REVIEW

The Most Influential Scientists in the Development of Medical Informatics (6): Heinz Zemanek

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HEINZ ZEMANEK (1920-2014)

Heinz Zemanek was born January 1, 1920 in Vienna, Austria. He was Austrian computer scientist who developed the MAILUFTERL computer, and while director of the IBM Laboratory in Vienna. He directed the development of formal programming language descriptors (1).

He studied low-voltage technology at the Technical University of Vienna, and was appointed as an assistant at the Institute for Low-Voltage Technology where he received his PhD in engineering. Heinz Zemanek graduated at Technical University of Vienna in 1944. He earned PhD (Dr. Techn., engineering) at Technical University of Vienna in 1951. He worked as lecturer in Army Communications School and Radar Research, German Army from 1939 till 1945. As assistant professor at Technical University of Vienna he worked from 1947 till 1961. Heinz Zemanek had French Government Scholarship at Sorbonne, École Normale Supérieure, PTT Laboratories in the period of 1948-1949. Also, he was head of MAILUFTERL development team in period from 1955 till 1959. In 1959 he was appointed as an assistant professor of low-frequency communications technology, as an associate professor in 1964, and 20 years later (1984) as a full professor. He was a member of various academies of science and he received an honorary doctorate from several universities.

Starting in 1954, he was responsible for the development of the first fully transistorized computer in Europe, the legendary "MAILUFTERL," which is now in the Technical Museum of Vienna.

He was the originator of both teaching and research in the area of electronic data processing at the Technical University of Vienna. Along with the rest of the MAILUFTERL team, Zemanek moved to IBM in 1961 to become the developer and director of the Viennese laboratory, with primary work in the area of programming languages and their formal definition, especially the programming language PL/I. In 1976 he was awarded the title of IBM fellow and undertook a project entitled "Abstract Architecture."

During his career, Zemanek has published more than 400 articles, and authored, coauthored, or edited more than 15 books, ranging from highly specialized journal articles to introductory articles of general interest, philosophical treatises, critical commentaries on the social implications of computers, and historical

studies. His presentation about the history of computers in a text-and-picture collage is available in the Technical Museum of Vienna.

He has been active in both national and international professional circles, with considerable contributions to IFIP beginning in the year of its founding in 1959, where he represented Austria's interests. He was also responsible for the 1975 founding of the OCG (die Österreichische Computer Gesellschaft) (Austrian Computer Society). Zemanek served as president of both organizations and has been recognized by many high honors and awards. Since 1985 the OCG has awarded the Heinz

Zemanek Prize to young (computer) scientists.

Heinz Zemanek received a lot of honors and awards: Prize of the NTG, 1960; Goldene Stefan-Ehrenmedaille of Ove, 1969; fellow, IEEE, 1970; fellow, British Computer Society, 1970; President, IFIP, 1971-1974; Wilhelm-Exner-Medaille, 1972; Honorary Life Member, Computer Society of South Africa, 1972; Grosses Ehrenzeichen für Verdienste um die Republik Österreich, 1974; President, Austrian Computer Society, 1975-1976; Honorary Member, Information Processing Society, Japan, 1975; Honorary Member, Austrian Society for Cybernetic Studies, 1975; IBM Fellow, 1976; Honorary Member, IFIP, 1976; Silvercore Award, IFIP, 1976; Johann Josef Ritter von Prechtel Medal, 1978; Corresponding Member, Austrian Academy of Sciences, 1979; Ordinary Member, Austrian Academy of Sciences, 1984; Corresponding Member, Spanish and Bavarian Academy, 1984; Ordinary Member, Spanish and Bavarian Academy, 1985; Ordinary Member, European Academy, Salzburg, 1984; Computer Pioneer, IEEE Computer Society, 1986; Oskar von Miller Bronze Medal, Deutsches Museum, Munich, 1988.

On January 11, 1990, the Austrian Computer Society, the Austrian Society for Electronics (der Österreichische Verband für Elektrotechnik), and the Technical Museum of Vienna (das Technische Museum Wien) honored Heinz Zemanek, editor and frequent author of the Annals of the History of Computing, on the occasion of his 70th birthday. The celebration at the Technical Museum of Vienna was also the occasion to present the Heinz Zemanek Award to a young Austrian computer scientist.

1. REFERENCES

1. Masic I. Biographical Lexicon of Medical Informatics. Avicena, Sarajevo, 2015: 289-290.