

RESEARCH INTEREST

- ◆ Digital Signal, Image and Video Processing
- ◆ Digital Watermarking and Steganography
- ◆ Medical Imaging
- ◆ FPGA
- ◆ High Performance Computing and Acceleration
- ◆ GPU and CUDA programming
- ◆ Network Security and Cryptography Algorithms
- ◆ VLSI Design

EDUCATION

M.Sc., Computer Engineering / Computer Architecture

Isfahan University of Technology (IUT), Isfahan, Iran, 2011- 2013

Thesis Title: Robust Adaptive Watermarking and Accelerating Contourlet Transform [19.75/20]

Supervisor: Prof. Shadrokh Samavi

Advisor: Dr. Nader Karimi

GPA: 18.57/20

B.Sc., Computer Engineering / Hardware Engineering

Isfahan University of Technology (IUT), Isfahan, Iran, 2007- 2011

Thesis Title: Robust Digital Image Watermarking in Spatial Domain [20/20]

GPA: 17.55/20

High School Diplomas in Mathematics and Physics

Granted from Iran's National Organization for Development of Exceptional Talents (NODET)

GPA: 19.25/20

PUBLICATIONS

Journal Articles:

- [1] M. Mohrekesh, **S. Azizi**, S. Samavi and S. Shirani "Hierarchical watermarking framework based on analysis of local complexity variations," *Submitted to IEEE Transactions on Information Forensics and Security*, October 2013.

Conference Papers:

- [1] **S. Azizi**, S. Samavi, M. Mohrekesh and S. Shirani, "Cascaded transform space watermarking based on analysis of local entropy variation," *In proceeding of International Conference on Multimedia and Expo Workshops (ICMEW)*, pp. 1-6, San Jose, California, July 2013.
- [2] **S. Azizi**, M. Mohrekesh, S. Samavi, "Hybrid image watermarking using local complexity variations," *In proceeding of Iranian conference on Electrical Engineering (ICEE)*, pp. 1-6, May 2013.
- [3] M. Mohrekesh, **S. Azizi** and S. Samavi, "Accelerating GPU implementation of contourlet transform," *In proceeding of Iranian conference on Machine Vision and Image Processing (MVIP)*, September 2013.
- [4] M. Karimi, M. Mohrekesh, **S. Azizi** and S. Samavi, "Transparent watermarking based on psychovisual properties using neural networks," *In proceeding of Iranian conference on Machine Vision and Image Processing (MVIP)*, September 2013.
- [5] S. Akhavan, N. Karimi, **S. Azizi** and S. Samavi, " Stereo Image Watermarking Method Based on Binocular Just Noticeable Difference ," *Submitted to Iranian conference on Electrical Engineering (ICEE)*, December 2013.

HONORS AND ACHIEVEMENTS

- ◆ Ranked 1st among computer architecture design students in Isfahan University of Technology, 2013.
- ◆ Awarded by IUT's excellent students organization, all semesters of studying, 2007-2013.
- ◆ Received scholarship for the graduate studies in the school of computer engineering, Isfahan University of Technology, 2011.
- ◆ Membership of computer's olympiad team, Isfahan University of Technology, Isfahan, Iran, spring 2011.
- ◆ Ranked 1st among hardware engineering students in Isfahan University of Technology, 2011.
- ◆ Ranked 6th among computer engineering students in Isfahan University of Technology, 2011.
- ◆ Ranked in the upper 0.5% among more than 400,000 applicants in the Iranian nationwide university entrance exam, summer 2007.

TECHNICAL REPORTS AND PROJECTS

- [1] **S. Azizi**, “Robust Adaptive Watermarking and Accelerating Contourlet Transform,” *M.Sc. Thesis*, ECE Dept., Isfahan University of Technology, 2013.
- [2] **S. Azizi**, “A Study on Decimal Fully Parallel and Pipelined Floating Point Multipliers,” *Technical Report*, ECE Dept., Isfahan University of Technology, 2012.
- [3] **S. Azizi**, “Barcode Decoding using Hough Transform,” *Final project of image processing course: Dr. B. Nazari*, ECE Dept., Isfahan University of Technology, 2012.
- [4] **S. Azizi**, “Implementation of Mean Filter using VHDL for Image Blurring,” *Final project of VHDL programming course: Prof. S. Samavi*, ECE Dept., Isfahan University of Technology, 2012.
- [5] **S. Azizi**, “Implementation of FIR Using VHDL for Bandpass Filtering,” *Final Project of VHDL programming course: Prof. S. Samavi*, ECE Dept., Isfahan University of Technology, 2012.
- [6] **S. Azizi**, “Hardware Transactional Memory for GPU Architectures,” *Technical Report*, ECE Dept., Isfahan University of Technology, 2012.
- [7] **S. Azizi**, “Robust Digital Image Watermarking in Spatial Domain,” *B.S. Thesis*, ECE Dept., Isfahan University of Technology, 2011.
- [8] **S. Azizi**, “Design and Analysis of 128x128 Array of SRAM cells,” *Final project of VLSI design course: Dr. K. Bazargan*, ECE Dept., Isfahan University of Technology, 2011.
- [9] **S. Azizi**, “Introduction to Monitoring Systems,” *Technical Report*, Isfahan University of Technology and Behineh Niroo Spadan Engineering Co., 2010.
- [10] **S. Azizi**, “Network Security: Cryptography Algorithms,” *Final project of computer networks course: Dr. P. Khadivi*, ECE Dept., Isfahan University of Technology, 2010.

TEACHING EXPERIENCES

Lab Instructor, Isfahan University of Technology, Iran

- ◆ Undergraduate Course, Computer Architecture, Supervisor: Prof. S. Samavi, 2012- till now
- ◆ Undergraduate Course, Digital System Design II, Supervisor: Dr. N. Karimi, fall 2013

Teaching Assistant, Isfahan University of Technology, Iran

- ◆ Data Communication and Networking, Instructor: Dr. F.S. Tabataba, 2011-2013
- ◆ Data Communication and Networking, Instructor: Dr. A. Jamali, fall 2010
- ◆ Signals and Systems, Instructor: Dr. B. Nazari, 2010-2011

PROFESSIONAL ACTIVITIES

Graduate Research Assistant in Hardware Design and Image Processing Lab (HaDIP)

ECE Dept., Isfahan University of Technology, October 2011 till now

Senior member of Students Scientific Society

ECE Dept., Isfahan University of Technology, 2011-2012

Membership of junior RoboCup team

NODET High School, Isfahan, Iran, June 2003 - April 2006

WORK EXPERIENCE

Behineh Niroo Spadan Engineering Co., Isfahan, Iran, summer 2010

Summer Internship, Supervisor: Dr. Pejman Khadivi

Job-content: Learning LabVIEW graphical development environment and working with MySQL server
Designing a language learning monitor using LabVIEW graphical programming environment.

Ertebatat Payam Mashregh Engineering Co., Isfahan, Iran, December 2013 till now

Computer Engineer, Job-content: Design and Implementation of RFID systems, Application design

PROFESSIONAL SKILLS

Programming Languages and Tools: Pascal, Assembly, C, C++, QBasic, MATLAB, Python, Java, Java Script

Hardware Languages: VHDL, Verilog

EDA Tools: Tanner L-Edit, Xilinx ISE, H-Spice, Cadence OrCAD

Operating Systems: Windows, Linux, MAC OSX

Graphics Tools: Macromedia Flash, Adobe Photoshop, 3D Max

Other Libraries and Tools: OpenCL, CUDA, OpenCV, LabVIEW, Android Programming

ADVANCED COURSES

Evolutionary Computing

Image Processing

Computer Arithmetic

Parallel Processing

VHDL Programming

Advanced Computer Architecture

Advanced Computer Network

VLSI Design

Computational Photography (Online Course)

Heterogeneous Parallel Programming (Online Course)

LANGUAGE SKILLS

Farsi: Native speaker

English: Fluent

TOEFL iBT Score: 96/120 (October 2013)

Reading: 23, Listening: 28, Speaking: 20, Writing: 25

Turkish: Familiar

Arabic: Familiar

REFERENCES

Prof. Shadrokh Samavi

Faculty of ECE Department, Isfahan University of Technology, Isfahan, Iran
Adjunct Professor at ECE Department, McMaster University, Hamilton, Canada
Email: samavi@mcmaster.ca

Dr. Pejman Khadivi

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Dr. Nader Karimi

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Dr. Masoud Reza Hashemi

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Isfahan University of Technology, Isfahan, Iran
Head of IT Center
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