

Marian SZCZEREK

Curriculum Vitae

Education and degrees

1974 - MSc Eng -	Technical University of Cracow, Poland
1981 - PhD	Technical University of Warsaw, Poland
1996 - DSc	Institute of Rail Transport in Moscow, Russia
1996 - Prof.	Institute for Sustainable Technology – National Research Institute, Radom, Poland (Instytut Technologii Eksploatacji-PIB)
2003 – Titular Prof.	President of Republic of Poland

Previous experience and positions held

1986 - till now	Institute for Sustainable Technology – National Research Institute, Radom, Poland - Professor, Director for Scientific Research, Group Leader
1998 - till now	Technical University of Radom – Full Professor
1986 - 1987	Plenipotentiary of Ministry of Education and Science for establish Institute for Sustainable Technology – National Research Institute, Radom, Poland
1976 - 1986	Technical University of Radom, Poland - Assistant, Assistant Lecturer, Tutor, Group Leader, Director of Institute of Machine Engineering, Vice Dean of the Machine Engineering Faculty
1974	Technical University of Cracow, Poland - Assistant, Member of the research group developing materials for mechanical engineering

Profile (specialist / generalist)

Specialist on

- Material Science, Nanotechnology, Surface Engineering, Tribology, Testing, Research Methodology

Generalist in

- Mechanical Engineering, Control systems, R&D Policy, Certification, Standardisation, Innovation Policy, Research Management

Relevant professional experience

- Member of Council for Science at the Polish Ministry for Science and Higher Education (since 2008)
- Expert of European Science Foundation, Strasbourg, (FANAS)
- Expert of European Commission - 5th and 6th and 7th Framework Programmes,
- Member of MC, group leader and co-ordinator of the Polish Projects in COST 532 Action TRIBOLOGY Programme (UE, 2002 - 2006),
- Member of MC and co-ordinator of the Polish Projects in COST 516 Action TRIBOLOGY Programme (UE, 1998 - 2001),
- Member of MC of Polish Governmental Program “Development of innovativeness systems of manufacturing and maintenance 2004-2008”,
- Polish representative to IRG OECD (International Research Group on Wear of Materials),
- Member of section for evaluation of scientific grants on Machine engineering in framework, Polish Ministry of Science (since 1999),

- National co-ordinator from Poland in International Versailles Project on Advanced Materials and Standards -VAMAS”, realised in the institutions of the G - 7 Group and Poland, Denmark and Finland (since 1994),
- Managing of the whole scientific and R&D activities of Institute for Sustainable Technology – National Research Institute, Radom, Poland, including programming, planning, controlling, evaluation and application (from 1986),
- Member of MC of the R&D Polish Governmental Project on Terotechnology (1986-1990),
- Member of MC of the R&D Ministry Project on Machine Technology (1992).

Scientific and technical fields of work and main achievements:

- Materials science and surface engineering. Nanotechnology. PA (PVD, CVD) nanostructured multilayer and multicomponent coatings. Physical and mechanical aspects of friction and wear in macro, micro and nano scale (nanotribology).
- Machine Engineering. Physical aspects of the machines reliability and durability. Theoretical and experimental investigations of friction, wear and lubrication. Methods and devices for materials and lubricants evaluation and selection - computerised testing systems. Theoretical bases for standardisation of tribological investigations. Composites for repair of worn machine elements. Implementation of anti-wear technology to industry. Repeatability and reproducibility of scientific and test experiments.
- Author and co-author about 350 scientific papers, seven books and about 100 unpublished works. Author of the Report on State of the Science, Education and Technology in Tribology in Poland on the International Background.
- Supervisor of five doctoral students (three got their degree with honourable mention),
- member of programme councils of several dozen national and international scientific conferences, including: World Congress on Tribology, INSYCONT, Congresses on Technical Devices Maintenance.
- Author of numerous reviews of doctoral thesis, professors procedures, and international projects (grants) and scientific papers.

Research management and strategy activities

- Managing of scientific and R&D projects realised in the whole Institute for Sustainable Technology – National Research Institute, Radom, Poland (about 100 per annum). These projects cover following areas: surface physics, anti-wear PAPVD and CVD coatings, composite materials, ecology (biodegradable oils and greases), dissipated multi-level control systems (including fuzzy logic operation), testing and measurement systems for mechanical engineering, professional education of technicians, quality systems standardisation (ISO 9001 and 45001). Head of many tens of realised research project.

Activities in the fields of products, processes in innovation

- Author of the several inventions (18 patents), awarded (13 gold medals) on many international exhibitions (Geneva, Pittsburgh, Brussels, Nürnberg, Casablanca, Poznań, London).
- Co-author of computerised testing systems that have been applied in more than 60 laboratories in Poland and abroad (USA, Germany, Mexico, Vietnam, Israel, Hungary, China, Russia, South Korea, Croatia, Czech Republik). Co-author of control systems applied in several branges in national industry (metallurgy, food processing, machine building industry, electrical industry).

- Supervising of institute marketing actions. Exhibitor of the Institute equipments on international exhibitions. Commissioner of the Polish National Exhibition on INPEX'97 Pittsburgh (USA).

International experience - consultation and scientific co-operation

2005-2006	Expert of European Science Foundation, Strasbourg, (FANAS),
2003-2010	6 th Framework Programme, Brussels, evaluating sessions, EC expert,
2002-2006	Programme COST 532 Action TRIBOLOGY, MC meetings and scientific conference: Radom (Poland), Brussels, Tromso (Norway), Uppsala (Sweden), Brussels,
2005	IRG OECD (International Research Group on Wear of Materials), Scientific Session, Uppsala, Sweden),
Since 1999	EC expert, 5 th and 6 th Framework Programme evaluating sessions, Brussels, registered for 7 th FP,
1998-2001	Programme COST 516 Action TRIBOLOGY, MC meetings, La Valetta (Malta), Eibar (Spain), Lyon (France),
1998	Finish Technological Institute, Helsinki, Finland,
1998	Tsinghua University, Beijing, China,
1997	Virginia State University, Blacksburg, USA,
1996	Institute of Rail Transport, Moscow, Russia,
1995	Bundesanstalt für Materialforschung und -prüfung, Berlin, Germany,
1994	Centre Technique Des Industries Mechanoques, Senlis, France.

Other activities

- * President of Polish Tribology Society,
- * Full Member of Academy of Engineering in Poland,
- * Member of Committee for Machine Engineering of the Polish Academy of Science
- * Member of the Section for Exploitation Problems (Polish Academy of Science),
- * Member of Association of Polish Inventors and Rationalisers ,
- * Attorney for Quality Systems EN 45 001 and ISO 9001 in Institute for Sustainable Technology – National Research Institute, Radom, Poland.

International activities

- * Member-corresponding of International Tribology Council (London)
- * Member of Society of Tribologists and Lubrication Engineers USA (since 1994)
- * Member of Gesellschaft für Tribologie, Germany (since 1991)
- * Member of European Materials Research Society, Strasbourg (since 1995)

Editorial activities

- * Editor In Chief of the Polish Tribological Journal *TRIBOLOGIA*,
- * Deputy Editor in Chief of the Scientific Journal *SCIENTIFIC PROBLEMS OF MACHINES MAINTENANCE AND OPERATING* (Polish Academy of Science),
- * Member of the Board of the International Scientific Journal *FRICTION AND WEAR*.
- * Member of the Editorial Advisory Board of the Journal Industrial Lubrication and Tribology (Emerald)
- * Member of the Editorial Advisory Board of the Journal *MAINTENANCE AND RELIABILITY*

Linguistic skills (level: elementary = 1, average = 2, good = 3, very good = 4)

Language	Level conversation	Level reading	Level written
Polish	4	4	4
English	4	4	4
Russian	4	4	3
German	3	3	2