

# **Victor Mikhaylovich Glushkov**

*Born August 24, 1923, in Rostov, Ukraine, died January 30, 1982; USSR computer scientist with a great influence on automata and cybernetics.*



Academician Victor M. Glushkov, vice president of the Ukrainian Academy of Sciences, director of the Institute for Cybernetics in Kiev, and holder of the IFIP Silver-Core, died on January 30, 1982, after a long and severe illness.

Glushkov was born on August 24, 1923, in Rostov on the river Don. After graduating from Rostov University he began his career as an assistant at the Ural Timber Institute. His first scientific contributions were in the field of modern algebra, where he obtained some fundamental results in the theory of graphs; they provided the basis for his doctoral dissertation (1955).

In 1956 he went to Kiev. From that moment all his activities were closely connected with the Ukrainian Academy of Sciences. In the same year, a computing center was established within the academy, in whose organization Glushkov played an essential role and of which he was appointed director. Under his leadership the scientific developments of the computing center progressed at an amazing pace, and its excellent international reputation was established.

In 1962 the computing center was transformed into the Institute of Cybernetics of the Ukrainian Academy of Sciences. Glushkov became its director, a position he held until his death. The institute was of primary importance for the development of the theory and application of computers and informatics in the Soviet Union. Many well-known scientists have worked and are still working there-among others N.M. Amosov (medicine and biology) and V.A. Kovalevsky (pattern recognition).

Glushkov was a scientist with a very broad range of interests. Beginning with abstract algebra, he went on to the theory of automata and still further to the theory of computers and programming languages. In addition to the theoretical aspects, he also dealt with the practical design of computers and, during the last years of his life, of computing networks. It is difficult to find any branch of computer science to which Glushkov did not make new and original contributions. His books, *Synthesis of Computing Automata* (1962) and *Introduction to Cybernetics* (really: Automata Theory) (1964), are classics even beyond the socialist countries. He designed several special programming languages such as ANALYTIC, similar to but much more comprehensive than FORMAC, for the analytical transformation of algebraic expressions on the computer. The application of computers for process control was the first practical achievement of the Institute of Cybernetics making use of the new technology, and many participants of the IFAC Congress of 1960 in Moscow will remember Glushkov and will possibly have visited the Kiev Institute.

The first step toward international cooperation in the field of computer science was followed by many more. Glushkov contributed, in particular, significantly to the activities of IFIP. He was a member of the Program

Committee for the 1968 and 1974 congresses and was chairman in 1971. He participated as an IFIP representative in the preparation of the UN report, "Computers for Development." The IFIP Silver-Core award was only a modest token of gratitude for his work in IFIP

It is not only the computer community of the Soviet Union and of the socialist countries that has lost one of its most prominent and active members-it is the computer community of the whole world. V.M. Glushkov's scientific work and the results he achieved in science and practice will for a long time to come influence the development of computer science throughout the whole world.<sup>1</sup>

## BIBLIOGRAPHY

### Biographical

Zernanck, Heinz, "Eloge: Victor Mikhaylovich Glushkov, 1923-1982," *Ann Hist. Comp.*, Vol. 4, No. 2, 1982, pp. 100-101.

## UPDATES

Portrait (from Wikipedia) added (MRW, 2012)

---

<sup>1</sup> From Zemanek 1982.