

## Oleksandr KONOPLIANYK



Address: Architect Oleh Petrov St., 3, 24-A, office B308.  
49005, Dnipro, Ukraine  
Phone: +38(067) 76-22-455  
E-mail: konoplianyk.alexander@gmail.com  
konoplianyk.oleksandr@pdaba.edu.ua

### EDUCATION

1975-1980: Studying at Dnipropetrovsk Civil Engineering Institute, Faculty of Industrial and Civil Engineering. Obtained a diploma (ЖБ-I No. 012749) on the qualification of a **Civil Engineer**.

1985-1986: Higher state advanced training courses for scientists on patents and inventions. Obtained a **certificate** (No. 015289) on advanced training.

1993-1996: Postgraduate studies at Dnipropetrovsk Civil Engineering Institute.

1997: Defense of the **dissertation** on Properties and technology of heat-resistant concretes of increased slag resistance in 05.23.05. "Building materials and products". Was awarded the scientific degree of **Candidate of Technical Sciences** (diploma KN No. 013857).

1998: Was awarded the academic title of **Senior Researcher** (certificate AS No. 000362).

2002: Was awarded the academic title of **Associate Professor** (Certificate of DC No. 004292).

2018. Advanced training in **Construction Expert Category II** (Certificate No. 551). Obtained a **qualification certificate** (AE series No. 005193) for work related to the creation of architectural objects in Technical inspection of buildings and structures of responsibility class SS1

## **PROFESSIONAL ACTIVITY**

1984-1991: Junior Researcher at the branch research laboratory of Heat-Resistant Concretes, Dnipropetrovsk Civil Engineering Institute.

1991-1993: Senior Researcher at the laboratory of Heat-Resistant concretes at the Department of Reinforced Concrete and Stone Structures, Dnipropetrovsk Civil Engineering Institute.

1996-1997: Assistant Professor at the Department of Reinforced Concrete and Stone Structures, Dnipropetrovsk Civil Engineering Institute.

1997 - the present: Associate Professor at the Department of Reinforced Concrete and Stone Structures, Prydniprovsk State Academy of Civil Engineering and Architecture.

## **SCIENTIFIC INTERESTS AND RESEARCH**

1. Heat-resistant and fire-resistant concretes in relation to structures of the construction and metallurgical industries.
2. Lightweight environmentally friendly heat-insulating concrete.
3. Compositions of concrete for 3D printing of building products and structures.
4. Structural solutions for reinforced concrete bridges and artificial structures on highways and airfields.
5. Study of the characteristics of building materials and products in the laboratory and directly at construction sites.

Author of more than 40 scientific papers, in which he took part as a supervisor or responsible executor.

## **IMPLEMENTATION OF RESEARCH RESULTS**

The results of scientific research are implemented at the metallurgical enterprises of Ukraine using the compositions of heat-resistant concretes in the lining of thermal units and structures.

From 1987 to 1998, 7 implementing acts of refractory concrete compositions (lining of profitable extensions, parts of tuyere devices, steel troughs, steel-pouring ladles, elements of heating wells).

The economic effects from the implementation of the compositions:

- in 1990 - 75103 rubles. at the Krivorozhstal plant, Krivoy Rog;
- in 1995 - 301715000 krb. at the plant. Ilyich, Mariupol;
- in 1997 - 769582950 krb at the plant named after. Ilyich, Mariupol;
- in 1998 - 88018 UAH at the plant named after. Ilyich, Mariupol.

## **AWARDS**

1. Honorary distinction "For Merit" for a significant contribution to the development of science and education before the Prydniprovsk State Academy of Civil Engineering and Architecture, (Medal, certificate No. 27, 2008).

2. Academy of Construction of Ukraine. The Laureate Diploma of the Academy of Construction of Ukraine named after Academician M.S. Budnikov for the monograph "Architectural-constructive-technological system of 3D printing of building structures" (December 2020).

### **PROFESSIONAL DEVELOPMENT, INTERNSHIPS**

1. "Prydneprovsky Promstroyproekt", Dnipropetrovsk. From April 2, 2001 to May 31, 2001.
2. State enterprise "Ukrghiprommez". Dnipropetrovsk. From January 8, 2009 to February 28, 2009.
3. Ukrainian State Institute for the Design of Road Facilities "Ukrghiprodor", Dnipropetrovsk. From 12/10/2014 to 02/16/2015.
4. Service of highways in the Dnipropetrovsk region, Dnipro. From 03/25/2020 to 05/25/2020.

### **PUBLICATIONS**

#### **scientific interests:**

*Heat-resistant and fire-resistant concretes in relation to structures of the construction and metallurgical industries.*

1. Utility model patent No. 93566 UA. Refractory heat-insulating mixture for the protective coating of beams of the evaporative cooling system of heating furnaces. / O. Yu. Konoplyanyk - Publ. Bul. No. 19. 2014.
2. A. Y. Konoplianyk. Additives influence on the processing characteristics of refractory mixtures / A. Y. Konoplianyk, I. M. Iliev // Metallurgical and Mining Industry – 2018. – № 2. – С.13-16.
3. Specific Design Features of Prefabricated Fire-Resistant Floor Slabs Made from Lightweight Concrete / Oleksandr KONOPLIANYK, Nikolay KOTOV, Illia ILIEV //Slovak Journal of Civil Engineering. – 2022.- Vol. 30.- P 1-7. Режим доступу: <https://doi.org/10.2478/sjce-2022-0001>.

*Lightweight environmentally friendly heat-insulating concrete*

4. Patent for the invention No. 112095. Heat-insulating arbolite mixture. / Konoplyanyk O.Yu. UA, Savytskyi M.V. UA, Dashnor Oksa. FR. Publ. Bul. No. 14, 25.07. 2016.
5. Nesevrya P.I., Dmitrenko I.S., Konoplyanik A.Yu., Doloty M.A. Selection of the optimal technology for compacting arbolite mixtures when installing thermal insulation of building envelopes. // International scientific journal "Internauka". - 2019. - No. 4 (86).
6. Methodology of creating sustainable eco-settlements in Ukraine: Collective monograph / pod obsch. ed. Ph.D., prof. N.V. Savytskyi. - Dnipro: GVUZ, PGASA, Royle Print, 2017. - 305p. (Own contribution – conducting research and implementation of sections 5,8,12 and 14).

*Compositions of concrete for 3D printing of building products and structures*

7. Utility model patent No. 123108 UA. Head 3D - printing construction structures. / Shatov S.V., Savytskyi M.V., Konoplianyk O.Yu. etc. Publ. Bul. No. 3.12.02. 2018
8. Mykola Savytskyi, Sergii Shatov, Oleksander Konoplianyk, Serhii Ivantsov and Ibrahim Zaidan Khalaf. Development of 3D printing technology: materials, structural elements, equipment. PROCEEDINGS OF THE 14<sup>TH</sup> INTERNATIONAL CONFERENCE ON BUILDINGS AND ENVIRONMENT. – Bratislava. Slovakia. 7 november 2019. Scientific journal « Proceedings of the enviBUILD 2019» Edited by: Hraska Jozef Sciendo. 2020. – P.147-152. DOI: 10.2478/9788395669699.
9. Architectural-constructive-technological system of 3D printing of building objects: collective monograph / M. Savytskyi, Sh. Ayrich, I.Z Khalaf [and others].; in general ed. Dr. Tech. Sciences,

Prof. M. Savytskoho, - Dnipro: FOP Udovichenko O.M., 2019. - 233p. (Own contribution - conducting research and implementation of section 2).

*Structural solutions for reinforced concrete bridges and artificial structures on highways and airfields*

10. S.A. Slobodyanyuk, V.G. Shapoval, A.Yu. Konoplyanik, A.P. Buratinsky. Features of the inspection of structures of road reinforced concrete bridges. / News of science Prydniprovyia. 2006. No. 4. pp. 21-24.

11. Calculation of airfield plates for temperature-climatic load. A.Yu. Konoplyanik, E.D. Semenov // Bulletin of the Academy. - Dnipropetrovsk: PDABtaA. 2014. No. 2. P.29-36.

*Study of the characteristics of building materials and products in the laboratory and directly at construction sites*

12. Utility model patent No. 99830 UA. The method of making a cement-sand mixture. / Marynych M.E., Konoplianyk O.Yu. hemp grower Publ. 25.06. 2015. Bull. No. 12.

13. Bolshakov V.I., Volchuk V.M., Kotov M.A., Konoplyanyk O.Yu. The influence of multifractal characteristics of the macrostructure on the strength of cement-sand mortar. Abstracts of the XIX scientific and practical conference "Innovative technologies in construction, civil engineering and architecture (Chernihiv, September 19-22, 2021). – Dnipro: DVNZ PDABA, 2021. – P.102-103

Total publications: 90 scientific papers (including 4 monographs) and 14 patents and copyright certificates (including 4 copyright certificates). One patent is international.

## **ACADEMIC COURSES**

1. Reinforced concrete and stone structures.
2. Heat-resistant and fire-resistant concretes and structures made from them.
3. Planning and processing the results of a scientific experiment.
4. Artificial structures on highways.

## **PROFESSIONAL PROFILE**

ORCID ID: 0000-0003-4664-8809

## **LINGUISTIC COMPETENCIES**

- Ukrainian (native)
- Russian (native)
- English (A2).