



Wrocław
University
of Technology

Institute of Materials Science and Applied Mechanics

CONTINUUM MECHANICS DIVISION



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Our Partners in EU projects



The major projects completed and still in progress

- Storage of Hydrogen „StorHy”; 6th Framework Programme, Integrated Project – IP.
- InGas - Integrated gas powertrain - low emission, CO₂ optimised and efficient CNG engines for passenger cars (PC) and light duty vehicles (LDV), 7th Framework Programme.
- Green Kitchen; 7th Framework Programme, 2010-2012, "People" Programme: Marie Curie Actions "Industry-Academia Partnerships and Pathways" (IAPP).
- Textile reinforced Al-matrix composites (T-MMC) for complex stressed components in automobile applications and mechanical engineering, Binational Joint Project between Germany and Poland.
- Enhanced Design Requirements and Testing Procedures for Composite Cylinders intended for the Safe Storage of Hydrogen (HYCOMP); 7th Framework Programme.
- Hybrid Hydride Hydrogen pressure storage (HyCube), KIC InnoEnergy, 7th Framework Programme.
- Nanocomposites and Smart Materials, WCI EIT+.
- Materials and technologies for advanced systems of energy storage and conversion, WCI EIT+.
- The research project, Technology Foresight of polymeric materials in Poland.
- The investment project, the creation of the Materials Laboratory of sol-gel and Nanotechnology.



Prof. Jerzy KALETA
Head of the Continuum Mechanics Division
Wrocław University of Technology (WRUT)
Institute of Materials Science
and Applied Mechanics (IMSAM)

Fields of Interest: fatigue, energy hypothesis of fatigue, measurement of energy and damping, Smart Materials (Ferro- and Magnethoreological Fluids, Giant Magnetostrictive Materials, Magneto-

Caloric Materials), magnetovision as new NDT, application of cross effects (Villari Effect, Thompson Effect), energy harvesting, plasticity induced martensitic transformation, high pressure vessels for hydrogen and methane as car fuels.

Publications: above 250 (papers and presentations in international and local conferences).

ENERGY HARVESTING

MAGNETOVISION

SOL-GEL MATERIALS

SMART MATERIALS

STRUCTURAL HEALTH MONITORING