

UNIVERSITY OF SOUTH FLORIDA

Major Research Area Paper Presentation

Survey on ASIP Synthesis
by

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In the past decade, the growth of embedded system market has seen tremendous growth and potential. ASIP exploits special characteristics of application(s) to meet the desired performance, cost and power requirements and much more. Designing a processor for a specific application that is optimal in almost all its design space is a big challenge for a hardware engineer.

For any ASIP we need to know how to analyse the application. We must also have a thorough knowledge of the design space of the available system. There are several ways of designing ASIP. A common approach is to take an application and a base processor as inputs and extend the latter with a set of custom instructions to meet certain performance/power/chip area goals. In this paper, we survey the ASIP synthesis step and highlight the work and challenges faced through reviewing some of the papers that implement ASIP Synthesis concept in their work.

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THE PUBLIC IS INVITED

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