R. YAGIZ MUNGAN

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Area of Interests

Hardware and software design for music related applications. Music technology.

Education

Spring 2008 – Present
Chalmers University of Technology, Gothenburg, SWEDEN
Integrated Electronic System Design Programme
- Current GPA: 4.71/5.00

Fall 2004 – Spring 2008
Sabanci University (SU), **Istanbul, TURKEY**
Faculty of Engineering and Natural Sciences (FENS),
BSc on Electronics Engineering (EE)
with Minor Degree in Physics
- GPA: 3.39/4.00

Fall 1997 – Spring 2004
Bornova Anatolian High School (BAL), Izmir, TURKEY
- GPA: 5.00/5.00

Selected Individual Projects

Spring 2010 — **Master Thesis Project:** Algorithmic Composition with Embedded in Virtual Instrument, and its implementation on FPGA.

Spring 2009 — **Third Triad**: A music project where the aim is exploring the vast variety of sounds of virtual instruments and composing music for them.

Summer 2009 — **Hearing Aid Design:** Analog front end circuitry for hearing aid application using STM 90nm technology.

Selected Course Projects[1]

Fall 2009 — **SSY 120 / Introduction to Communications Engineering:** Implementation of a Real Time Decoder for BPSK and QPSK in Matlab.

Spring 2009 — **VTA 160 / Human Response to Sound and Vibration:** Definition Design and Test of Sounds: Rolling Ball, Sad Rolling Ball, Rolling Ball That Makes You Sad.

[1] More information available on my personal webpage

	DAT 095 / Electronic System Design Project: Analog to Digital Converter for Laser Distance Measurement Using 0.35u AMS Technology
	DAT 115 / Data Conversion Techniques: Design of Second Order Sigma/Delta Analog to Digital Converter with Interleaving Scheme in Matlab, Simulink
Fall 2008	**DAT 091 / Introduction to Electronic System Design:** Implementation of Multirate Down-sampler (from 40 KHz to 30 KHz) for Audio in FPGA with VHDL.
Spring 2008	**VA 329 / Photography and Expression:** Documentation Photography. Stop Motion Video. Found Story: Video from Random Photographs from Pawn Shops.
Fall 2007	**ENS 491 / Graduation Project:** Multiband Operating -WLAN (2.4GHz- 5.4GHz) and WiMAX (3.6GHz) RFIC Power Amplifier. Using 0.35u AMS technology
	EL 473 / Biomedical Instrumentation: Simulation of Hodgkin-Huxley Equations for Cell Action Potentials and Propagation in Matlab. ECG Design and Implementation.
	TE 401 / Microwaves: 1-3 GHz Front-end Receiver Design.
Summer 2007	**PROJ 302/Summer Internship:** Automation of Sensor and Catalyst Measuring Station and sensor signal improvement in German Aerospace Center.
Spring 2007	**EL 308/Microcomputer Based System Design:** Chat Program between Two Computers over RS-232.
	EL 310/Hardware Description Languages: Edge Detection of a Picture with Sobel Algorithm using Verilog HDL.
	EL 302 / Digital Integrated Circuits: CMOS Inverter Design, CMOS NAND2 and NOR2 Gates Design, CMOS Edge Triggered D Flip-Flop with asynchronous Set and Reset Design, CMOS SRAM Design using Cadence CAD tool.
	EL 306/Introduction to Radio Frequency & Microwave Design: Quarter-Wave Matching Circuit, Maximum Power Amplifier Design at 1 GHz using ADS and implementing on PC
Fall 2006	**EL 303 / Analog Integrated Circuits:** Active-Filter Tuned Oscillator Design, Second-Order Notch Filter Design, and Two-Stage Op-Amp Design using Cadence CAD tool.
	CS 303 / Logic and Digital System Design: Gate Level Design and Implementation of a Traffic-Light Controller on Spartan FPGA Board
Fall 2005	**ENS 203 / Electronic Circuits 1:** AM Radio Design.

Achievements and Awards

- Recipient of Adlerbertska Hospitiefonden Scholarship (Spring 2009)
- Recipient of Erasmus Internship Grant (Summer 2007)
- Recipient of the Certificates of Honour for 4 terms and Certificate of High Honour for 3 term
- Recipient of SU Merit Scholarship (Fall 2004 – Spring 2008)

Skills

Languages:	Turkish (native), English (GRE: v=490, q =800, a=3.5. TOEFL IBT=108), German (basic),Spanish (basic) and Swedish (basic)

Coding Skills:	MATLAB, C++, Turbo Assembler (TASM), Computer Assembly Language, LabView
Circuit Design Environments:	Cadence, Verilog HDL, VHDL, Xilinx/Modelsim, ADS, Momentum, OrCad Pspice
Other Software Experience:	Adobe Photoshop, Cubase, Guitar Pro, Adobe Dreamweaver, MS Office, MS-DOS, Unix
Working Skills:	Capable of carrying out projects both individually or within a team either as the leader or as a member.

Work Experience

Summer 2007	German Aerospace Center (DLR) –Cologne: Duration 2 months
Summer 2006	Sabanci University Optoelectronics Lab: Duration 3 months

Activities and Interests

- Member of Amnesty International
- Member of the band Offbeat Cortex registered in Chalmers Rock Club
- Participated in photography exhibition in Sabanci University, Fall 2008
- Non-professional jazz&blues guitarist, amateur photographer, amateur short story writer.
- SU Music Club, Fantasy & Science Fiction Club, Cinema Club, Photography Club
- SU Civic Involvement Project, Fall 2004-Spring 2005, Human Rights
- Student-tutor to 14 freshman students