# Khashayar Kamran

School of Electrical and Computer Engineering University of Tehran Tehran, Iran

## RESEARCH INTERESTS

Wireless Communications and Networks Communication Theory, Information Theory and Coding Positioning and Localization Systems **Digital Signal Processing** 

### **EDUCATION**

# School of Electrical and Computer Engineering University of Tehran

B.Sc. Student in Electrical Engineering - Communication Systems 2010 - present

Email: khashayar.kamran@gmail.com

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Tehran, Iran

Expected Graduation Date: June 2015

• Total Passed Credits: 130

• Total Average: 17.21/20

• Grades in Some Related Courses

- Probability and Statistics: 18.5/20

Telecommunication I (Analog Communication): 17.5/20
Telecommunication II (Digital Communication): 17/20

Digital Signal Processing: 16.9/20
Stochastic Processes (M.Sc. course): 18.5/20
Information Theory (M.Sc. course): 16.6/20

- Wireless Multimedia Communication: 17.2/20

- Computer Networks: 17.5/20

### Allameh-Helli Highschool

Tehran. Iran

National Organization for Development of Exceptional Talents

Diploma in Mathematics and Physics Discipline 2006 - 2010

# HONORS & AWARDS

Ranked Among 20% Top Students in the School of Electrical & Computer Engineering, University of Tehran Up to Now

University of Tehran Exceptional Talent Entrance 2010

Ranked 116th Among More Than 87,000 Participants in Iranian National University Entrance Exam (KONKOOR Exam) 2010

Admitted to Allameh-Helli High School (An Eminent High School Managed By National Organization for Development of Exceptional Talents) 2006

# LANGUAGE SKILLS

**Persian:** Native

English:

TOEFL iBT: 107 (Reading: 27, Listening: 30, Speaking: 23, Writing: 27)

GRE: Verbal: 155, Quantitative: 166, Writing: 3

# NOTABLE PROJECTS

B.Sc. Final Project: Indoor Positioning Algorithms on Smart Phones Spring 2014 - present Location: Mobile Communication Systems Laboratory, University of Tehran

Designing and implementing algorithms based on compressive sensing, clustering and particle filtering to have an accurate indoor position on smart phones. We used RSS from WLANs in building and motion sensors in cell phones.

Prof. Lahouti, ECE Department, University of Tehran

Internship: Designing The Digital Communication Laboratory Summer 2013 & Summer 2014 Location: Signal Processing & Communication Systems Laboratory, University of Tehran Designing the Digital Communications Laboratory for the first time in the Department of Electrical Engineering. We worked on subjects like information theory, PCM & sampling, PAM & pulse shaping, ISI & eye diagram, OFDM and digital modulations such as ASK, PSK, FSK in order to put them on lab manuals. We designed a 5 stage lab, each of which inculdes prelab and MATLAB simulations. I also simulated all stages in the process.

### Online Coded Caching methods

Spring 2014

Information Theory Course Project

The project was about Online Coded Caching and its effect on reducing the network traffic rate over crowded links. I simulated caching methods such as LRS (Least Recent Sent) and LRU (Least Recent Used) and analyzed them.

Prof. Lahouti, ECE Department, University of Tehran

### Data Watermarking in Audio Signals

Spring 2014

Real-time Digital Signal Processing Laboratory Course Project

I Studied the methods of data watermarking in audio signals which can be implemented on DSK 6713 boards (A member of TI processors) and successfully implemented a FFT based method on these boards.

# TEACHING EXPERIENCE

Teaching Assistant for Elec-	$ctrical\ Circuit\ Laboratory$	Course	Fall 2012

# Teaching Assistant for Digital Signal Processing Course Spring 2013

Prof. Akhaee, ECE Department, University of Tehran

# Teaching Assistant for Signal and Systems Course Prof. Akhaee, ECE Department, University of Tehran

# Teaching Assistant for *Microprocessor* Course Prof. Fatemi, ECE Department, University of Tehran

# Teaching Assistant for Telecommunication II Course

Prof. Rabiei, ECE Department, University of Tehran

Spring 2014

Winter 2014

# Certificate of Teaching Assistant

Faculty of Engineering TA Workshop, University of Tehran, Iran

### TECHNICAL SKILLS

## **Programming:**

- Proficient in C/C++
- Proficient in MATLAB

### Hardware & Software:

- Proficient in Atmel AVR microcontrollers
- Proficient in Codevision AVR, PSpice and Multisim
- Familiar with NS2 (for simulating communication networks)
- Familiar with C6713 DSK boards

### Typesetting:

• Proficient in LATEX, MS Word, MS PowerPoint & MS Excel

# OTHER ACTIVITIES

Co-Chair, Mechatronics Science Association of the University of Tehran

2013

### **Robotic Competitions**

Competed in Sharif Cup Robotic Tournament

Summer 2012

### HOBBIES AND OTHER INTERESTS

Marketing

Swimming, Hiking and Soccer

Hip Hop & Rock Music

### REFERENCES

**Dr. Farshad Lahouti,** Associated Professor, School of Electrical and Computer Engineering, University of Tehran, Iran.

**Dr. Amir Masoud Rabiei,** Assistant Professor, School of Electrical and Computer Engineering, University of Tehran, Iran.

**Dr. Dariush Bastani**, Assistant Professor, Chemical & Petroleum Engineering Department, Sharif University of Technology, Tehran, Iran.

**Dr. Omid Fatemi,** Assistant Professor, School of Electrical and Computer Engineering, University of Tehran, Iran.

Links to places and people are attached to their names in this document.