

PERSONAL DETAILS

Rafael Vidal Rodriguez

27th of March, 1977

Spanish, Single

C/Principal, nº11, Urb. Jardin de Serracines, Serracines, Madrid, Spain .

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PROFESSIONAL PROFILE

Expert on instrumentation and high precision electronics, sensor and signal conditioning.

9 years experience on the development of related products, chiefly for the medical industry.

Thorough knowledge of EMC and interference, DSP based architecture developments, microcontrollers and FPGAs, as well as overall and detailed design of complete systems.

Strong solving problems skills, and leadership capacity.

EDUCATION

2007 - 2010. Advanced Electronic Systems Official Postgraduate Masters Degree (MEng equivalent), Aneca quality mention for the 2007-2008 academic year (MCD2006/00373), University of Alcalá de Henares. Project on Motor Speed detection through its current harmonics. First class grade.

2000 - 2001. Bioengineering and Telemedicine Masters of Science Degree (Msc. equivalent), University of Alcalá de Henares. First class grade.

1995 - 2000. Telecommunication Engineering (BEng Hons equivalent), speciality on Electronic Systems, first class grade with Distinction, University of Alcalá de Henares. Project on quantum interference magnetometers (SQUID), applied to Magnetocardiography.

SKILLS

1. Languages: Spanish (mother tongue), English (written and spoken), Italian (basic).
2. Software:
 - Operating Systems: Windows, Linux.
 - Circuit Design and Simulation: Orcad, Pspice.
 - Code Programming: C, VHDL, Assembly.
 - Engineering Software: Matlab, Labwindows.
3. Electronics: Expert on instrumentation electronics. Thorough analogue and digital electronics knowledge. PCB routing. EMC and interference. Analogue and digital filtering. Architecture development using microcontrollers, FPGAs and DSPs.

WORK EXPERIENCE

August 2010 – Present.

I work as self-employed freelance entrepreneur. I develop electronics related to sensor and signal conditioning, and high precision electronics.

June 2005 – February 2010.

I worked at Sedecal, a leading company in the X-ray industry. Part of the R&D department, I developed hardware for machines both X-ray and other. Among the different projects of the department, I was responsible for the equipment for bone marrow treatment through ozone.

April 2004 - June 2005.

I worked as self-employed freelance entrepreneur, designing and developing electromyography equipment for the neurology services of public and private hospitals. I gained more experience on small signal amplifier stage design, as well as customer relations and any other tasks that being self-employed entails.

September 2001 – April 2004.

Permanent position at the neurology company Oxford Instruments. Part of the medical division, I worked on the development of instrumentation equipment for bioengineering and amplifier stages for brain and nervous system voltage levels.

January 2001 - September 2001.

Bioelectromagnetism and Health Sciences; European Foundation (FEB). Team Leader for mobile phone radiation measurements.

PATENTS

Patent: A self-calibrating low cost Inclinometer made with two accelerometers. 360° measuring capability and 0.01° resolution. Inventor: Rafael Vidal; Assignee: SEDECAL. PCT/ES2011/070010

Patent: An ultra-light device made with composite materials to aid people with walking disabilities. Inventor: Rafael Vidal; Assignee: Rafael Vidal. PCT/ES2010/070793

Patent pending: A new method for ozone concentration measurement, based on yellow light absorption spectra in the Chappuis region. Inventor: Rafael Vidal; Assignee: SEDECAL.

ADDITIONAL

Remarkable creativity, interest in research, good sense of humour.