CURRICULUM VITAE

Personal details:

Francesco Damiani



Education:

- ✓ Feb 2000. Degree in Electronic Engineering at Pisa University in Italy.
- ✓ 2002. Training course about 'Innovation Management' at Scuola Superiore Sant'Anna, Pisa ITALY.
- ✓ Languages: Native speaker Italian, English advanced, IELTS 6.5 (R6, L6.5, W6, S7) at Navitas English Sydney NSW Australia, Advanced Certificate at Sydney College of English, Sydney NSW Australia.

Employment:

- ◆ Dic-2012 Now. Full time collaboration with Scuola Scuola Superiore Sant'Anna working on several European projects. In charge of developing electronic control systems for wave energy conversion and reneawable energy devices. Design of Real time control. Hardware In the Loop prototyping (mainly based on Speedgoat and Beckhoff platform). Power electronic design. Experimental equipment design.
- ◆ Oct-2009 Feb-2012. Full time work at Drass Underwater Technology. I was in charge of automation design for diving systems and hyperbaric chambers. http://www.drass.it/ Automation and control for life support systems. Functional safety norms such as IEC61508. SCADA,HMI.

- ♦ Oct-2002 Oct-2009. Full time collaboration with ARTS (Advanced Robotics Research Center) of Scuola Superiore Sant'Anna in Pontedera (PI) Italy. Electronic designer for research. Electronic solutions for robotics mechatronics and microrobotics research. PCB design, microcontrollers programming. I also published some scientific papers and patent.
- → Jun-2000 Oct-2002. Full time work at ST microelectronics in Agrate
 Brianza (MI) Italy working as test engineer. ST Microelectronics is the
 biggest microelectronics producer in Italy. I was involved in microchip
 automatic testing and production data analysis.
- ◆ Feb-2000 Jun-2000. Full time collaboration at Protecno srl in Pisa (PI) (aka Teslab) Italy as electro-magnetic compatibility and electrical safety consultant.
- ◆ Aug-1999 Feb-2000. Part time collaboration at the electronic lab of Electric Systems and Automation Department at Pisa University as electronic technician. Design and assembly of PCB for motion control.

Skills:

Automation and control: experience of automatic control systems design and commissioning. PLC, HMI, SCADA (Siemens, Omron, Beckhoff), Real time targhets (cRIO, Speedgoat, ServoToGo, dSpace, UEISIM). Good knowledge on instrumentation and actuators. Functional safety oriented automation (EC61508). Automation products Kollmorghen, LinMot, Faulhaber, Elmo, Maxon. Fieldbus Profinet EtherCat Modbus.

<u>Robotics</u>: Robots control. Autonomous navigation, obstacle avoidance and robots cooperation. Autonomous marine robots. Underwater robotics.

<u>Electronics</u>: microelectronic silicon device testing. Good knowledge of electro-magnetic compatibility and electrical safety EU regulations and norms. Experience in electronic measurements. Microcontrollers

programming. Electronic circuit design, simulation and prototyping. Orcad Cadence. PLC, SCDA. Real time targets. Hardware in the loop.

Scientific publications:

"A micro flow-meter for closed-loop management of biological samples" D.Accoto, F.Damiani, M.Campisi, P.Castrataro, D.Campolo, E.Guglielmelli, P.Dario. Engineering in Medicine and Biology Proceedings.

"A soft-lithographed chaotic electrokinetic micromixer for efficient chemical reactions in lab-on-chips" M.Campisi, D.Accoto, F.Damiani, P.Dario.

"A slip sensor for biorobotics applications using a hot wire anemometry approach" D.Accoto, R.Sahai, F.Damiani, D.Campolo, E.Guglielmelli, P.Dario

"A mechatronic toy for measuring infants' grasping development"
Cecchi, F.; Serio, S.M.; Perego, P.; Mattoli, V.; Damiani, F.; Laschi, C.; Dario, P.

"A thermal slip sensor for biorobotic applications"

D. Accoto, F. Damiani, R. Sahai, D. Campolo, E. Guglielmelli, P. Dario

Patents

FI2006A000185

'Dispositivo microfluidico per generare elettrocineticamente moti convettivi' (Microfluidic device for electrokinetic generation of convection) D.Accoto, M.Campisi, F.Damiani, P.Dario.

102016000130691

'Generatore da moto ondoso basato su un elastomero dielettrico con compensazione di rigidezza' Marco Fontana, Luca Daniele, Giacomo Moretti, Rocco Vertechy, Boris Teillant, Miguel Vicente, Antonio Sarmento, David Forehand, David Ingram, Francesco Damiani, Michele Righi.

European Projects Collaborations

- WetFeet (http://www.wetfeet.eu/)
- Polywec (http://www.polywec.org/)
- Hydronet (http://www.hydronet-project.eu/)
- TACT (http://tact.unicampus.it/index.aspx)
- NINIVE (http://cordis.europa.eu/result/rcn/50369 en.html)
- Neurobotics
- Good-Food

Other Projects Collaborations

- Wave Energy Scotland project
- SUONO (italian project)
- Eolo (Regional project)

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Livorno 18/10/2016

Francesco Damiani