Hardware Software Co-design Of A Multimedia Soc Platform

Foreword by Giovanni de Micheli. Preface. Acknowledgments. List of Figures. List of Tables.- 1. INTRODUCTION.- 2. DESIGN CONSIDERATION. 1. Platform-Based Design. 2. System Modeling. 3. Video Coding. 4. Image Processing. 5. Cryptography. 6. Digital Communication. 7. Multimedia Instruction Set Design. - 3. SYSTEM LEVEL DESIGN. 1. Abstraction Levels. 2. Algorithm Level Verification. 3. Transaction Level Modeling. 4. System Level Development Tools.- 4. EMBEDDED PROCESSOR DESIGN. 1. Specific Instruction-Set. 2. Data Level Parallelism. 3. Instruction Level Parallelism. 4. Thread Level Parallelism.- 5. PARALLEL COMPILER. 1. Vectorization. 2. Simdization. 3. ILP Scheduling. 4. Threading. 5. Compiler Technique. 6. Compiler Infrastructures.- 6. IMPLEMENTATION OF H.264 ON PLX. 1. Instruction Set Decision for H.264. 2. Hardware/Software Partitioning. 3. Untimed Virtual Prototype. 4. Timed SystemC Modeling. 5. PLX Chip Design.- 7. REAL-TIME OPERATING SYSTEM FOR PLX. 1. PRRP Scheduler. 2. Memory Management. 3. Communication and Synchronization Primitives. 4. Multimedia Applications in RTOS for PLX. 5. Application Development Environment. 6. Experimental Results.- 8. CONCLUSION.- References. EAN/ISBN : 9781402096235 Publisher(s): Springer Netherlands Format: ePub/PDF Author(s): Chen, Sao-Jie - Lin, Guang-Huei - Hsiung, Pao-Ann

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