

In Memoriam of Professor Maciej Nałęcz



On February 6, 2009 Professor Maciej Nałęcz the Editor-in-Chief of the journal of *Biocybernetics and Biomedical Engineering* passed away suddenly. He was a pioneer in the field of biomedical engineering, a leader who had made a real progress in this discipline.

Professor Nałęcz was born on 27 April 1922 in Warsaw. His education at high school "The King Vladislav 4th" in Warsaw was interrupted by the World War II in 1939 but he continued his studies at the underground Warsaw University of Technology. In 1948 he spent 3 months on the Foreign Student Summer Project in the Massachusetts Institute of Technology, USA, where he worked on his master's thesis. The thesis was defended at the Electrical Engineering Department of the Warsaw University of Technology in March 1949.

An employment history, his main activities in international organizations, and distinctions, honors and awards are given below.

- 1954-1962 Deputy Head (1954-1958) and Head (since 1958) of the Electrical Engineering Department of the Institute of Fundamental Engineering Problems of the Polish Academy of Sciences.
- 1962 Associate Professor.
- 1962-1972 Director of the newly established Institute of Automatic Control of the Polish Academy of Sciences.
- 1967 Corresponding Member of the Polish Academy of Sciences.
- 1972 Nomination for the Professor.
- 1972-1981 Secretary of the Technical Sciences Division at the Polish Academy of Sciences
- 1972-1980 and 1984-1989 Member of the Presidium of the Polish Academy of Sciences - an electoral post.
- 1972-2007 Chairman of the Committee of Biocybernetics and Biomedical Engineering of the Polish Academy of Sciences.
- 1974 The full Member of the Polish Academy of Sciences - an electoral post.
- 1975-1990 Head of the National Programs on Biomedical Engineering in Poland.
- 1975-1993 Director of the Institute of Biocybernetics and Biomedical Engineering of the Polish Academy of Sciences.
- 1976 Foreign Member of the All-Union Academy of Sciences of the USSR.

- 1979 Honorary Fellow of the World Organization of General Systems and Cybernetics.
- 1979/80 One year as a Distinguished Visiting Professor in the Biomedical Engineering Center at the Ohio State University in Columbus, USA - an invitation from Prof. Herman Weed, the Director of BEC.
- 1981-1983 Deputy Scientific Secretary of the Polish Academy of Sciences.
- 1985-1989 Member of the Polish Parliament, where Prof. Nałęcz served as the member of the Science and Technology Commission and belonged to the Non-Party Members' Club.
- 1988-2009 Director of the International Centre of Biocybernetics (JCB) of the Polish Academy of Sciences. Prof. Nałęcz organized the ICB.
- 1991/2 One year stay at the Fogarty International Center of the US National Institutes of Health. FIC awarded Professor Nałęcz the prestigious position of Scholar-in-Residence. This distinction was offered for the first time to a Pole and an engineer.

Prof. Nałęcz was awarded by several Polish distinctions. Among them: Krzyż Wielki Orderu Odrodzenia Polski (Grand Cross of "Polonia Restituta") (2002), Polish Prime Minister Award (1999) for "Outstanding scientific achievements", and many others. He was also awarded in 1983 by the Council of the State Distinction for the "Service to the Health of the Nation" - the only such award given to an engineer until now.

Foreign Member of following Academies: (1976) Russian Academy of Sciences; (1979) World Academy of Cybernetics and System Scientists, linked with the World Organization of General Systems and Cybernetics; (1996) Georgian Academy of Sciences; (1998) International Academy for Medical and Biological Engineering; (1998) Ukrainian Academy of Higher Education.

Honorary Member of the following Polish Societies: (1988) Polish Society of Theoretical and Applied Electrical Engineering, (1994) Polish Society of Medical Informatics, (1997) Polish Society on Sensors Technology, (2001) Polish Society of Biomedical Engineering.

Scientific awards: (1957) "Med tack för verteful insatz" given by Swedish Academy of Engineering Sciences, "Copernicus Medal" (1989) the only award given for scientific achievements - by the Polish Academy of Sciences; "Krizik Medal" (1988) for engineering achievements given by the Czechoslovak Academy of Sciences; "John E. Fogarty Medal" (1991) given by the National Institutes of Health, Bethesda, USA.

There are three separate periods in the scientific activities of Professor Maciej Nałęcz that can be distinguished, according to his scientific interests:

1. Electrical engineering research (1949-1962);
2. Automatic control research (1962-1972);
3. Biocybernetics and biomedical engineering research (since 1972).

Since 1962, for more than 30 years, Professor Nałęcz was a member of Executive Committees of many scientific organizations such as: International Federation of Automatic Control, International Federation for Medical and Biological Engineering and European Society for Engineering and Medicine which shaped development of biomedical engineering in the world.

Since 1972 Professor Nałęcz was the Chairman of the Polish PUGWASH Committee at the Presidium of the Polish Academy of Science, 1973-1974 - member of the PUGWASH

COUNCIL, the governing body of Pugwash Conferences on Science and World Affairs. Since 1974 till 1997 (23 years) - he chaired the PUGWASH COUNCIL.

PUGWASH as an organization and Professor J. Rotblat as the President of PUGWASH received the Nobel Peace Prize on 10th December 1995. Professor Nałęcz delivered a speech during the Nobel Peace Prize ceremony.

From the beginning of his scientific career Professor Nałęcz belonged to the very small group of scientists, who were able to create visions and make these visions reality. Thanks to his involvement the Institute of Automatic Control of the Polish Academy of Sciences was founded and later transformed into the Institute of Biocybernetics and Biomedical Engineering PAS as well as the International Centre of Biocybernetics his lovely child till the very last moments of his life. Professor Nałęcz initiated and was editor of two multivolume editions of Monographs dealing with the biomedical engineering. The last edition contains 9 volumes written by about 350 authors from Poland.

Initially, our Institute alone covered the narrow field of scientific investigations dealing with the biomedical engineering in Poland and later persons collaborating with Professor Nałęcz have spread these investigations nationwide. Professor was able to hand down to us his enthusiasm which allowed us to conduct, for many years, national research programs as well as national and international scientific conferences in the biomedical engineering. Important impact in these development was done by: the Committee of Biocybernetics and Biomedical Engineering PAS, which first and of many years chairmen was Professor Nałęcz as well as the Polish Society of Biomedical Engineering, which he was cofounder.

Professor Nałęcz was always ready to serve with advice and help, not only in scientific investigations but also in personal affairs. Everybody could ask him for help and the help was granted. He enabled many of us to spend several months in leading scientific institutions in the world to gain experience and new knowledge. The career of almost all of us, presently Professors and Doctors of Sciences, started with help of Professor Nałęcz.

Farewells belong to the most sorrowful moments in human lives, especially those farewells which are for ever. Professor Nałęcz passed away while planning next seminars of the International Centre of Biocybernetics. The message of the death of Professor Nałęcz reached many scientific centers in the world. Till now we received about 40 letters with condolences from the USA, Japan, Korea, Germany, Italy, Belgium, the Netherlands, Georgia and Estonia. Rest in peace.

Professor Jan Maria Wójcicki

Professor Andrzej Weryński