



AUTOMATED ELECTRICAL SYSTEMS OF ROBOTICS AREAS OF APPLICATION OF PROCEDURES

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A B S T R A C T	K E Y W O R D S
This article provides information on the areas of application of automated electrical systems of robotics and the use of automated electrical equipment in the textile and manufacturing industries.	Automation, Robotics, technician, product, textile, textile.

INTRODUCTION

Automated electrical equipment is revolutionizing the textile and manufacturing industries, particularly robotics complexes. These tools can streamline labor-intensive processes, reduce downtime, and increase productivity.

From agriculture to automobile manufacturing, automated electrical equipment has a wide range of applications. For example, in agriculture, automated electrical equipment can be used in planting, watering, and harvesting, reducing the need for manual labor. In automotive manufacturing, robots equipped with automated electrical equipment can assemble parts and weld components, resulting in faster and more efficient production. Other industries where automated electrical equipment is being used include healthcare, transportation, and logistics. In healthcare, automated equipment can assist in operations, allowing doctors to perform complex procedures with greater precision. In transportation, automated equipment can improve the safety of vehicles by helping them stop and avoid collisions. In the logistics industry, robots equipped with automated equipment can move goods and packages, reduce human effort, and optimize the supply chain. Automated electrical appliances have even found applications in home appliances such as vacuum cleaners, washing machines, and air conditioning systems. These devices can monitor energy usage, optimize power consumption, and provide alerts and notifications when home maintenance is needed. One of the significant benefits of automated electrical equipment is that they can perform tasks correctly, quickly and with high accuracy. They can run 24/7, thus increasing productivity without having to employ human migrant workers or help them stay out of work. In addition, automated equipment reduces the risks associated

with hazardous or repetitive tasks, thereby increasing worker safety. They can also improve accuracy, quality control, and reduce costs associated with errors.

Robotics and automated electrical operations of technical complexes are included in the category of specialization subjects in the field of educational science. Within the framework of the issues to be implemented in the process of mastering the subject, the bachelor should have the following skills: mechanical devices that move the working bodies that provide the main functions of robotics and technical complexes, various procedures; should have experience in designing, operating and adjusting automated electrical systems of industrial robots and technical complexes. The purpose of teaching the science of automated electrical systems of robotics and technical complexes - The purpose of teaching the science of automated electrical systems of robotics and technical systems is to introduce students to information about the stages of development of robotic devices and their role in production; provide information about the mechanical part of robots; teaching to use the control software of robots; teaching to know the types of electrical systems of robotics and technical complexes and the basic requirements for them; to gain knowledge about the power schemes of robotics and technical complexes and the operating modes of their control systems.

The textile and textile industries were early adopters of automation and the use of automated electrical equipment. These industries have supported the use of machines and robots to increase production, save time and costs, and improve quality control. One of the important areas where automated electrical equipment is used in the textile and textile industry is in the drilling and straightening of yarn and other textile products. The use of automated drilling and weaving machines ensures high profitability, high accuracy and precision in the textile production process. These machines can work around the clock without the need for holidays or weekends. Automated cutting and sewing machines are also used in the production of clothing and other textile products. These equipments work by cutting and sewing fabrics accurately, efficiently and with high precision, which is essential to maintain consistency in the quality of the final product. The use of automated cutting and sewing machines reduces the need for manual labor, which greatly reduces labor costs. The use of automated screening and color matching solutions has also become important in improving product quality in textile production. This ensures accurate color matching of fabrics and reduces the chance of defects in the final product. The use of automated electrical equipment in this area significantly saves time and reduces costs.

Finally, the textile and manufacturing industries use automated processing equipment such as conveyors, robotic arms, and other machinery to transport materials, products, and perform other tasks. Automated processing equipment allows for the steady movement of raw materials and finished products throughout the manufacturing plant. This results in time savings, fewer interruptions and increased productivity.

In conclusion, he noted that the textile and textile industry has realized the significant benefits of using automated electrical equipment. As a result of the use of machines and robots in these industries, precision accuracy, quality control, cost and time savings, and production efficiency have improved. As technology continues to advance, the use of automated electrical equipment is likely to increase, leading to better and more efficient production processes in the textile and textile industry. Automated electrical equipment is changing the way industry works, leading to increased efficiency, lower costs, and improved safety. As technology continues to advance, the applications of automated equipment continue to expand, leading to new ways of working and doing business.

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