

PERSPECTIVES OF ELECTRONICS

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Electronics is the science of electronic phenomena, devices and systems. It describes and applies the flow of electrons emitted from solids or liquids passing through vacuum, gases or semiconductors. Electronics as a science studies the properties of electrons, the laws of their motion and the properties of the energy transformation through the media of electrons.

Although electronics is properly regarded as only a section of electrical technology, electronic techniques are applied in many fields, including industry, communication, defence and entertaining. Due to its versatility it becomes increasingly difficult to differ clearly electronics and other branches of electronical technology.

A recent advance in electronics has had a great impact on both the electronics and our daily lives. With the arrival of the microprocessor, another evolutionary stage has taken place in the field of electronics. What the introduction of the transistor did a number of years back, the microprocessor is doing now. Every day, more and more applications of this device affect our lives in many ways. Transistor is a very little main part of the computer that is the base for almost all automatics, science, technology, robots and, of course, education and programming.

Now the size of electronic devices reduces by 10 every five years which has led to a great compression. When the term microelectronics first came into the use, a chip of silicon a tenth of a square inch might hold 10 to 20 transistors, together with a few diodes, capacitors and resistors. Now such chips can contain thousands of separate electronic components. The number of these elements will rapidly grow with the invention of the new IC technology.

So, such advantages of electronic devices as microscopic size, high speed, low cost and reliability are likely to have no competitor. No wonder electronic technology is the most dynamic one of the present industrial age. Electronics is sure to make still greater progress in the nearest future and help humanity gain new victories in science and engineering growth.