

# ALI M. AL-SAQQA

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Gaza City • Palestine

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## CAREER OBJECTIVE

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Seeking a challenging R&D position in a global organization, with the opportunity to utilize my strong quantitative, analytical, teamwork, and multitasking skills.

## AREAS OF INTEREST / KNOWLEDGE

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### *Computer / Embedded Systems*

- Hardware/Software co-design of embedded systems & SOC's using MCUs, DSPs, ASICs, FPGAs, etc.

### *Cryptography and Information Technology*

- Cryptography and Cryptanalysis, DES, RSA, AES, SHA, MD5, etc.

### *Digital Signal Processing*

- Signals acquisition, DSP algorithms (FFT, DFT, Filtering, Noise Cancellation, etc).

### *Telecommunications and Mobile Computing*

- Cellular networks (GSM, GPRS, CDMA), Short Range Radio (Bluetooth, IR) and IP-Networks.

### *Quantum Computing*

- Quantum Logic, Quantum Algorithms and Topological Quantum Computing.

## WORK EXPERIENCE

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Transmission Planning Engineer, Jawwal Cellular Co., Palestine

[Jun. 2009 – present]

- Network dimensioning using CONNECT 5.2.
- Precisely prepared short and long term network expansion plans in minimal time and within budget, with deeply-detailed bill of quantities.
- Designing disaster-plans; minimizing effects of sudden-cut in fiber links by utilizing geographic distribution and minimum-hop concepts in existing transmission network.
- Microwave planning for Ericsson Mini Link E with: microwave hop analysis, terrain analysis, equipment selection, frequency planning, interference analysis and High Low conflict analysis.

## TRAINING

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- Mini Link TN Operation & Maintenance, Gothenburg, Sweden. [Nov. 2010]
- Mini Link TN Planning, Ericsson, Gothenburg, Sweden. [Nov. 2010]
- A 30 hours course on Electrical Drawings' Calculations. [Apr. 2009]

## EDUCATION

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- B.Sc in Electrical Engineering, University of Gaza (GPA: 3.45). [Mar. 2009]

## RELEVANT COURSES

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- Analog & Digital Electronics || Digital Systems Design [using VHDL] || Digital Logic || Cryptography || Digital Signal Processing || MCU Programming || Digital Communication.

## COMPUTER SKILLS

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### Platforms:

- Mini Link E || Texas Instruments' C6711 DSP || PIC MCUs (16F84A, 16F877A, etc).

### OSs:

- Windows (98 through 7) || Linux (Fedora Core, Ubuntu).

### Programming Languages / HDLs:

- C/ C++ || Java || VHDL || Visual Basic || ASM (x86) || ASM (PIC) || PERL || HTML.

### Software Packages:

#### *Telecommunication*

- Aircom Enterprise 5.2 || Mentum Planet 4.5 || TEMS 8.1 || NetMan.

#### *Science and Engineering*

- OrCad || AutoCAD || MATLAB || LabView || Proteus || PicSimulatorIDE || PCAAD || NEC-WIN || COMSOL Multiphysics.

#### *Programming IDEs*

- MPLab || ActiveHDL || JCreator || NetBeans || Eclipse || WinASM || MS Visual Studio.

#### *Software Reverse Engineering*

- OllyDBG || Hex Workshop || Hiew || Imprec || LordPE || File Monitor || W32Dasm.

## RELEVANT PROJECTS

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### *X-10 Protocol*

- Lead a group implementing this PLC protocol on PIC16F877A, using ASM.

### *Protecting Softwares using Hardware Chips*

- I have used PIC microcontrollers to protect VB software, the PIC acts as a hardware 'dongle'.

## LANGUAGES

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- Arabic : Mother Tongue
- English : Near Fluent

## AFFILIATIONS & ASSOCIATIONS

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- Palestinian Engineers' Association.
- Arab Translators Network, ATN (Credential #: 10694).