Embedded Ambient Assisted Living System

Claudiu LUNG, Ancuța COSTIN

Abstract

   This paper presents the design of an embedded system for the assistance of persons with handicaps, implemented into the Digilent Nexys Board and Nexys 2 Board. The unit is defined in VHDL, and it targets a Xilinx Spartan-3 and Spartan-3E FPGA. Some of the modules, like the ps2 interface, keyboard controller, UART controller, port_selector are generic and can be easily reused without changes in other designs. The circuit was designed on a Windows XP PC using Xilinx ISE8.2.03i CAD tool and Cadence Orcad tool.