

Heinz Zemanek

Born January 1, 1920, Vienna, Austria, Austrian computer scientist who developed the MAILUFTERL computer, and while director of the IBM Laboratory, Vienna, directed the development of formal programming language descriptors.



Education: Dipl. Ing., Technical University of Vienna, 1944; Dr. Techn., engineering, Technical University of Vienna, 1951.

Professional Experience: lecturer, Army Communications School and Radar Research, German Army, (1939)-1945; assistant professor, Technical University, Vienna, 1947-1961; French Government Scholarship, Sorbonne, Ecolé Normale Supérieure, PTT Laboratories, 1948-1949; Head, MAILUFTERL development team, 1955-1959; Dozent, Technical University of Vienna, 1959; Professor, Technical 1964-present; Director, IBM Laboratory, Vienna, University of Vienna, 1964-1976.

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 Republic Osterreich, 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.

Zemanek was born in Vienna in 1920; 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. 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 is a member of various academies of science and has 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 (among others, a presentation of the history of computers in a text-and-picture collage 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.

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.

BIBLIOGRAPHY

Biographical

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Zemanek, H., "Central European Prehistory of Computing," in Metropolis, N., J. Howlett, and Gian-Carlo Rota, *A History of Computing in the Twentieth Century*, Academic Press, New York, 1980, pp. 587-609.

Zemanek, H., "Aus meinem Leben," *Elektrotechnik und Informationstechnik*, Zeitschrift des Österreichischen Verbandes für Elektrotechnik Journal of the Austrian Society for Electrotechnology), Vienna, 1990, pp. 588-594.

Significant Publications

Zemanek, H., "Semiotics and Programming Languages," *Comm. ACM*, Vol. 9, No. 3, Mar. 1966, pp. 139-143.

UPDATES

Portrait replaced (MRW, 2013)