COLLISION AVOIDANCE OF ROBOT ARMS USING GENETIC LEARNING TECHNIQUES

Mahmoud elgamal

Abstract

Co/fo/oH *avoidance is a crucial problem in path-planningfor robotic systems. Many re¬*

searches deal with the problem with distinct aspects, among those are the use ofLiapunov theory to

determine analytic controllersfor collision avoidance problems. The controllers were determined in

terms of   positive avoidance and attraction parameters. The technique did not give a methodfor

finding these parameters, other than by trial and error and expert analysis. This paper addresses this

problem and uses an evolution algorithm tofind constant coefficients that secures time minimization

to reach a desired target and also seeks to reach the target with zero speed.