

Dr. Andrzej M. Pawlak

E-mail: apawlak@vortexicg.com



Andrzej M. Pawlak, Ph.D., (Fellow IEEE), was born and educated in Poland. He obtained his M.S. in 1971 from the Technical University of Poznan. He did postgraduate study at the Warsaw University of Technology and obtained his Ph.D. in electrical engineering in 1981 from the Silesian University of Technology, Gliwice. His years of engineering and technology experience stem from his work at the Hitachi Poland and Japan manufacturing plants and his 28 years of R&D work on electromechanical and electromagnetic devices at General Motors and subsequently Delphi, all of which contributed to his solid background of industrial expertise. His works on stepper motors, magnetic sensors, rotary actuators, and fast acting solenoids are frequently cited worldwide. Most of Professor Pawlak's 50 scientific publications and over 100 patents are related to sensors

and actuators. His book *Sensors and Actuators in Mechatronics* published by Taylor and Francis in July 2006, is the culmination of his research findings and award-winning solutions for industrial applications over the last 20 years. The book has been accepted as a student's textbook by several universities around the world and in 2012 was issued in Chinese language. A number of Pawlak's solutions have found industrial applications worldwide with significant scientific, engineering, and economical impact on the automotive industry and beyond, with tremendous overall business value exceeding 5 billion dollars to Delphi and General Motors. Professor Pawlak was honored with one of the highest number of individual awards in General Motors and Delphi history, including four prestigious "Boss" Kettering Awards for his accomplishments. He was the first individual from the automotive industry to receive the respectable Achievement Award of the Industrial Research Institute in 1996 that is perceived in the United States as the *Researcher of the Year* award.

Dr. Pawlak created corporate technology portfolio with sixteen technology clusters. Evaluated and prioritized over hundred technologies that resulted in several technology commercializations and led to licensing revenue of \$10M annually. He conducted unique technology intellectual property mapping for technology gaps assessment that lead to strategic patenting and discovered a number of patentable solutions in several technology domains: smart materials, telecommunication, machining & welding processes, logistics & packaging, sensors & actuators.

Dr. Pawlak has developed the most innovative technique that allows recognition of technology niches with their strategic and unique solutions. Since 2011, he has been teaching this technique at Stanford University and, more recently, also at Berkeley. As the President and CEO of the Vortex Innovation Consulting Group, he leads collaboration with a number of major USA and European organizations. Professor Pawlak is a frequent invited keynote speaker and panelist at professional conferences and congresses worldwide.

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