VARIETIES AND COMPLEX APPLICATIONS OF ROBOTS AND COMPUTER TECHNOLOGY

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Computer technology and robotics play an important role in the development of mankind in the modern world. They are aimed at the development of technological process, analysis and systematization of a large amount of data. With the help of these objects, complex tasks that can be inefficiently formed by traditional methods are solved.

The development of robotics leads to the creation of intelligent and autonomous machines that perform a variety of tasks in industry, healthcare, service and education. Robots help in determining the accuracy of targets, increase productivity and find various solutions to improve working conditions.

Industrial robots focus on tasks in manufacturing while service robots are in the field of maintenance. Such robots are widely used in the modern world (robot vacuums, kitchen robots, robot diagnosticians). Some models can be programmed to perform several tasks. For example, Promobot V.4 performs the function of a tour guide and a policeman. Various additional devices can be installed on robots: a printer, a document scanner, a bank terminal and others, which make them essential in different spheres.

Nowadays, teamwork of robots is often engaged to solve complex problems with simple methods. Robots diagnose hard-to-reach objects, monitor environmental objects, collectively perform security functions and patrols [1]. Multi Robot Systems research is conducted at the University of Alberta in Edmonton, USA by studying the collective behavior of robots by developing systems of multiple robots. The project focuses on the challenges of collective decision making [2].

Computer technology has the function of storing, transmitting, processing and reproducing information. In today's world, most of us can't

imagine our lives without computer technology. Computer technology allows storing and processing a large amount of information, analyzing the customer market, thus helping manufacturers to know what to offer the customer and how to attract them, finding quick ways to solve various problems without using traditional methods. In today's world, mass-markets are creating their online stores. Many people take advantage of this opportunity to save their time [3].

Computer technologies such as artificial intelligence (AI), data analytics and cloud computing also play an important role in today's world. AI makes it possible to automate decision-making processes, analyze large amounts of data and predict trends, which make businesses more efficient and competitive. Cloud technologies, in turn, provide access to data and applications from anywhere in the world, improving business mobility and flexibility. However, along with the opportunities presented by robotics and computing technologies, numerous challenges and risks can occur. For example, the possibility of robots to replace the workforce raises discussions about the future of labor relations and social justice. In addition, cybersecurity and data protection issues are becoming increasingly important in the digital transformation of society.

Thus, robotics and computer technology have great potential to improve the way people live and work, but their application requires careful consideration of ethical, social and legal aspects to ensure the sustainable and harmonious development of society.

References

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