

Development of a Tesla Music Coil from Signal Processing

Authors : Samaniego Campoverde José Enrique, Rosero Muñoz Jorge Enrique, Luzcando Narea Lorena Elizabeth

Abstract : This paper presents a practical and theoretical model for the operation of the Tesla coil using digital signal processing. The research is based on the analysis of ten scientific papers exploring the development and operation of the Tesla coil. Starting from the Testa coil, several modifications were carried out on the Tesla coil, with the aim of amplifying the digital signal by making use of digital signal processing. To achieve this, an amplifier with a transistor and digital filters provided by MATLAB software were used, which were chosen according to the characteristics of the signals in question.

Keywords : tesla coil, digital signal process, equalizer, graphical environment

Conference Title : ICSPT 2023 : International Conference on Signal Processing in Telecommunications

Conference Location : Rome, Italy

Conference Dates : December 11-12, 2023