National Technical University
"Kharkiv Polytechnic Institute"

Department of Continuum Mechanics and Strength of Materials

WE OFFER:

Bachelor (4 years) and Master (6 years) programmes in

COMPUTER SCIENCE

with specialization

"COMPUTER MODELLING OF THERMAL AND MECHANICAL PROCESSES"

in cooperation with the

A.N. Podgorny Institute for Mechanical Engineering Problems NAS Ukraine

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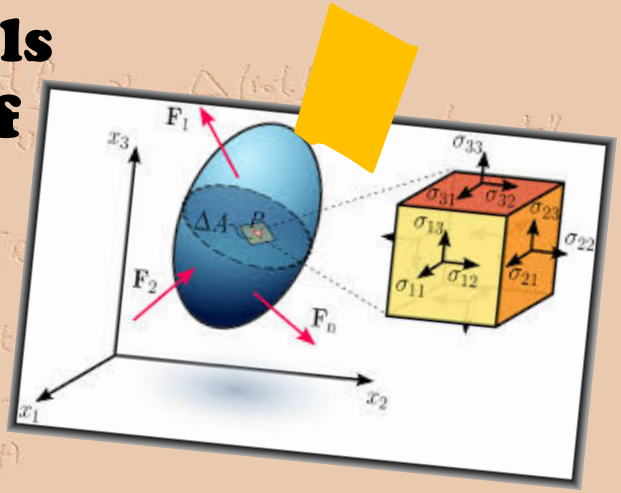
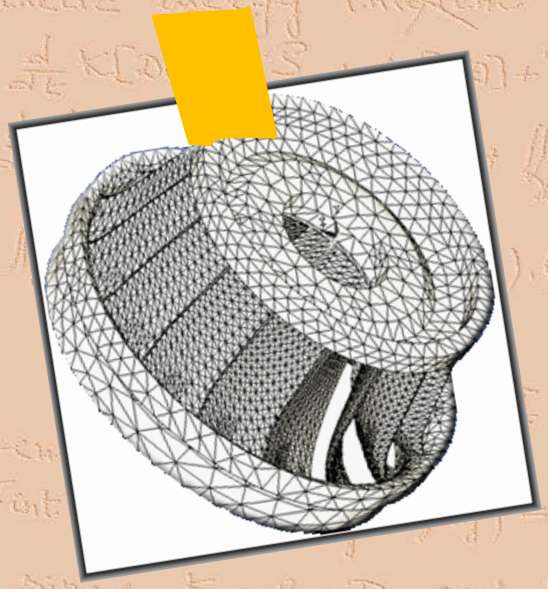
AREAS OF STUDYING:

- **Mathematical fundamentals of continuum mechanics of solids, liquids and gas**





- **Numerical methods in engineering applications of continuum mechanics**

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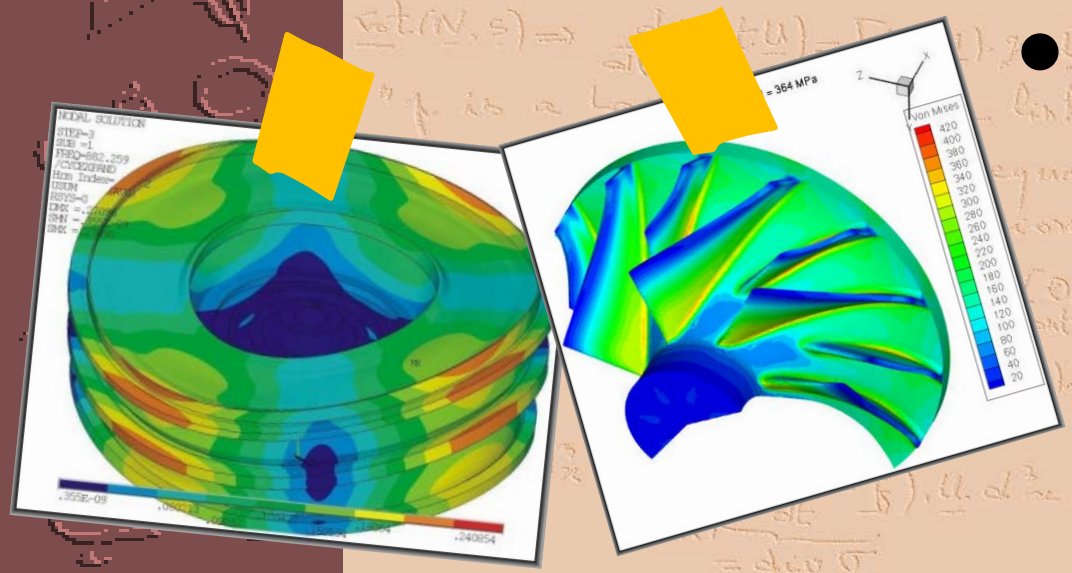
AREAS OF STUDYING:



- **Strength and reliability of structures under various loading and solid to liquid interactions**
- **Structural dynamics and vibrations**
- **Thermodynamics and heat transfer**

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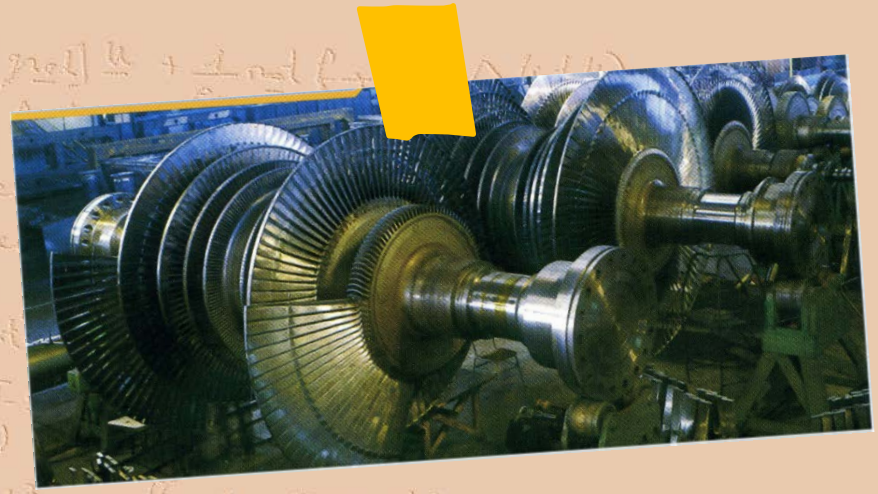
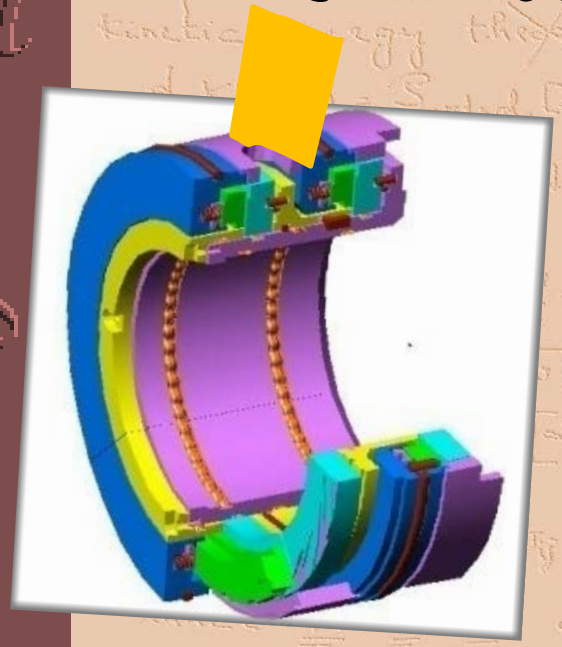
AREAS OF STUDYING:

- **Machine design and prototyping**





- **Computer programming, computer aided design and engineering of structures**

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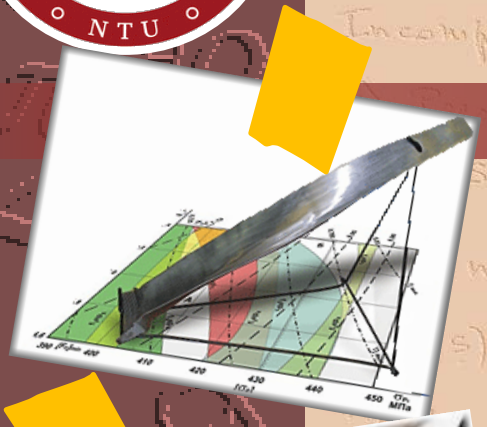

EMPLOYMENT PERSPECTIVES:

- **Industry: design, analysis, testing and expertise of structures, machines and equipment**
- **Research: post-graduate programmes, work in the scientific and academic communities of mechanical engineers, engineering consulting**
- **IT: development, testing and maintenance of both field-specific (CAD, CAE) and non-specific software and IT-environments**

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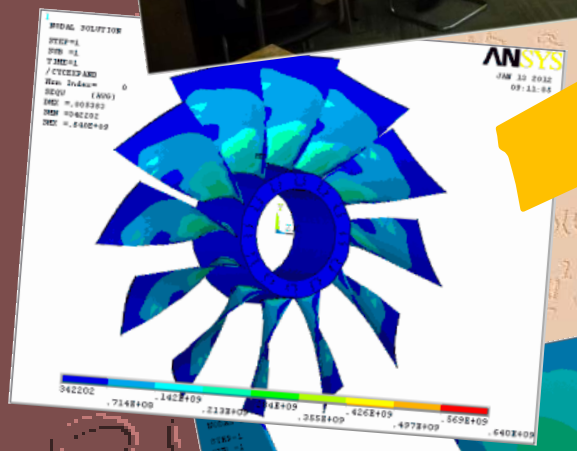

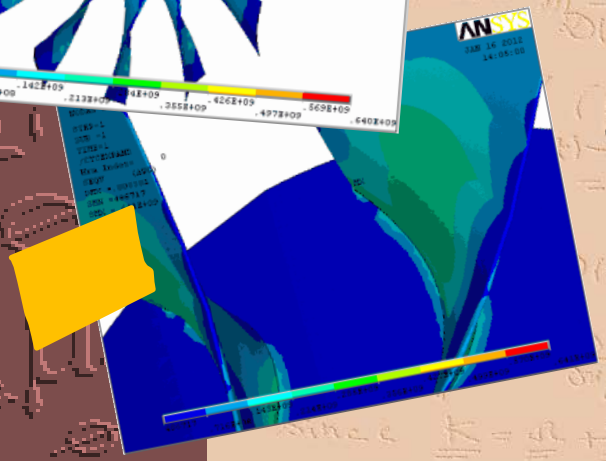

SPECIAL ACADEMIC COURSES AT THE BACHELOR LEVEL:

- Special issues of continuum mechanics of solids
- Numerical methods in mechanics of deformable solids
- Computer programming
- Computer modeling in continuum mechanics

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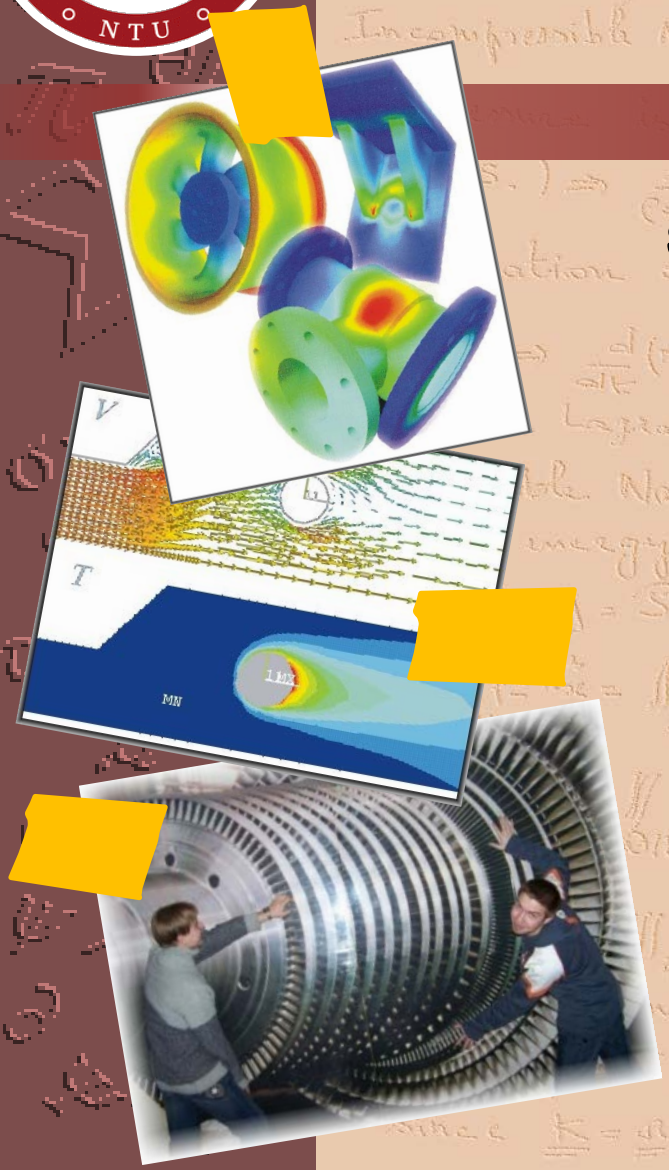

SPECIAL ACADEMIC COURSES AT THE BACHELOR LEVEL:

- Theory of vibrations
- Design of power machines and equipment
- Fluid dynamics
- Numerical modeling in fluid dynamics

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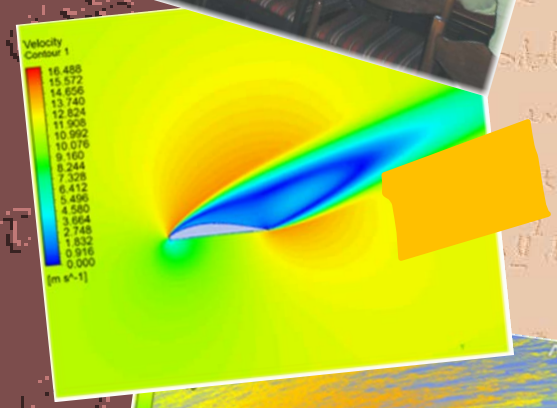

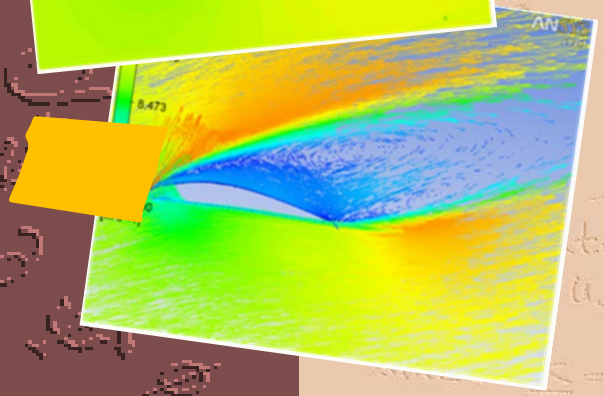

SPECIAL ACADEMIC COURSES AT THE MASTER LEVEL:

- Combustion theory
- Mathematical methods of optimal design
- Special issues of heat transfer
- Multi-phase flow dynamics

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OUR CONTACTS:

Mail: Kyrpychova Str. 2
Kharkiv, 61002
Ukraine

Phone: +38 057 7076871

Email: vkhavin@kpi.kharkov.ua

Internet: web.kpi.kharkov.ua/gt/en

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WE ARE LOOKING FORWARD TO GREETING YOU AT OUR UNIVERSITY!