Yigit Suoglu

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Education:

2013 - Present	**Sabanci University, Istanbul, Turkey**
	B.S. Electronics Engineering, 50% Tuition Scholarship
	Current GPA 3.27/4.00, Transcript: suoglu.github.io/misc/Suoglu-Yigit-transcript.pdf

2009 - 2013	**Besiktas Ataturk Anatolian High School, Istanbul, Turkey**

Experience:

Fall 2016	**Undergraduate Teaching Assistant, Sabanci University, Turkey**
	for CS 303, Logic and Digital System Design at Fall Term
	I held weekly office hours, supervised exams and lab sections.

July - August 2016	**Summer Intern, AirTies Wireless Networks, Istanbul, Turkey**

Summer 2015	**Undergraduate Teaching Assistant, Sabanci University, Turkey**
	CS 201, Introduction to Computing (C++)
	I held weekly office hours and helped students learn coding.

Skills:

- **Computer**
  - Cadence Virtuoso
  - Agilent ADS
  - Verilog HDL
  - Xilinx ISE
  - Assembly Language
  - C/C++
  - HTML & CSS
  - JavaScript

- **Language**
  - English: Professional working proficiency
- **Hobbies**
  - Scuba Diving: PADI Advanced Open Water Diver, 1407UB7824

Projects:

- **Sea Clutter Generation and Sensitivity Time Control Function (STC) Implementation on FPGA**

  At this project I used Spartan-3AN starter kit. I implemented a sea clutter generator, using a very simple sea clutter model, and radar interface for generated sea clutter. Furthermore, I implemented a STC module to suppress sea clutter. STC module can be used with external output or on-board sea clutter generator. External inputs were taken from ADC and J20 header. Outputs were send to DAC and J18 header.

- **Visible Light Communication using RGB LEDs and Arduino**

  We built a simple communication system using Arduino Uno, 1w RGB LEDs and RGB colour sensor in 9 days. At this stage our system can send and receive text based massages from one Arduino to another Arduino using visible light. I Led a team of five. (including me)
  For more information check: github.com/suoglu/RGB_data_transfer

- **Implementation of a Doppler Radar on PCB**

  As part of Microwaves course, we designed and implemented a doppler radar on printed circuit board. In our design discrete amplifiers, mixer and filters were used.
  For more information check: suoglu.github.io/misc/Project-Reports/Kara&Suoglu_projectReport.pdf

- **Simple Queue Management System for Bank**

  As a part of Digital Design course we designed a simple queue management system in Verilog and implemented it on BASYS FPGA board. For more information check: github.com/suoglu/Queue-Management-System

- **Two Stage Operational Amplifier**

  As a part of Analog IC course I designed a two stage op-amp with gain of ~79.7 dB and BW of ~905 Hz. Designed amplifier has ~266 μW power consumption, 2.5 V swing rate and ~5.3 V/μs slew rate. Both schematic and layout design made using Cadence Virtuoso with xfab 0.18μ technology. For more information check: suoglu.github.io/misc/Project-Reports/suoglu_two-stage-opamp.pdf

- **Schematic Design of CMOS 4-bit Synchronous Up Counter**

  As a part of Digital IC course I designed a 4-bit Synchronous Up Counter. Designed counter can work with clock frequencies up to 909.09 MHz. Schematic design made using Cadence Virtuoso with AMS 0.35μ technology. For more information check: suoglu.github.io/misc/Project-Reports/yigitsuogluee302Lab5.pdf

- **RF Transistor Amplifier at 990 MHz**

  As a part of RF course I designed a transistor amplifier at 990 MHz using ADS. EM simulation results show acceptable s-parameters between 841 MHz - 1.244 GHz, without constant gain. However produced amplifier does not work. For more information check: suoglu.github.io/misc/Project-Reports/rf-report-yigit.pdf

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Certifications

- Cisco Networking Academy:
  - IT Essentials: suoglu.github.io/misc/Certificates/Cisco-IT-Essentials.jpg
  - Introduction to Cybersecurity: suoglu.github.io/misc/Certificates/Cisco-Int-to-Cybrsec.pdf
  - Introduction to IoT: suoglu.github.io/misc/Certificates/Cisco-Int-to-IoT.pdf
- Turkcell certificates:
  - Arduino 101 & 201 & 301 & 401
  - Web Programming 101 & 201 & 301