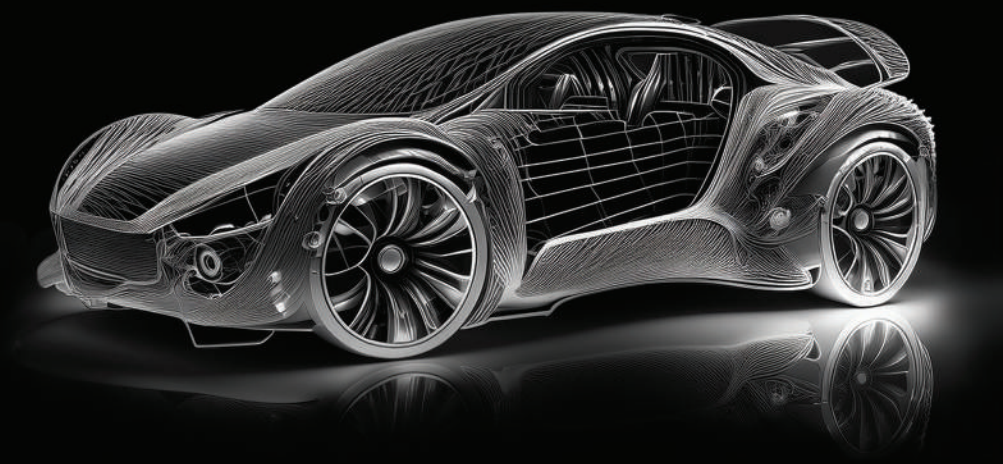
Łukasiewicz
PIMOT

R&D SERVICES

Research Group for New Automotive Technologies



AUTOMOTIVE TECHNOLOGIES OF TOMORROW

We are an interdisciplinary team capable of meeting even the most complex technical challenges. Combining knowledge from various fields like construction, electrical engineering, artificial intelligence and vehicle software allows us to carry out advanced research and development projects. We have a unique research infrastructure that enables comprehensive research and tests of automotive technology and products.

Within the **Research Group for New Automotive Technologies**, there are four specialized sections:

- **Electric and Hybrid Vehicles Section**
- **Engineering Design and Numerical Analyses Section**
- **Autonomous Vehicles Section**
- **Prototyping Section**

Electric and Hybrid Vehicles

- Building simulation models, selecting electric drives and energy storage
- Programming on-board computers for Vehicles
- Printed circuit boards (PCB) design
- Testing of electrochemical cells and batteries
- Test stands construction
- Design and implementation of electrical installations

Engineering Design and Numerical Analyses

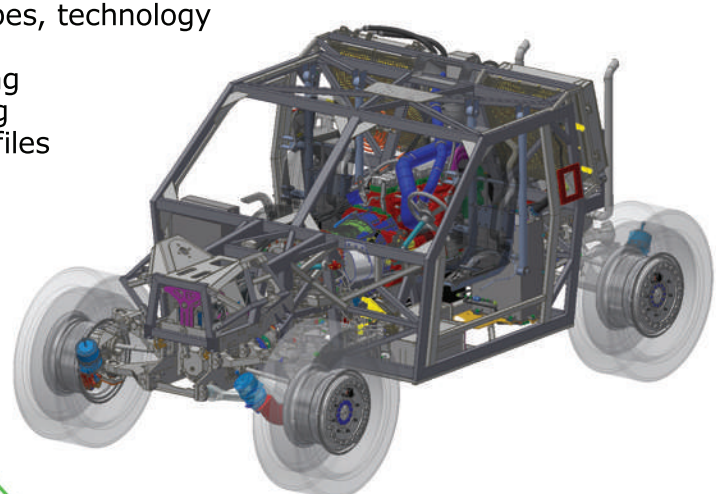
- 3D CAD models
- Design of specialized structures and test stands
- Upgrading existing vehicles and trailers
- Performing FEM calculations in the fields of kinematics, statics, dynamics, modal analysis, collisions, fatigue analysis, composite structures, structural optimization
- Simulation of dynamics of multi-member systems (Multibody Dynamics)

Autonomous Vehicles

- Designing simulation environments
- Building vision systems based on AI
- Collection of real and synthetic data
- Designing of automatic vehicle driving systems
- Software development for autonomous vehicles

Prototyping

- Development of vehicle prototypes, technology demonstrators and test stands
- Cavity machining: turning, milling (conventional and CNC), grinding
- Bending of sheet metal and profiles
- MIG/MAG and TIG welding
- 3D printing in FDM technology



3D model: FUNTER Multifunctional Special Purpose Vehicle

Łukasiewicz
Automotive
Industry Institute

LET'S STAY IN CONTACT

Konrad Małek

Research Group for New Automotive Technologies

+48 22 7777 346, 532 457 801

konrad.malek@pimot.lukasiewicz.gov.pl

Customer Service

+48 22 7777 302

info@pimot.lukasiewicz.gov.pl

pimot.lukasiewicz.gov.pl

Łukasiewicz Research Network –
Automotive Industry Institute
ul. Jagiellońska 55
03-301 Warsaw

Visit us