The FPGA Implementation of a Neurostimulator

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Abstract: This paper presents the FPGA implementation of a neurostimulator for the recovery of handicapped persons due to the damage of the central nervous system. For this implementation the mathematical model of the neurostimulator was developed and simulated using the SIMULINK package from MATLAB. The obtained model was implemented in a FPGA circuit of SPARTAN 3E type 16,000 through the Xilinx package - System Generator