

## PROFESSIONAL BIOSKETCH

of

**Wm. A. WULF**

Dr. Wulf is on leave from the University of Virginia to serve as President of the National Academy of Engineering. Together with the National Academy of Sciences, the NAE operates under a Congressional Charter to provide advice to the government on issues of science and technology. Much of this advice is provided through the National Research Council, the operating arm of the two Academies; Dr. Wulf serves as Vice Chair of the NRC.

At Virginia, Dr. Wulf is a University Professor and holds the AT&T Chair in Engineering and Applied Science; among his activities at the University are:

- a complete revision of the undergraduate Computer Science curriculum,
- research on computer architecture and computer security, and
- an effort to assist humanities scholars exploit information technology.

In 1988-90, Dr. Wulf was on leave from the University to be Assistant Director of the National Science Foundation (NSF) where he headed the Directorate for Computer and Information Science and Engineering (CISE). CISE was responsible for computer science and engineering research as well as for operating the National Supercomputer Centers and NSFnet -- the backbone on the Internet at that time. While at NSF, Dr. Wulf was deeply involved in the development of the High Performance Computing and Communication Initiative and in the formative discussions of the proper government role in developing the National Information Infrastructure. Dr. Wulf has remained active as an advisor to NSF and, for example, was a member of the recent task force that recommended restructuring the supercomputer program.

Prior to joining Virginia, Dr. Wulf founded Tartan Laboratories and served as its Chairman and Chief Executive Officer. Before returning to academe, Dr. Wulf grew the company to about a hundred employees. Tartan developed and markets optimizing compilers -- programs that translate high-level languages such as FORTRAN or C into highly efficient computer codes. Tartan was recently sold to Texas Instruments.

The technical basis for Tartan was research by Dr. Wulf while he was a Professor of Computer Science at Carnegie-Mellon University. At Carnegie-Mellon Dr. Wulf's research spanned programming systems and computer architecture; specific research activities included: the design and implementation of a systems-implementation language (Bliss), architectural design of the DEC PDP-11, the design and construction of a 16 processor multiprocessor and its operating system, a new approach to computer security, and development of a technology for the construction of high quality optimizing compilers. Dr. Wulf also actively participated in the development of Ada, the common DoD programming language for embedded computer applications.

While at Carnegie-Mellon and Tartan, Dr. Wulf was active in the "high tech" community in Pittsburgh. He helped found the Pittsburgh High Technology Council and served as Vice President and Director from its creation. He also helped found the CEO Network, the CEO Venture Fund, and served as an advisor to the Western Pennsylvania Advanced Technology Center. In 1983 he was awarded the Enterprise "Man of the Year" Award for these and other activities.

Dr. Wulf has been a consultant to numerous computing and telecommunications companies. This consulting, together with the experience in his own company and at NSF, has given him a rare opportunity to develop a perspective on the relation between universities, industry and government.

Dr. Wulf is a member of the National Academy of Engineering, and a Fellow of the American Academy of Arts and Sciences. He is also a Fellow of three professional societies: the ACM, the IEEE, and the AAAS. He is the author of over 80 papers and technical reports, has written three books, holds one US Patent, and has supervised over 25 Ph.D.'s in Computer Science.

## THE GREATEST ENGINEERING ACHIEVEMENTS OF THE 20<sup>TH</sup> CENTURY

### **POSITIONS HELD**

President--National Academy of Engineering,

University Professor and AT&T Prof. of Engineering--University of Virginia 1996 to present, 1988 to present.

Assistant Director--National Science Foundation, 1988 to 1990

Chairman & CEO--Tartan Laboratories Inc., 1981 to 1987.

Professor--Carnegie-Mellon University, 1975 to 1981

Associate Professor--Carnegie-Mellon University, 1973 to 1975.

Assistant Professor--Carnegie-Mellon University, 1968 to 1973.

Instructor--University of Virginia, 1963 to 1968.