# Hassan Ghozlan

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## EDUCATION

**Doctorate of Philosophy,** Electrical Engineering
University of Southern California, Los Angeles, CA, expected Fall 2014
Advisor: Gerhard Kramer
GPA: 4.00

**Master of Science,** Wireless Technology Program
Nile University, Cairo, Egypt, August 2009
Advisors: Hesham El Gamal and Yahya Mohasseb
GPA: 3.87

**Bachelor of Science,** Electrical Engineering
Cairo University, Cairo, Egypt, May 2007
Grade: 88.38% (Rank: Top 2%)

## RESEARCH EXPERIENCE

**University of Southern California** August 2009 - Present
Research Assistant, Communication Sciences Institute (CSI)

- Optical Fiber Communication: developing channel models for communication over optical fiber and analyzing such models from an information-theoretic perspective.
- Phase Noise Channels: analyzing channels corrupted by phase noise from an information-theoretic perspective.

**Nile University** October 2007 - August 2009
Research Assistant, Wireless Intelligent Networks Center (WINC)

- Relaying: analyzing relaying schemes in a wireless communication setup from an information-theoretic perspective.
- WARP: running experiments using the Wireless Open-Access Research Platform (WARP) nodes.

## TEACHING EXPERIENCE

**Technical University of Munich** Summer 2011
Teaching Assistant, Institute for Communications Engineering (LNT)
Data Networks (Lecturer: Prof. Anthony Ephremides, University of Maryland)

## PUBLICATIONS

1. H. Ghozlan and G. Kramer, "*Multi-sample Receivers Increase Information Rates for Wiener Phase Noise Channels*," Global Communications Conference, Atlanta, GA, December 9-13, 2013.
2. H. Ghozlan and G. Kramer, "*On Wiener phase noise channels at high signal-to-noise ratio*," IEEE International Symposium on Information Theory, Istanbul, Turkey, July 7-12, 2013.
3. H. Ghozlan and G. Kramer, "*Interference focusing for simplified optical fiber models with dispersion*," IEEE International Symposium on Information Theory, Saint Petersburg, Russia, July 31-August 5, 2011.

4. H. Ghozlan and G. Kramer, "*Interference focusing for mitigating cross-phase modulation in a simplified optical fiber model*," IEEE International Symposium on Information Theory, Austin, TX, June 13-18, 2010.
5. H. Ghozlan, Y. Mohasseb, H. El Gamal, G. Kramer, "*The MIMO Wireless Switch: Relaying can increase the multiplexing gain*," IEEE International Symposium on Information Theory, Seoul, Korea, June 28-July 3, 2009.

**FELLOWSHIPS AND AWARDS**

- Annenberg Fellowship, University of Southern California, 2009-2013.
- Graduate Fellowship, Nile University, 2007-2009.

**SELECTED COURSEWORK**

Graduate Level: Communication Theory, Computer Networks, Antennas and Wave Propagation, Wireless Communication, Information Theory, Error Correcting Codes, Convex Optimization, Stochastic Network Optimization, Nonlinear Optics, Linear Algebra, Probability Theory, Random Processes.

Undergraduate Level: Digital Logic, Computer Architecture, Linear Circuits, Active Circuit Design, Introduction to VLSI, Linear Systems, Linear Control Systems, Electromagnetics, Digital Communication.

**ACADEMIC SERVICE**

Reviewer for IEEE Transactions on Information Theory, IEEE Transactions on Vehicular Technology, IEEE International Symposium on Information Theory, IEEE Vehicular Technology Conference, IEEE Communications Letters, IEEE Wireless Communications Letters,

**COMPUTER SKILLS**

C/C++, MATLAB.

**REFERENCES**

Available upon request.