
ABSTRACTS

<https://doi.org/10.22306/am.v8i1.92>

Received: 03 Jan. 2023

Revised: 07 Feb. 2023

Accepted: 27 Feb. 2023

Bipedal walking robot platform with a vertically stabilized base usable as a bipedchair for disabled people

(pages 1-6)

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Keywords: walking robot, biped locomotion, actuator, centre of gravity.

Abstract: The article deals with the design of a concept for a mobile robotic platform for transporting equipment or people. For disabled people, this system can represent an alternative to a wheelchair with better mobility in an urbanized environment. The proposed solution is unique in that it maintains a stabilized vertical position of the base.

<https://doi.org/10.22306/am.v8i1.93>

Received: 03 Jan. 2023

Revised: 04 Feb. 2023

Accepted: 02 Mar. 2023

Design of PLC control system for cascading tanks controlling

(pages 7-14)

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Keywords: PLC, HMI, control system, tank, pump, valve, sensor.

Abstract: The article deals with the design of a PLC control system for controlling cascade tanks in the technological process of liquid mixing. The mixing process is carried out automatically according to information from individual sensors. The system also includes elements for manual control of the technological system. A human machine interface system was designed to operate the system. The simulation showed the correctness of the designed system.

<https://doi.org/10.22306/am.v8i1.94>

Received: 23 Jan. 2023

Revised: 19 Feb. 2023

Accepted: 10 Mar. 2023

An overview of the kinematics and workspace of robots with different structures

(pages 15-22)

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Keywords: kinematic analysis and forward kinematics, workspace, joint, kinematics chain and arm of robot, effector.

Abstract: Robotics is gaining an important place in many areas of industrial production nowadays. With the growing number of robots in production, we are coming to the solution of various tasks to ensure their optimal activity when handling objects or during other technological activities. These are tasks such as planning its movement, planning the robot's trajectory, navigation and tracking the movement of the end member. In this article, we will deal with the issue of robot workspace structures and determining the robot workspace of a specific robot model.
