

Chao WANG

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[Http://www.chao-wang.com](http://www.chao-wang.com)

English : advanced level (TOIEC 745)
Chinese: mother language
French : advanced level (diploma in French)

PhD of Microelectronics

École Polytechnique Fédérale de Lausanne (EPFL)

2007 – now Neuchâtel, Switzerland

- **Project 1: Analog IC design**

<http://esplab.epfl.ch/page-9445-fr.html>

Low power OPAMP, CMOS photon sensor, ADC, CAD tools: cadence

4-chip individual design experiences, including **schematics-layout-verification-packaging-PCB-test**

Motion detection and data acquisition system, VHDL/FPGA, LabView, Altium, Matlab

Ref: Wang, C., Tanner, S., Farine, P., "A speckle-based CMOS sensor array for arbitrary surface movement detection," SPIE Vol. 8069, 80690Z (2011).

- **Project 2: Microprocessor (Micro-blaze lite) design for spatial application**

Floating point unit (FPU) VHDL design, System integration, simulation and test

Master of Microelectronics (French Eng. degree)

École Nationale Supérieure des Mines de St-Etienne(EMSE)

2004–2007 Gardanne, France

Centre Microélectronique de Provence – Georges Charpak(CMPGC)

<http://www.emse.fr/>

Option in Microelectronics Designing

VHDL/ FPGA, SystemC, C/C++

Architecture of Microprocessor

Analog IC Design

CAD Tools: Cadence, Synopsys

Processes of Semiconductor Fabrication

General Skills in hardware/software/system

Embedded Systems, μ c C51/PIC,

Labview, JAVA, VB, VC, Perl, Data Basis,

LEX & YACC, UML

Automatics

DSP, Radio Communication

General Skills in

management

Accounting

project management

risk control

communications

- **Internship 1: STMicroelectronics Geneva** <http://www.st.com/> 3/2007-9/2007 Geneva, Switzerland

Develop a bit-true simulation chain (testbench) for transmitter UWB (Ultra Wide Band)

Test and optimization for sub-modules (in SystemC)

Develop an interface (in Perl/tk) for simplifying the development process

- **Internship 2: Industrial Project for INTERSCIENCE** <http://www.interscience.fr/> 3/2006-6/2006 Gardanne, France

Design an embedded System for motion control, motors being synchronized by several microcontrollers.

Assembly and C language programming for motion control, SPI communication...

- **Internship 3: STMicroelectronics Rousset** <http://www.st.com/> 5/2005-9/2005 Rousset, France

Study the aging of the etching machine for semiconductor fabrication (statistical process control).

Collect and study (Matlab) all the running dates of the machine for about 4 months.

Bachelor's Degree of Engineering

Nanjing University of Science & Technology (NUST)

2000-2004 Nanjing, China

- **Major in Environment and Equipment of Buildings**

<http://www.njust.edu.cn/>

Civil/ power engineering, mechanics, AutoCAD, fluid dynamics, heat & mass transfer, motors, clean room

Other skills

Web design/programming: Dreamweaver/fireworks, Php/css/MySQL, wordpress, server apache/nginx, Ref: <http://qinpex.com/>, <http://acssn.ch/>

Business plan/project management: Experiences of organizing social activities: Flash motion pictures design/ Business plan competitions