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THE ROLE OF INDUSTRIAL ELECTRONICS IN MODERN SOCIETY

The development of physical electronics, the discovery of new physical phenomena, and the establishment of their qualitative and quantitative regularities stimulate the development of electronic technology. On the basis of these discoveries, it is possible to:

1. create fundamentally new devices (gas and solid-state lasers, semiconductor devices with charge coupling, surface acoustic waves, optoelectronic devices, etc.);
2. develop advanced technological processes for the production of devices (ion-plasma doping of semiconductors, laser processing of thin films, electron lithography, X-ray lithography, etc.), which significantly improve the parameters of devices and solve the fundamental problem of modern electronic technology – maximum microminiaturization and a high degree of integration of solid-state devices;
3. expand and deepen the understanding of the physical processes in electronic devices, which allows developers of electronic devices and systems to reasonably choose the element base and operating modes of devices.

Physical electronics encourages the development of not only its own material base-electronic technology, but also a number of other technical areas. In particular,

the achievements of physical electronics have opened up fundamentally new ways in the field of energy. These include the conversion of solar energy into electrical energy, the direct conversion of thermal energy into electrical energy in MHD generators and thermal emission converters, the transmission of electricity over long distances by direct current transmission lines with a voltage of more than a million volts, etc.

Employees who are engaged in the installation of telecommunications equipment, very often need adapters in their work, which significantly make the installation process easier. Every day, the demand for electrical equipment is growing more and more, which is increased by consumers themselves, because their number is becoming more and more every day. In addition, any hostess in her kitchen will certainly use electrical appliances, the choice of which must be taken seriously.

The role of electronics in modern science and technology is huge. It is rightly considered a catalyst for scientific and technological progress. Without electronics, neither progress in the exploration of space and the ocean depths, nor the development of nuclear energy and computer technology, nor the automation of production, nor radio broadcasting and television, nor the study of living organisms is unthinkable. Based on the achievements of electronics, the industry is developing, producing electronic equipment for various types of communication, automation, television, radar, computer technology, process control systems, lighting, infrared technology, X-ray technology, etc.