

WOJCIECH WACH, Ph.D., D.Sc.



EDUCATION

Habilitation (close to D.Sc. in the UK system) – design and operation of machines, specialty in vehicle accident reconstruction, 2015
Ph.D. Technical Science – design and operation of machines, specialty in vehicle dynamics, 2004
Postgraduate study: Reconstruction Road Accidents, 1994
M.S. Mechanical Engineering, specialty in design and examination of vehicles, 1991
All degrees obtained at Cracow University of Technology, Cracow, Poland.
Placement at the Graz University of Technology by prof. Hermann Steffan, November 1994
Training: UDS – Unfall-Daten-Speicher® (Black-Box), University of Zilina, Slovakia, November 1996
Training: UDS – Unfall-Daten-Speicher® (Black-Box), Mannesmann-Kienzle, Villingen-Schwenningen, December 1996.

REGISTRATION

Court expert of the Judicial Circuit Cracow, (valid on the entire territory of Poland).
Expert of the Institute of Forensic Research.

EXPERIENCE

Professor at the Institute of Forensic Research, Department of Road Accident Analyses, Cracow.
Employed at the IFR since 1992

ACCIDENT RECONSTRUCTION

W. Wach conducts and directs investigations of vehicular accidents, which include automobiles, tractor-trailers, buses, motorcycles, bicycles, pedestrians, accidents by night, biomechanics and fall from height. The majority are the most difficult, complicated or controversial (an accident or premeditated murder?) cases, which has not been solved for many years. He investigated accidents for the Institute of National Remembrance.

ENGINEERING AND DESIGN

W. Wach has been taking part in many research projects of: Institute of Forensic Research, Cracow University of Technology and Warsaw University of Technology, made for order of Ministry of Science, i.e.: developing of software for vehicle accident simulation, Multi-Body-Systems (vehicle dynamics and multi-link suspensions), vehicle dynamics examination, visibility by night, impact mechanics and uncertainty in traffic accident analysis, crash tests.

ACHIEVEMENTS

W. Wach has presented papers and lectured (also as keynote speaker) at a number of scientific and technical conferences in Poland, Austria, Czech Republic, Finland, Germany, Hungary, Lithuania, Russian Federation, Slovakia, the UK and the United States. He is a co-organizer of the international conference 'Problems in Reconstruction Road Accidents' organized each two years by the Institute of Forensic Research and EVU Congresses – Cracow 1999 and 2007. He has been invited to speak at seminars and conferences and has lectured at among others AGH University of Science and Technology, Cracow University of Technology, Warsaw University of Technology, PIMOT – Automotive Industry Institute, Lithuanian Centre of Forensic Sciences. He is the author of:

- the books 'Simulation of Vehicle Accidents using PC-Crash' and 'Structural Reliability of Vehicle Accidents' (in Polish language) and co-author of several books focused on accident reconstruction destined for experts, students and lawyers;
- about 200 articles or papers, primarily in the fields of accident reconstruction and vehicle dynamics;
- computer programs for: brakes design, simulation of vehicle dynamics (Multi-Body-Systems and multi-link suspensions), processing of data from crash tests, reconstruction of vehicle collision and pedestrian accidents, uncertainty analysis and Monte-Carlo simulation.

W. Wach has reviewed many articles including Elsevier, SAE, EVU, IEEE and European Academy of Forensic Science.

PROFESSIONAL AFFILIATIONS

W. Wach is a member of the following technical and professional societies:

- ENFSI – European Network of Forensic Sciences Institutes, Road Accidents Analysis Working Group
- EVU – European Association for Accident Research and Analysis (Europäischer Vereinigung für Unfallforschung und Unfallanalyse)
- PSBWD – Polish Association of Road Accident Analysis Experts