**Remote Health Monitoring of Parkinson’s Disease Severity Using**

**Signomial Regression Model**

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In this study, we propose a novel remote health monitoring system to accurately predict Parkinson’s disease severity using a signomial regression method. In order to characterize the Parkinson’s disease severity, sixteen biomedical voice measurements associated with symptoms of the Parkinson’s disease, are used to develop the telemonitoring model for early detection of the Parkinson’s disease.

The proposed approach could be utilized for not only prediction purposes, but also interpretation purposes in practice, providing an explicit description of the resulting function in the original input space. Compared to the accuracy performance with the existing methods, the proposed algorithm produces less error rate for predicting Parkinson’s disease severity