

SCIENTIFIC VIEWS ON THE DEVELOPMENT OF ELECTROTECHNICAL INDUSTRIAL ENTERPRISES IN THE CONDITIONS OF THE DIGITAL ECONOMY

Hilola Sultanova

Tashkent information technologies
university named after Muhammad al-Khorazmi
associate professor

ABSTRACT

New features of the development of the world economy have an impact on the strategy of enterprises and the thinking of managers. Currently, innovative directions are becoming a priority vector for the development of the state economy. This is reflected both in scientific research and in the practical activities of business entities. In this regard, special attention was paid to the industry, in particular, to the large manufacturing enterprises that formed the basis of the economy for many decades.

The basis for solving problems in the field of electrical engineering is rapid development based on digital technologies, which requires significant funds for the development and implementation of new technologies, re-equipment of production and optimization of business processes. The emergence of new enterprises that actively use modern technological solutions and have a clear development strategy allows us to hope that the current electrical engineering industry in Uzbekistan will take its deserved place among the most developed countries in the near future.

In the modern world, great importance is attached to the integration of electricity. This means its immediate global implementation in various segments and everyday life.

It is worth noting that today there is no field where it is not used in some form. At the same time, its exploitation is expanding significantly every day. The development of electrical engineering has its own stages. These stages differ from each other with the dynamics of implementation.

The term "electrical engineering" itself is a knowledge-intensive and technical concept. This is a field that uses various phenomena for practical purposes, namely, the phenomena are electric and magnetic. If we consider all the areas where these phenomena are applied, the general definition will be clearer. The formation of an electrostatic segment.

This phase lasted until 1800. This includes the first observations of the above phenomena. Also, during this period, the first electrostatic machines and devices were created, atmospheric electricity was studied, and the first theories were developed in this regard. At this stage, Coulomb's law was adopted. It is also worth noting the beginning of the emergence of electromedicine.

The stage of formation of electrical engineering as an independent segment lasted from 1870 to 1890. At this time, the first self-generating machine generator was created. Later they began to call him a dynamo. At this stage, the development of electrical engineering comes to the point where the industry begins to become independent.

The period of formation and introduction of energy into the economy and everyday life (since 1891).

Currently, a three-phase type system is being developed and a complex process analysis method is being formed. Ch.P. Steinmetz invited him. Electrification is also developing rapidly. Large stations are being built and new machine designs are being developed.

Today, the main trends in the market are aimed at improving energy efficiency and the safety of the operation of electrical equipment and professional electrical measuring instruments in general. directing investments and national income to rational spending, applying energy-saving technologies in all sectors of the economy, conducting an active policy on energy conservation by introducing programs to clean up the environment and reduce waste water and emissions into the atmosphere, international trade by the state are the priority and urgent tasks of

enterprises supported by Manufacturers began to pay more and more attention to the safety of electrical equipment, because its malfunction is one of the most common causes of fires. Local scientists E.A. Makhmudov and B.I.Sultanov in their scientific works described the enterprises of the electrical engineering industry as follows. "In the electrical engineering industry of Uzbekistan, 3 production directions are clearly distinguished according to the purpose of production.

The first direction is cable and wire products (production of more than 2500 types of cables and wires from copper, aluminum, etc.);

The second direction is high-flow production that produces relatively expensive industrial products (electrical products and equipment, for example: transformers, complete conductors, electronic electricity meters, photoelectric plants, security systems and video surveillance equipment, radio equipment, etc.) release;

The third direction is household appliances: refrigerators, LED TVs, washing machines, air conditioners, vacuum cleaners, personal computer monitors, microwave ovens, etc. It is worth noting that today there is no field where it is not used in some form. At the same time, its exploitation is expanding significantly every day. The development of electrical engineering has its own stages. These stages differ from each other with the dynamics of implementation.

The term "electrical engineering" itself is a knowledge-intensive and technical concept. This is a field that uses various phenomena for practical purposes, namely, the phenomena are electric and magnetic. If we consider all the areas where these phenomena are applied, the general definition will be clearer.

1. Electrical engineering is directly needed for:
2. change of energy parameters in nature (energy field);
3. reception and transmission of electromagnetic waves or data (information);
4. physical change of matter (technological).

5. Industrial electronic devices have recently emerged from this entire segment of the industry.
6. Along with it, there are three directions, which are:
7. information;
 8. energy;
 9. technological.

Year by year, they are becoming more and more important in improving the segment. This industry is conventionally expressed in 6 stages. They are:

The formation of an electrostatic segment. This phase lasted until 1800. This includes the first observations of the above phenomena. Also, during this period, the first electrostatic machines and devices were created, atmospheric electricity was studied, and the first theories were developed in this regard. At this stage, Coulomb's law was adopted. It is also worth noting the beginning of the emergence of electromedicine.

Laying the foundation for the stage of designing scientific foundations.

This phase lasted from 1800 to 1830. At this time, a "voltaic column" provided by an electrochemical generator was created. V.V Petrov battery was also developed. With its help, the production of an electric arc and many other discoveries were made. The most important thing at this stage is to discover the basic laws. In particular - Ampere, Om, Bio-Savar. A prototype of an electric motor was also created and the main connections between the above phenomena were established.

Origin phase from 1830 to 1870. During this period, the concept of electric current generation in a closed circuit was formulated by M. Faraday. Lenz and Kirchhoff's law were also formed. In addition, the creation of the first light sources and the appearance of various devices should be noted. During this period, the technology of electrical measurement was born. But due to the lack of an efficient and economical generator, its practical operation was impossible.

The stage of formation of electrical engineering as an independent segment lasted from 1870 to 1890. At this time, the first self-generating machine generator was created. Later they began to call him a dynamo. At this stage, the development of electrical engineering comes to the point where the industry begins to become independent.