



**UNIVERSIDAD  
DE GRANADA**

Facultad de Ciencias



## **TRABAJO FIN DE GRADO**

**GRADO EN INGENIERÍA  
ELECTRÓNICA INDUSTRIAL**

**Circuitos digitales con  
memristores.**

**Oscilador controlado  
por tensión utilizando  
memristores.**

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# Abstract

In this Bachelor's Degree Final Project (TFG), a voltage controlled oscillator will be designed for the treatment of Parkinson disease through the deep brain stimulation procedure. Memristors and resistors will be used for its construction, and the differences between them will be compared.

Key Words: Memristor, Voltage Controlled Oscillator (VCO), Deep Brain Stimulation, Parkinson's disease.