

2025.) With the US, UK, Canada, and Australia amongst the most popular destinations for overseas students, it means studying in English for them; students need the right level of English skills to win a place at their chosen university, and they have to prove their level of English proficiency before they enroll. There are some specific skills in English that all students need in order to get the most from an academic education overseas: being able to skim read a set text written in English and pick out the key concepts and ideas presented, then taking that information and paraphrasing it; delivering a presentation on the different academic perspectives on a chosen topic, answering questions, debating, and so on. These are all the kind of real-life English skills that students need to have at their disposal in order to thrive academically, and Ukrainian students should work as hard as they can to master them all.

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INTELLIGENT CONTROL OF ROBOT MANIPULATORS

Designing high-performance, low-cost robot manipulators is one of the ultimate challenges for engineers nowadays. Key performance criteria for these robots are: 1) cycling time, 2) accuracy and repeatability, 3) ease of programming, 4) intelligence, and 5) safety. In striving to meet these increasingly stringent performance goals, a mechatronic approach which combines aspects from both mechanical hardware and servo software is required.

Most industrial robots are manipulators controlled by a microprocessor controller. To implement the control of an industrial robotic manipulator, it is necessary to solve a number of problems; in particular, an important task is motion planning. It is necessary to choose the trajectory of the technological tool, while not only the trajectory of motion but also the laws of speed change must meet both requirements of the technological process and capabilities of the robot. So, position-

contour control systems are mainly used in welding robotic technological complexes. They ensure the implementation of trajectories specified by a sequence of reference points. During the control process, intermediate points of the trajectory are calculated and the master actions for the actuators are formed. As a result, a coordinated movement of the degrees of mobility leading to the required changes in the position and orientation of the technological tool is realized.

The study of the effectiveness of industrial robots should be carried out in an experimental simulation environment using an emulator of control systems such as RCM (Robot Control Multiprocessor). The proposed control algorithm is implemented in the C++ programming language and integrated into the industrial robots modeling system.

When testing the proposed control algorithm, it is important that it ensures a collision-free movement of the robotic arm, which is crucial when operating robotic arms in a working environment with obstacles.

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3D MUSEUM AS A MODERN WAY TO GET IMMERSED IN A FOREIGN CULTURE

In recent years, the global pandemic, unpredictable disasters and many other unpleasant factors have become an obstacle for everyone to get a grasp of modern art, as numerous museums were forced to close. For instance, Notre-Dame de Paris was significantly damaged due to the horrific fire that took place several years ago and its restoration could even take decades. However, with the implementation of 3D museums, this problem can be solved to a great extent as people from all over the world can become a part of a worldwide history and its culture.

I perceive this topic as relevant, because now visiting museums and art galleries in 3D is more of a personal experience than a physical privilege. As material