

[DOWNLOAD](#)

Performance Evaluation of Vision Algorithms on FPGA

By Mahendra Gunathilaka Samarawickrama

Dissertation.Com. Paperback. Condition: New. 56 pages. Dimensions: 9.4in. x 6.5in. x 0.2in. The modern FPGAs enable system designers to develop high-performance computing (HPC) applications with a large amount of parallelism. Real-time image processing is such a requirement that demands much more processing power than a conventional processor can deliver. In this research, we implemented software and hardware based architectures on FPGA to achieve real-time image processing. Furthermore, we benchmark and compare our implemented architectures with existing architectures. The operational structures of those systems consist of on-chip processors or custom vision coprocessors implemented in a parallel manner with efficient memory and bus architectures. The performance properties such as the accuracy, throughput and efficiency are measured and presented. According to results, FPGA implementations are faster than the DSP and GPP implementations for algorithms which can exploit a large amount of parallelism. Our image pre-processing architecture is nearly two times faster than the optimized software implementation on an Intel Core 2 Duo GPP. However, because of the higher clock frequency of DSPsGPPs, the processing speed for sequential computations on on-chip processors in FPGAs is slower than on DSPsGPPs. These on-chip processors are well suited for multi-processor systems for software level parallelism. Our quad-Microblaze architecture...



[READ ONLINE](#)
[8.39 MB]

Reviews

This pdf is wonderful. It is definitely simplified but excitement from the 50 percent in the ebook. You wont sense monotony at at any time of your time (that's what catalogues are for relating to should you request me).

-- Jaqueline Kerluke

I just started looking at this pdf. It can be rally fascinating throgh studying period of time. Its been printed in an extremely basic way and is particularly only following i finished reading through this publication where in fact altered me, change the way i really believe.

-- Mr. Stephan McKenzie

Related PDFs



[Dont Line Their Pockets With Gold Line Your Own A Small How To Book on Living Large](#)

Madelyn D R Books. Paperback. Book Condition: New. Paperback. 106 pages. Dimensions: 9.0in. x 6.0in. x 0.3in.This book is about my cousin, Billy a guy who taught me a lot over the years and who can teach you a lot. Everyone who...



[Shepherds Hey, Bfms 16: Study Score](#)

Petrucci Library Press. Paperback. Book Condition: New. Paperback. 22 pages. Dimensions: 9.4in. x 7.1in. x 0.0in.Percy Grainger, like his contemporary Bela Bartok, was intensely interested in folk music and became a member of the English Folk-Song Society soon after his arrival in...



[Harts Desire Book 2.5 La Fleur de Love](#)

Cajunflair Publishing. Paperback. Book Condition: New. Paperback. 112 pages. Dimensions: 8.0in. x 5.0in. x 0.3in.Its late 1974, and high school student, Melinda Dawson is in serious trouble. Within two hours of revealing her suspected pregnancy to her parents, shes whisked off against...



[Summer Fit Preschool to Kindergarten Math, Reading, Writing, Language Arts Fitness, Nutrition and Values](#)

Summer Fit Learning. Paperback. Book Condition: New. Paperback. 160 pages. Dimensions: 10.6in. x 8.3in. x 0.5in.Summer Fit Activity Books move summer learning beyond academics to also prepare children physically and socially for the grade ahead. Academic exercises are based on Common Core...



[Molly on the Shore, BFMS 1 Study score](#)

Petrucci Library Press. Paperback. Book Condition: New. Paperback. 26 pages. Dimensions: 9.7in. x 6.9in. x 0.3in.Percy Grainger, like his contemporary Bela Bartok, was intensely interested in folk music and became a member of the English Folk-Song Society soon after his arrival in...



[Gypsy Breynton](#)

Echo Library. Paperback. Book Condition: New. Paperback. 88 pages. Dimensions: 9.0in. x 6.0in. x 0.2in.Hon. Gypsy Breynton, Esq. , M. A. , D. D. , LL. D. , c. , c. Gypsy Breyiton, R, R. Tom was very proud of his handwriting....