



Imam Reza International University

MS Thesis

Faculty of Engineering

Department of Computer Engineering

Information Technology Engineering- Information Systems Management

**Diagnosis of Parkinson's Disease Using Handwritten
Lines Using a Deep Torsional Neural Network**

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Abstract

Parkinson's is one of those diseases that can not be diagnosed and identified until the signs and symptoms of movement appear, so early diagnosis of this disease is extremely important for prevention. In this study, we examined and diagnosed Parkinson's disease from handwritten patterns. The algorithm of our proposed method has steps: 1- Image processing 2- Feature extraction 3- Classification. One of the most important steps in this work is the classifier. The greater the power of classifier learning, the greater the accuracy of recognition. For this purpose, we used the powerful CNN classifier to classify and diagnose the disease. And we were able to achieve 80.4% detection accuracy.

Keywords: Parkinson, Manuscript, Convulsive Neural Network