

CURRICULUM VITAE

Oleksandr Molodid,

Doctor of Technical Science, Associate professor,
Certified expert in technical inspection of buildings and structures of class CC3
consequences

Certified project designer nearly zero energy buildings
Certified project designer in engineering and construction design in the field of construction
production technology

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- Name Oleksandr
- Middle name Stanislavovych
- Surname Molodid
- Sex Male
- Birthdate 01 January 1985
- Nationality Ukrainian
- Marital status Married, three children
- Home address Kyiv, Tyraspol's'ka str., 60, ap. 131
- Languages Ukrainian (native)
English (Intermediate)
- Academic degree Doctor of Technical Science, Technology and
Organisation of Industrial and Civil Engineering

**Professional Profile**

Since August 2007, I have been working as a lecture at the Kyiv National University of Construction and Architecture. At a high professional level, I conduct lectures, seminars and practical classes for students of architecture and construction faculties. I am a member of the examination commission for obtaining bachelor's and master's degrees in the specialty of Building and Civil Engineering.

Along with teaching, I am engaged in professional activities in the construction industry, in particular: inspection of buildings and structures; design of individual residential buildings; conducting scientific and technical support at objects of various complexity; development of project solutions for strengthening and repairing buildings in general and their structures in particular; development of project and technological documentation; conducting scientific research, including planning and conducting experimental research, both laboratory and natural; writing regulatory documents, training manuals, scientific publications, methodological instructions and recommendations; invention, which is confirmed by patents for inventions and utility models.

I cooperate with the world's leading manufacturers of building materials, products and structures, in particular: TM "PERI", TM "MAPEI", TM "SIKA", TM "CERESIT" and others.

He has proven himself as a specialist who is not afraid to take on non-typical tasks and finds extraordinary methods of solving them.

Education

- Doctor of Technical Science, Specialty: Technology and Organisation of Industrial and Civil Engineering. DISSERTATION: System of formation of constructive and technological solutions of operational suitability restoration of building structures. Kyiv National University of Construction and Architecture, Kyiv, Ukraine, 2021.
- Ph.D. in Technical Sciences. Specialty: Technology and Organisation of Industrial and Civil Engineering. DISSERTATION: Restoration opus signinum plaster arrangement technology. Kyiv National University of Construction and Architecture, Kyiv, Ukraine, 2013.
- Specialist of Civil Engineering. QUALIFICATIONS: Civil Engineer. Kyiv National University of Construction and Architecture, Kyiv, Ukraine, 2007.

Professional Development

- Received the academic title of associate professor of the Department of Construction Production Technology Kyiv National University of Construction and Architecture, Kyiv, Ukraine, 2013.
- Received certificate project designer nearly zero energy buildings. DIRECTION of PREPARATION: KNUCA, and All-Ukrainian charitable organization "Institute of Local Self-Government", 2016
- Received expert certificate of "Technical inspection of buildings and structures of the consequences (responsibility) class CC3 (significant consequences)". DIRECTION of PREPARATION: All-Ukrainian public organization "Association of Construction Industry Experts"
- Received certificate "Certified project designer in engineering and construction design in the field of construction production technology" DIRECTION of PREPARATION: All-Ukrainian public organization "Guild of Designers in Construction".

Courses and Advanced training

- Improvement of organizational and technological solutions for the implementation of works on strengthening building structures during the reconstruction of buildings and structures, State "Research institute of building production named of V.S. Balitsky", 2016
 - Methodology for designing structural strengthening of building structures using composite materials MAPEI, LLC MAPEI Ukraine, 2016
 - General training module for responsible executors of certain types of work (services) related to the creation of architectural objects - experts, Center for training experts in the construction industry, 2019
 - International normative space of technical regulation in construction. Basic ideas, logic and trends of development. Center for advanced training of experts in the construction industry, 2019
 - Modern technical solutions for repair, restoration, reinforcement and protection of concrete and brick structures using Mapei materials (total 45 hours), Mapei ACADEMY, Milano (Italy), 2019
 - Repair, strengthening and protection of reinforced concrete structures, buildings and structures using the technologies and materials systems of TM "SIKA", LLC "SIKA Ukraine", 2021
 - Improvement of qualifications through preparation for professional certification in the field of engineering and construction design, LLC "CENTER FOR IMPROVEMENT OF QUALIFICATIONS "EUROPROJECT", 2021
 - Corporate well-being as the energy of business (total 3 ECTS), Scientific Center of Innovative Research, 2022
 - The influence of emotional intelligence on business and government relations. Scientific Center of Innovative Research, 2022

Awards

- Honorary award of the Ukrainian Academy of Sciences of the 2nd degree for creative achievements. The author's team for active and fruitful scientific and journalistic activity, 2018
- Laureate of the award of the Academy of Construction of Ukraine named after Academician M.S. Budnikov for the work "Special technologies for construction works and the foundations of scientific research in construction", 2019
- Winner of the Kyiv Mayor's Award for special achievements of youth in the development of the capital of Ukraine - the hero city of Kyiv in the nomination "Scientific Achievements", 2019
- Winner of the 2nd prize of the National Academy of Sciences of Higher Education of Ukraine for the best publication of the year "Construction of special buildings and structures" in the "Teaching manuals" nomination, 2019
- Diploma of the Ministry of Education and Science of Ukraine for many years of conscientious work, significant personal contribution to the training of highly qualified specialists and fruitful scientific and pedagogical activity, 2022
- Scholarship of the Cabinet of Ministers of Ukraine for young scientists, according to the Resolution of the Presidium of the Committee on State Awards of Ukraine in the field of science and technology, 2022

Professional Experience

- During scientific and technical support at the facility: "Restoration with adaptation for modern use of the bicycle track on St. Bohdan Khmelnytskyi, 58 and improvement of the territory within the boundaries of the streets Bohdan Khmelnytskyi, Mykhailo Kotsiubynskyi and Vyacheslav Lypynskyi in the Shevchenkivskyi district of the city of Kyiv" carried out modeling and experimental research of the expected constructions of the cycle track fabric for durability in conditions close to real ones. The use of experimental technology for strengthening a fragment of a concrete slab of a bicycle track bowl. State "Research institute of building production named of V.S. Balitsky", 2016-2017
- When developing a technological map for sealing the joints between the concrete rings of the collector with polyurethane materials, SPT® performed a number of experimental studies on the basis of experimental studies with the aim of developing the technology of sealing the joints between the concrete rings of the collectors. The work was performed on stands that simulated real conditions. State "Research institute of building production named of V.S. Balitsky", 2017
- Conducted experimental studies to identify the possibility of using polyurethane SPT Resins materials to strengthen and stabilize foundations under tunnels, including subway and railway. Thus, experimental stands were designed and manufactured, which simulated the real conditions of operation of the SPT Resins material when strengthening and stabilizing foundations under tunnels, including the subway and railway. Experimental studies were conducted to identify the possibility of using polyurethane SPT Resins materials for strengthening and stabilizing foundations under tunnels, including subway and railway. State "Research institute of building production named of V.S. Balitsky", 2017
- Took part in designing the implementation of works on the location of the slope of map 1 of the solid waste landfill No. 5 in the village. Pidhirtsi Obukhiv district, Kyiv region. In particular, he conducted a study of the technical and economic indicators of the developed technologies for the placement of the slope of the solid household waste landfill with the aim of choosing the economically and technically expedient one. State "Research institute of building production named of V.S. Balitsky", 2017

- Participated in the scientific and technical support during the "Repair and restoration works on the first floor of the administrative building of the Kyiv City Council on the street. Khreshchatyk, 36 in the Shevchenkiv district to create a public space." In particular, he carried out modeling and experimental studies of modern methods of strengthening reinforced concrete structures with external reinforcement. The results of these studies were used in strengthening the beams of the first floor of the City State Administration. State "Research institute of building production named of V.S. Balitsky"
- Took part in scientific and technical support during the "Construction of a bridge pedestrian and bicycle crossing between the parks "Khreshchaty" and "Volodymyrska hill" in the Pechersk and Pevchenkiv districts." In particular, he performed analytical and experimental research on the technology of arranging the structures of support foundations, the technology of arranging a temporary bridge, and the technology of arranging beams of a span structure. State "Research institute of building production named of V.S. Balitsky", 2019
- Supervised the inspection of water supply and drainage facilities (the main municipal sewage collector in Kyiv, the through-flow collector of the water pipeline D=1400 mm from the Dnipro metro station to Kirovohradska Street in Kyiv, Water Station No. 1 of the Desnyanska Water Station, the left bank sewer collector and many others).
- Managed the scientific and technical support for securing the base of the drainage collector and the soil massif of the walls of the starting shaft K - 11 at the object "Reconstruction of the sewage collector D=800-900-2000mm on Verbova St. in the area from the shaft of extinguishing pressure collectors of the KNS "Leninska Kuznia " to the "Obolon" tax office in the Obolon district of Kyiv"
- Manage the research work on the object "Construction of the section of the metro from the dam of Rusanivske Sady to the metro station "Raidouzhna" as part of the project "Construction of the Podilsk bridge over the Dnipro in Kyiv".
- Manage the development of a "Typical technological manual for restoration of stone structures".
- Manage inspections aimed at determining the technical condition of buildings and structures damaged as a result of the armed aggression of the Russian Federation against Ukraine in the Kyiv and Kharkiv regions. At present, more than 100 construction objects have been inspected.

- Professor, Kyiv National University of Construction and Architecture, Building Department, Chair of Construction Technology, Kyiv, Ukraine, 2020 to the present (during 2014 -2020 at the docent position, 2007-2014 at the Assistant Lecturer position).
Responsibilities:
 - Lectures for students of specialization 191 – «Architecture and Urban Planning», and 192 – «Civil Engineering»;
 - Practice for students of specialization 191 – «Architecture and Urban Planning», and 192 – «Civil Engineering»;
 - Laboratory lessons for students of specialization 191 – «Architecture and Urban Planning», and 192 – «Civil Engineering»;
 - Manage and Consultation on Diploma Designing of Construction Faculties bachelor's and master's degree students;
 - member of bachelor's and master's degree student's examination commission, specialization 192 – «Civil Engineering»;

- Director of the Center of Engineering and Inspection of KNUCA (part-time), 2022 to now

- Part-time leading researcher of Engineering and Technical Center "Building Design" LLC, 2016-2018.
- Part-time head of the laboratory of the research laboratory of innovative construction processes and materials of the SE NDIBV, 2013-2022.
- Postgraduate student of the Building Faculty, Construction Technologies chair of the Kyiv National University of Construction and Architecture, Kyiv, Ukraine, 2008-2011.
- Engineer of the Laboratory of Physical and Mechanical Research of Structures, SE "State Research Institute of Building Construction, 2006-2007.

Publications

Author of more than 130 scientific publications. Among them are 3 articles in peer-reviewed publications in SCOPUS or WoS; 46 publications in publications included in the list approved by the Ministry of Education and Culture of Ukraine, 3 collective monographs, 39 conference materials, 15 state standards of Ukraine, 10 utility model patents and 1 invention patent, 16 educational and methodological works.

Author profile in scientometric databases:

<https://orcid.org/0000-0001-8781-6579>

<https://www.scopus.com/authid/detail.uri?authorId=57219054089>

<https://scholar.google.com.ua/citations?hl=uk&user=X0dww-gAAAAJ>

The most important publications:

Collective monographs

1. Molodid O. S. Strengthening of reinforced concrete beam structures using external reinforcement. efficiency research. *Organizational and technological model engineering in the construction industry*. 2019. P. 69–86. URL: <https://doi.org/10.36059/978-966-397-165-0/69-86> (date of access: 26.07.2022).
2. Molodid O. S. Study of the technology of strengthening brick walls by external reinforcement. *Organizational and technological, economic quality control aspects in the construction industry*. 2019. P. 93–108. URL: <https://doi.org/10.36059/978-966-397-166-7/93-108> (date of access: 26.07.2022).
3. Molodid O. S. Study of the technology of strengthening reinforced concrete columns by external reinforcement. *Technical and economic aspects of real estate properties*. 2019. P. 101–117. URL: <https://doi.org/10.36059/978-966-397-167-4/101-117> (date of access: 26.07.2022).

Articles included in the scientometric database Scopus

4. Research of technologies for restoration of the concrete protective layer of reinforced concrete constructions during the reconstruction of the buildings and structures / O. Molodid et al. *IOP Conference Series: Materials Science and Engineering*. 2020. Vol. 907. P. 012056. URL: <https://doi.org/10.1088/1757-899x/907/1/012056> (date of access: 26.07.2022).

Articles included in the scientometric database Web of Science

5. Molodid A. Experimental research technologies for strengthening of reinforced concrete columns with carbon fibers. *Science and Technology. International Scientific and Technical Journal of BNTU*. 2020. V. 19, No. 5. P. 395–399.
6. The technology of crack repair by polymer Composition / O. Молодід et al. *Опів матеріалів і теорія споруд/Strength of Materials and Theory of Structures*. 2022. No. 108.

Patents

7. The method of obtaining highly porous plaster by placing a highly mobile soluble mixture in the formwork: pat. 86223 Ukraine. Publ. 25.12.2013.
8. The method of repair and protection of horizontal reinforced concrete structures with a large number of small cracks by injection with the help of "Lotochka": pat. 114090 Ukraine: E04B1/62. No. u201609749; statement 09/22/2016; published 27.02.2017.
9. The method of strengthening reinforced concrete beam structures by gluing metal plates: pat. 124227 Ukraine: E04G23/02. No. u201710927; statement 09.11.2017; published 26.03.2018.
10. Method of reinforcing reinforced concrete and stone columns (pylon): pat. 124228 Ukraine: E04G23/02. No. u201710927; statement 09.11.2017; published 26.03.2018.
11. The method of restoration (repair) of the lower surfaces of reinforced concrete slab structures: pat. 133538 Ukraine: E04B1/00 E04B1/62. No. u201811314; statement 11/19/2018; published 10.04.2019.
12. The method of restoration (repair) of the lower surfaces of reinforced concrete slab structures: pat. 133539 Ukraine: E04G23/00. No. u201811315; statement 11/19/2018; published 10.04.2019.
13. Method of strengthening brick walls with carbon tapes: pat. 146155 Ukraine: E04G23/02. No. u202005913; statement 15.09.2020; published 20.01.2021.
14. The method of installing a chemical anchor in a building structure with preliminary fixing of the body of the structure: pat. 146156 Ukraine: E04G23/02. No. u202005914; statement 15.09.2020; published 20.01.2021.
15. Method of sealing joints, seams, cracks, cavities in building structures: pat. for invention 124654 Ukraine: E04G23/02 E04B1/62 E04B1/66 E04B1/68. No. a202001163; statement 21.02.2020; published 21.10.2021.
16. The method of arranging fire and thermal protection of structures reinforced with external reinforcement glued on glue with low fire and heat resistance: pat. 149375 Ukraine : E04B1/94. No. u202103628; statement 06/24/2021; published 11/10/2021.

Regulations

17. DSTU-N B A.2.2-11:2014. Instructions on the author's supervision of construction. To replace DBN A.2.2-4-2003; valid from 2015-07-01. View. officer Kyiv: Ministry of Regions of Ukraine, 2015.
18. DBN A.3.1-5:2016. Organization of construction production. To replace DBN A.3-1-5-2009; valid from 2017-01-01. View. officer Kyiv: Ministry of Regions of Ukraine, 2016.

Educational and methodical manuals

19. Molodid O., Ternovy V., Umanets I. Work program and methodical instructions for the educational practice of students of the 1st year of the specialty "Industrial and civil construction" - 6.060.101: method. rec. Kyiv: KNUCA, 2012.
20. Recommendations for the technology of placing lime-cement plaster (SHS-VC) on cultural heritage sites: recommendations / O. Molodid et al. Kyiv: CP "COMPRINT", 2013. 36 p.
21. Recommendations for the technology of placing lime-perlite plaster (SHS-VP) on objects of cultural heritage / O. Molodid et al. Kyiv: CP "COMPRINT", 2013. 39 p.
22. Molodid O., Ternovy V. Construction processes: educational workshop. : method. instructions Kyiv: CP "COMPRINT", 2013. 31 p.
23. Molodid O., Ternovy V. Construction processes: educational workshop. : method. instructions 2nd edition corrected and supplemented. Kyiv: CP "COMPRINT", 2014. 52 p.
24. Molodid O., Ternovy V. Technology of construction processes: method. instructions 3rd edition. corrected and supplemented. Kyiv: CP "COMPRINT", 2015. 47 p.
25. Molodid O., Ternovy V., Umanets I. Drilling works in construction: training. manual Kyiv: CP "COMPRINT", 2015. 92 p.

26. Soil compaction in construction: teaching. manual / O. Molodid et al. Kyiv: CP "COMPRINT", 2015. 132 p.

27. Energy efficiency in the municipal sector. Training manual for local self-government officials / A. Maksimov, I. Vakhovich, T. Gutnichenko, P. Babicheva, N. Vakulenko, N. Igolnikova, T. Tsyfra, O. Molodid, O. Molodid, O. Belenkova, Yu. Yachmenyova, Y. Doroshuk, A. Skrypnyk, A. Vakolyuk, V. Boyko, M. Segedii, D. Vakhovich / Association of Cities of Ukraine - K., LLC "VIE EN EY ENTERPRISE", 2015. -184 p.

28. Molodid O., Ternovy V., Umanets I. Drilling works in construction: training. manual 2nd edition Kyiv: KNUCA, 2016. 84 p.

29. Soil compaction in construction: teaching. manual / O. Molodid et al. 2nd edition Kyiv: KNUBA, 2016. 128 p.

30. Molodid O., Savyovskyi V., Solovei D. Reinforcement of building structures during building reconstruction. Methodological instructions for the implementation of a course project (work) in the discipline "Reconstruction of buildings and structures": method. instructions Kyiv: KNUBA, 2016. 71 p.

31. Molodid O., Makhinya O. Construction and furnishing technology of a residential building: method. instructions for completing the course. work Kyiv: KNUCA, 2017. 66 p.

32. Molodid O., Chepurnyi V., Horobets N. Basics of construction production: method. instructions for practice. classes Kyiv: KNUCA, 2017. 40 p.

33. Molodid O., Savyovskyi V. Erection of special buildings and structures: teaching. manual Kyiv: Lira-K, 2019. 248 p.

34. Molodid O., Solovei D., Malets N. Technology of construction processes. Methodical instructions for performing calculation and graphic work for students of specialties 071 "Accounting and taxation" and 051 "Economics". Kyiv: KNUCA, 2020. 20 p.

35. Molodid O., Ternovy V. Designing earthworks technology: method. rec. Kyiv: KNUCA, 2021. 72 p.

The main Research interests

- technology of repair and strengthening of building structures, in particular with modern composite materials;
- technology of construction;
- peculiarities of performing inspections of buildings and structures, including damaged as a result of the armed aggression of the Russian Federation against Ukraine;
- implementation of scientific and technical support of construction objects.

Professional Skills

- Excellent command of computer-aided design (CAD):
 - AutoCAD
 - ARCHICAD
- Microsoft Office Suite programs

Hobbies and Other Interests

- Books, music, traveling, apiculture