

Thesis Title	A Simulation of 6R Industrial Articulated Robot Arm using Neural Network
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ABSTRACT

This paper presents a simulation of a 6 degrees-of-freedom (6R) articulated robot arm using back propagation neural network to solve the problem regarding inverse kinematics for the industrial articulated robot. The Denavit – Hartenberg model is used to analyze the robot arm movement. Next, the forward kinematics is used to identify the relationships for each joint of the robot arm and to determine various parameters for learning system of random neural network for 5,000 data points. The simulation results show that the robot arm can move to target positions with precision, and the average error for the entire 6 joints is at approximately 4.03 degrees.