

CONTACT

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in ahmadsb101

CERTIFICATES

Outstanding Paper in:
6th Conference on Signal
Processing and Intelligent
Systems (ICSPIS 2020)

Developing
FPGA-accelerated cloud
applications with SDAccel:
Theory

AHMAD SEDIGH BAROUGHI

EDUCATION

M.Sc. - Electrical Engineering
University of Tabriz, Tabriz, Iran

2018

Supervisor: Jafar Sobhi

Thesis: Design and Implementation of an 8-bit RISC-based micro-controller core with 60-MHz clock frequency and low power consumption

B.Sc. - Electrical Engineering
Shahid Beheshti University, Tehran, Iran

2015

RESEARCH INTERESTS

- FPGA Design
- Accelerated Computing
- Approximate Computing
- Multicore Systems
- Computer Architecture
- Intelligent System Design

PUBLICATIONS

Carry Disregard Approximate Multipliers

IEEE Early Access

IEEE Transactions on Circuits and Systems I: Regular Papers

Nima Amirafshar, Ahmad Sedigh Baroughi, Hadi Shahriar Shahhoseini, and Nima TaheriNejad

High Performance Application-oriented Memory Management on Multi-core Systems

IEEE Indexed

2020 6th Iranian Conference on Signal Processing and Intelligent Systems (ICSPIS)

Ahmad Sedigh Baroughi, and Madjid Naderi
Award: Outstanding Paper

AxE: An Approximate-Exact Multi-Processor System-on-Chip Platform

IEEE Indexed

2022 25th Euromicro Conference on Digital System Design

Ahmad Sedigh Baroughi, Stefan Huemer, Hadi Shahriar Shahhoseini, and Nima TaheriNejad

An Approximate Carry Disregard Multiplier with Improved Mean Relative Error Distance and Probability of Correctness

IEEE Indexed

2022 25th Euromicro Conference on Digital System Design

Nima Amirafshar, Ahmad Sedigh Baroughi, Hadi Shahriar Shahhoseini, and Nima TaheriNejad

WORKSHOPS

Task Scheduling on Mixed-Precision MPSoC
6th Workshop on Approximate Computing

Oct 2021

International Conference on Computer Aided Designs (ICCAD)

WORK EXPERIENCE

FPGA Designer

Part-time

Feb. 2021 to Mar. 2023

Hooshman Accelerator Group

Main duties: Designing digital circuits, simulating, and testing FPGA designs

TEACHING ASSISTANT EXPERIENCES

CMOS Circuit Designs, Layout, and Simulation

Jan 17 - Jun 17

Instructor: Prof. Jafar Sobhi

Responsibilities: Reviewed course content, graded assignment, tutored simulator, and assisted on final project

VLSI Designs

Jan 18 - Jun 18

Instructor: Prof. Jafar Sobhi

Responsibilities: Reviewed course content, graded assignment, tutored simulator, and assisted on final project

Electronics I, and II

Sep 20 - Jun 21

Instructors: Prof. Ahmad Ayatollahi, and Prof. Shahriar Shahhoseini

Responsibilities: Reviewed course content, graded assignments, and assisted on final project

SKILLED SOFTWARE

gem5, Sniper

Multi-core Simulator

Deep Learning, Image Processing, and Parallel Computing Toolboxes

MATLAB

Vivado, Vitis, VitisAI, and ISE

Xilinx

Virtuoso, Genus, and Innovus

Cadence