Elaheh SADEGHABADI

PERSONAL DATA

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EDUCATION

Sep. 2015-Sep. 2017	Master of Science in ELECTRICAL ENGINEERING | Major: Communication Systems **Sharif University of Technology**, Tehran, Iran | Rank: 432 Thesis: "Asynchronous and Synchronous Massive MIMO Networks: A Stochastic Geometry Approach" | Advisor: Prof. Masoumeh NASIRI-KENARI GPA: 16.63/20
Sep. 2010-Feb. 2015	Bachelor of Science in ELECTRICAL ENGINEERING| Major: Communication **Sharif University of Technology**, Tehran, Iran | Rank: 432 Thesis: "Introduction to Internet of Things and Arduio boards" | Advisor: Prof. Mohammad-Reza PAKRAVAN Overall GPA: 15.67/20, GPA excluding the first two years: 16.54/20

AWARDS AND HONORS

2010	Ranked between the first 1.5% of students in the University Entrance Exam for Undergraduate Studies Around 320,000 students participated in the university entrance examination for undergraduate studies in 2010.

RESEARCH INTEREST

The Fifth Generation of Cellular Mobile Communications
Massive MIMO
Stochastic Geometry
Internet of Things

PUBLICATION

E. Sadeghabadi, S.M. Azimi-Abarghouyi, B. Makki, M. Nasiri-Kenari, "Asynchronous Downlink Massive MIMO Networks: A Stochastic Geometry Approach," submitted on Jun. 2018 in *IEEE Transactions on Wireless Communications* and received **major revision** on Nov. 2018. arxiv.org/pdf/1806.02953.pdf

ACADEMIC PROJECTS

MSc projects

MSc Thesis
ASYNCHRONOUS AND SYNCHRONOUS MASSIVE MIMO NETWORKS: A STOCHASTIC GEOMETRY APPROACH

Inf & Coding Theory
RETRIEVING INFORMATION IN COMMUNICATION NETWORKS USING THE OVERLAPS BETWEEN THE PACKAGES
- Developed an algorithm for retrieving the original sequence.
- Provided an upper bound of error probability of the retrieving algorithm.

Coding Theory
READ-SOLOMON ENCODER AND DECODER SIMULATION

Comm. Seminar
INTRODUCTION TO MASSIVE MIMO SYSTEMS

Mobile Comm.
INTRODUCTION TO CENTRALIZED, CLOUD, COOPERATIVE, COLLABORATIVE, & CLEAN RAN (C-RAN)

BSc projects

BSc Thesis
INTRODUCTION TO INTERNET OF THINGS AND ARDUIO BOARDS

Microwave and Antenna
MODAL ANALYSIS OF RECTANGULAR WAVEGUIDE

Data Network
CREATING WIRELESS ROUTING-SCHEDULING AGENTS WITH OPNET SIMULATOR
- Provided understanding how to create simple agents with OPNET.
- Provided understanding how to implement different layer in OPNET.
- Provided introduction to routing and scheduling algorithm in wireless networks.

EM Field and Waves
ANALYSIS OF ENTERING A WAVE IN A MULTI-LAYERED DIELECTRIC

Wireless Communication
1- SIMULATION OF QUEUING SYSTEM
2- ANALYSIS OF PATH LOSS AND SHADOWING IMPACT

Digital Communication
1- HUFFMAN SOURCE CODING SIMULATION
2- 64-QAM MODULATION AND DEMODULATION AND ANALYZING PULSE SHAPING IMPACT

Digital Signal Processing
1- ANALYSIS OF PERIODIC SIGNALS IN THE FREQUENCY DOMAIN, MODULATION AND DEMODULATION, NON-LINEAR SYSTEMS, THE Z-TRANSFORM, AND 2-D SIGNALS
2- ANALYSIS OF ALIASING IN IMAGE PROCESSING, QUANTIZATION ERROR, AUDIO PROCESSING, AND FILTER BANK
3- INTRODUCTION TO WINDOW DESIGN AND ANALYSIS TOOL, FILTER DESIGN AND ANALYSIS TOOL, FILTER DESIGN USING FILTERBUILDER, AND AUDIO PROCESSING USING SPTOOL FROM MATLAB'S WINTOOL

Computer Structure
CONSTRUCTING A SIMPLE DIGITAL OSCILLOSCOPE

Intro Programming
DATA STRUCTURE USING C++

Work Experience

Fall 2016	TA at Digital Communication Labratory
	Provided introduction to digital modulation, modulated signals, and practical issues.
Summer 2014	Summer Intern at Iran Telecommunication Research Center
	Provided analysis of quality of service in FTTx structures.

Computer Skills

Basic Knowledge:	C++, OPNET, MS project, Excel
Intermediate Knowledge:	Word, PowerPoint, MATLAB, LaTeX

Languages

TOEFL iBT:	Reading: 22 Listening: 22 Speaking: 19 Writing: 25
	Total: 88

References

Masoumeh Nasiri-Kenari
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