

## DSc PhD Eng Janusz Krawczyk Associate Professor



Institution: AGH University of Science and Technology, Faculty of Metals Engineering and Applied Computer Science, Department of Physical and Powder Metallurgy, Leader of the Structural and Exploitation Analysis Research Group. Field of research: Materials Engineering. Promoter of 5 PhD thesis, 117 MSc thesis and 101 BEng thesis. Lectures on the following subjects: Selection of materials in engineering design; Steels and special alloys; Special alloys; Computer techniques in quality engineering; Modeling in materials engineering; Wear mechanisms of surface layers; Numerical modeling of heat treatment processes; The heat treatment; Fundamentals of materials design; Designing structures and properties of materials; Formation the structure and properties of chemical engineering and materials engineering.

Author of 392 publications (58 at Web of Science), 2 patents and laureate of the 2 gold and 3 silver medals on the International Exhibitions. Diploma of the Minister of Science and Higher Education for the development of a new alloy designed to work at high temperatures. Award of the Prime Minister for a distinguished doctoral dissertation. Discretionary scholarship of the Foundation for Polish Science for young scientists. Principle Investigator and the researcher of the many projects implemented for the industry. Member of the Polish Forging Association, Polish Materials Science Society, Polish Tribology Society, Polish Society for Stereology, Academic and Economic Association of Metallurgy (AGSH).

Recently, scientific research covers: organic, ceramic and especially metallic materials, including copper, titanium, nickel, cobalt alloys and especially iron alloys (steel, cast steel and cast iron). The issues concerned on the formation of the structure of these materials by: pressing loose materials, casting, heat treatment, plastic processing (deformation), thermo-plastic processing, induction welding, laser welding. The analysis included: microstructure, hardness measurements, evaluation of mechanical properties (including their anisotropy), areological features and rheological parameters. The final parameter evaluated were exploitation properties, including wear mechanisms.

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