
- Нетрадиційні джерела вуглеводнів України. Кн. IV. Східний нафтогазоносний регіон: аналітичні дослідження. Монографія / Михайлов В.А., Вижва С.А., Загнітко В.М., Огар В.В., **Карпенко О.М.**, Оніщук І.І., Куровець С.С., Гладун М.В., Андреева О.О. - Монографія. - К.: Ніка-центр, 2014. 427 с.
- Юсупова Г.Ж., Портнов В.С., Борисенко Г.Т., Абаева Н.Ф., **Карпенко А.Н.** Оценка эффективности комплекса геофизических исследований скважин // Труды Карагандинского государственного технического университета. - № 1(54). – Караганда (Респ. Казахстан), 2014. 47-50.
- Мураста В.А., Башкиров Г.Л., **Карпенко А.Н.** Циклостратиграфический подход при расчленении и корреляции разрезов скважин с использованием вертикального градиента коэффициента глинистости горных пород. // Матеріали конференції "Geopetrol-2014" (Zakorane, 15-18.09.2014) // - 2014. 141-145.
- **Карпенко О.**, Михайлов В., Карпенко І. Особливості оцінки ресурсів газу нетрадиційних колекторів за даними геофізичних досліджень свердловин // Вісник КНУ імені Тараса Шевченка. Сер. Геологія. - (89). К.: 2020. 59–64.
- Михайлов В., **Карпенко О.** Перспективи нетрадиційної нафтогазоносності Південної приобортової зони Дніпровсько-Донецької западини // Вісник КНУ імені Тараса Шевченка. Сер. Геологія. - 1(88). К.: 2020. 53 – 60.
- **Карпенко О.**, Ohar V., Karpenko I. Total Organic Carbon and Gamma Radioactivity Distribution of the Rudov Beds Formation within the Area Adjusted to Yablunivske O&G Field (Dnieper-Donets Basin). Conference "Proceedings, Geoinformatics", May 2020, Volume 2020. 1-4.
- **Карпенко О.**, Myrontsov M., Karpenko I., Sobol V. Detection conditions of gas-saturated layers by the result of complex interpretation of non-electrical well logging data. Monitoring 2020 Conference - «Monitoring of Geological Processes and Ecological Condition of the Environment». 2020. – Kyiv.
- Myrontsov M., **Карпенко О.**, Trofymchuk O., Okhariev V. Examples of determination of spatial and geoelectric parameters of productive beds of deposits of the Dnipro-Donetsk depth Матеріали між нар. наук. конф. Monitoring 2020 Conference - «Monitoring of Geological Processes and Ecological Condition of the Environment». 2020. – Kyiv.
- **Карпенко О.**, Соболь В., Миронцов М., Карпенко І. Аналіз впливу геологічних чинників на глибину зони проникнення фільтрату при первинному розкритті гранулярних колекторів за даними ГДС. Вісник КНУ імені Тараса Шевченка. Сер. Геологія. – 4(91). – К.: 2020. 16 – 21.
- Соболь В., **Карпенко О.** Нова модель проникності теригенних гранулярних колекторів на прикладі турнейських відкладів Яблунівського нафтогазоконденсатного родовища Дніпровсько-Донецької западини. Вісник КНУ імені Тараса Шевченка. Сер. Геологія. – 1(92). – К.: 2021. 61 – 66.
- **Карпенко О.М.**, Ohar V.V., Karpenko I.O., Bezrodna I.M. Differentiation of Rudov Beds based on the statistical methods on geological and geophysical data. Науковий вісник НГУ. Дніпропетровськ, 2021. № 1(181). 5-10.
- Myrontsov M., **Карпенко О.**, Trofymchuk O., Okhariev V., Anpilova Y. Increasing vertical resolution in electrometry of oil and gas wells. Zaporozhets A. (eds) Systems, Decision and Control in Energy II. Studies in Systems, Decision and Control. 2021. Vol. 346. 101–117 (Chapter).
- Myrontsov M., **Карпенко О.** Radial characteristics of lateral logging in thin-bedded formation. Conference Proceedings, Geoinformatics, May 2021, Volume 2021. 1 – 7.
- Karpenko O., Myrontsov M. T. Binnert Heites rule of perspective geological correlation as a tool for solving geological problems. Conference Proceedings, Geoinformatics, May 2021, Volume 2021, p.1 –

	<p>6.</p> <ul style="list-style-type: none"> <li>• Karpenko I., <b>Karpenko O.</b> Preservation and Destruction of Accumulations in Petroleum Systems of Western Margin of East European Craton. Paper presented at the SPE Eastern Europe Subsurface Conference, Kyiv, Ukraine, November 2021. Paper Number: SPE-208542-MS <a href="https://doi.org/10.2118/208542-MS">https://doi.org/10.2118/208542-MS</a>.</li> <li>• Myrontsov M., <b>Karpenko O.</b>, Trofymchuk O., Dovgyi S., Anpilova Y. Iterative Solution of the Inverse Problem of Resistivity Logging of Oil and Gas Wells: Testing and Examples. Zaporozhets A. (eds) Systems, Decision and Control in Energy III. Studies in Systems, Decision and Control. 2022. Vol 399. Springer, Cham. 187-201. (Chapter).</li> <li>• <b>Karpenko O.</b>, Myrontsov M., Anpilova Y. Application of Discriminant Analysis in the Interpretation of Well-Logging Data. Zaporozhets A. (eds) Systems, Decision and Control in Energy III. Studies in Systems, Decision and Control. 2022. Vol. 399. Springer, Cham. 267-275. (Chapter).</li> <li>• Anpilova Y., Yakovliev Y., Trofymchuk O., Myrontsov M., <b>Karpenko O.</b> Environmental Hazards of the Donbas Hydrosphere at the Final Stage of the Coal Mines Flooding. Zaporozhets A. (eds) Systems, Decision and Control in Energy III. Studies in Systems, Decision and Control. 2022. Vol. 399. Springer, Cham. 305-316. (Chapter).</li> <li>• <b>Karpenko O.</b>, Myrontsov M., Anpilova Y., Noskov O. Efficiency of Electric Logging in Thin-Layer Sections of Hydrocarbon Deposits (Gas Fields of the Precarpathian Depression). Systems, Decision and Control in Energy IV. Studies in Systems, Decision and Control. 2023. Vol 454. Springer, Cham. 213–221 (Chapter).</li> <li>• Tleubergenova A., Umirova G., <b>Karpenko O.</b>, Maussymbayeva A. Geoelectrical model of the Earth's crust along the Shu-Sarysu geotraverse according to magnetotelluric soundings. Науковий вісник НГУ. Дніпропетровськ, 2023. - № 3. – С. 5-10.</li> </ul>
Projects, scientific discoveries	<ul style="list-style-type: none"> <li>• European Union's Horizon 2020 program: Grant Agreement number: 101008140 «Effective Factorisation techniques for matrixfunctions: Developing theory, numerical methods and impactful applications» (EffectFact) (01.09.2021 – 28.02.2026)</li> <li>• R&amp;D "Prospects for oil and gas content of the North Board and Southeastern parts of the Dnieper-Donetsk Basin" (2009-2010). (Supervisor).</li> <li>• R&amp;D "Development of theory and methodology for constructing dynamic geological and geophysical models of geological objects and processes" (2015). (Supervisor).</li> <li>• R&amp;D "Scientific bases of oil and gas preconditions for shale deposits and complex-built reservoir rocks" (2016-2017). (Supervisor).</li> <li>• E.D. Kuzmenko, E.I. Krizhanivsky, A.N. <b>Karpenko, O.M.</b> Juravel The logical relationship between the magnitudes of the probabilities of landslides and landslide hazards due to the complex effects of natural and technogenic factors (<b>scientific discovery, diploma No. 310</b>) - Scientific discoveries (a collection of brief descriptions of scientific discoveries, scientific ideas, scientific hypotheses - 2006). - М. : RAEN, International Academy of Authors of Scientific Discoveries and Inventions, 2007. - P. 64-65.</li> </ul>
Conferences	<ul style="list-style-type: none"> <li>• XX International sc.-pract. conf. "Геоінформатика: Теоретичні та прикладні аспекти", (Київ, 2021);</li> <li>• International sc. conf. «Monitoring of Geological Processes and Ecological Condition of the Environment», (Kyiv, 2021);</li> <li>• XIX International sc.-pract. conf. "Геоінформатика: Теоретичні та прикладні аспекти", (Київ, 2020);</li> <li>• International sc. conf. «Monitoring of Geological Processes and Ecological Condition of the Environment», (Kyiv, 2020);</li> <li>• International sc. conf. "Геологія горючих копалин: досягнення та перспективи" (м. Київ, ІГН НАНУ, 2-5 вересня 2019 р.);</li> <li>• AAPG European Regional Conference «Paratethys Petroleum System Between Central Europe and the Caspian Region» (Vienna, Austria, March 26-27, 2019);</li> <li>• XVII International sc.-pract. conf. "Геоінформатика: Теоретичні та прикладні аспекти", (Київ, 2018);</li> <li>• International sc.-pract. conf. "Екогеофорум-2017. Актуальні проблеми та інновації" (ІФНТУНГ, Івано-Франківськ н.-т. конф., 22-25 березня 2017 р.);</li> <li>• XVI International sc.-pract. conf. "Геоінформатика: Теоретичні та прикладні аспекти", (Київ, 2016);</li> <li>• International sc.-pract. conf. "Питання пошуків, розвідки та екологічних аспектів видобування вуглеводнів з ущільнених колекторів, газосланцевих товщ та вуглевміщуючих пластів " (КНУ імені Тараса Шевченка, Київ, 3-4 червня 2015 р.);</li> </ul>

	<ul style="list-style-type: none"> <li>• International sc.-tech. conf. "Recent Advances in Numerical Simulation of Hydraulic Fracture" (Rzeszow, Poland, 14-16 – July, 2014);</li> <li>• International sc.-tech. conf. "Geopetrol-2014" (Zakopane, 15-18.09.2014);</li> <li>• International sc.-tech. conf. XLII Summer School – Conference "Advanced Problems in Mechanics (APM-2014)". - St. Petersburg (Russia), June 30 – July 5, 2014;</li> <li>• International sc. conf. "Нетрадиційні джерела вуглеводнів в Україні: пошуки, розвідка, перспективи" (КНУ ім. Тараса Шевченка, 27-29 листопада 2013 р.).</li> </ul>
Prizes and awards	<ul style="list-style-type: none"> <li>• Gold medal «For Merits» from the Union of Geologists of Ukraine, 2017</li> <li>• Honorary Award of the 2nd Degree of NAC «Naftogaz of Ukraine», 2013</li> <li>• Medal to them K. Roentgen from the International Academy of Natural Sciences, Hannover, 2007</li> <li>• Medal to them P.L. Kapitsa from the Russian Academy of Natural Sciences, 2007</li> <li>• Incentive mark «For scientific achievements» of the Ministry of Education and Science of Ukraine, 2007</li> <li>• Honorary title «Honorary Prospectus of the Subsoil» from the State Geological Survey of Ukraine, 2007</li> <li>• Nomination «Best Scientist of the Year», Ivano-Frankivsk Regional State Administration, 2007</li> </ul>
Membership in organizations	Member of the Union of Geologists of Ukraine, Full member (academician) of the Ukrainian Oil and Gas Academy.
Link	14 (Web of Sciences), 59 (Scopus)
Citation	31 (Web of Sciences), 138 (Scopus)
Courses	Tutkovsky Institute, 11-22.09.2019 Themes of the course in the area of education: 1. Practices of Exploration Project Economic Evaluations – 32 hours; 2. Interpretation of Petroleum Play Common Risk Segment Maps – 32 hours
Certificates	Certificate № 322 11-22.09.2019 Tutkovsky Institute