

Analysis of the Use of a NAO Robot to Improve Social Skills in Children with Autism Spectrum Disorder in Saudi Arabia

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Abstract : Autism Spectrum Disorder is extensively spread amid children; it affects their social, communication and interactive skills. As robotics technology has been proven to be a significant helpful utility those able individuals to overcome their disabilities. Robotic technology is used in ASD therapy. The purpose of this research is to show how Nao robots can improve the social skills for children who suffer from autism in Saudi Arabia by interacting with the autistic child and perform a number of tasks. The objective of this research is to identify, implement, and test the effectiveness of the module for interacting with ASD children in an autism center in Saudi Arabia. The methodology in this study followed the ten layers of protocol that needs to be followed during any human-robot interaction. Also, in order to elicit the scenario module, TEACCH Autism Program was adopted. Six different qualified interaction modules have been elicited and designed in this study; the robot will be programmed to perform these modules in a series of controlled interaction sessions with the Autistic children to enhance their social skills.

Keywords : humanoid robot Nao, ASD, human-robot interaction, social skills

Conference Title : ICHRAIA 2018 : International Conference on Humanoid Robots and Artificial Intelligence Algorithms

Conference Location : London, United Kingdom

Conference Dates : May 14-15, 2018