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TRABAJO DE INVESTIGACIÓN PARA OBTENER EL GRADO ACADÉMICO DE BACHILLER EN INGENIERÍA ELECTRÓNICA CON MENCIÓN EN TELECOMUNICACIONES

Non-invasive Device to Lessen Tremors in the Hands due to Parkinson's Disease

PRESENTADO POR

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Non-invasive Device to Lessen Tremors in the Hands due to Parkinson's Disease

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ABSTRACT

One of the severe neurological disorders that affectsthe central nervous system is Parkinson's disease, which causesthat patients can not perform routine tasks such as eating andwriting. According to statistical data, there are more than 10million people in the world who suffer from this disease andthe Latin American nation of Peru is no stranger to this, sinceapproximately 30 thousand people suffer from it. Until todaythere is not a cure for this disease; however, there are differentchemical, biological and electronic methods that help to improvethe quality of life of patients with this disease. This research aimsto design a low-cost device that is able to diminish tremors inpatients with Parkinson. The non-invasive device presented anddeveloped in this study will work with the help of 5 vibratorymotors and a microcontroller. The vibrations generated by themotors in the patient's wrist will distract the brain and asresult the tremors of the hand due to Parkinson's disease willbe reduced.

Keywords: Parkinson; non-invasive device; vibrations; Arduino

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