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Artem Sopilniak

Work : Oleh Petrov Street, 24A, 49000, Dnipro, Ukraine

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Date of birth: 26/07/1985

WORK EXPERIENCE

[2019 – Current]

Head of Department of Descriptive Geometry and Graphics

Prydniprovska State Academy of Civil Engineering and Architecture

City: Dnipro

Country: Ukraine

Teaching: Computer-aided design systems, basics of BIM technologies, computer graphics in the AutoCAD environment, descriptive geometry and computer graphics

[2017 – 2019]

Associate Professor, Department of Reinforced Concrete and Masonry Structures

Prydniprovska State Academy of Civil Engineering and Architecture

City: Dnipro

Country: Ukraine

Teaching: reinforced concrete structures, metrology, standardization and certification, diagnostics and strengthening of reinforced concrete structures, automated design systems

[2009 – 2017]

Assistant Professor, Department of Reinforced Concrete and Masonry Structures

Prydniprovska State Academy of Civil Engineering and Architecture

City: Dnipro

Country: Ukraine

Teaching: reinforced concrete structures, metrology, standardization and certification, diagnostics and strengthening of reinforced concrete structures, automated design systems

Professional expertise

A licensed professional engineer with over 10 years of experience in the building information modeling (BIM) field
Proven ability to lead and manage teams of engineers and architects to deliver high-quality 3D models and construction documents
Rational design of building structures, taking into account the criteria of sustainable development, design of energy efficient buildings
BIM and Artificial Intelligence approaches in energy efficient building design, sustainable design with BIM, environmental impact and architecture

EDUCATION AND TRAINING

Candidate (Ph.D). Degree in Engineering

Prydniprovska State Academy of Civil Engineering and Architecture

Address: Dnipro, Ukraine

Thesis: Ph.D. thesis on strength and cracking-resistance of three-layer reinforced concrete wall panels. Manuscript. 2016. Programme «Building Designs, Buildings and Constructions»

Professional internship

June 2020 Training on Tekla Structures course
April 2020 Participation in the international conference «SIKA System Solutions for Bridges»
Oct – Nov. 2020 Training on VDC Engineering 3.0 Basic REVIT 2020

SCIENTIFIC POTENTIAL

Scientific and research interests

Research interests:

Strength and crack resistance of three-layer reinforced concrete wall panels

BIM and Artificial Intelligence approaches in energy efficient building design

Sustainable design with BIM

Environmental impact and architecture

Energy efficiency of life

Panel house building

BIM technologies

Computer modeling

Publications:

1. The usage of smart materials for skin-diagnostics of building structures while their monitoring / Sopilniak A.M., Bolshakov V.I., Vaganov V.E., Bier Th.A., Bausk Ie.A., Matiushenko I.M., Ozhyshchenko O.A., Popov M.Y. // Modern Building Materials, Structures and Techniques. Procedia Engineering 172 (2017). Vilnius, Lithuania. Pages 119-126. (Scopus) - https://www.sciencedirect.com/science/article/pii/S1877705817305398

2. Simple methods of increasing the energy efficiency of windows in the reconstruction of old buildings / Sopilniak A., Nikiforova T., Radkevych A., Shevchenko T. // Sustainable housing and human settlement: Monograp. Dnipro - Bratislava: SHEE "Prydniprovska State Academy of Civil Engineering and Architecture" - Slovak University of Technology in Bratislava, 2018. Pages 94-101. - http://eadnurt.diit.edu.ua/handle/123456789/10581

3. BIM energy analysis of a house with double windows / Sopilniak A., Kolokhov V., Yarova T. Sereda S., Sirenok K., Dunda V // Ukrainian Journal of Civil Engineering and Architecture. – Dnipro.: PSACEA, 2021. – № 3. – P. 107-115 (in the Ukrainian language). –: http://uajcea.pgasa.dp.ua/article/view/239180/237670

4. The value of a rational roof overhang over a stained-glass facade using BIM technologies / Sopilniak A., Tytiuk A., Yarova T. Sereda S., Vershkova J. // Ukrainian Journal of Civil Engineering and Architecture. – Dnipro.: PSACEA, 2022. – № 2. – C. 102-109 (in the Ukrainian language). – : http://uajcea.pgasa.dp.ua/article/view/261171

5. BIM technologies in the PSACEA's educational process / Sopilniak A., Tytiuk A. // Abstracts of reports All-Ukrainian Scientific and Practical Forum «We will win - we will rebuild!», June 29-30, Dnipro.: PSACEA. 2022. P. 93-95 (in the Ukrainian language). –http://srd.pgasa.dp.ua:8080/xmlui/handle/123456789/8779

6. Time measurement of ultrasonic vibrations extension in concrete of different compositions / Sopilniak A., Kolokhov V., Savytskyi M., Gasii G. // International Conference Building Innovations. ICBI 2019: Proceedings of the 2nd International Conference on Building Innovations. Vol 73. Springer, Cham. 2020. Pages 95-102. (Scopus) - https://link.springer.com/chapter/10.1007/978-3-030-42939-3_11

7. The newest technologies for solar buildings using BIM / Sopilniak A., Tytiuk A., Yarova T. Sereda S., Vershkova J. // Ukrainian Journal of Civil Engineering and Architecture. – Dnipro.: PSACEA, 2022. – № 3. – P. 95-101 (in the Ukrainian language). – http://uajcea.pgasa.dp.ua/article/view/264074

Professional profile

ORCID ID: 0000-0002-3067-0529

Scopus ID: 57193746898

Web of Science Researcher ID: ABB-7561-2021

LANGUAGE SKILLS

Mother tongue(s): Ukrainian , Russian

Other language(s):

English

LISTENING B2 **READING** B2 **WRITING** B2

SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

DIGITAL SKILLS

Microsoft Office | Google Drive | Zoom | Google Docs | Microsoft Word | Facebook | Microsoft Excel | Microsoft Powerpoint | Internet user