**Reza Amani** Shiloh Way, Greenhithe, Auckland 0632

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Summary

Electronics engineer with more than 10 years’ experience in a variety of positions and fields, including RF and analog circuit design and simulation, test and debug with a great track record of accomplishing projects within limited budget and time.

Technical skills

* Designing RF modules by MMIC’s; Synthesisers, mixer, splitter, switch, LNA, etc.
* Simulating and optimising RF blocks by AWR
* Testing and evaluating RF modules
* Designing high-power RF amplifiers
* Using micro strip and discrete techniques
* Deploying RF test equipment such as spectrum-analyser
* Implementing wireless links
* Designing spread-spectrum links
* Analogue, digital and mixed systems
* Microcontroller hardware and software
* Power supplies
* C, C++ and assembly
* Test and debug
* Schematic and PCB
* EMC and EMI
* Noise source identification
* Shielding and grounding
* PCB layout considerations for reducing interference and noise
* system design
* Training customers and writing manuals
* Serial and wireless communication standards like RS485, RS232 and ZigBee
* Analogue circuits simulation
* Developing communication protocols

Soft Skills

**Problem solver:** Actively seeking and resolving technical and operational problems.

**Teamwork:** Extensive experience in team projects at different levels including small team leadership.

**Independent:** Able to work without being supervised; with preference for handle barriers in person.

**Supporter:** Eager to mentor colleagues and help them to debug their works.

**Computer:** Working with basic programs such as Microsoft Project, Word, Excel and PowerPoint.

**Time management:** committed to do the job in time with prioritising tasks, working with a fast pace or even over-working.

**Language skills:** Writing concisely, excellent at reading especially technical texts.

**Documentation:** Excellent at reading and making technical reports, manuals, troubleshooters, etc.

**Hands-on Engineering:** Involving closely and directly in all tasks of projects.

Attributes

* Action-oriented
* Co-operative
* Decisive
* Open-minded
* Organised
* Perfectionist
* Detail-oriented
* Tolerant
* Can-do attitude
* Willing to learn, quick to pick up new skills
* Creative
* Calm
* Logical thinker
* Avid traveller
* Seeking out new responsibilities regardless of reward

Experience

**Embedded designer, RF designer, Analogue designer, Project manager** 2005-2015

**Pardazesh Basamad Ltd.**

An agile, small size, high-tech Company performing control and R&D projects

Responsibilities:

* Designing wide-band transceivers in sub-GHz bands
* Performing link budget and power budget calculations and other RF parameters
* Designing and implementing serial protocols for wireless projects
* Choosing and deploying MMIC’s as building blocks for RF projects
* Simulating RF blocks using AWR
* Implementing sub-GHz filters with discrete parts
* Collaborating in RADAR conceptual design
* Drawing PCB for micro-strip circuits; on RO-4003 and FR-4 material
* Mentoring juniors; to use full capabilities of test equipment
* Introducing a new implementation of FH spread-spectrum technique
* key component selection for discrete projects
* Professional testing and evaluating radio systems
* Designing hardware; schematic and PCB
* Programming embedded systems with C
* Developing simple GUI for control applications with visual C#
* Making technical reports and delivering
* Proof-of-Principle, Form Study and/or functional prototyping
* Replacing RS-232 and RS-485 communication with ISM-band wireless modules in some old control systems
* Designing, implementing and testing to meet military environment requirements

Achievements:

* Suggested a new communication system in a parking management/guidance system, led to wiring costs being halved; using WSN, Ad-Hoc and wireless technologies
* Introduced a new idea of combining MAC and PHY layers in a frequency-hopping Ad-Hoc radio with a state-of-the-art robust routing algorithm
* Eye-catching records of budget and delivery time for R&D projects
* Proposed and developed an innovative FH wireless link for remote-controlling a UAV, robust against interference, interception and jamming
* Successfully managed to develop a tele-communication product following some of “Mil-std-810A” and “Mil-std-810G part two” rules and methods
* Built a broad-band power meter with full range of 500W for testing our high-power amplifier products in steady-state and evaluating them in transients; 200MHz-2GHz

**Electronics engineer, Driver/Firmware developer** 2002-2005

**Basamad Negar Ltd.**

Developer of laboratory and broadcast products

Responsibilities:

* Hardware designing; schematic and PCB
* Developing peripheral drivers for DSP and microcontroller in C and assembly
* Designing signal processing algorithms
* Designing and testing analogue interfaces and high precision circuits
* Simulating and optimising high-frequency analogue circuits
* Proof-of-Principle, Form Study and/or functional prototyping
* Planning and teaching costumers training courses

Achievements:

* Break the record of 100MS/s sampling rate and 13.5 ENOB with an acquisition board
* Cut the hardware cost of future projects by 80% suggesting and developing a general purpose SDR platform

**Signal processing group member** 2000-2002

**Professor Hesabi organization (NGO)**

A scientific and research non-governmental organization

Responsibilities:

* PCB design, montage, primary tests
* Developing DSP drivers with assembly
* System test and evaluating

Achievement:

* Part of team succeed to develop a portable battery-powered Active-noise-controller

Education

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

**Sharif University of Technology**

Thesis: Debugging method for parallel-processing DSP systems

Implemented in a platform consisting 4 microprocessors

Main courses: EMC, Advanced electronics, Mixed-mode systems

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

**Sharif University of Technology**

Final project: Implementing a narrowband FSK transceiver

Main courses: Applied electronics, High frequency electronics, Integrated circuits applications laboratory

Computer Skills

AWR; microwave office

Altium/DXP/Protel 99SE

Keil uvision and code vision

Analog Devices simulation programs

Microsoft office

Microsoft project

TI code composer

Microsoft Visual Studio (.NET 2013)

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 (Fide Rating: 1624, North shore club team member) Team sports

Hiking Classical music

Psychology Travelling

Referees

Available on request

\*Referees available on request