

Abstract:

This study focuses on the development and analysis of a processor utilizing Field-Programmable Gate Arrays (FPGA) and Central Processing Unit (CPU) technologies. The primary aim is to explore the capabilities and advantages of this hybrid architecture. Keywords associated with the study include FPGA and CPU

System Architecture:

Information regarding the development tools, simulators, and the overall architecture of the designed processor is provided in this section. The chosen tools and simulation environments are highlighted to offer insights into the technical aspects of the project.

Software Used:

This section delves into the reference testing software employed for evaluating the developed processor. Descriptions of the software tools utilized in the testing phase are outlined to provide a comprehensive understanding of the validation process.

Results:

Detailed information on the operations supported by the processor is presented, along with insights and knowledge gained from the project. The section aims to showcase the achievements and advancements resulting from the implementation of the hybrid FPGA-CPU design

Project Team:

Brief Curriculum Vitae (CVs) of the project team members are provided, offering a snapshot of their qualifications and expertise relevant to the study.

Reference Files:

Links to the YouTube video featuring the study and the corresponding GitHub files are shared in this section, providing access to additional resources and documentation related to the project

References:

The section lists key references, including scholarly articles and books, providing a foundation for the study. The cited works include Smith and Abel's work on Bark and ERB Bilinear Transforms, Lee's contribution to Automatic Speech Recognition, and Rudnicky et al.'s exploration of interactive problem solving with speech.