

# YURIY FEDKOVYCH CHERNIVTSI NATIONAL UNIVERSITY

speakers

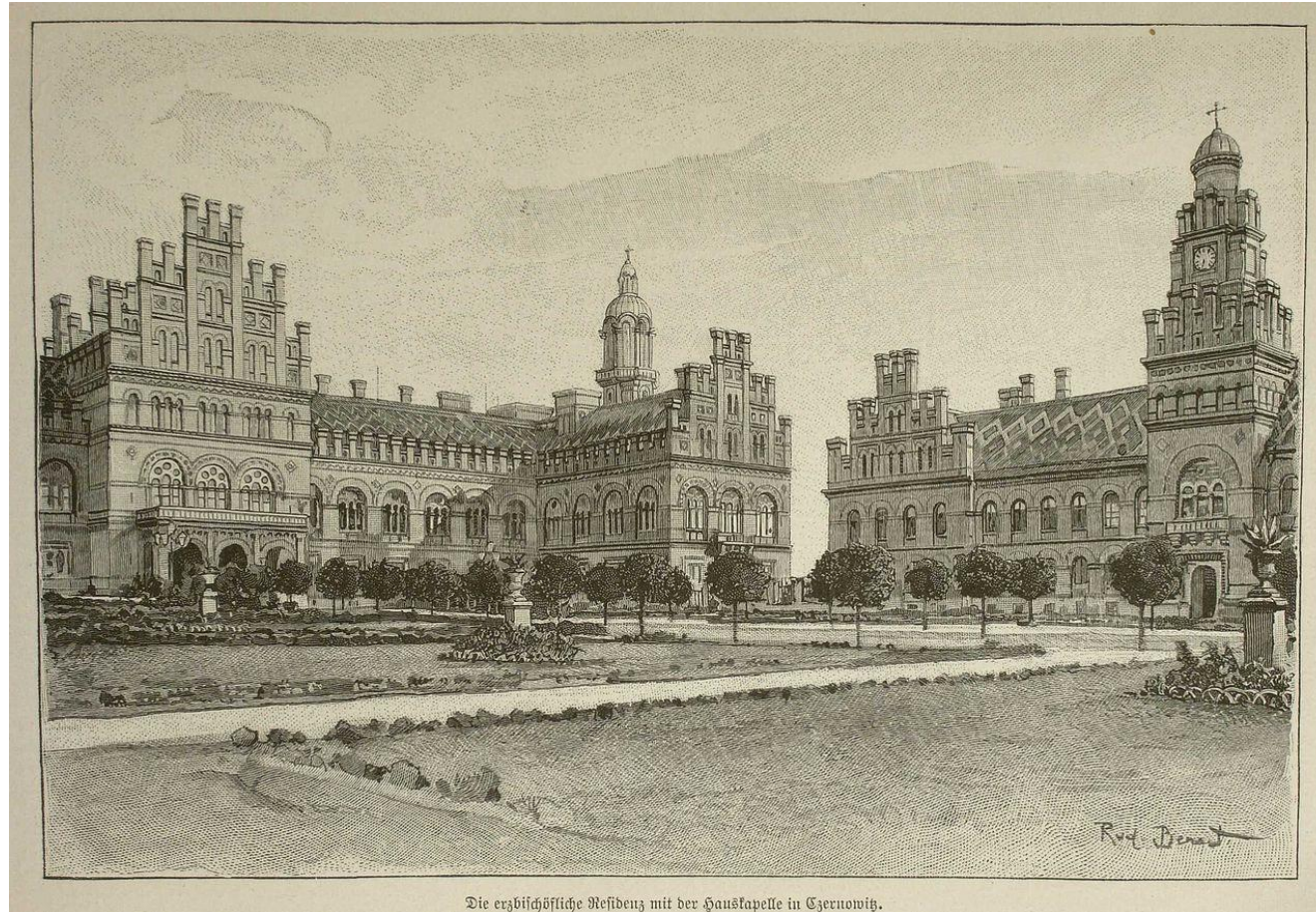


- **YURIY YUSHCHENKO** - doctor of geographical sciences, professor of the department of geography of Ukraine and regional studies
- **MYKOLA PASICHNYK** – candidate of geographical sciences, assistant professor of the department of geography of Ukraine and regional studies

11/04/2024



YURIY FEDKOVYCH  
CHERNIVTSI  
NATIONAL  
UNIVERSITY



Die erzbischöfliche Residenz mit der Hauskapelle in Czernowitz.

- One of the oldest classical universities in Ukraine. It is located in the majestic building of modern Chernivtsi - a complex built in 1864-1882 as the residence of the metropolitans of Bukovyna and Dalmatia.

# Faculties

1) Educational and Scientific Institute of Biology, Chemistry and Bioresources

2) Educational and Scientific Institute of Physical, Technical and Computer Sciences

3) Faculty of Geography

4) Faculty of Economics

5) Faculty of Foreign Languages

6) Faculty of History, Political Science and International Relations

7) Faculty of Mathematics and Informatics

8) Faculty of Pedagogy, Psychology and Social Work

9) Faculty of physical culture and human health

10) Faculty of Philology

11) Faculty of Law

12) Faculty of architecture, construction and decorative and applied arts

13) Separate structural subdivision "Professional College of Yuriy Fedkovych Chernivtsi National University"



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# CHERNIVTSI NATIONAL UNIVERSITY

- More than 14 thousand students
- 12 institutes and faculties
- 73 departments
- Training takes place in the following specialties:
  - I (bachelor's level) – 81;
  - II (master's) – 73;
  - III (educational and scientific) - 25
- The university has 18 buildings, of which 12 are educational buildings.



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# Departments of the Faculty of Geography:

- DEPARTMENT OF GEOGRAPHY AND TOURISM MANAGEMENT
- DEPARTMENT OF GEOGRAPHY OF UKRAINE AND REGIONAL STUDIES
- DEPARTMENT OF ECONOMIC GEOGRAPHY AND ENVIRONMENTAL MANAGEMENT
- DEPARTMENT OF PHYSICAL GEOGRAPHY, GEOMORPHOLOGY AND PALEOGEOGRAPHY
- DEPARTMENT OF GEODESY, CARTOGRAPHY AND TERRITORY MANAGEMENT



Educational  
and scientific  
geophysical  
observatory



# Undergraduate educational programs for which training takes place at the Faculty of Geography

- EP Geography (Secondary Education)
- EP Management of the tourist industry
- EP Hydrometeorology
- EP Geosystems and georisks
- EP Geography
- EP Regional development and spatial planning
- EP Geodesy and land management
- EP International Tourism
- EP Hotel and restaurant service and tour operating



# Master's educational programs which takes place at the Faculty of Geography

- 1. EP "Secondary Education (Geography)"
- 2. EP "Hydrology"
- 3. EP "Geography"
- 4. EP "Regional development and spatial planning"
- 5. EP "Tourism Industry Management"
- 6. EP "Geodesia"
- 7. EP "International tourism and tour operating"







Teachers of the educational programs  
"Hydrometeorology" and  
"Hydrology"




- Yurii YUSHCHENKO
- Lyudmila KOSTENIUK
- Mykola NASTYUK
- Andriy NYKOLAEV
- Olga PALANYCHKO
- Mykola PASICHNYK
- Natalia KURAEVA
- Maryna WUDWUD




Normative  
disciplines taught in  
the bachelor  
educational program  
"Hydrometeorology"

- Current issues of the history and culture of Ukraine
- Ukrainian language (by professional direction)
- Foreign language (by professional direction)
- Higher mathematics with the basics of mathematical statistics Physics
- Basics of geochemistry and hydrochemistry. Climatology
- Basics of geodesy and topography
- General hydrology and methods of hydrometeorological measurements
- Fundamentals of atmospheric and hydrosphere dynamics Philosophy
- Basics of meteorology and atmospheric physics. Oceanology
- Methods of processing and analysis of hydrometeorological information.
- Basics of earth science and geophysics
- Computer technology and programming. Hydrometry and flow accounting
- Basics of scientific activity
- Geoinformatics systems and mathematical methods of processing geographic data
- Water cadastre and water fund of Ukraine
- General and river hydraulics
- Fundamentals of agrometeorology Hydrological calculations Hydroforecasts
- Hydrochemistry of water bodies with the basics of hydroecology Basics of geoecology
- Water resources, their protection and legal issues of use
- Water management of Ukraine
- Hydrology of mountain regions
- Educational practice on the basics of geodesy and topography
- Educational practice in general hydrology and methods of hydrometeorological measurements
- Educational practice in hydrometry and flow accounting
- Interdisciplinary course work
- Manufacturing practice practice
- Graduation qualification work



## Normative disciplines in the master's degree program "Hydrology"

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- River studies and dynamics of river flows
  - Modern mathematical models in hydrological calculations and forecasts
  - Pedagogy and psychology of higher education
  - Methodology of teaching geographic disciplines in higher education
  - Basin systems and their management
  - Methodology and organization of scientific research in hydrology
  - Long-term and operational hydrological forecasts
  - Assistant practice
  - Production practice
  - Research work on the topic (coursework)
  - Graduation qualification work
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# Scientific research work in the field of Hydrometeorology

## Topics that were carried out at the expense of the state budget

- In 2019, the department ensured the implementation of the topic ordered by the state No. 46.700 "Scientific substantiation of the principles of planning for sustainable, high-quality development of the Prut River within the Chernivtsi region"
- In 2021, the department completed the topic of the state order No. 46.701 "Scientific substantiation of the principles of planning for sustainable qualitative development of the landscapes of the Siret river bed and floodplain within the Chernivtsi region"
- In 2023, the department completed the topic for the state order No. 45.701 "Scientific substantiation of the principles of planning for the sustainable qualitative development of the Cheremosh River within the limits of the Chernivtsi region"



# Scientific research work of the **HYDROMETEOROLOGY** sector

## Research topics for different periods

- 2002-2005 - Research, use and protection of water resources of the Carpathian region
- 2006-2010 - Research of the basin systems of the Carpathian-Podilsky region in the context of sustainable development
- 2011-2015 - Hydroecological substantiation of the safe and balanced development of natural and anthropogenic river systems of Precarpathia
- 2016-2020 - Quality of natural and anthropogenic river systems and integrated management of water resources of Precarpathia
- 2021-2025 - Landscapes of riverbeds and floodplains of southeastern Precarpathia: condition, conflicts, risks, optimization

# Publications

- Geohydromorphological regularities of channel development.
- Hydrological and geochemical assessment of the state of rivers in the urbanized area (on the example of Chernivtsi)
- Hydrochemical regime and quality of surface waters of the Dniester basin on the territory of Ukraine
- Hydrological and hydrochemical regimes of small rivers in the urbanized area
- Hydroecological substantiation of safe and balanced development of natural and anthropogenic river systems of Precarpathia: monograph
- The young landscape of the Prut River: past and present (on the territory of Chernivtsi region): monograph
- Analysis of water resources of the Chernivtsi region and assessment of their quality
- Water supply and drainage of the city of Chernivtsi

# Participation in international projects

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- Yurii Yushchenko - Expert in the international project **"Technology Needs Assessment"** (TNA), direction "Adaptation to climate change", water management sector (2019)
- Mykola Pasichnyk - Coordinator of the international project **ILCA (Innovation Laboratories for Climate Actions)** Proud partner of EIT Climate-KIC <http://www.climate-kic.org> Proud partner of EIT HEI Initiative (<https://eit-hei.eu>) (2022-2024)
- Yurii Yushchenko - Expert on flooding and landslides and Pasichnyk Mykola - Project coordinator in the framework of the implementation of the project 2SOFT/4.2/18 **"Safety and protection - a common factor in cross-border cooperation"** (2022-2023)



# Student research topics

- ✓ MODERN BASES OF HYDROLOGICAL INFORMATION ABOUT RIVERS AND THEIR BASINS
- ✓ MODERN METHODS OF DETERMINING THE ORDERS OF RIVERS AND THEIR BASINS AS APPLIED TO THE UPPER PRUT AND UPPER SIRET
- ✓ THE QUALITY OF THE RIVER LANDSCAPE AND THE OPTIMIZATION OF WATER SUPPLY AND WATER DISTRIBUTION IN THE EXAMPLES OF THE SOUTH-EAST CARPATIA
- ✓ ANALYSIS OF PROCESSES OF THE DEVELOPMENT OF THE COURSE AND FLOODWATER OF THE PRUT RIVER
- ✓ CHANGES IN THE THERMAL REGIME OF THE CLIMATE OF CHERNIVTSVI IN THE PERIOD OF GLOBAL WARMING
- ✓ CHARACTERISTICS OF THE LANDS OF THE WATER FUND OF THE BASIN SYSTEMS OF THE RIVERS SOVYTSYA KITSMANSKA AND SOVYTSYA STAVCHANSKA WITH THE USE OF GIS TECHNOLOGIES
- ✓ WATER QUALITY OF THE PRUT RIVER IN THE BOUNDARIES OF THE MUNICIPALITY OF CHERNIVTS
- ✓ TRENDS OF CHANGES IN THE RIVERS OF THE UPPER PRUT BASIN





THANKS FOR ATTENTION !