



THE UNIVERSITY of  
**MISSISSIPPI**

ELECTRICAL AND COMPUTER ENGINEERING DEPARTMENT

## CONCLUSION

about the level of the educational and scientific program "APPLIED PHYSICS AND NANOMATERIALS" of PhD students training in specialty 105 Applied Physics and Nanomaterials, provided by Department of Applied Radiophysics, Electronics, and Nanomaterials in Oles Honchar Dnipro National University

A feature of the current state of research in applied physics and nanomaterials is the combination of theoretical and computer tools of electromagnetic theory in the microwave and terahertz ranges with the methods applied for the solid-state analysis and the study of photonic crystals. On this basis, significant results have been obtained in the field of optical communication and optical information processing. Achieving the final result is ensured by the availability of modern technologies for the production of appropriate samples of materials and devices.

The Department of Applied Radiophysics, Electronics, and Nanomaterials provides training in the specialty of Applied Physics and Nanomaterials; it combines the development of technologies of electronic materials science, photonics, electromagnetic theory and measurements in the microwave range with computer methods of signal processing. PhD thesis topics and subjects cover the entire spectrum of the listed approaches, which ensures compliance with the modern trends. The possibility of choosing one's own scientific trajectory among such a wide range of information in the field of applied physics and nanomaterials is provided by selective subjects and a wide selection of PhD thesis topics.

The authors of the program successfully combined the teaching of general principles of applied physics and research methods with selective subjects, where PhD students have the opportunity to obtain more detailed information on specific issues. The use of antenna arrays for the transmission of electromagnetic energy in developing energy supply systems for complex technical systems and photonic crystals in optical information processing systems has significant prospects.

The objectives, scientific contents, and the structural scheme of the organization of the educational process of the program fully meet the modern world trends in training PhD researchers in the field of Applied Physics and Nanomaterials.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Alexander Yakovlev". The signature is fluid and cursive, with a large loop at the end.

Alexander Yakovlev  
Professor of Electrical and Computer Engineering  
University of Mississippi