

## **Milestones of Computer's History**

During the evolution of computer technology hundreds of different computers have been developed.

In the history of computer development we can distinguish six stages:

1. Generation of mechanical computers.
2. Computers operating on vacuum tubes.
3. Transistor computers (IBM 7094).
4. The first computers based on integrated circuits (IBM 360).
5. Personal computers (Intel).
6. The invisible computers.

The first generation is mechanical computers (1642-1945). The first person who created the adding machine, was a French scientist Blaise Pascal (1623-1662), after whom the name of one of the programming languages.

The second generation was operating on electronic lamps (1945-1955). The Second World War was one of causes for the creation of an electronic computer. Von Neumann has created a machine that consisted of a five main parts: memory, ALU, control, and input-output.

The third generation was operating on transistors (1955-1965). The transistor was invented by Oohn Bardeen, Walter Brattain and William Shockley, the laboratory staff at Bell Laboratories, for which they were awarded the Nobel prize in the field physics in 1956.

The fourth generation was operating on integrated circuit (1965-1980). Robert Noyce's invention in 1958, silicon integrated circuit made it possible to place a small chip one tens of a transistor in size. Computers on integrated circuits were smaller, ran faster and cost cheaper than their predecessors on transistors.

The fifth generation was VLSI (1980). The emergence of large scale integrated circuits (VLSI) in the 80's has allowed to place tens of thousands, then hundreds of thousands, and finally millions of transistors. This led to the creation of smaller and more responsive computers.

Sixth generation is invisible computers, the ones that are built into appliances, watches, bank cards and a host of other devices. Processors of this type provide a greater functionality and an equally wide spectrum of options for a very reasonable price.

It is hard to predict what the seventh generation will be, however it will not take long to see it with our own eyes.