Analysis of the Inverse Kinematics for 5 DOF Robot Arm Using D-H Parameters

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Abstract : This paper proposes an algorithm to develop the kinematic model of a 5 DOF robot arm. The formulation of the problem is based on finding the D-H parameters of the arm. Brute Force iterative method is employed to solve the system of non linear equations. The focus of the paper is to obtain the accurate solutions by reducing the root mean square error. The result obtained will be implemented to grip the objects. The trajectories followed by the end effector for the required workspace coordinates are plotted. The methodology used here can be used in solving the problem for any other kinematic chain of up to six DOF.

Keywords : 5 DOF robot arm, D-H parameters, inverse kinematics, iterative method, trajectories **Conference Title :** ICRME 2017 : International Conference on Robotics and Mechanical Engineering **Conference Location :** Montreal, Canada **Conference Dates :** May 11-12, 2017

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