

Reza Amani

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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
- 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
- PCB layout considerations for reducing interference and noise
- system design
- Training customers and writing manuals
- 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.

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

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

Attributes

- Action-oriented
- Co-operative
- Decisive
- Open-minded
- Organised
- Detail-oriented
- 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
- Drawing PCB for micro-strip circuits; on RO-4003 and FR-4 material
- 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
- 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
- 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
- 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

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
Sharif University of Technology

2000

B.Sc. in Electronics Engineering
Sharif University of Technology

1998

Computer Skills

AWR; microwave office
Keil uvision and code vision
Microsoft office

Altium/DXP/Protel 99SE
Analog Devices simulation programs
Microsoft project

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)
Hiking
Psychology

Team sports
Classical music
Travelling

*Referees available on request