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**A FINGER INVERSE KINEMATICS SOLUTION METHOD FOR**

**A BIONIC PROSTHETIC HAND BASED ON ADAPTIVE**

**NEURO – FUZZY INFERENCE SYSTEM (ANFIS)**

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*One of the most important problems in robot kinematics and control is finding the solution of inverse kinematics. Traditional methods such as geometric, iterative and algebraic are inadequate if the joint structure of the manipulator is complex. This article uses Adaptive Network-based Fuzzy Inference System (ANFIS), which allows to find a solution for a finger inverse kinematics of a bionic prosthetic hand which can be represented as a three – link planar manipulator with two independent degrees of freedom.*

**Keywords:** manipulator, inverse kinematics, ANFIS, training data, testing data.

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