





The project is co-founded by European Union from financial resources of European Social Fund

# Institute of Engineering Materials and Biomaterials SILESIAN UNIVERSITY OF TECHNOLOGY

#### NANATRIM Project



Improvement of education attractiveness within macro-specialization Nanotechnology and Technologies of Materials Processes







The project is co-founded by European Union from financial resources of European Social Fund

# Institute of Engineering Materials and Biomaterials SILESIAN UNIVERSITY OF TECHNOLOGY





Increasing attractiveness
of education quality within
macro-specialization
Applied Computer Science
and Computational
Materials Science







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Institute of Engineering Materials and Biomaterials
Faculty of Mechanical Engineering
SILESIAN UNIVERSITY OF TECHNOLOGY

# Enfonano Priority courses

- Nanotechnology and Technologies of Materials Processes
- Applied Computer Science with Computational Materials Science
- Materials Engineering with 4 education profiles:
  - Dental Engineering
  - Surface Engineering
  - Management Engineering
  - Processes Automation



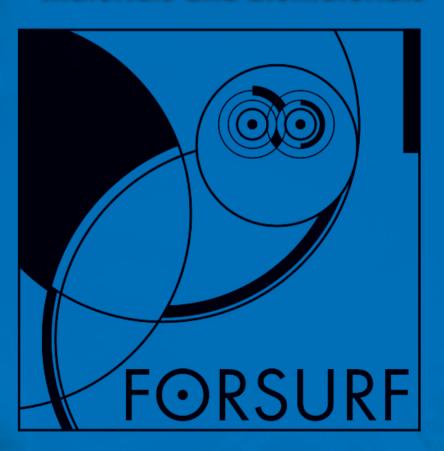




The project is co-founded by European Union from financial resources of European Regional Development Fund

INSTITUTE OF ENGINEERING MATERIALS AND BIOMATERIALS
SILESIAN UNIVERSITY OF TECHNOLOGY

Foresight of surface properties formation leading technologies of engineering materials and biomaterials









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# Institute of Engineering Materials and Biomaterials SILESIAN UNIVERSITY OF TECHNOLOGY



Modernisation and equipping of the research and forming laboratories of engineering materials in Gliwice





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# Institute of Engineering Materials and Biomaterials SILESIAN UNIVERSITY OF TECHNOLOGY

The Scientific-Didactic Laboratory of the Nanotechnology and Materials Technology in Gliwice

## PROJECT











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Volume 5, 2011

Leszek A. Dobrzański Anna D. Dobrzańska-Danikiewicz

Obróbka powierzchni materiałów inżynierskich

In 2011 Open Access Library began to be published



at http://www.journalamme.org



#### **Materials:**

Metallic Alloys, Tool Materials, Superplastic Materials, Ceramics and Glasses, Composites, Amorphous Materials, Nanomaterials, Biomaterials, Multifunctional and Smart Materials, Engineering Polymers

#### **Properties:**

Ductility and Crack Resistance, Fatigue, Creep-resistance, Fracture Mechanics, Mechanical, Electrical, and Magnetic Properties, Corrosion and Erosion, Wear Resistance, Non-Destructive Testing, Reliability Assessment, Toxicity, Working Properties of Materials and Products

#### Methodology of Research:

Electron Microscopy, X-ray Phase Analysis, Metallography and Quantitative Metallography, Image Analysis, Computer Assistance in the Engineering Tasks and Scientific Research

#### Analysis and Modelling:

Numerical Techniques, Statistic Methods, Residual Life Analysis, Process Systems Design, Mould Flow Analysis, Rapid Prototyping, CAD/CAM, CAMS, CAQ, Engineering Design, Constructional Design, Technological Design, Materials Design, Applied Mechanics, Computational Material Science and Mechanics, Materials and Engineering Databases, Expert Systems, Artificial Intelligence Methods

#### Manufacturing and Processing:

Casting, Powder Metallurgy, Welding, Sintering, Heat Treatment, Thermo-Chemical Treatment, Thin & Thick Coatings, Surface Treatment, Machining, Plastic Forming, Quality Assessment, Automation Engineering Processes, Robotics and Mechatronics, Technological Devices and Equipment

#### Cleaner Production and Biotechnology:

Theoretical Fundamentals of Cleaner Production, Industrial Application of Cleaner Production, Biotechnology

#### Industrial Management and Organisation:

Production and Operations Management, Production Planning and Control, Manufacturing Technology Management, Quality Management, Environmental Management, Safety and Health Management, Project Management, Physical Distribution and Logistics Management, Supply Chain Management, Productivity and Performance Management

#### **Education and Research Trends:**

Development of New Curricula for BSc and MSc Studies in the field of Materials Science, Manufacturing and Mechanical Engineering, Challenges of the Widening Labour Market, Complementary Roles of Developed and Developing Nations in Promoting a Global Industrial and Economical Infrastructure and Requirements on Common International Research and Teaching Development in the field of Materials, Manufacturing and Mechanical Engineering, Computer Aided Teaching, E-learning

Only papers positively pre-reviewed by at least two reviewers are published in the Journal



The World Academy of Materials and Manufacturing Engineering and the Materials Science Committee of the Polish Academy of Sciences

would like to invite to the 20th Jubilee International Scientific Conference on Achievements in Mechanical and Materials Engineering



which will be organised in Kołobrzeg at the beautiful Polish seaside,

9th-12th September 2012

GLIWICE · KOŁOBRZEG

**DEADLINES**Abstract and Paper Early Bird Submission - 31st December 2011

#### PUBLICATION

AMME'2012 conference delegates are invited to prepare abstracts which will be published in the Conference Programme and Proceedings and full papers which will be published after peer reviews worked by experts invited by the Conference Organisers and after the choice made by the Organisers in:

- · Worldwide Journal of Achievements in Materials and Manufacturing Engineering by the International OCSCO World Press. Gliwice — Campinas — Portland — Madrid Daejeon – Brisbane – Cairo
- · Archives of Materials Science and Engineering by the International OCSCO World Press, Gliwice - Sao Paulo -Athens - Osaka - Doha - West Lafayette Auckland — Szczecin — Singapore
- Archives of Computational Materials Science and Surface Engineering by the International OCSCO World Press, Gliwice - West Lafayette - Daejeon -Riga — Campinas — Singapore — Rijeka

**Conference Venue** Marine Hotel \*\*\* Kołobrzeg, Poland

#### ADDRESS OF THE CONFERENCE:

AMME'2012 Conference Secretariat Institute of Engineering Materials and Biomaterials, Silesian University of Technology ul. Konarskiego 18 a (room 366) 44-100 Gliwice, Poland

On-line registration and detailed information

Home page: http://www.amme.pl

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ISSN 1734-8412

