



PARKINSON'S DISEASE NEWS

<http://www.viartis.net/parkinsons.disease/news.htm>

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SMARTPHONES FOR ASSESSING PARKINSON'S DISEASE TREMOR

The assessment of Parkinson's Disease and the treatments that should be used for it are dependent on the quantification of symptoms such as tremor. A new system has been proposed for mobile phone applications, in which the mobile phone assesses the level and frequency of a person's tremor. . The system is based on measuring the acceleration from the hand of the person with Parkinson's Disease using a mobile cell phone accelerometer. For more information concerning the use of mobile phone accelerometers for tremor go to :

<http://www.cmu.edu/silicon-valley/research/tech-showcase/pdfs/2010/HandTremor.pdf>



Recordings were made from an equal number of people with and without Parkinson's Disease. The recordings were analysed using a two level wavelet packet analysis. Features were extracted forming a feature vector of 12 different elements. The features extracted from the subjects were classified using a neural networks classifier. The results obtained showed an accuracy of 95%. These results indicate that a cell phone accelerometer can accurately detect and record rest tremor in people with Parkinson's Disease.

Reference : Journal of Medical Engineering Technology [2016] Mar 15 : 1-8 [Epub ahead of print] (L.Fraiwan, R.Khnouf, A.R.Mashagbeh)

Complete abstract : <http://www.ncbi.nlm.nih.gov/pubmed/26977823>

<http://www.viartis.net/parkinsons.disease/news/160316.pdf>

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