

R. Çağrı Yüzbaşıoğlu

Department of Electrical Engineering
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RESEARCH INTERESTS

Intelligent sensing, optical sensing, pattern recognition, sensor data fusion, target differentiation, sensor-based robotics

EDUCATION

Ph.D. Student in Electrical Engineering, September 2004 – onwards;
Bilkent University, Ankara, Turkey
Dissertation: “TBD”
Advisor: Prof. Billur Barshan

M.S., Electrical Engineering, September 2004
Bilkent University, Ankara, Turkey
Thesis: “Improved range estimation using simple infrared sensors without prior knowledge of surface characteristics”
Advisor: Prof. Billur Barshan

B.S., Electrical Engineering, June 2002
Middle East Technical University, Ankara, Turkey
Senior Project: “The design of a device to follow and “capture” a target”

High School, May 1997
Ankara Fen Lisesi (“Ankara Science High School”), Ankara, Turkey

High School, May 1994
Muğla Anatolian High School, Muğla, Turkey

EMPLOYMENT

Research Assistant **Robotics and Sensing Research Laboratory**
Bilkent University **September 2002 – onwards**
• working on infrared sensing, multi-sensor data fusion, robot base construction

Teaching Assistant **Department of Electrical Engineering**
Bilkent University **September 2002 – onwards**
Assisted Courses: EEE 211 Analog Electronics, MATH 250 Introduction to Probability, EEE 202 Circuit Theory
• worked as a coordinator assistant, prepared laboratory works, homeworks, and quizzes, assisted in lab. sessions and office hours, gave recitations, and graded homeworks, quizzes, term projects, and laboratory reports

Summer Training **VLSI-MEMS Laboratory (METU)**
Ankara **June 2001**
• on design of logic gates and synchronous counter using Cadence and Verilog-HDL

Student Assistant **METU**
Ankara **May 2001**
• assisted in the Electronics Circuits Laboratory, EE 214.

Summer Training **Türk Telekom A.Ş**
Ankara **August 2000**
• on telecommunication.

GRADUATE COURSEWORK	Pattern Recognition, Computer Vision, Neural Network, Digital Image Processing, Digital Coding of Waveforms, Linear System Theory, Telecommunications Electronics, Robotics and Sensing, Digital Signal Processing, Random Processes, Optics, Speech Processing, Antenna Engineering, Convex Analysis
COURSE RELATED PROJECTS	<ul style="list-style-type: none"> • Survey and presentation on multi-sensor fusion • Motion detection in the news videos • Four mini neural network projects for pattern recognition • ECG data compression • Design and implementation of a voltage controlled oscillator • Tutorial and presentation on “SPIHT Coding” • Implementation of the LPC-10 Coding • Presentation of the paper “ The Earth Mover’s Distance as a Metric for Image Retrieval” • Design of an 8-bit FIFO (first-in first-out) register using Xilinx • Design and implementation of 20W power amplifier
HONORS AND AWARDS	<ul style="list-style-type: none"> • Full scholarship awarded by Bilkent University for M.S. and Ph.D. Studies (Tuition waiver + monthly stipend), September 2002 – onwards. • Second best project award in the senior projects contest in Middle East Technical University, June 2002. • Ranked 55th in 1997 nation-wide central University Election Examination (OSS) • Second best score at the graduation from Ankara Science High School, June 1997. • Ranked 28th in the 1994 nation-wide central Science High School Entrance Examination, June 1994. • Best score at the graduation from Muğla Anatolian High School, June 1994. • Ranked 3rd in the Men 3000M Run Final Round, May 1994.
PROFESSIONAL AFFILIATIONS AND ACTIVITIES	<p><i>Reviewer</i></p> <ul style="list-style-type: none"> • Reviewer for the IEEE/RSJ International Conference on Intelligent Robots and Systems, August 2005.
OTHER EXPERIENCES	<p><i>Languages</i></p> <ul style="list-style-type: none"> • Turkish (native) • Fluent English <p>KPDS (State Language Exam): 90 (2004, November)</p>

Computer Skills

Pascal, C, C++, Matlab, Xilinx, Pspice, Assembly, PIC Programming, P/SPICE, and L^AT_EX; UNIX and MS Windows Applications

PUBLICATIONS

- [1] R. Çağrı Yüzbasioğlu and B. Barshan, “Improved range estimation using simple infrared sensors without prior knowledge of surface characteristics,” accepted for publication in **Measurement Science and Technology**, April 2005.
- [2] R. Çağrı Yüzbasioğlu and B. Barshan, “Improved range estimation using simple infrared sensors without prior knowledge of surface characteristics,” submitted to the IEEE/RSJ International Conference on Intelligent Robots and Systems, January 2005.
- [3] R. Çağrı Yüzbasioğlu and B. Barshan, “Kızılberisi algılayıcılardan elde edilen sinyallerle yüzey özelliklerinden bağımsız konum kestirimi,” (“Range estimation using simple infrared sensors without prior knowledge of surface parameters”) Proceedings of the 12th IEEE Conference on Signal Processing, Communications and Applications, in Turkish, pp. 253-256, April 2004, Kuşadası, Aydın, Turkey.

PERSONAL INFORMATION

- Citizenship: Citizen of the Republic of Turkey
- Date/Place of birth: December 12, 1979/Muğla, Turkey
- Marital status: Single

REFERENCES

- Prof. Billur Barshan
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Bilkent University, Bilkent
Ankara TR-06800 Turkey
- Prof. Hayrettin Köymen
Department of Electrical Engineering
Bilkent University, Bilkent
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- Asst. Prof. Arzu Koç
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