GIUSEPPE CONTE
CONTROL ENGINEER

	Personal information
First name / Surname	**Giuseppe Conte**
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Nationality	Italian
Date of birth	October, 01st 1982

BRANCHES OF INDUSTRY

☞ Nuclear Fusion Energy

☞ Power Supplies

☞ Industrial automation

☞ Web services

INTERVENTION LEVEL

☞ Software development and testing

☞ Control and instrumentation

☞ Closed loop control systems, simulation and design

☞ Embedded & real time systems

☞ Commissioning engineering

TECHNICAL SKILLS

Languages/Tools

C, C++, Java, Delphi, Visual Basic, Matlab/Simulink, Python, Labview, VHDL, ModelSim, Quartus, Code Composer Studio, Assembly, Step7, WinCC, Rslogix, UML, HTML, PHP, SQL

TCP/IP, HTTP, Profibus, Profinet, CAN, SSH

Linux, Unix, Windows, Macintosh, VxWorks, Linux RT, Solaris, uLinux.

EXPERIENCES & ACHIEVEMENTS

Jul 2009 – now	**GCENGINEERING CONSULTING** CPLD Engineer
	CPLD design and programming for a large I/Os protection system. I work for JET (Joint European Torus) as External contractor, implementing the logic of a fast protection card on Altera CPLD Max II. The protection card is to protect and control the new Neutral Beam Power Supply to be commissioned at Culham Science Centre in September
2007 – Jul 2009	**UKAEA (UNITED KINGDOM ATOMIC ENERGY AUTHORITY)** Control and Intrumentation Engineer
	Design, validation and maintenance of big pulsed power amplifiers control systems (12 kV, 5 kA). I work at JET (Joint European Torus). It is one of the biggest experimental Tokamaks in the world for Nuclear Fusion research. I work in the Power Supply Engineering and Analysis group and I have been involved in several projects on the design and implementation of data acquisition systems. I have been working on the design of the control system for the new ERFA power supply. It is the Fast Radial Field Amplifier to be used to stabilize the plasma vertical position in ITER-like scenarios. I have been responsible for some communication interfaces and I have been following the overall design/manufacturing/commissioning of the amplifier. I have designed several test data acquisition systems based on Labview applications. I have designed a fast protection card using Altera Cyclone II FPGA. The Card is a critical bit of the protection system for the Neutral Beam Power

	Supply. Recently, I was qualified as "Power Supply Engineer Operator". During the experimenting campaign I am then responsible of the Power Supplies operations, driving the machines and the operators from the JET control room. Design, simulation, PLC, FPGA, DSP, programming.
2006-2007	**CERN (GENEVA)** Control Engineer
	Design and implementation of stepping motors control system for LHC (Large Hadron Collider) collimation. Hardware and software design of data acquisition systems, measurement instrumentation and control systems. I worked for AB-ATB-LPE in the team responsible of the LHC collimators low level control. I was involved in the optimization of stepper motor drivers in order to meet the LHC collimation requirements. I designed the de-ringing filter that equips the drivers actually installed and made the motor control working even with 800m long cables. My work was focused on the study, design and implementation of the collimation stepping motor control system, based on an innovative DSP based motor driver explicitly suited for LHC collimation.
2006 - now	**WEB SERVICES FREELANCE** Software Engineer
	Web services design, consulting. Design and implementation of an automatic advertisements system based on monitors connected to the network. The system is linux based and the backend webapplication is developed in ActionScript 2 and PHP (customer: Banca di Credito Cooperativo del Pollino) Dynamical websites based on PHP/MySQL for holiday bookings, e-commerce. Joomla based websites. Developing of a PHP/MySQL proprietary CMS to be used for easy webdeveloping.

EDUCATION

☞ *2007* Master degree in "Ingegneria dell'Automazione". University of Naples "Federico II" (Italy). Graduated with 109/110. Master Thesis carried out at CERN (Geneva): "Control optimization of the LHC collimators stepping motor drivers ".

☞ 2005/2006 Erasmus student at "Lund Institute of Technology" (Sweden), Automatic Control Department.

☞ 2004 Bachelor degree in "Ingegneria dell'Automazione". University of Naples "Federico II" (Italy). Graduated with 109/110. Thesis: "Control and supervision of an industrial roller".

TRAINING

☞ Advanced VHDL for FPGA programming , Bornemouth , July14th/18th 2008

☞ High Voltage Engineering and Testing IET summer school, Newcastle, July 07th/11th 2008

☞ Management and Leadership Peter Metcalf 6 session course, Culham Sience Centre

☞ Seminar about FLUX, finite elements software for electromagnetic and thermal motor analysis

☞ Summer course B.E.S.T. "Get PLUGGED: Ways of interconnection (wired mobile and optical telecommunication)", Brasov – Romania, July 25th / August 8th 2004

☞ Swedish Language course at Folkuniversitetet Lunds Universitetet, August 2005

SCIENTIFIC PUBLICATIONS

☞ Conte, G. (con Masi, A. Losito, R. Martino, M.) DSP-Based Stepping Motor Drivers for the LHC Collimators, In Nuclear Science, IEEE Transactions on Feb. 2008, Volume: 55 , Issue: 1 , Part 1, pp. 341 – 348

OTHER EXPERIENCES

☞ Vicepresident of "VOLTAlaCARTA" no-profit association.

☞ Art director of "Radicifestival" world music festival, Viggianello (Italy) in the summer.

☞ IT responsible of "Pro Loco" Association of Viggianello (Italy).

☞ Graphic designer for a magazine "Elianto".

☞ Tenor in the chorus "I CantaCantica".

☞ Trumpet major in a brass band since 1993 till 2001 .

☞ Actor in the theatrical group "momentaneamente instabile".

LANGUAGES

- ☞ English: proficient
- ☞ Spanish: basic
- ☞ Swedish: basic
- ☞ French: basic

Last Update: October 2009

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