

# PERSONAL INFORMATION

# Francesco M.Sacerdoti

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Skype fmsevo

Sex Male | Date of birth 24/03/1963 | Nationality Italian

### PROFESSIONAL SECTOR

Mobile App Developer System Design and Integrator Hardware and Software developer Teaching Researcher and Scientist Inventor and Innovator

### PROFESSIONAL EXPERIENCE

# 2011-now Adjunct Professor

Temple University - Philadelphia PA (USA)

- Adjunct Professor in Temple University's College of Science and Technology, Biology Department
- Professor at the course ENGR 5719/3719 "Introduction to BioEngineering"
- Professor at the course BIOE 5301 "BioSignals"

**Business or sector Education** 

### 2011-now

# Scientist

Sbarro Health Research Organisation - Philadelphia PA (USA)

Research projects

**Business or sector Research** 

### 2004-now

# Entrepreneur - R&D responsible - Teacher - Founder

e-voluzione di F.M.Sacerdoti srl - Napoli (Italy)

- Founder of the company (company infos on: www.e-voluzione.it/en)
- Production Process Analysis and Optimisation
- Design and development of measurement & control integrated systems (more than 150)
- Design of acquisition system for CIRA PWT (Plasma Wind Tunnel)
- Designer of systems for Whirlpool (Naples plant)
- Designer of systems for Pirelli/Prysmian (Arcofelice plant)
- Designer of engine test benches and fuel automatic control for AVIO
- Designer of systems for Cofren/Wabtec
- Designer of vision system with profilometry for analysis of complex dimensions of mechanical stuff
- Design of a completely automated plant for production of wood windows
- Design and Development of 13 iOS app (on Apple Store) with use of Accelerometer, GPS, Contacts, Musics, Graphics and more
- Engineering consultant for creation of new patents or products
- Design of the new version of MCC (Mission Control Center) for next space mission of CIRA USV (Unmanned Space Vehicle). Design and development for two research project on Multimedia Applications
- Design and development of a control centre for Museums (Exhibit control, Contents, Environment)
- Technology consultant for realisation of some Multimedia Museums
- Design and realisation of the technological part of "Comune di Napoli" stand in the International Forum of Cultures in Monterrey (Mexico)
- Realisation of a control system for Industrial Compressors
- Scientific director in a Research Center to develop new Automatic Industrial Laundry machines



- Automatic warehouses Consultant for Natuzzi SpA for the creation of a JustInTime system for Baia Mare plant (Romany).
- Consultant for Plant Simulation for a Industrial Laundry Company
- Technological Consultant for Visteon to develop a new hardware/software system for an automotive application. Design of the functional test bench
- Design of a remote acquisition system for vibrational analysis based on FPGA technology.
- Realisation of a pollution laser measurement system.
- Realisation of a space education experiment on a stratospheric balloon with Italian Space Agency
- Organizer of a course on Hacking for the state police.

### **Business or sector Industry**

# 2016-2017 iOS developer teacher

# Apple Developer Academy

# "Federico II" University in partnership with Apple INC

- iOS development Teacher Academy Program
- Challenge Based Learning (CBL) application and lesson preparation
- Responsible for Suor Orsola Benincasa Foundation Program
- Watch and AppleTV courses Academy and Partenope Foundation Program
- Examples, Libraries, Sample Projects

# 2015 Visiting Scientist

CERN - Geneva (Switzerland)

- LabVIEW Expert at Engineering Department
- HiRadMat Data Acquisition system for Radiation effect Experiment of Accelerator Beams (2 experiments run on the accelerator)

**Business or sector Research** 

# 2012-2013 Technical Director

Forus srl - Palermo (Italy)

 Technical responsible for Seven Framework European Project "Heartways" - development of a new medical portable device

**Business or sector Research** 

### 2004-2005 Technical Director

ITAG - Priolo (SR) (Italy)

- Technical Director for design and development of new automation machine for industrial laundries

### 1995-2004 R&D Responsible - Teacher - Co-founder

ARTS srl - Napoli (Italy)

- Research and Development group manager
- Design of the Experiment Control Center for STS-107 Space Shuttle Mission
- Design and development of industrial measurement systems for more than 50 customers on:
- Industrial Production Monitoring
- Control Centers for testing of complex apparatuses (Space Engines, Aerospace Engines, Electronic Cards, etc.)
- Production organisation and Logistics
- Complex Automation systems
- Laboratory Automation
- Vision Inspection Systems
- Some customers: Whirlpool, FiatAvio, Avio/ELV, Pirelli, Marconi Mobile, Trenitalia, IPM Group, Ruetgers Automotive, AMSA Milano, Centrale del latte Milano, Tecnoteam, some universities and research centres.
- Responsible of some Research Projects
- Research responsible for the Campania Region Certified Laboratory (3.17)
- Design and realisation of two exhibits in the Science Museum (Città della Scienza) in Naples.
- ISO 9000 Technical Sector responsible



### **Business or sector Industry**

# 1990-1995 Researcher

MARS (Microgravity Research Center, Alenia Group) - Napoli (Italy)

- Spacelab LMS (Life and Material Science Mission): (Technical Manager): Responsible for the complete Electronic Ground Support Equipment (EGSE) to monitor and control the eight international experiments that will flight in the next LMS mission scheduled in June 1996 (ESA Project).
- MITE-2: (Project Manager) Realisation of EGSE for experiment MITE-2 during TEXUS 32 sounding rocket mission (end of Nov 1994) (ESA Project).
- Biobox: (WP Manager) Member of the MARS team for the FOTON 10 (Biobox/Biopan) mission operation on November. Design and realisation of the complete EGSE distributed all over Europe and Russia. (ESA Project).
- Spacelab IML-2 Mission: (Technical Manager) design and realisation of the whole EGSE (Electronic Ground Support Equipment) for the experiments performed on the ESA BDPU Facility during Spacelab IML-2 mission. It has to control and monitor seven experiments with the management of the commands to be uplinked to the Shuttle. (ESA Project).
- Participation during the IML-2 mission to the BDPU Engineering team.
- Spacelab D2-Mission: (Technical Manager) design and realisation of the Man Machine Interfaces (MMI) for the monitor of the five experiments performed on the ESA AFPM Facility during the Spacelab mission D2. There was one MMI for each experiment, and one for the house-keeping data. (ESA Project). Participation during the D2 mission to the AFPM Engineering team.
- INEXMAM: realisation of the Experiment Man Machine Interface during the flight of the Sounding Rocket MASER 6 launched at Kurina (Sweden) in October (ESA Project).
- ExpRes phase II: (Project Manager) Organisation of an European Group for the harmonisation and collection of data for the European database of Microgravity Experiments. Sub-Contractors: MUSC (Germany), CADMOS (France), and DUC (The Netherlands). (ESA Project).
- Telescienza a terra. (Technical Manager) Realisation of a Telescience Test-Bed (ASI Project).
- Definition of hardware and software (with a General MMI design) to control a facility (AFPM).
- Study of an experiment on SpaceHab with University of Colorado (USA) using the Italian facility FPM (Fluid Physics Module) (NASA Project).
- Study of a Control System to obtain better microgravity conditions on an Airplane for Parabolic Flights.
- Onset of Oscillatory Marangoni Flows (D2): Computerized temperature control system for MARS Micro-Floating Zone. Definition of a Control Work Station to remotely perform experiments (ASI Project).
- ExpRes (Project Manager): to study and to realise a European database of Microgravity Experiments with MUSC of Köln. (ESA Project)
- MAXUS. Technical realisation of the Telescience communication links (ESA Project)
- E1. Preparation of reports related to Computer Science (ESA Project).
- GARR. Study of connection of MARS to the GARR network (Italian Research Network).
- SIRS (Italian Space Network) (WP Manager) Realisation of an Italian Network for Space Research (ASI Project).
- Microgravity Expert System Study of Expert System Technology to be applied to Microgravity Environment and realisation of prototypes (ASI project)
- Study of application of parallel computational model to realise some Artificial Intelligence Systems (with ACS-Meiko).
- AJUTOR (Project Manager) to realise a training/tutoring expert system for the familiarization of the microgravity environment with Digital company.
- Integration of the MARS Microgravity Data bank in CUIS Preparation of the Software Requirement Document (ESA Project).

**Business or sector Space** 

# 1989-1990 Technical manager, Senior Consultant, Knowledge Engineer.

Hay Management Consultant (Hay-2000) - Milano (Italy)

- Expert systems for the Italian companies ATI (Airline company), Banco di Roma (Bank), Italcable and SIP (Telecommunication companies).
- Feasibility study for the realisation of an expert system for Aeritalia (Aerospace manufactory company.
- Multimedia expert.
- Tele-maintenance of software.

**Business or sector Consultancy** 



# 1987-1989 Research and development, project organisation, teaching

NOOS (artificial intelligence company) - Napoli - Italy

- Technical Manager in an ESPRIT Basic Research Action Project.
- Expert system design and realisation.
- Preparation of a proposal for ASI (Agenzia Spaziale Italiana) with MARS Center on the expert system application to the microgravity environment.

**Business or sector Industry** 

# 1981-1993 Research and development, project organisation

Statistical studies

Computer Science Consultant for Industries, Hospitals, University of Naples, University of l'Aquila and some professionals.

#### **TEACHING** Advanced Architecture in LabVIEW - National Instruments 2018 ILAS - Mobile APP Teacher 2018 2018 Teacher Training Storytelling - Atelier Digitali (3 Italian Schools) 2017 several LabVIEW Core 1, Core 2 and Core 3 - National Instruments September-October 2017 PON Expert teacher in Teachers Training Seminars / European Project ( September-October 2017 PON Expert teacher in Teachers Training Seminars / Coding July 2017 Excel advanced techniques Apple Developer Academy, Univ. "Federico II", iOS Developer Expert 2016-2017 Apple Foundation program, Suor Orsola Benincasa, Course responsible Apple Foundation Program, Parthenope, Watch and AppleTV Expert 2015-2016 Esperienza di docenza congiunta con l'Ausilioteca Mediterranea Onlus (allora Centro per l'Autonomia Ausilioteca Campana Onlus) con alunni BES 2015 LabVIEW Academy, Telecommunication Engineer, Univ. "Federico II" 1997-now "Advanced LabVIEW Techniques" - several private companies 2015 "Invention techniques" - Dompè (L'Aquila) 2015 "Invention techniques" - Glaxo (Siena) Pharmaceutical 2015 "Patents and Inventive Techniques" - Training course for Innovative Startup Experts - ODCEC 2013 "Introduction to BioEngineering: Biosensors" - ENGR 5719/3719 - Temple University - Philadelphia 2012 "System Engineering: Invention techniques" - Stoà - for CIRA 2012 "Program Managers: Invention techniques" - Stoà - for CIRA "Introduction to BioEngineering: Biosignals" - ENGR 5719/3719 - Temple University - Philadelphia 2012 2010 "Project innovation management" - ENEA/Formit 2010 "Patents and IPC" - ENEA/Formit 2010 "Patents and internationalisation" - Advanced Course on Internationalisation - ODCEC Napoli 2008 "Industrial research project organisation" - IMAST/Formit 2008 "Industrial Strategies for Life Cycle of technology" - IMAST/Formit 2004 "Cyber Crimes" - Post Police - Bari 1987 - 1988 "Informatics Course"



Communication skills	Good communication	on skills and teach	ing capacities.			
English	C1	C1	C1	C1	C1	
	Listening	Reading	Spoken interaction	Spoken production		
Other language(s)	UNDERSTANDING		SPE	SPEAKING		
Mother tongue(s)	Italian					
PERSONAL SKILLS	Thesis in Artificial	Intelligence applied	d to querying relationa	l databases		
	"Federico II" University - Napoli (Italy)  Thesis in Artificial Intelligence applied to querying relational databases					
1982-1988	Electronic Engineer Laurea 110 cum					
1987	Management courses as a company financed on young entrepreneurship, Roma - Italy					
auary-February 1988	Management courses - ISVOR-FIAT - Castelgandolfo, Roma- Italy					
19-23 September 1988	VI Corso "La visione delle macchine" (Machine Vision) - Scuola Nazionale di Cibernetica e Biofisica del C.N.R. di Pisa, Pavia,					
15-28 January, 1990	Hay Methodologies, Eastbourne (UK)					
15-24 April 1991	VAX LISP - Digital, Roma					
1993	Italian Engineering Society "Ordine degli Ingegneri di Napoli" with n. 18567 - 2008					
12-14 May 1999 1995	PSS-2000 Advanced Commercial Course  Engineer government exam and licensed as a profession engineer. Enrolled as a member of the					
15-17 May 2002	Corso ECSS Software engineering ESA ESTEC					
June 2011	Innovation Transfer Consultant Course, Campania Chemical Order					
17-18 November, 2011	Games and Creativity in Education and Training, Rome					
16 January 2014	universAAL (Universal Open Architecture and Platform for Ambient Assisted Living) training day, Barcelona (Spain)					
22 February 2014	Digital or Nothing, Digital Vizir course on Media and Social Marketing					
5-6 June 2014	ESA Investment Readiness Programme (IRP) Lazio, Rome					
3-4 June 2014	Intellectual Property course, Italian Trade Agency, Napoli					
September 2016	Apple Academy preparation course by Big Nerd Ranch, Napoli					
December 2016	Apple Academy advanced courses by Big Nerd Ranch and Apple INC, Napoli					
18-19 June 2018	Diadem Advanced - National Instruments					

Digita	l competence
5	

		SELF-ASSESSMENT		
Information processing	Communication	Content creation	Safety	Problem solving
Proficient	Proficient	Proficient	Proficient	Proficient
Proficient use of Pa	ages, Numbers, Key	note		
Proficient use of O	ffice packet			



### Computer skills

LabVIEW

iOS programming (Objective-C, Swift) MacOS, AppleTV, WatchOS Programming

Object Oriented Programming

Industry and AppleStore mobile application development

LiveCode

Pascal, C & C++, Fortran, Lisp, Prolog

SQL and NoSQL IDE: XCode, Eclipse

Repositories and Code Control Systems: GIT, CVS

OsX, Windows, Linux, iOS

Apple systems programmer by 1980 (from Apple II)

#### Other skills

Music Playing: Classical Chamber and Orchestra Music (traverse flute)

Modern (Piano, Guitar, Flute)

Music Composing: Classical

### Driving licence

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### ADDITIONAL INFORMATION



National Instruments "Certified Professional Instructor", 2016 National Instruments "Certified LabVIEW Architect", 2005 National Instruments "Certified LabVIEW Developer", 2003 ESA ECSS Software Engineering Certified, 2002 Engineer government exam, 1995

#### **Patents**

- 1 Vibration and Deformation measurement system based on a telemetry. (F.M.Sacerdoti) Italian Patent: IT0001369738
- 2 Magnetostrictive multiple tag identification system (F.M.Sacerdoti, R.Germano) Italian Patent: IT0001398170
- 3 Total Body Photography acquisition system (F.M.Sacerdoti, E.Bucarelli) Italian Patent: IT0001397636
- 4 Hand coupling and fixing device, in particular button fixing device (M.Gemelli, F.M.Sacerdoti). International Patent: WO2013171778 (A2)
- 5 Didactic Projector: Autonomous system to use web educational contents in a classroom (F.M.Sacerdoti, S.Pagliara). Italian Patent: IT0001422138
- 6 Load identification system on electrical outlet (F.M.Sacerdoti et al.) Italian Patent: 0001426198

### **Patent Pendings**

 Security and Safety Module for Rack Cabinets (F.M.Sacerdoti). Patent Pending: UB2015A004120

### **Books**

- Sacerdoti F.M. et al. Advanced Image Analysis Techniques for Clinical Pathology, Editor and Author, Springer ISBN-13: 978-1493934676, 2016
- Maraffi S. & Sacerdoti, F.M. (2018). Learning on Gaming. Innovative Teaching with the use of Smartphones and Digital Storytelling. Edizioni Accademiche Italiane. ISBN-13: 978-620-2-08483-3. ISBN-10: 6202084839. EAN: 9786202084833.

### **Publications**

- Abbruzzese F., Mele F., Sacerdoti F.M. Integrazione trasparente tra Prolog e Database Relazionale: Gestione di risorse e ottimizzazione, Italian National Congress AICA 1987, Trento, Italy, 1987.
- 2 Abbruzzese F., Mele F., Sacerdoti F.M. A Knowledge-Based Approach to Integration between Prolog and Relational Databases, International Conference Computational Intelligence-88, Milano, Italy. Published by the Elsevier Publisher, Holland, 1988
- Maraffi S., Sacerdoti F.M. SISMA: un Sistema Esperto per l'interpretazione dei sismogrammi, National Congress 1th workshop: Informatica e Scienze della terra, Sarnano, Italy, 1989.
- 4 Sacerdoti F.M. SIT: a tool for Signal Interpretation, International Congress Modeling the Innovation: Communications, Automation and Information Systems, Roma, Italy, 1990.



### Publications (cont)

- Napolitano L.G., Sacerdoti F.M. et al. ExpRes: una banca dati di esperimenti in microgravità National Congress XI Congresso Nazionale della Associazione Italiana di Aeronautica ed Astronautica AIDAA-91, Forlì, Italy, 1991.
- Willekens Ph., Sacerdoti F.M. et al. ExpRes: a European System to Distribute Information on Microgravity Experiments 42nd International Congress International Astronautical Federation IAF-91, Montreal, Canada, 1991. Published in Acta Astronautica vol.28, Elsevier, 1992, pages 219-226
- Willekens Ph., Sacerdoti F.M. et al. MARS-MEC: Integration of MARS Microgravity Data bank in CUIS, Columbus VII Symposium, Ischia, Italy, 1992. Published in Space Technology, vol.12, n.1-1992.
- De Chiara V., Sacerdoti F.M. A Compact Control Work Station to perform remote microgravity experiments: the TSWS, International Congress ELGRA (poster session), Genova, Italy, 1993
- 9 De Chiara V., Sacerdoti F.M. et al. Computer Control for an advanced diagnostic systems for space experimentation: Visual Integrated System. International Congress ELGRA, Genova, Italy, 1993
- 10 De Chiara V., Sacerdoti F.M. et al. The collection and harmonization of data for the ESA Experiment Database ExpRes International Congress ELGRA (poster session), Genova, Italy, 1993
- 11 De Chiara V., Sacerdoti F.M. et al. The Microgravity Experiment Database: an important tool for experiment design and evaluation International Symposium on Microgravity Science and Applications, Beijing, China, 1993. Microgravity Quarterly, n.76, 1993, published 1994, pages 1637-1648
- 12 De Chiara V., Sacerdoti F.M. et al. ExpRes, the European data base of microgravity experiments- State of the art and future developments. XII Congresso Nazionale AIDAA, Como, Italy, 1993
- 13 De Chiara V., Sacerdoti F.M. et al. In-depth Concept and Advancement of European Flight Experiment Databases for the Science Community utilizing Microgravity. 44th International Congress International Astronautical Federation IAF-93 (IAF-93-J.2.275), Graz, Austria, 1993
- 14 Castagnolo D., Sacerdoti F.M., et al. User Support to AFPM Fluid Science Experiments during the D2-Mission, 44th International Congress International Astronautical Federation IAF-93, Graz, Austria, 1993. Published on Acta Astronautica, Volume 34, October 1994, Pages 223-232
- Duwe H., Sacerdoti F.M., et al. The ESA Microgravity Data Base (MGDB) An inventory of Flight Experiment Results, International Symposium on Spacelab D-2 Mission, Norderney, Germany, 1994
- Pletser V., Sacerdoti F.M. et al. Operation of the Advanced Fluid Physics Module during the Spacelab D-2 Mission, International Symposium on Spacelab D-2 Mission, Norderney, Germany, 1994. Published in Scientific Results or the German Spacelab Mission D-2, P.R. Sahm, M.H. Keller and B. Schiewe eds., WPF-DLR Köln, ISBN 3-891000-025-1, 775-786, 1995
- Sacerdoti F.M., Esposito G., et.al. The Man Machine Interfaces developed for the AFPM experiments in the D2 mission. International Symposium on Spacelab D-2 mission, Norderney, Germany, 1994. Published in Scientific Results or the German Spacelab Mission D-2, P.R. Sahm, M.H. Keller and B. Schiewe eds.,WPF-DLR Köln, ISBN 3-891000-025-1, pages 787-794, 1995
- 18 Sacerdoti F.M. The Scientific Interface developed for the MITE-2 experiment on Texus 32 sounding rocket mission, 12th ESA Symposium on European Rocket and Balloon Programmes and Related Research, Lillehammer, Norway, 1995
- 19 Fortezza R., Sacerdoti F.M. The Scientific Ground Support Equipment for a multiuser facility-The BDPU experience, IAF International Astronautical Congress, 46 th, Oslo, Norway, 1995
- 20 Sacerdoti F.M., Medusa G., Vivo E. MultiClient: sistema remotizzato per banchi di collaudo, NI-Days Europe 1999 conference on Virtual Instrumentation, Roma, 1999
- 21 Sacerdoti F.M., HVCU: Un sistema di imaging per il controllo automatico di indumenti ad alta visibilità, NI-Days Europe 1999 conference on Virtual Instrumentation, Roma, 1999



### Publications (cont)

- 22 Sacerdoti F.M., Favini G., TetraTest: banco di prova di radio mobile, NI-Days 2000-2001 Worldwide conference on Virtual Instrumentation, Roma, 2001
- 23 Sacerdoti F.M BOSW: a software to monitor and control a Biological Facility on Space Shuttle Mission STS-107, NI-Days 2001-2002 Worldwide conference on Virtual Instrumentation, Roma, 2002
- 24 Sammarco M., Garonna O., Sacerdoti F.M TestInAText: Easy Programmable Functional Test and Image Analysis, NI-Days 2001-2002 Worldwide conference on Virtual Instrumentation, Roma, 2002
- 25 Sacerdoti F.M., Papi M. A system to visually monitor pantographs, NI-Days 2002-2003 Worldwide conference on Virtual Instrumentation, Roma, 2003
- Sacerdoti F.M., Space Station Operations: a Space Shuttle Mission Lesson Learned, 54th International Congress International Astronautical Federation (IAC-03-P.5./T.5.02) IAF-03, Bremen, 2003
- 27 Sacerdoti F.M.,Di Micco R. et al. WASHTEST: un sistema di test a norma EN-60456, NI-Days 2003-2004 Worldwide conference on Virtual Instrumentation. Roma. 2004
- 28 Sacerdoti F.M.,Di Micco R. et al. La norma 60335 e la misura automatica della temperatura del motore delle lavatrici, NI-Days 2006-2007 Worldwide conference on Virtual Instrumentation
- 29 Sacerdoti F.M.,F.C.Melchi. et al. Sistema automatico di rilevamento d'insorgenza di nuove lesioni cutanee di origine pigmentaria o di modificazioni morfocolorimetriche di lesioni preesistenti – Parte prima, 2007
- 30 Sacerdoti F.M., Senatore A., Tontodonato V. Sistemi automatici per il controllo della produzione di infissi di legno NI-Days 2009 Forum Tecnologico sulla progettazione grafica di sistemi
- 31 Basagni R., De Soccio V., Frullone A., Sacerdoti F.M., Automatic system for testing complex mechanical dimensions of small pieces, NI-Days 2012
- 32 Giordano A., Sacerdoti F.M. et al. "Campania Terra di Veleni", Chapter on Electromagnetic Fields, Libro Bianco Salute e Ambiente in Campania, Editrice "il Denaro", 2012
- 33 Sacerdoti F.M. et al. "Wearable sensor for real-time monitoring of exercise routines", IFMBE International Conference On Health Informatics, 2013, Published by Springer, ISBN 9783319030050, Vilamoura (Portugal)
- 34 Maraffi S., Sacerdoti F.M. et al. "GeoQuest an Interactive Role Playing game ", EGU General Assembly 2015, Geophysical Research Abstracts Vol. 17, EGU2015-14720, Wien (Austria), 2015
- Maraffi S., Sacerdoti F.M. "EvoRPGE an Interactive Class Role Playing engine", International Congress on Education, Innovation and Learning Technologies (ICEILT), Granada (Spain), ISBN: 978-84-944311-3-5. Edited by: ScienceKNOW Conferences C.B. September 2015, p. 148.
- 36 Ercolino I., Maraffi S., Sacerdoti F.M, "Could smartphone in science teaching foster motivation and positive attitudes in students?", International Conference New Perspectives in Science Education, 2016. New Perspectives in Science Education International Conference Proceedings, ISBN 9788862927055, 127-131
- 37 Ercolino I., Maraffi S., Sacerdoti F.M, "Could hands-on activities and smartphone in science CLIL teaching foster motivation and positive attitudes in students?", Geophysical Research Abstracts, Vol. 18, EGU2016-4908-2, 2016, EGU General Assembly 2016, Wien (Austria), 2016
- 38 S.Maraffi, F.M.Sacerdoti, A.Scamardella, "GeoQuest VESUVIUS, a CLASS Role Playing game", 2016 STEAM/STEM Education Conference, <a href="http://www.huichawaii.org/assets/maraffi%2c-sabina(2)--2016-steam-huic.pdf">http://www.huichawaii.org/assets/maraffi%2c-sabina(2)--2016-steam-huic.pdf</a>, Hawaii, 2016
- Maraffi S., Paris E., Sacerdoti F.M. & Scamardella A., 2016. Geoquest, a Computer Class Role Playing Game. Oral presentation, 2nd European Mineralogical Conference - Rimini (Italy), September 11-15, 2016. EMC2016 Book of Abstracts: "Minerals, rocks and fluids: alphabets and words of planet Earth", pag.733.



### Publications (cont)

- 40 Maraffi S. & Sacerdoti F.M., GeoQuest a computer classroom Role Playing Engine to teach earth science in an interdisciplinary way. 9th annual International Conference of Education, Research and Innovation. - Seville, 2016. Oral presentations.
- 41 Maraffi., S. & Sacerdoti, F.M. (2016). GeoQuest Project. Computer class Role Playing Game as innovative teaching methodology to foster STEAM education. Journal of Environmental Science and Engineering, Volume 5, Number 10, 495-511.
- 42 Maraffi, S., Ercolino, I. & Sacerdoti, F.M. (2017). Who killed Maya Foster? A CLIL CrimeQuest, interactive computer class Role Playing Game. European Festival Science on Stage "Inventing the Future of Science Education". Debrecen (Ungheria), July 2017
- 43 Maraffi S. & Sacerdoti F.M.(2017) "Learning on Gaming with a new digital educational environment", Digital Universities in the MOOC Era: Redesigning Higher Education. ICEM International Conference for Educational Mobile, Napoli, September 2017
- 44 Maraffi, S., Ercolino, I. & Sacerdoti, F.M. (2017). "CrimeQuest, a CLIL approach of "Learning on Gaming" to improve Science Education and Language Learning". Second edition of the International Conference "MOOCs, Language learning and Mobility", October 2017
- 45 Ercolino, I, Maraffi, S. & Sacerdoti, F.M. (2017). "Who killed Maya Foster? A CLIL CrimeQuest interactive game". TESOL Italy's 42nd National Convention "Into the Future of ELT", Rome on November 17-18, 2017.
- 46 Maraffi, S. & Sacerdoti, F.M. (2017). "Learning on Gaming" Improves Science Learning in a STEAM Interdisciplinary Approach. Journal of Environmental Science and Engineering A 6 (2017) 155-165 D doi:10.17265/2162-5298/2017.03.007
- 47 Maraffi S., Sacerdoti F.M. & Paris E. (2017) "Learning on Gaming: A new DGBL approach to Improve Education Outcomes", US-China Education Review, Vol. 7, No. 9, 2017, 421-432
- 48 Maraffi, S. & Sacerdoti, F.M. (2017). "Save Yourselves": an App to Improve Correct Behaviors in Earth Environmental Emergency. American Geophysical Union Fall Meeting, New Orleans, USA, December 2017
- 49 Maraffi S. & Sacerdoti, F.M. (2018). GeoQuest Project, implementation and experimentation of a computer classroom role playing game: final results. 6th Mediterranean Interdisciplinary Forum on Social Sciences and Humanities, MIFS 2018.
- 50 Maraffi S. & Sacerdoti, F.M. (2018). The App Save Yourself improves knowledge in earth environmental emergency and safe behaviors. 6th Mediterranean Interdisciplinary Forum on Social Sciences and Humanities, MIFS 2018.
- 51 Maraffi S. & Sacerdoti, F.M. (2018). Innovative Digital Games to Improve Science Education through Storytelling, Mystery and Myth. British DiGRA 2018.
- 52 Sacerdoti F. et al. (2018) Remote Educational Gaming: dagli Atelier Digitali ai Progetti Europei, studenti italiani e islandesi progettano avventure didattiche da giocare a distanza, Bricks, AlCA, Anno 8 n.2 pag. 84-93, giugno 2018

# **Invited Speaking**

- Mele F., Sacerdoti F.M. Dal problema all'hardware: una metodologia di scelta dell'hardware per problemi di IA applicati, Technical Report 1/87, presented to CIRA (Italian Center for Aerospatial Research), Napoli, Italy,1987
- 2 Mele F., Sacerdoti F.M. Knowledge-based Approach to the problem of Integration, Workshop on Artificial Intelligence, Catania, Italy, 1989
- 3 De Chiara V., Sacerdoti F.M. Definizione dell'architettura di un apparato per il controllo e la gestione di esperimenti in modalità remota, MARS Internal Report presented to ASI (Italian Space Agency), Italy, 1992
- 4 Sacerdoti F.M. The importance of Man-Machine Interface, European Space Exploration Strategy Stakeholder Workshop, Brussels, 2005
- 5 Sacerdoti F.M. ECC: Space application for Space, Industrial and Environment monitoring applications – First Campania Science and Technology week at Bejiing, China, Maggio 2007
- Sacerdoti F.M. Usage of specific Man Machine Interfaces to control complex systems by primer users. V Forum on Technology Transfer "International Conference to create an exchange platform to transfer Methodologies and Technologies in developing countries", FAO Roma, December 2007



- 7 Sacerdoti F.M. New User Interfaces for fruition of Cultural Heritage, International Forum TECHA2008 Technologies Exploitation for the Cultural Heritage Advancement, Roma Marzo 2008
- 8 F.M.Sacerdoti & S.Maraffi., "EvoQuest, Innovazione nella formazione: giochi interattivi didattici per le classi" in Digital Transformation, TBIZ 2015, 17-18 giugno 2015, Centro Congressi di Città della Scienza, Napoli
- 9 S.Maraffi. & F.M.Sacerdoti, "EvoQuest, un gioco di ruolo di classe interattivo con gli smartphone", Smartphone e tablet per l'insegnamento delle scienze, 11-12 settembre 2015, Città della Scienza, Napoli, 2015
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### Honours and awards

Participation to 4 Space Shuttle Missions with design and realisation of the Experiment Control Centres to control and monitor the facility on board during the whole mission. The systems were specialised for Scientists, Mission Specialists, Facility Specialists, and Commanding Managers.

Adjunct Professor in Temple University's College of Science and Technology, in the Department of Biology and BioEngineering

Editorial Review Board Member for "International Journal of Computer Vision and Image Processing (IJCVIP)"

Editor for the book "Advanced Image Analysis Techniques for Clinical Pathology" for Springer

Winner of the "Premio Nazionale Innovazione – StartCup Napoli" with Alert-Me a Early Warning system for Earthquakes, 2008 (http://www.rissclab.unina.it/it/eventsandnews-all/41-hl-eventi/624-start-cup-federico-ii-2008-zollo-iannaccone-sorrentino-elia-martino-festa-iervolino-lancieri-sacerd)

Euroleader award 2006, EBN Congress, Selected Candidate in Space and SatCom Navigation Sector

Winner for three consecutive years to the second prize for the best Italian Test&Measurement application by National Instruments

Head of the group of expert for the European Community in the creation of the handbook "Standardisation for Defence Procurement European Handbook" CEN WS 10 - EG 06 "Electrical interfaces" and Italian Delegate for the group EG 15 "Quality of Power Supply" (http://www.eda.europa.eu/EDSTAR/home.aspx)



Expert for evaluation of Research project on MIUR (Italian Research Ministry) Italian Ministry of University and Research Consultant for innovation in the SMEs (Dirce Project).

European Space Exploration Strategy Group stakeholder for ESA future strategies on next missions on Moon and Mars

Member of the Program Committee of ICHI2013 (IFMBE International Conference on Health Informatics)

Technical responsible for Naples Province on Aerospace and Galileo Projects.

# Acknowledgements

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