**Reza Amani**

4A, Shiloh Way, Greenhithe, Auckland 0632

Mobile: 0223688977

Email: reza.amani@gmail.com

[nz.linkedin.com/pub/reza-amani/49/a16/b1a/](http://ir.linkedin.com/pub/reza-amani/49/a16/b1a/" \o "View public profile)

**Personal statement**

I have years of experience in different fields and positions of electronics engineering from PCB design to system design.

Now, I am looking for a job at any position for rest of my career.

I can confidently make deadlines under pressure. It is normal for me to manage several projects simultaneously, even in different fields and short periods.

I am known to be open-minded; I have special talent to solve problems in unusual ways. Also, I enjoy supporting colleagues specially in debugging their designs.

**Professional skills summary**

Designing a wide variety of analog, digital and mixed systems

Microcontroller hardware design, test and preproduction

Microcontroller software implementing including keypad-LCD user interface, control applications and signal processing

Power supplies; DC-to-DC and AC-to-DC, high power

C & C++

Visual C# (.NET 2010)

Familiar with assembly language programming for high efficiency systems

EMC and EMI considerations during PCB design in order to minimize noise level and interference

Familiar with DSSS, Ad Hoc, RF filters, Microstrip design, DVB, fax standard, watermarking, underwater (acoustic) communication

Familiar with general concepts of data communication via magnetic field

**Capable of performing almost all tasks of electronics projects; including schematic and PCB design, montage, test and debug, production, PC and embedded programming, system design and project management**

**Experience**  **Pardazesh basamad Ltd.** Tehran, Iran 2005-2014

*Project manager, Team leader*

It was an agile, small size, high-tech Company performing R&D projects in the field of electronics and telecommunication. I was manager of these projects there:

* Parking Management/Guidance system

ARM-based smart parking system using wireless and WSN Ad-hoc technologies to control and manage parking and guide incoming cars to nearest empty space, including LED-panels, ultrasonic sensors, wireless links

* Cutting and packing system automation

DSC-based control of a medical packing system using step-motors, SSR, speed controller, PT100 sensors, electronic eyes and encoders, based on Texas Instruments Digital-signal-controllers

* Chemical production line automation

PC-based control of a chemical catalyst production line using different industrial sensors and actuators including ultra-sonic chamber, solenoid valve, fan, heater, pump

* Pharmaceutical coating system automation

Embedded control of a coating system using AC motor, servo-motor, step-motor, SSR and a variety of industrial sensors, based on ARM microcontrollers

* Spectrum monitoring system (VHF, UHF)

Wideband monitoring system capable of searching RF spectrum, intercepting and demodulating analog signals

* Wide band VHF/UHF multi-modulation data/voice transceiver

Multi-band, multi-modulation walkie-talkie design and implementation consisting of RF section (amplifiers, power detector, synthesizer, switches and filters) and Process section (A/D, D/A, DSP, implementing different wireless algorithms)

**Basamad Negar Ltd.** Tehran, Iran 2002-2005

*Project manager, Digital electronics group member*

The company developed a number of laboratory products. I was responsible for design and prototype these projects:

* Acquisition board in a sample rate of 125MS/s

A professional FPGA-based A/D board at high speed and high resolution

* Laboratory impedance analyzer

Prototyping a digital handheld impedance analyzer in LF to HF band for our laboratory usage

* Laboratory SDR platform

An FPGA and DSP-based platform designed for laboratory use in signal processing projects

**Professor Hesabi organization** Tehran, Iran 2000-2002

*Signal processing group member*

I participated in signal processing projects as a general electronics engineer.

My Responsibilities were PCB designing, montage, hardware testing, DSP drivers developing and system evaluating.

* Portable ANC

Designing battery powered active noise canceling system using TMS320VC5502 digital signal processor

**Miscellaneous** **projects**

* Designing a general purpose control system based on microcontrollers for controlling temperature and humidity of food products warehouse

A reliable system able to run complicated algorithms for healing and curing fruits without needing a supervisor, using 4-20mA standard parts

* Designing a 2kW power supply

Using push-pull topology, I implemented an AC-DC power supply with 10 different outputs at various rates of voltage and current. The product is much smaller than similar systems and benefits from higher efficiency.

* Implementing several telephony algorithms including ADPCM, CALLER-ID FSK and DTMF on an embedded system based on TMS320VC5509

I managed to integrate all audio processing functions in a small USB-powered box. It reduced production costs down to 50% in comparison with a china-made competitor.

* Designing hardware, implementing peripheral driver and signal processing program in C and assembly language in several small projects based on TMS320F28335, TMS320VC5XXX, ADSP2XXX and microcontrollers

**Education** **Sharif University of Technology**

*M.Sc. in Electronics Engineering, October 2000*

Overall GPA: 16.65/20.00

Thesis: Debugging method for parallel-processing DSP systems

**Sharif University of Technology**

*B.Sc. in Electronics Engineering, September 1998*

Overall GPA: 16.16/20.00

Final project: Implementing a narrowband FSK transceiver

**Computer skills** Microsoft office Altium/DXP/Protel 99SE

Keil uvision Microsoft C#

TI code composer Microsoft VC++

Xilinx ISE Analog Devices simulation programs

Code Vision AWR (RF simulation)

Many other professional programs…

**Honors/Awards** 3 silver medals from physics, mathematics and computer students Olympiads, 1993

2nd place in university scientific competitions among 150 students, 1998

8th place in national electrical/electronic engineering Olympiad, 2000

**Outside Interests** Chess (international rated player, Fide Rating: 1624), Team sports, Bush-walking, Classical music, psychology

Referees available on request