The background of the slide is a faded image of a large industrial factory. It shows a high ceiling with a complex steel truss structure, yellow overhead cranes, and various pieces of machinery and equipment on the floor. The lighting is bright, likely from large windows or skylights.

National Technical University "Kharkiv Polytechnic Institute"
Faculty of Mechanics and Technology

Department "Processing of metals by pressure"

Training of Bachelors and Masters

Branch of knowledge 13 "Mechanical engineering"

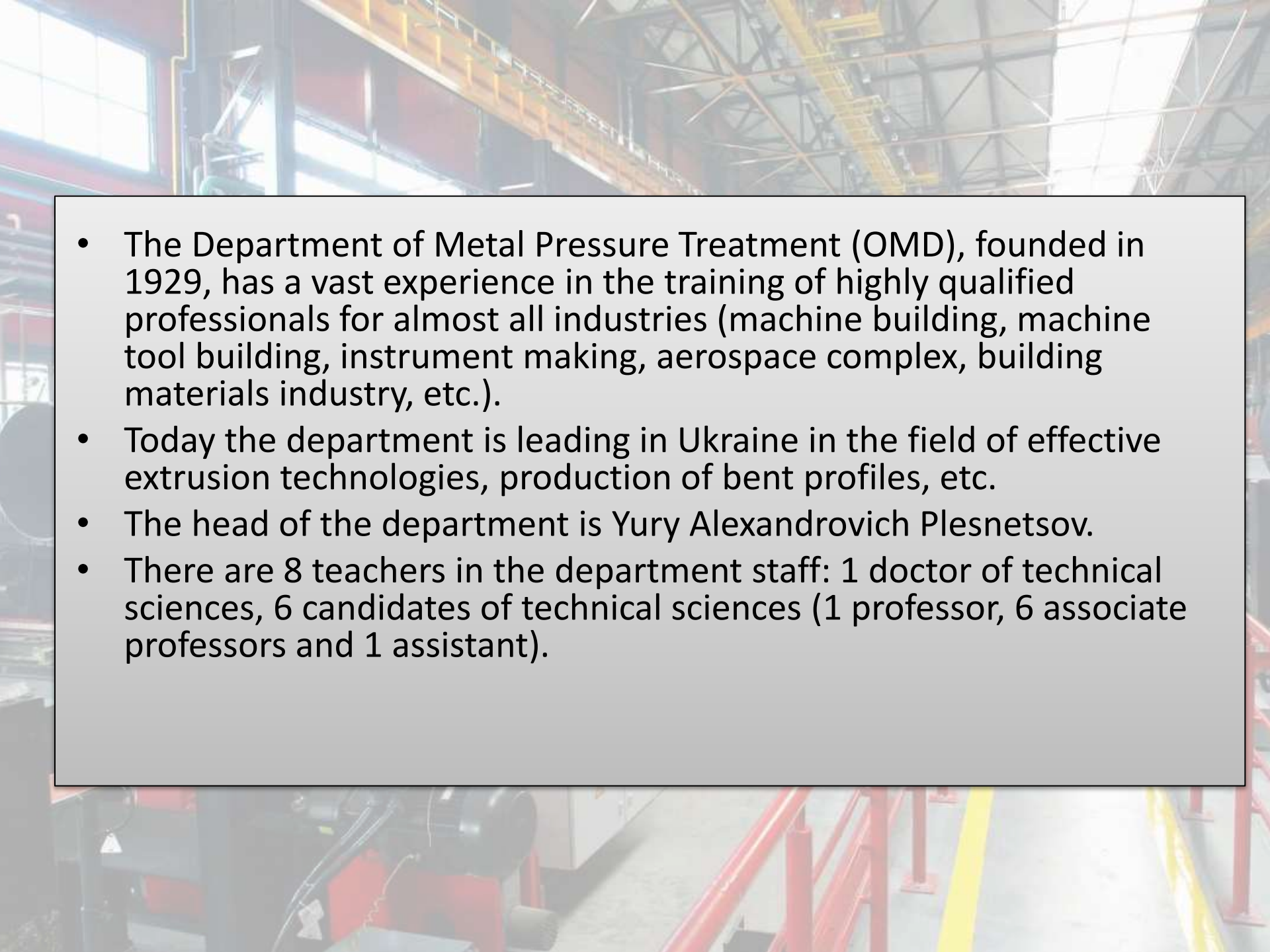
Specialty 131 - "Applied Mechanics"

Specialization 131-08 "Equipment and technologies for pressure treatment"

Phone: (057) 707-60-40

Web-site: <http://web.kpi.kharkov.ua/omd/uk>

E-mail: omd.kpi.kharkov@ukr.net

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- The Department of Metal Pressure Treatment (OMD), founded in 1929, has a vast experience in the training of highly qualified professionals for almost all industries (machine building, machine tool building, instrument making, aerospace complex, building materials industry, etc.).
 - Today the department is leading in Ukraine in the field of effective extrusion technologies, production of bent profiles, etc.
 - The head of the department is Yury Alexandrovich Plesnetsov.
 - There are 8 teachers in the department staff: 1 doctor of technical sciences, 6 candidates of technical sciences (1 professor, 6 associate professors and 1 assistant).

Technologies for the processing of metals by pressure are widely used in virtually all enterprises - from aerospace and defense to the production of children's toys.

The effectiveness of OMD technologies combined with the minimum time for the development of new types of products allow us to confidently predict their further development in the 21st century.

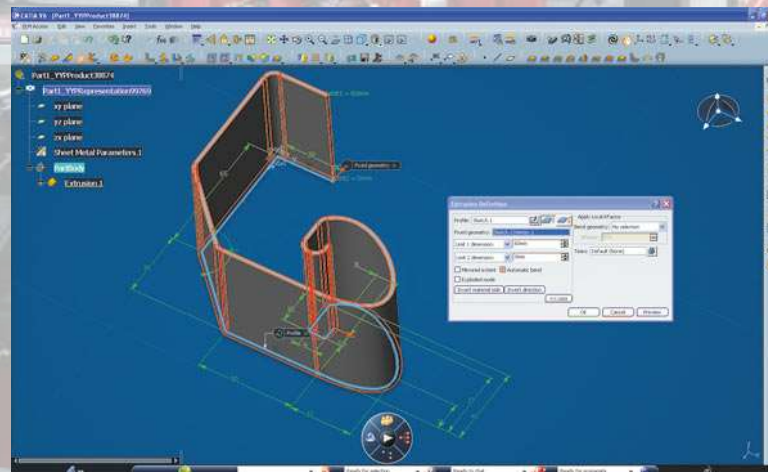
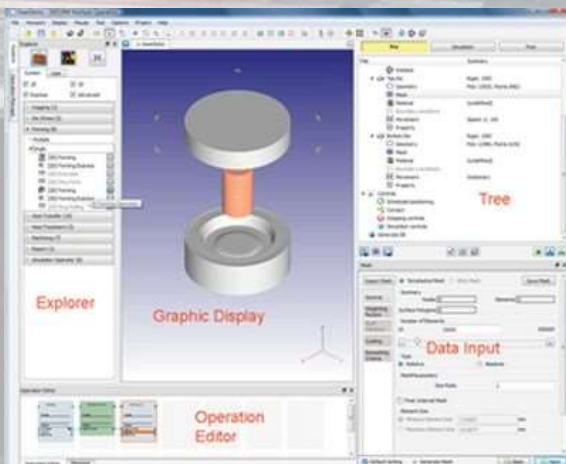
The department provides a 2-step education system:

- *Bachelor - 4 years of study;*
- *Master - 2 years of study.*



Students studying at the Department of OMD have at their disposal:

- a computer center with individual workplaces;
- a training laboratory with industrial equipment and high-precision measuring equipment.



Basic educational disciplines of professional training of bachelors

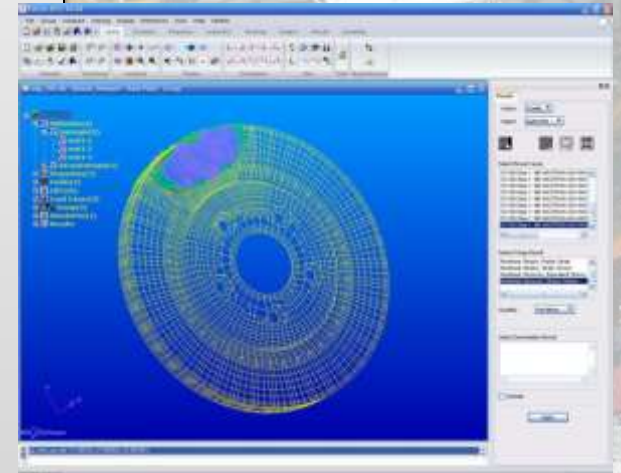
Subject	ECTS credits (hours)
Computer Science	11 (396)
Heating Technology and Heating Devices of Forging and Stamping workshops	5 (180)
Resource-saving Technologies of Hot Forging	6 (216)
Energy-saving Technologies of Cold Stamping	4 (144)
Forging and Stamping Equipment	5 (180)
Crank Presses for Metal Forming	4 (144)
Theory and Nanotechnologies of Metal Forming	4 (144)
Robotics and Computer Integrated Systems in Metal Forming	4 (144)
Resource-saving Technologies of Tools and Equipment for Metal Forming	4 (144)
Operation and Maintenance of Forging and Stamping Workshop Equipment	2 (72)
Automation and Robotization of Forging and Stamping Equipment	2 (72)
Computer Aided Design of Technological Processes and Computer Integrated Technologies in Metal Forming	4 (144)
Automated Manufacturing	2 (72)
Software and Hardware of Computer Aided Design Systems for Metal Forming	4 (144)

Basic educational disciplines of professional training of masters

Subjects	ECTS credits (hours)
Technical Creativity as the Base of Resource and Energy Saving	4,5 (162)
Modern problems of Mathematical and Applied Linguistics	4,5 (162)
Numerical Mathematic Methods in Metal Forming	6 (216)
Computer Technologies, Mathematical Modeling and Optimization Methods in Metal Forming	5 (180)
Design of Workshops	4 (144)
Theory of Metal Forming Processes	3 (108)
Resource-saving Technologies and Equipment for Bent Section Manufacturing	3 (108)
Certification and Quality Control Systems	3 (108)
Modern Methods of Scientific Researches in Metal Forming	4,5 (162)
Fundamentals of Scientific Researches in Metal Forming	9 (324)
Special Technologies and Equipment for Metal Forming	4 (144)
Optimization of Design and Durability Increasing of Dies	5 (180)
Automates, Automatic Production Lines and Automatic Systems in Metal Forming	4 (144)
Computer Aided Design of Dies and Equipment in Metal Forming	5 (180)
Technique of Experimental Researches in Metal Forming	3 (108)
Technical Basics of Plastic Deformation, Forming of Nanostructures and Destruction of Metals	3 (108)
Experimental-theoretical Methods of Investigation of Stress-strain State in Metal Forming	3 (108)
Scientific Research Work	7,5 (270)

After graduating from the university in our specialty, you will learn:

- Design stamps and molds;
- Design stamping equipment, mechanization and automation equipment;
- Use information technologies in their practical activities, develop application programs;
- In perfect possession of modern CAD systems for the development of technological processes and design work.



Graduates of the department are the technical elite, which ensures the management of production at any level. Our graduates occupy positions of engineer-researcher, engineer-programmer, engineer-designer, engineer-technologist, master, shop manager, chief specialist of the enterprise, etc.

Graduates of the department work successfully:

- in Ukraine:

- GP Plant them. Malysheva;
- GP Plant "Electrotyazhmash";
- PJSC Yuzhkabel Plant;
- Corum "The Light of a Miner";
- **PJSC Kharkov Tractor Plant named after. S. Ordzhonikidze;**
- PJSC Kharkiv Bearing Plant;
- PJSC "Turboatom";
- JSC Ipris-Profile;
- JSC Finprofil et al.

- CIS countries;

- head enterprises and manage various government structures in Hungary, Germany, China, Poland, the Czech Republic, Cuba and other countries.