

Addressing voice recording replications for Parkinson's disease detection.

Lizbeth Naranjo Albarrán, Facultad de Ciencias-UNAM, Mexico

A statistical model has been developed for detection of Parkinson's Disease (PD). The model extracts features from voice recordings and considers an advanced statistical approach for pattern recognition. The significance of the work lies on the development and use of a novel subject-based approach to account for the dependent nature of the data in a replicated measure-based design. In order to assess the performance of the proposed approach, a voice recording replication-based experiment has been specifically conducted to discriminate healthy people from people suffering PD. The experiment involved 80 subjects, half of them affected by PD. The proposed approach is able to discriminate relatively well healthy people from people with PD in an experiment with a reduced sample size.