
ABSTRACTS

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PROPOSAL OF TRACKED MOBILE ROBOT WITH FOLDING ARMS

(pages 1-5)

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Keywords: mobile platform, folding arms, 3D model

Abstract: This paper deals with mobile robots, specifically on tracked mobile service robots. In this case deal with the design of folding arms. These arms should help the mobile platform in overcoming obstacles. For creating the basic model was used platform Jaguar. For this platform were designed folding arms and parts of the tilting mechanism. Model is represented. Advantages of the service robots are installed systems that help realize operations. It can be a system that helps handling or early by detecting threats or to improve driveability. For better passability tracked mobile robots proposed various improvements such as folding arms. Tracked robots have different versions of the subsystem mobility. This type of tracked robot used in the complicated places, which have many complex obstacles. Great specifications are on construction, sensors, design and communication interface.

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CALIBRATION TRENDS IN INDUSTRIAL ROBOTICS

(pages 7-10)

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Keywords: calibration, industrial robot, kinematic model, laser

Abstract: A survey of calibration techniques was purpose of this article together with kinematic explanation of industrial robot with aim to obtain and implement any of them that are prohibitive for common calibration operations. Each method, if is proven accurately will be a desirable as low-cost solution to real time robot positioning problems. These factors lead us to the fact that better approach of implementing consists in real timing in process calibration. Calibration trends are moving away from older calibration processes, because instruments are more user-friendly and results that previously required long specialized procedures can now be achieved by adopting by right technology.

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TRADITIONAL VERSUS MECHATRONIC TOYS IN CHILDREN WITH AUTISM SPECTRUM DISORDERS

(pages 11-17)

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Keywords: artificial intelligence, cognitive abilities, rehabilitation, toy, autism spectrum disorders

Abstract: Functional and developmental outcomes in children (both healthy and with developmental disorders) can be significantly improved thanks to use of appropriate toys. There is need for new generation of toys providing development of motor, cognitive, and social skills. There is also need for more objective assessment of their positive influence functional and cognitive achievements of children because current evidence remains incomplete. Mechatronic tools, such as robots and artificial animals, should receive increased attention of scientists and clinicians due to improved performance of children with autism spectrum disorders. Development of novel toy-related technologies can stimulate new approaches applied in the area of diagnosis, intervention and care. This study aims at assessment how mechatronic toys can be better incorporated into therapy of children with autism spectrum disorders - ASD.
