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# ANALYSIS OF TEXTILE AUTOMATION

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**Annotation**

*Textile automation (or textile automation) is the use of technological tools and methods to perform processes in the textile industry in an automatic mode. This includes automated systems for process control, material production, construction and other technological practices.*

*Automation has several benefits in the textile industry:*

*- Increase production: Automated systems work faster and with fewer errors, thus helping to increase production.*

*- Increase worker safety: Automated systems help increase worker safety because they operate automatically and integrate with the worker.*

*- Optimization of technological processes: Automated systems help to optimize processes, which allows technological processes to be carried out effectively and efficiently.*

**Keywords**

*Textile, automation, industrial, efficiency, technological*

The textile industry is one of the most important sectors of the economy and it always requires renewal and modernization processes. Today, the development of automation is creating great changes in this field. Thanks to automation, production processes are speeding up, product quality is improving, and production costs are significantly reduced. At the same time, automation also provides an opportunity to create new jobs and improve the skills of workers. However, there are also downsides to this process, such as the potential loss of some jobs due to automation. Thus, the analysis of automation in the textile industry is a hot topic, because it plays an important role in the future of the industry and in improving production efficiency. This article is devoted to a more in-depth analysis of the importance of automation in the textile industry and its future development prospects. The textile industry is an important area for the

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automation of large quantities of materials, and the development of new technologies and equipment in this field is a comprehensive process aimed at automating the preparation and production processes of materials. things are being done. This article analyzes textile automation.

This analysis was written using the literature on "Textile Automation". This literature contains important information in the field of automation of the textile industry. The following literature was used:

1. "Mechanical engineering technology, equipment and automation of mechanical engineering production"[2]:

- This literature covers the study of modern solutions based on the application of the innovations of the basics of mechanical engineering technology in solving the main issues of mechanical engineering technology, the design and production of products in integrated production processes, the theoretical and practical foundations of the issues of introducing equipment and tools into production, advanced technology and equipment[2] .

2. "The results of the analysis of existing scientific and practical literature aimed at improving the quality of clothes suitable for atypical figures"[3]:

- This literature allows to study the results of the analysis of scientific and practical literature aimed at improving the quality of clothes suitable for atypical figures. The results of the analysis of existing scientific and practical literature aimed at improving the quality of clothes suitable for atypical figures have been studied in the context of this analysis, scientific research works on the automation of the process of designing clothes, comparative analyzes of existing figure typologies of full-figured women.

These literatures help to be able to understand and analyze important information in the field of textile automation

Textile automation (or textile automation) is the application of technological tools and methods for automatic execution of processes in the textile industry. It includes automated systems for process control, material production, construction and other technological practices.

Automation has several benefits in the textile industry:

- Increase production: Automated systems work faster and with fewer errors, thus helping to increase production.

- Increase worker safety: Automated systems help increase worker safety because they operate automatically and integrate with the worker.

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- Optimization of technological processes: Automated systems help to optimize processes, which allows technological processes to be carried out effectively and efficiently.

Automated systems are of great importance in ensuring the quality of large-scale products, speeding up production and increasing worker safety in the textile industry. There are many more innovative solutions and technologies in this field, such as robots, automated machines, sensors and other technological tools.

Initial investment: Textile automation involves the necessary systems and methods, which require initial investment. Initial investment is important to reduce start-up costs.

2. Technological changes: The textile industry is one of the rapidly changing industries. New materials, methods and technologies may appear frequently. This requires updating automated systems.

3. Workforce: Automated systems are changing the workforce. New skills and knowledge are required for some workers. This requires retraining and education of working personnel.

4. Technological security: Automated systems can help improve security, but they must be monitored to ensure complete security. It is important to protect systems from hacking and attack.

5. Technological Directions: The textile industry should analyze automated systems to determine which directions to use. Some processes are easy to automate, and some are difficult.

Automated textile industry is of great importance in the production of high-quality products, optimization of production processes and increase of worker safety. It is important to use innovative solutions to overcome the shortcomings.

Production automation technology is widely used in the textile industry. The former part of this process involves outsourcing the control and management of mechanized production to automatic devices.

Automated systems allow work to be done automatically. This helps to make production more efficient and faster. Automated systems help to minimize errors and inconveniences. This makes it possible to increase the quality of the product. Automated systems do not replace human labor, and also avoid working in hazardous conditions. Automated systems help you get the job done efficiently. This makes it possible to expand production. Automated systems are used in the textile industry, for example, in material cutting, sewing, dyeing and other processes. This technology helps industrial enterprises to do their work efficiently and faster.

In the textile industry, automation is used to optimize production processes and increase productivity. This process includes modern technologies such as artificial intelligence, robotics, sensors and software systems. Automation reduces production costs, increases production speed and quality, and ensures worker safety. Industrial automation is especially important for repetitive or hazardous tasks. Automation systems are widely used in modern textile enterprises, which helps to increase competitiveness. At the same time, automation can reduce jobs, which can cause social problems. However, automation will create highly skilled jobs and open up new opportunities for workers. Thanks to technological innovations, the textile industry is becoming more innovative and flexible. The future of automation will undoubtedly depend on the further development of artificial intelligence and robotics. This allows production processes to be more efficient and economical. Thus, the analysis of automation in the textile industry determines the future of this industry and is an important step for its further development.

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