As a result we get asphalt-concrete mixture which is laid on the prepared base in the classical way.

A unique Innovative technology of plastic waste utilization is developed by the Dutch company VolkerWessels. It consists of molding hollow slabs for roadbeds from recycled plastic. It is planned to lay urban communications in the hollows. The slabs on such plastic roads will be laid on a cushion of compacted sand.

The distinctive feature of the technology is the use of a large amount of waste as well as quick installation.

The main advantage of using plastic waste to create road surfaces is the improvement of the environmental situation in large cities with permanent disposal of garbage that pollutes everywhere also the world's oceans.

Among the advantages of pavement with plastic are: increased durability, high water resistance, longer intervals between repairs, reduced maintenance costs, high tensile strength, increased resistance to machine oil and fuel, reduced pavement deformation and no rutting, minimal cracks due to plasticity of plastic, long service life. Roads with asphalt based on plastic bottles and other waste will improve the ecology status of the city.

Among the disadvantage of the pavement is the cost is 3% higher than conventional asphalt concrete pavement.

Road surfaces based on recycled plastic waste are one of the most promising areas of development of highway construction. It is possible that soon this area will become one of the stable sales channels for the plastic recycling business. The use of innovative materials will help reduce the cost of laying and maintaining highways and rid cities of plastic waste.

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Student A.A. Kruganov Scientific supervisor senior lecturer J.I. Davydenko (department of IC&TT, BSTU)

THE DEVELOPMENT OF ROBOTICS NOWADAYS

Robotics has become integral to various aspects of human life, permeating industries such as medicine, manufacturing, and logistics. While its modern applications are diverse, its origins lie in the automation of industrial processes, which revolutionized production and led to increased efficiency. Notable advancements, like the versatile robot BigDog, highlight the ongoing evolution of robotics and its potential to reshape urban living, as seen in cities like Minsk where robots are employed for goods delivery. The advantages of robotics are manifold, including reduced production costs, improved safety for workers, and minimized waste. However, challenges such as ethical and legal considerations arise, particularly regarding societal dependence on AI, transparency in AI solutions, and data security. Navigating these complexities requires a balance between technological advancement and ethical responsibility. In summary, robotics represents a transformative force with the potential to shape the way we live and work.

Its continued evolution promises innovation and progress across various sectors, underscoring the importance of ethical frameworks and social awareness in maximizing its benefits while mitigating potential drawbacks.

As robotics continues to advance, its integration into society deepens, offering new opportunities and challenges. Beyond the realm of industry, robots are increasingly playing roles in healthcare, education, and even personal assistance. The advent of autonomous vehicles and drones underscores the breadth of applications for robotic technology. However, with these advancements come concerns about job displacement, ethical implications, and the potential for misuse.

It is imperative for society to address these issues proactively, ensuring that the benefits of robotics are equitably distributed and its risks are managed responsibly. Ultimately, the future of robotics holds tremendous promise, but it is contingent upon careful stewardship and thoughtful consideration of its societal impact.

The transformative power of robotics extends beyond mere automation; it fosters innovation and pushes the boundaries of what is possible. From precision surgery to space exploration, robots are at the forefront of human achievement, enabling us to tackle challenges once deemed insurmountable.

However, this rapid advancement also raises questions about our relationship with technology and its ethical implications. As robots become increasingly autonomous and intelligent, we must grapple with issues of accountability, privacy, and the potential for unintended consequences.

Furthermore, the democratization of robotics brings both opportunities and challenges. With the proliferation of open-source platforms and affordable hardware, individuals and small businesses can now develop their own robotic solutions.

While this fosters innovation and creativity, it also raises concerns about safety, security, and regulatory oversight. As we navigate this new era of robotics, collaboration between industry, government, and academia will be crucial to ensuring that innovation is balanced with responsibility.

In conclusion, robotics represents a paradigm shift in how we interact with the world around us. From revolutionizing manufacturing to redefining the boundaries of exploration, robots are poised to play an increasingly central role in shaping the future of humanity.

However, realizing the full potential of robotics requires a concerted effort to address ethical, social, and regulatory challenges. By working together to harness the benefits of robotics while mitigating its risks, we can create a future where technology serves to enhance the human experience rather than detract from it.

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Student I.A. Philipiuk Scientific supervisor Senior Lecturer E.V. Kryvonosova (Department of ICC&TT (Intercultural Communication and Technical Translation, BSTU)

ENHANCING LEARNING EFFICIENCY VIA IT

Project development started as a semester final project in the field of one of our specialty disciplines. We were completely obsessed with our first exam session and could simply imagine how other students are. Here is a milestone, where an idea of this application was born.

It all came through a long projecting stage and a realization process. After almost a month of a team work a proto version of application was ready to be presented. As soon as our project was nominated to the student's conference an idea to provide it with a Graphical User Interface came to our mind. After a short overthinking period we have chosen a QT Framework as the only one highly effective in C++ applications development. Almost everything except a backbone of the application (main functions, algorithms, etc.) was reworked and retransformed into a complete application ready for distribution.

After all we have devised a completed and tested application that can prove its effectiveness in use. Basically, this application has two usage options/variants which represent two most effective preparation techniques.