

# AYKUT KOÇ

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## Education

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- 2007 – present : **Stanford University, Stanford, CA / USA**  
Doctor of Philosophy (Ph.D.) Candidate in Electrical Engineering  
Cum. GPA: 3.86  
Principal Dissertation Advisor: Professor Lambertus Hesselink  
Associate Advisor: Professor Peter Peumans
- 2007 – present : **Stanford University, Stanford, CA / USA**  
Master of Science (M.S.) in Management Science & Engineering  
Cum. GPA: 3.96
- 2005 – 2007 : **Stanford University, Stanford, CA / USA**  
Master of Science (M.S.) in Electrical Engineering  
Cum. GPA: 3.91  
Advisor: Professor Lambertus Hesselink
- 2001 – 2005 : **Bilkent University, Ankara / Turkey**  
Bachelor of Science (B.S.) in Electrical and Electronics Engineering  
Cum. GPA: 3.94 Rank: 2 / 98  
Advisor: Professor Haldun M. Ozaktas

## Publications

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- **A. Koç**, H. M. Ozaktas, C. Candan, and M. A. Kutay, “*Digital Computation of Linear Canonical Transforms*,” IEEE Trans. Signal Process., vol. 56, no. 6, pp. 2383-2394, Jun. 2008.
- H. M. Ozaktas, **A. Koç**, I. Sari, M. A. Kutay, “*Efficient Computation of Quadratic-Phase Integrals in Optics*,” Opt. Lett. vol. 31, pp. 35-37, Jan. 2006.
- **A. Koç**, X. Yin, L. Hesselink, “*Phase Detection Based Surface Plasmon Resonance Biosensor in Infrared with Increased Sensitivity and Dynamic Range*”, CLEO/QELS 2007 International Conference, Baltimore, USA.

## Professional Services

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- Served as scientific reviewer for the journal *Optics Express*, 2007.
- Served as scientific reviewer for the journal *Applied Optics*, 2008.

## Teaching

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- Teaching Assistant (TA) for EE 366, Fourier Optics (Doctoral Level Course). Responsibilities include co-preparing the exam problems, grading the exams, holding office hours, delivering problem & review sessions.
- Teaching Assistant (TA) for MS&E 241, Economic Analysis (Masters Level Course). Responsibilities include general coordination for remote students of the class via the distant teaching system of the University, holding office hours, preparing and presenting the televised problem sessions, grading homework and exams.

## Employment

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- Summer 2006 – present : Research Assistant (RA) in Electrical Engineering Department
- Summer 2004 : Arcelik (Beko) Inc. – Eskisehir / Turkey  
Summer Internship in Product Development Department
- Summer 2003 : Aselsan Electronic Industries Inc. – Ankara / Turkey  
Summer Internship in Communications Division, Engineering Directorate, Military Communications Systems Engineering Group

## Projects

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- Autumn 2007-2008 : MS&E 211 class project: a constrained regression model to predict credit card expense features.
- Spring 2006-2007 : MS&E 201 class project: developed a model for international stock market contagion problem.
- Winter 2006-2007 : MS&E 241 class project: developed a model for a resource allocation problem and optimized it.
- Fall 2004 - Spring 2005 : Senior Year Research: design of two algorithms for fast computation of Linear Canonical Transform
- Spring 2005 : Design and implementation of 4 Neural Networks for Neural Networks Course
- Fall 2004 : Programming of a DNS Client using Java for Computer Networks Course

## Honors & Awards

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- Stanford University Electrical Engineering Fellowship for graduate study, 2005 - 2006
- Graduation with 2<sup>nd</sup> Rank , Bilkent University Electrical & Electronics Engineering, May 2005
- Republic of Turkey, Ministry of Education Scholarship for undergraduate and graduate studies overseas, 2000
- Full scholarship from Bilkent University Board of Trustees for undergraduate study, 2000 – 2005
- Ranked 22<sup>nd</sup> in the Nationwide University Entrance Exam among 1,500,000 students, 2000
- Valedictorian (rank 1) of class 2000, Eskisehir Kilicoglu Anatolian High School , June 2000

## Selected Course Work

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Modern Optics, Nonlinear Optics, Nano Optics and Grating Photonics, Nanophotonics, Solid-State Physics, Computer Networks, Algorithms & Programming, Economic Analysis, Game Theory, Simulation, Dynamic Systems, Decision Analysis, Accounting, Linear Dynamic Systems, Statistical Signal Processing.

## Skills

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Language Skills : Turkish (native), English (fluent), French (basic)  
Programming Skills : C++, Java, MATLAB, Intel X86 Assembly, PIC programming  
Software Packages : MS Office, CVX, Mathematica, LaTeX, XFig, Magic VLSI Design Tool, Irsim Simulation Tool, MASM