

Lviv Polytechnic National University

Institute of Engineering Mechanics and Transport

Department of Oil and Gas Engineering & Welding

Until 2019 – Department of Welding Manufacture,
Diagnostics and Restoration of Metal Structures



Specialty

**«Oil and gas engineering
and technologies»**

Qualification - **bachelor** in Oil and gas engineering and technologies

Department of Oil and Gas Engineering & Welding

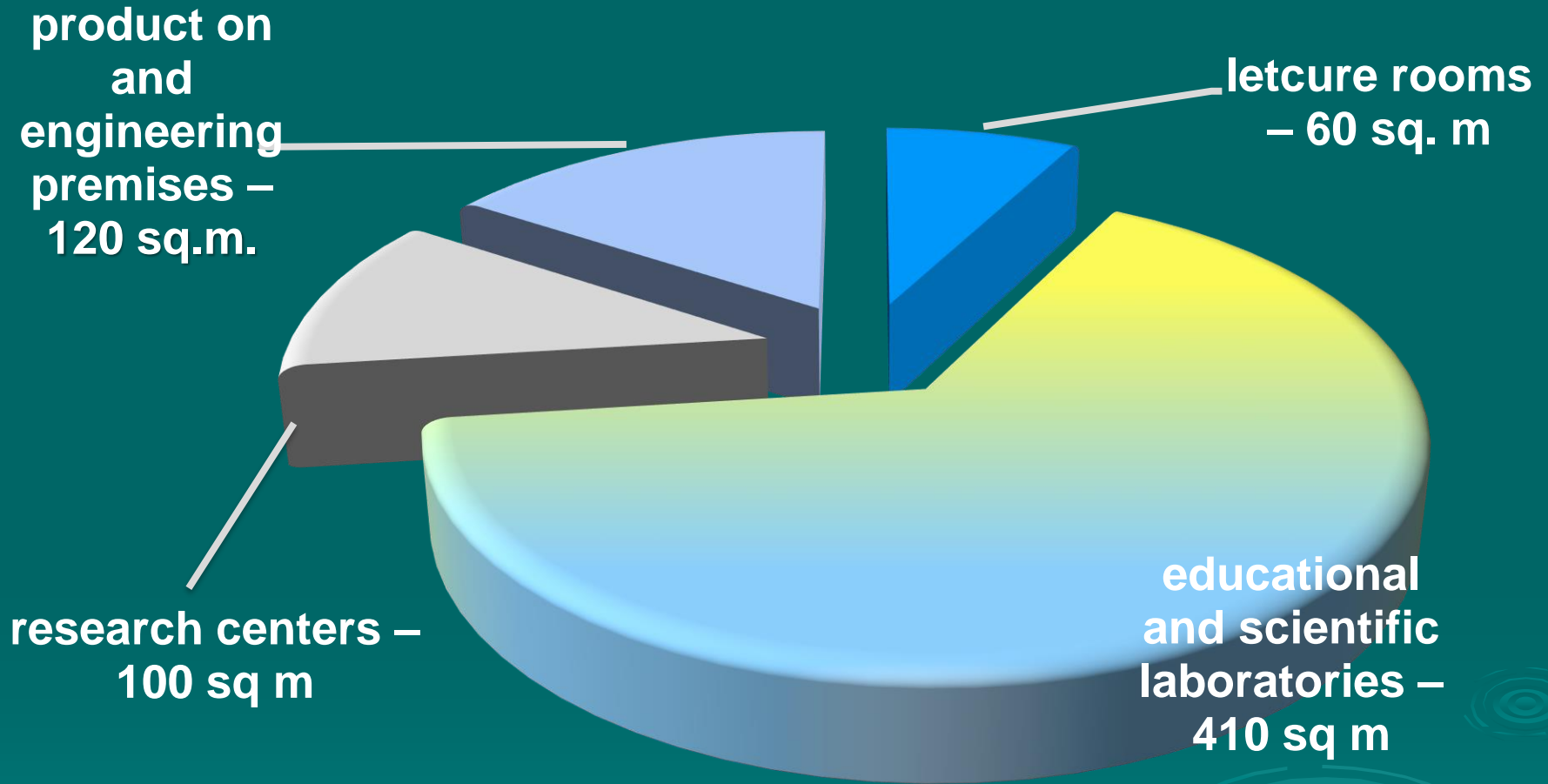
Head of Department: Sc.D., Prof. Olesia Maksymovych



Personnel potential of the department:

**4 ScD`s and professors, 5 PhD`s and associate professors,
1 senior lecturer, 5 ingenious.**

Premises of the department



Total floor area – 690 sq.m.

Laboratory of manual arc welding and surfacing



Laboratory of manual arc welding and surfacing



welding power supplies



Automatic fusion welding and pressure welding laboratories

contact welding equipment



Automatic fusion welding and pressure welding laboratories

mechanized arc welding



electro slag welding

Laboratory of power supplies



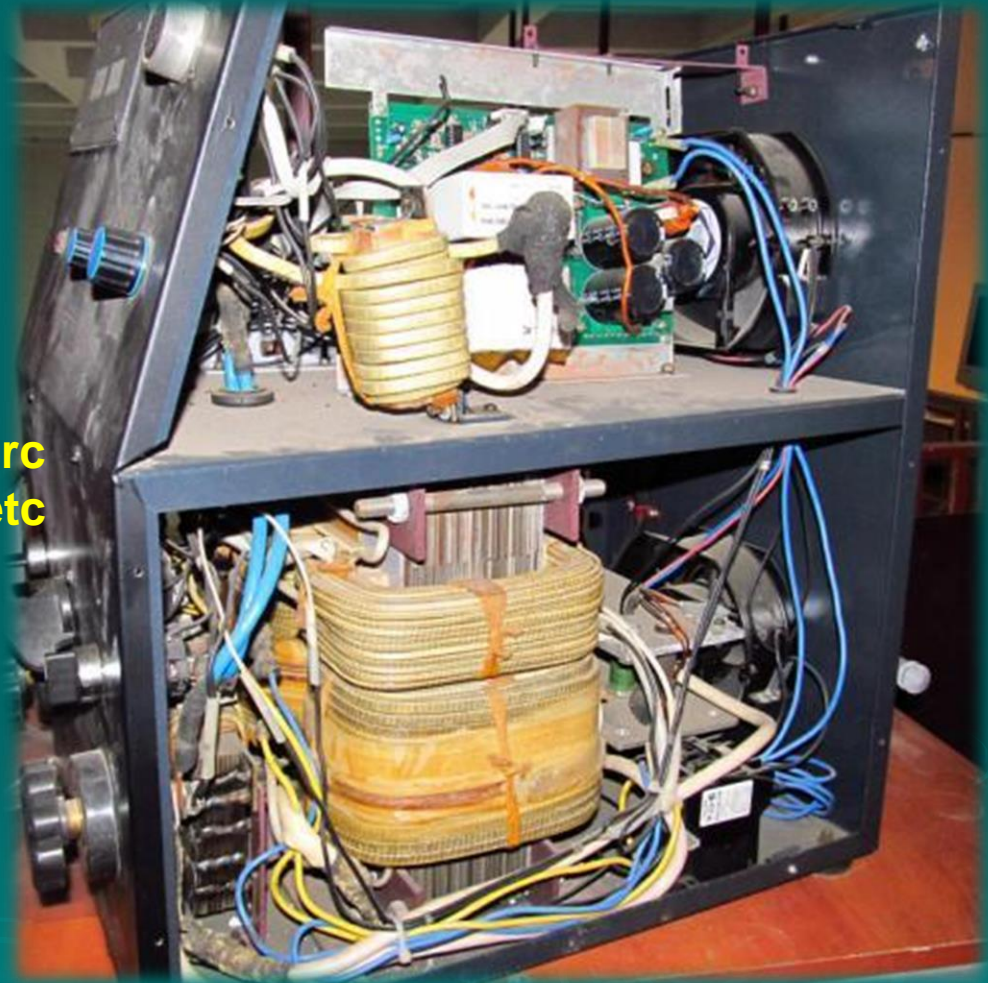
Laboratory of power supplies



inverter power supplies for manual arc welding etc



universal power supply 'Choper'



for argon arc welding

Laboratory of theory of welding processes and metallography



laboratory of computer simulation and automation

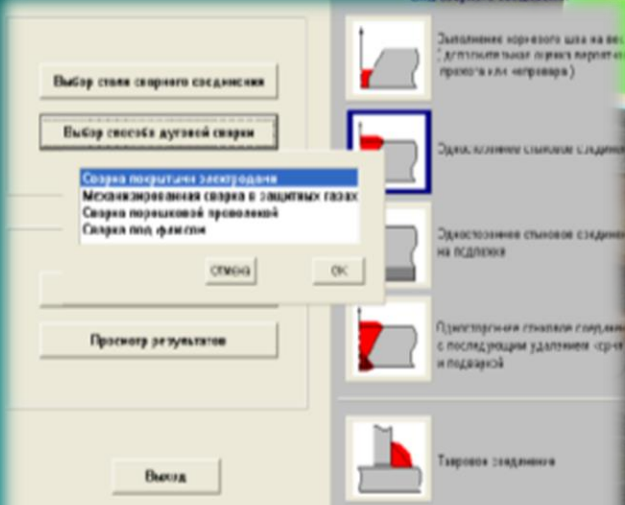


WELD System

розрахунково-комп'ютерна програма

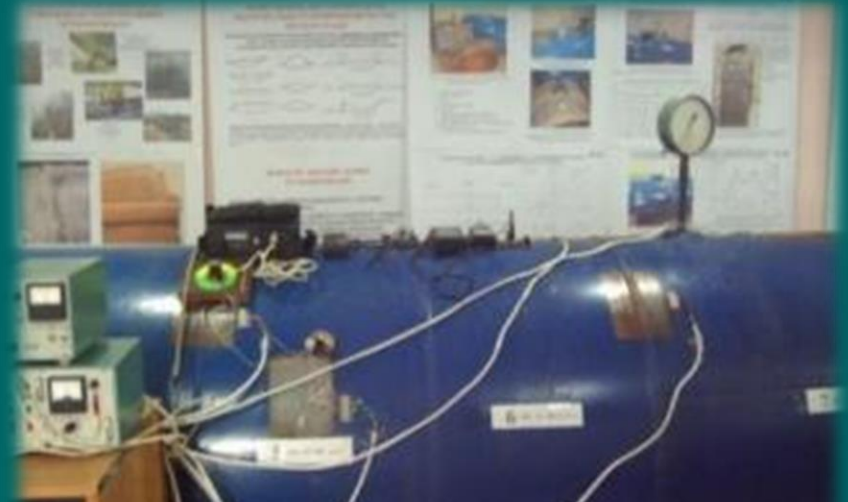
для прогнозування властивостей різних зон зварного з'єднання

Умови використання властивостей різних зон зварного з'єднання



Вибір способу дугового зварювання, що відповідає умовам зварювання

Experimental measuring complex for determining the stress state of pipelines



experimental measuring complex for experimental determination of the stress-strain state characteristics in base metal and in ring welded joints of main pipelines



stress measuring equipment elements



Pipeline diagnostics Research works experience

❖ 3 state-commissioned projects during 2008-2014 years

- Stress state determining methods development of multi-thickness welded shell structures joints of sustained operation;
- Development of experimental- calculation methods in order to diagnose stress state and estimate safety margin of pipelines welded joints;
- Development of theoretical and experimental methods of acoustic-emission diagnostics of materials and metal structures welded joints and evaluation of their durability in the presence of defects

❖ Over 5 Industry- commissioned projects during 2008-2017 years

❖ Over 100 published work

❖ Over 10 monographs

❖ 5 PhD and 1 ScD dissertations

❖ Over 40 master thesis in Oil and gas engineering

❖ Over 10 partnership agreements with leading businesses

❖ The results of the scientific works were implemented at the leading enterprises of the branch: UMG Lvivtransgaz, NJSC Naftogaz group Ukraine, UkrGasVydobuvannya etc.

Pipeline Stress Diagnosis Research Laboratory



- **Complex of measuring and metrological equipment, including long operation pipes multilayer weld joints for measure devices calibration and improvement of methods for determining of the stress state features**

Created in 2006.

Provided by OJSC “Lvivtransgas” as research and educational equipment

Industry-research activities



You are Wellcome to Study Specialty «Oil and gas engineering and technologies»

Bachelor in Specialty

**Diagnostics and resource of Oil and Gas
Facilities**

Master in Specialty

Technology and equipment for welding

From 2020:

- Master in specialty «Diagnostics and resource of Oil and Gas Facilities»
- Certification Training Programme: “*Diagnostics and durability of main pipelines*”, “*Welding and reconditioning of main pipelines*”