PicoBlaze Software Development Kit
for Multiprocessor APRS controller

Claudiu LUNG

Abstract

The main goal of this paper is to present an application which is able to configure and program multiprocessor PicoBlaze systems for Spartan 3E Development Kit. Presented application is able to control an Automatic Packet Report System node controller implemented in field-programmable gate array (FPGA). The project units are defined in VHDL, and target a Xilinx Spartan-3E FPGA. Some of the VHDL modules, like, UART controller or, port_selector are generic and can be reused in other designs. The hardware project it was designed by using Xilinx ISE 12.3 CAD tool and PicoBlaze EDK and SDK it was developed in Visual Basic.

Biography

Claudiu Lung received the B.S. degree in electromechanical engineering from North University of Baia Mare and he is PhD Student in applied electronics on Technical University of Cluj Napoca, from 2007. He works now as teaching assistant for the Technical University Cluj-Napoca North University Center Baia Mare.

He is the author and co-author of more than 25 scientific papers. His major areas of interest are the implementation of intelligent embedded systems, particularly, field-programmable gate arrays, complex digital systems and design techniques for embedded systems.

Claudiu LUNG, PhD student
North University Center Baia Mare
Faculty of Engineering
62A V. Babeş Street, Baia Mare, ROMANIA
E-mail: claudiu.lung@ubm.ro