CURRICULUM VITÆ

Pietro Meschini, MEng

Email: pietro.mesch@gmail.com
Skype: pietro.mesch
Mobile: UK +44 7810524556
ITA +39 3472602042

Date of Birth: 20th July 1989

Address: Via Carlo Pascal 10
00167 Roma
ITALY

Profile

Problem solver and quick learner, practical, resilient and resourceful.
Master of Aerospace Engineering (Hons), excellent at understanding problems in context and finding solutions in view of the *big picture*. Friendly and helpful, capable of working effectively in complete autonomy or as part of a team. Equally good at careful planning and improvisation.

Current Employment

SEP 2014-PRESENT Software Engineer at **PTV SISTeMA** – Intelligent Transport Systems
Modelling, Simulation and Routing division
Lungotevere Portuense 158 - 00153 Roma – ITALY

Traffic Signal Optimisation for real-time adaptive Urban Traffic Control systems.
Programming and code maintenance in VB.NET and Java.
PostgreSQL database organisation and maintenance. PostgreSQL and Batch scripting.
Multi-language software documentation drafting and revision.

STARTED NOV 2015 PhD in Transport Engineering at University of Rome – La Sapienza
In collaboration and with the support of PTV – SISTeMA Intelligent Transport Systems
Traffic Signal Optimisation for real-time adaptive Urban Traffic Control systems.

Professional Experience

JUN-DEC 2013 SAFAR – Small Aircraft Future Avionics aRchitecture project (Master Thesis)
Final year Aeronautical Engineering MEng project in collaboration with:
Institut für Luftfahrtsysteme (aircraft systems)
Institut für Flugmechanik und Flugregelung (flight mechanics and control)
Universität Stuttgart, 70569 Stuttgart (Vaihingen) – DEUTSCHLAND

Design and implementation of a comprehensive landing gear model to be integrated in the full aircraft physical model of the Diamond DA-42 TwinStar, used in simulation testing of real-time control systems within the scope of the SAFAR project.
Extensive research in the field of tire modelling, suspension and brake system analysis, leading to the development of MATLAB and Simulink code optimised for real-time execution; model parameter and model output reliability assessment;
integration with OpenGL / X-Plane for real time visualisation.

JUN-SEP 2012 IAESTE Praktikum – Voluntary international placement
Universität Stuttgart - Institut für Luftfahrtsysteme (aircraft systems)
Pfaffenwaldring 31 - 70569 Stuttgart (Vaihingen) – DEUTSCHLAND

Development and simulation testing of an aircraft Cabin Pressure Control Unit.
Coding mainly in C for ARINC 653 (APEX). Elements of Java.
Subsequent development of documentation and didactic material for use in the University of Stuttgart Avionics course.

Education

2017-2018 Università degli studi Roma la Sapienza –Master 24 CFU for national Teachers Exam
Mathematics and Physics Didactics courses, psychology of learning and pedagogy.

2009-2014 University of Glasgow, School of Engineering – Aeronautical Engineering MEng
University Avenue, Glasgow G12 8QQ, United Kingdom

Graduation July 2014, Master of Engineering with Honours of the second class, first division.
Dean's List (top 10% students of the year) award achieved for academic year 2010/2011.

Subjects: aeronautical and interdisciplinary design projects, consistent A grades.
Aircraft handling qualities and control, flight testing laboratory with Cranfield University.
Aeroelastic effects on fixed and rotary wing aircraft, advanced rotorcraft aeromechanics.
Science of structures and materials, composite material properties & technology, FEA.

Autonomous vehicle guidance, multi-objective mathematical optimisation techniques.
Robotics, instrumentation and data systems, electronics.
Spaceflight dynamics, spacecraft systems engineering.

2003 - 2008 Liceo Scientifico Statale "Niccolò Rodolico" – State Lycaeum of Science
Via Baldovinetti 6, 50143 Florence, Italy +39 055 702447
Title of qualification: Diploma di Liceo Scientifico Sperimentale (Final Grade **98/100**)
Main Subjects: Mathematics, Physics, Information Technology, Chemistry, Biology

Personal Skills

Mother Tongue: Italian
Other languages: English – negotiation level, excellent presentation skills.
French – good vocabulary and comprehension, currently learning.
German and Spanish (fundamentals).

Organizational Skills and Team working

Good at making the most of limited time and resources, coordinating efforts towards maximum efficiency.
Enthusiastic team worker, charismatic leader, enterprising and not afraid of taking responsibilities.
Good communicator and mediator, open minded, able to listen and always keen to help.

Computer Skills and Competencies

Solid programming skills and IT affinity, elegant coding style naturally based on S.O.L.I.D. principles.

Advanced programming in VB.net and Python
Advanced knowledge of MATLAB language, including Simulink and Real-Time Workshop.
Advanced SolidWorks skills: modelling, e-drawing, kinematic analysis, animation/rendering, flow simulation.
Finite Elements Analysis: experience with ABAQUS (direct input methods and GUI).
Experienced with ECLIPSE IDE mainly for Java and C/C++, familiar with GNU Emacs.
Working knowledge of C, C++, php, HTML and Java.

Advanced LaTeX user, highly proficient with most word processing, spreadsheet and presentation software.

Other

Very good design and artistic skills, keen eye and good taste. Rigorous attention to detail.

Publications

REAL WORLD APPLICATIONS USING PARALLEL COMPUTING TECHNIQUES IN DYNAMIC TRAFFIC ASSIGNMENT AND SHORTEST PATH SEARCH
Attanasi, Silvestri, Meschini and Gentile. *Proceedings of the 18th IEEE Intl. Conference on Intelligent Transport Systems (presented in Gran Canaria, Sept. 2015).*

CHAPTER: URBAN TRAFFIC SIGNAL OPTIMISATION - INTELLIGENT TRANSPORT SYSTEMS: PAST, PRESENT AND FUTURE DIRECTIONS
Gaetano Fusco, Guido Gentile, Pietro Meschini, DICEA, University of Rome "La Sapienza"*
Nova Science Publishers (2017)

Voluntary Work

2007 - 2008 Rescuer, ambulance crew
Pubblica Assistenza Tavarnuzze, Impruneta, (FI)
Basic level Rescuer under international protocol
BLS-D: Basic Life Support, Resuscitation,
Defibrillator, Safety in Emergency situations

2006 - 2007 Tutor for disadvantaged children (aged 11-14)
Volunteer Tutor Project, San Casciano V.P. Council (FI)

2005 - 2006 Cub scout leader
FI 15° A.G.E.S.C.I. cubs, Florence

2005 Assistant supervisor
Day nursery "Arcobaleno", Florence

Interests and Hobbies

Education, dissemination of scientific knowledge and the scientific method.

Space Exploration, Physics, Electronics.
Repairing, hacking, making something from nothing.
Carpentry, general DIY and hand crafting.

Machine learning, robotics, A.I.

Motoring and motor sports, motorcycle maintenance, bicycle restoration and maintenance.

Drawing and painting, 2D and 3D design.