



*Vladilen Fedorovich Minin*

Vladilen Fedorovich Minin - Doctor of Technical Sciences, professor, laureate of the State Prize of the USSR, academician of the ATS of the Russian Federation, founder and President of the Ural-Siberian Branch of the Academy of Technological Sciences of Russia, holder of the Orders of Lenin and the Order of the Red Banner of Labor, other orders and medals, author of the discovery, more than 600 scientific papers, more than 150 inventions and patents.

V.F. Minin was born on May 27, 1932 in the village. Rudinka, Gorlovsky district, Ryazan region. Graduated from MIPT. He began his career as a turner and a teacher at an evening school. In 1958, one of the first, at the invitation of M.A. Lavrentiev moved from Moscow to work in the Novosibirsk Academgorodok. He began his scientific activity at the Institute of Hydrodynamics of the Siberian Branch of the USSR Academy of Sciences, where he founded one of the directions for studying the interaction of shock waves with bubbles. In 1966, he founded the Sosna State Design Bureau, which in 1968 was transformed into the Institute of Applied Physics headed by him. For more than 30 years V.F. Minin was the scientific director, general director and chief designer of the Order of the Red Banner of Labor of the Institute of Applied Physics (Novosibirsk).

In the field of numerical methods and algorithmization under the scientific supervision of Professor V.F. Minin carried out in-depth research on the creation of effective machine-dependent methods and algorithms for numerical simulation of the processes of physics and mechanics. His research on the development of software and hardware formed the basis for the creation of automated computing systems that make it possible to quickly perform a computational experiment and process its results in the terminology of a researcher of a physical phenomenon or a designer. Developed under the guidance of V.F. Minin software and hardware systems are equipped with application software packages in many areas, including: non-stationary problems of continuum mechanics, optical-electronic systems, microwave diffraction optics, special X-ray tomography, computer-aided design systems for mechanical engineering products.

Under the scientific guidance and with the personal participation of Prof. V.F. Minin conducted research on the adaptation of developed and creation of fundamentally new parallel algorithms for numerical simulation. These algorithms were implemented on a multiprocessor system, which made it possible to reduce the calculation time by more than 100 times, at the same time significantly expand the field of physical problems and spread computing technology in the process of creating products and researching processes.

Under the scientific guidance of V.F. Minin created a family of modern color raster displays of the GAMMA series based on domestic components that simplify the interaction of researchers of various kinds of processes with computer technology. They are introduced at many enterprises and in 1990-91. all television centers in the USSR would be equipped with GAMMA-T video-computer graphics stations. Based on the use of a computational experiment in the field of fast processes in continuum mechanics, problems were solved that contribute to a significant increase in the efficiency of some types of mechanical engineering products that remained unresolved from the beginning of the forties until recently - for example, the problem of rotation in cumulation. This made it possible to simulate both the anti-meteorite protection of the Vega spacecraft in the Vega-Halley project and the shock wave focusing using a diffraction element in a nonlinear mode.

For a complex of works on the creation of computer technology and technology of the computational experiment, V.F. Minin was awarded the State Prize of the USSR in 1988.

The great contribution of V.F. Minin contributed to the development of physical principles and the creation of a family of unique devices for the fight against terrorism and drug mafia, in particular, gas analyzers M01, M02, explosion-proof chambers, X-ray inspection equipment.

Under the leadership of V.F. Minin, more than 70 types of weapons were created, in particular, for the navy (optoelectronic action systems for the PK-2, PK-10, PK-16 complexes and a number of other products), aviation (product families S-8, S -13, S-25, PTAB-1M) and the armies of the USSR and the Russian Federation. Many of them still have no analogues in the world and serve as the basis for further modifications.