

Short Note

JAN MARIAN KACZMAREK – THE 90TH ANNIVERSARY

Jan M. Kaczmarek was born on February 2nd, 1920, in the town of Pabianice, Poland. He obtained a pilot license prior to starting his studies in Warsaw (1938). He took part in 1939 homeland defence against German aggression as a pilot of the Polish Air Force. He was wounded; next – upon treatment at a military hospital in Vilnius – he joined the Lithuanian Resistance Movement, and in 1942 – the Polish underground Home Army (*Armia Krajowa*) where he served till the end of the war. In 1945, he moved to Cracow to resume his studies at the Academy of Mining (currently: AGH University of Science and Technology). While still a student, he was employed by Professor Witold Biernawski as a teaching assistant.

In 1948, Jan M. Kaczmarek received the M.Sc. degree in Mechanical Engineering, and started his professional career in Cracow industry. While practising engineering, he earned his Ph.D. degree (1958) and D.Sc. degree (1962), and was appointed to the Reader (1959), Associate Professor (1962) and Full Professor (1969) positions. In the period 1957–1968, he acted as the Managing Director of the Institute of Advanced Manufacturing Technologies in Cracow; he fostered the quick growth of this institution and strengthened its role in the development of new technologies.

In 1965–1968, he also acted as a Vice-Rector of Cracow University of Technology. Among his numerous publications, which appeared around this period, three books are worth being mentioned, *viz.*: “Principles of Machine Cutting” (1956, in Polish), “Principles of Cutting” (1969, in Polish; 1976, in English), and “Abrasion and Erosion” (1969, in Polish; 1976, in English). Due to their fundamental and innovative character, those books have been for years considered research and teaching classics in many branches of production engineering; the total number of their readers has exceeded half a million. Their English editions quickly gained recognition in many countries; therefore, shortly after their appearance, Jan M. Kaczmarek was invited to the US National Academy of Engineering. In 1961, he became a member of International Institution of Production Engineering Research (CIRP) where he served as President in 1973–1974, and received the title of Honorary Fellow in 1990. In 1965, he was elected a Corresponding Member of the Polish Academy of Sciences.

In 1968, Jan M. Kaczmarek moved to Warsaw. In the period 1969–1974, he acted as Chairman of the National Committee for Technical Progress, and next as Minister of Science, Higher Education and Technology. He fostered the policies aimed at broader use of research outcomes and inventions in industrial and social practice: several complex research programmes were initiated at that time, and international co-operation was partly re-established. Poland started to be perceived as a country with important potential of science and higher education – thus, becoming an important country for Europe of the future. In the next nine years, Jan M. Kaczmarek served at the Polish Academy of Sciences as its Scientific Secretary. It was a period when numerous research institutes of the Academy attained the highest European recognition and prospects for further development. In 1981, Jan M. Kaczmarek returned to research work in the area of surface-layer engineering at Institute of Fundamental



Technological Research, Polish Academy of Sciences. His direct contributions to the development of this area – in the form of books, papers and applications – are exceptional.

Jan M. Kaczmarek's research activities have been always closely connected with measurement science and technology. The development of a system for measuring machine tools vibrations was his first metrological project (inspired by Professor Stanisław Ziemba) that he completed just after graduation. He continued to work on measurement-related issues at Cracow University of Technology, at Institute of Metal Cutting, and later – at the Institute of Fundamental Technological Research, Polish Academy of Sciences. In this field, he co-operated with many researchers, to mention only most prominent Professors: Witold Biernawski, Andrzej Sadowski, Leszek Nawara and Bogdan Nowicki. Special interest was given by him to the metrology of surface layer; he contributed – in particular – to the establishment of the first Polish standard in this domain. By the end of the XXth century, referring to the Abbott-Firestone curve analysis, he proposed the application of the symmetrical curve for a geometrical contact.

The total literary output of Jan M. Kaczmarek includes 14 scientific books, almost 200 research papers, and more than 230 journal papers for general public. Among his former students and co-workers, 29 are holders of D.Sc. degrees and six are holders of the Professor title. He directly supervised a few dozens of Ph.D. students.

Jan M. Kaczmarek is the author of highly appreciated technical solutions and patents applied mainly in manufacturing of machine elements, especially in their forming and refining by cutting, erosion and implantation. He is one of the founders of the Polish Academy of Engineering (1992) – being an institution similar to the National Engineering Academy in USA. He was its Vice-President (1994–1999), and since 1998 has been its Honorary Member.

The international recognition of Jan M. Kaczmarek's achievements has been confirmed by entrusting him the highest positions in international scientific and engineering organisations, and by honouring him with awards and distinctions. He received honorary doctorates from Bauman Moscow State Technical University (1973), Chemnitz University of Technology (1974), Poznań University of Technology (2001) and Koszalin University of Technology (2003). He is the holder of French Medaille des Palmes d'Or Academiques and Grand Officier de la Legion d'Honneur, as well as Polish Crosses: Polonia Restituta Commander's Cross, Polonia Restituta Officer's Cross, Polonia Restituta Knight Cross, a series of Medals of Merit, military medals, Copernicus Medal, and Award of National Commission of Poland.

Jan M. Kaczmarek is the founder of several scientific schools of world-wide importance. He is an international scientific authority and – at the same time – an exceptional man of personal qualities, such as creativity, diligence, reliability, persistence, culture and organisational efficiency, kindness and determination, optimism and cheerfulness. Such people set standards and examples for us to follow.

Jan Kaczmarek is married to Olga; he has two children (Elżbieta and Andrzej), four grandchildren, and two great-grandchildren.

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