

## **ZELENSKY ANATOLY GRIGOROVICH,**

Doctor of Physical and Mathematical Sciences specialty 01.02.04- mechanics of a deformable solid body,  
Professor of the Department of Construction and Theoretical Mechanics and Resistances Material ,  
State Higher Educational Institution "Pridneprovsk State Academy of Construction and Architecture"

### **BIOGRAPHY**

He was born on September 1, 1950 in the village of Chervonogrigorivka, Nikopol district, Dnipropetrovsk region. In 1967, he graduated from secondary school No. 3 in the city of Marganets with a gold medal. In 1967, he entered the Dnipro National University (DNU) named after Oles Honchar (formerly Dnipropetrovsk State University (DSU)) at the mechanical and mathematical faculty, majoring in mechanics, and graduated with honors in 1972.

From 1972 to 1975, he was a graduate student at the Department of Theoretical Mechanics of DSU. Considered the stability of thin-walled rods of an open profile in Karman's formulation, studied the stability of rectangular plates and cylindrical shells in the elastic-plastic region in Shanley's formulation, taking into account the load history under the combined action of external forces. In 1980, he defended his thesis in physical and mathematical sciences "The influence of the history of active load on the bifurcation of the process of deformation of rectangular plates and cylindrical shells" (stability in Shanley's formulation) in the specialty 01.02.04 - mechanics of a deformable solid (scientific supervisor: outstanding mechanic-mathematician, Doctor of Physical and Mathematical Sciences, Professor Shvayko M. Yu.).

From 1975 until today, I have been working in the state higher educational institution "Dnieper State Academy of Construction and Architecture" (formerly the Dnipropetrovsk Engineering and Construction Institute) as an assistant, associate professor of the Department of Resistance of Materials (now the Department of Construction and Theoretical Mechanics and Resistance of Materials), professor of the Department of Theoretical Mechanics, associate professor, professor department of construction and theoretical mechanics and resistance of materials.

After defending his candidate's thesis, he significantly changed his scientific direction and was engaged in solving boundary value problems using methods of perturbations of the shape of the boundary. Since 1997, scientific research has been formed under the influence of a scientific consultant - an outstanding scientist, Doctor of Technical Sciences, Professor O. P. Prusakov. The scientific dissertation direction was connected with the construction of new effective variants of the mathematical theory of linearly and nonlinearly elastic, homogeneous and layered plates and shallow shells of arbitrary constant thickness under arbitrary static loads. Mathematical methods for solving boundary value problems were developed for the specified elements in a spatial setting. By 2004, all scientific results of the doctoral dissertation were obtained. At that time, 38 scientific works were published, including 27 scientific articles, of which 25 were published in specialized publications of Ukraine (20 were individually authored). From 1996 to 2008, he worked part-time as a teacher of an advanced course of mathematics in the ninth - eleventh grades of the Lyceum of Information Technologies at Oles Honchar DNU. Taught special mathematics courses for lyceum students, trained many winners and prize-winners of the regional and All-Ukrainian competition of the Small Academy of Sciences of Ukraine.

In February 2021, he successfully defended a new doctoral dissertation (it was not a continuation of the candidate's) at the Oles Honchar DNU for obtaining the scientific degree of Doctor of Physical and Mathematical Sciences with the specialty 01.02.04 – mechanics of a deformable solid "Variant of the mathematical theory of non-thin elastic plates and shallow shells under static load". At the time of the defense of this doctoral dissertation, he had 100 scientific papers on the topic of the dissertation, including 64 scientific articles (52 articles without co-authors), of which 51 articles were published in specialized publications of Ukraine in physical, mathematical and technical sciences (29 in specialized publications of physical and mathematical sciences, of which 26 are in sole authorship) and 6 articles in foreign English-language publications with a high rating (5 are in sole authorship). In April 2021, the Ministry of Education and Science of Ukraine approved the decision of the specialized academic council of DNU to award the scientific degree of Doctor of Physical and Mathematical Sciences.

Today I have: 149 scientific publications, including a monograph, 68 scientific articles in professional scientific publications of Ukraine and in prestigious English-language foreign publications (57 scientific articles without co-authors), 49 educational and methodological publications in mathematics and mechanics, including 3 Tutorials.

He was repeatedly an opponent of candidate's theses, repeatedly gave feedback on the abstracts of candidate's and doctoral theses. I give lectures and conduct practical classes in the following disciplines: resistance of materials, basics of the theory of elasticity and plasticity, theoretical mechanics, theory of plates and shells. Gave lectures and conducted practical classes in the discipline "Higher Mathematics". For a long time, he read mathematics in preparatory courses, was a member of the subject commission for mathematics in entrance exams.

Member of the Specialized Academic Council for the Protection of Doctoral Dissertations in Technical Sciences at the State Higher Educational Institution "Pridneprovsk State Academy of Construction and Architecture" in the specialty 05.23.17 "Construction mechanics".

Member of the editorial board of the professional scientific journal of Ukraine "Mechanics and mathematical methods".

Reviewer of scientific professional edition "Problems of computer mechanics and strength of structures".

The circle of scientific interests is the construction of variants of the mathematical theory of physically linear and non-linear, homogeneous and layered plates and shallow shells of arbitrary thickness under the action of various static loads; analytical methods for solving systems of differential equations with partial derivatives of high order in boundary value problems of plate and shell theories; boundary value problems of mathematical physics, methods of perturbation of isotropic and linear elastic properties in the theories of plates and shells.

**Zelensky Anatoly Grigorovich**

**E-mail:**

[a.zelensky@ukr.net](mailto:a.zelensky@ukr.net)

[a.zelensky50@gmail.com](mailto:a.zelensky50@gmail.com)

[zelenskyi.anatolii@pgasa.dp.ua](mailto:zelenskyi.anatolii@pgasa.dp.ua)