

**FORMATO EUROPEO
PER IL CURRICULUM
VITAE**



PERSONAL INFORMATIONS

Name
Telephone
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Nationality

Date of Birth

MANZOLINI GIAMPAOLO
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giampaolo.manzolini@polimi.it

ITALIANA

19 – 11 – 1979

WORK EXPERIENCE

- Date (from – to)
- Name and address of employer
- Type of business
 - Position held
- Main activities and responsibilities

16/12/2008 – TODAY
POLITECNICO DI MILANO – DIPARTIMENTO DI ENERGIA
Via Lambruscini 4 – 20156 MILANO – ITALY
University
Assistant professor
Scientific research, lectures, national and international project management, software development, consultancy.

- Date (from – to)
- Name and address of employer
- Type of business
 - Position held
- Main activities and responsibilities

01/03/2007 – 15/12/2008
POLITECNICO DI MILANO – DIPARTIMENTO DI ENERGIA
P.za L. Da Vinci, 32 – 20133 MILANO – ITALY
University
Post-doc position – Title (in italian) “STUDIO DI CICLI INNOVATIVI BASATI SU CELLE A COMBUSTIBILE AD ALTA TEMPERATURA PER APPLICAZIONI COGENERATIVE DI TAGLIA MEDIO-ALTA”
Scientific research, lectures, national and international project management, software development, consultancy.

- Date (from – to)
- Name and address of employer
- Type of business
 - Position held
- Main activities and responsibilities

01/03/2004 – 28/02/2007
POLITECNICO DI MILANO – DIPARTIMENTO DI ENERGETICA
P.za L. Da Vinci, 32 – 20133 MILANO – ITALY
University
Ph.D. student
Scientific research, software development, consultancy.

- Date (from – to)
- Name and address of employer
- Type of business
 - Position held
- Main activities and responsibilities

01/11/2004 – 30/06/2005
Energy Centre of the Netherlands – ECN
POSTBUS 1, 1755 ZG PETTEN –THE NETHERLAND
Research center
STAGE
Research activity

EDUCATION AND TRAINING

- Date (from – to)
- Name and type of institution
- Principal subjects
- Title of qualification awarded

01/03/2004 – 07/06/2007

POLITECNICO DI MILANO – DIPARTIMENTO DI ENERGETICA
P.za L. Da Vinci, 32 – 20133 MILANO – ITALY

CO2 capture, Low temperature fuel cells, cogeneration, hydrogen.

PhD degree obtained discussing the thesis "Membrane reactor for hydrogen separation applied to electricity production from Natural Gas".

Supervisor: prof. E. Macchi

- Date (from – to)
- Name and type of institution
- Principal subjects
- Title of qualification awarded

15/09/1998 – 18/12/2003

POLITECNICO DI MILANO – DIPARTIMENTO DI ENERGETICA
P.za L. Da Vinci, 32 – 20133 MILANO – ITALY

Fluid Mechanics, Machines, energetics, Heat transfer, energy conversion, renewable energy

Mechanical engineer – Sub-topics Energy – grade 100/100

Hydrogen-Electricity co-production in a IGCC power plant, coal fired, using palladium metallic membranes for hydrogen separation

PERSONAL SKILLS AND COMPETENCES.

MOTHER LANGUAGE

ITALIAN

OTHER LANGUAGE

ENGLISH

- Understanding
- Speaking
- Writing

PROFICIENT USER

PROFICIENT USER

PROFICIENT USER

SOCIAL SKILLS AND COMPETENCES

- team spirit;
- good communication skills gained through my European projects.

ORGANISATIONAL SKILLS AND COMPETENCES

Leadership, sense of organization and team management

DRIVER LICENSE

B

ADDITIONAL INFORMATION

ACADEMIC EXPERIENCE

- Date (from – to)
- Name and type of institution
- Activity

2009-2012

POLITECNICO DI MILANO – DIPARTIMENTO DI ENERGIA
Via Lambruschini 4 – 20156 MILANO – ITALY

Lecturer at the Master of school of management engineering, course of "Systems for energy and environment"

Supervisor and co-supervisor of several master thesis at the Energy department

- Date (from – to)

2005-2010

*Pagina 2 - Curriculum vitae di
Manzolini Giampaolo*

Per ulteriori informazioni:

www.cedefop.eu.int/transparency

www.europa.eu.int/comm/education/index_it.html

www.eurescv-search.com

- Name and type of institution POLITECNICO DI MILANO – DIPARTIMENTO DI ENERGETICA
P.za L. Da Vinci, 32 – 20133 MILANO – ITALY
- Activity Tutor for different courses:
Machines and energy systems at the school of electric engineering;
Machines at the school of engineering of the automation
Machines and energy systems at the school of mechanical engineering

PROFESSIONAL COLLABORATIONS

- Date (from – to) **2012-today**
Title **Reforcell- Advanced Multi-Fuel Reformer for Fuel Cell CHP Systems**
• Activity Research and development activity; Dissemination manager
Commitment Financed project from the Joint Technology Undertaking on Fuel Cells and Hydrogen
- Date (from – to) **2010-2012**
Title **CACHET-II: Carbon Dioxide Capture and Hydrogen Production with Membranes**
• Activity Research and development activity and dissemination activity
Commitment Financed project from the European commission within the 7th framework program
- Date (from – to) **2008-2012**
Title **Solar thermal plants**
• Activity Research and development activity;
Commitment ENEL
- Date (from – to) **2008-2011**
Title **CAESAR: CO₂ capture in power plants by SEWGS (Sorption Enhanced Water Gas Shift)**
• Activity Research and development activity and dissemination activity
Commitment Financed project from the European commission within the 7th framework program

SCIENTIFIC INTERESTS

- Thermodynamic analysis of advanced fossil fuel-fired power plants for co-production of hydrogen-electricity with no (or low) CO₂ emissions in atmosphere;
- Application of membrane technology and integration in chemical reactor for hydrogen production;
- Distributed generation and tri-generation;
- Polymer electrolyte membrane and molten carbonate Fuel Cell;
- Analysis of innovative systems for cogeneration in particular based on Fuel Cell technology;
- Renewable energy application for CO₂ emission control focusing on solar energy: solar thermal plants and PV;
- Steam turbine off-design simulation and diagnostic

MAIN PUBLICATIONS

1. Giotri A, Binotti M, Astolfi M, Silva P, Macchi E, Manzolini G, (2012) "Comparison of different solar plants based on parabolic trough technology" *Solar Energy* 86 (5), pp 1208-1221
2. Manzolini G, Giotri A, Saccilotto C, Silva P, Macchi E. (2012) "A numerical model for off-design performance calculation of parabolic trough based solar power plants", *Journal of Solar Energy engineering, Transaction of ASME* 124 (1) art. no. 011003, DOI: 10.1115/1.4005105;
3. Manzolini G, Campanari S, Chiesa P, Giannotti A, Bedont P, Parodi F. (2012) "CO₂ separation from combyned cycles using molten carbonate fuel cells", *Journal of Fuel Cell Science and technology* 9 (1) art. no 011018, DOI: 10.1115/1.4005125
4. Chiesa P, Campanari S, Manzolini G. (2011) "CO₂ cryogenic separation from combined cycles with Molten Carbonate Fuel Cells", *International Journal of Hydrogen Energy*, (Vol. 36, Iss. 16 pp. 10355-10365), DOI: 10.1016/j.ijhydene.2010.09.068
5. Roses L, Gallucci F, Manzolini G, Campanari S, van Sint Annaland M. (2011) "Comparison between fixed bed and fluidized bed membrane reactor configurations for PEM based micro-cogeneration systems", *Chemical Engineering Journal* (vol. 171, Iss. 3, pp. 1415-1427), DOI: 10.1016/j.cej.2011.05.061
6. Manzolini G, Giotri A, Saccilotto C, Silva P, Macchi E (2011), "Development of an innovative code for the design of thermodynamic solar power plants part B:Performance assessment of commercial and innovative technologies", *Renewable Energy*, (Vol. 36, Iss. 7, pp. 2465-2473) DOI: 10.1016/j.renene.2011.02.003
7. Manzolini G, Giotri A, Saccilotto C, Silva P, Macchi E (2011), "Development of an innovative code for the design of thermodynamic solar power plants part A: Code description and test case", *Renewable Energy*, (Vol. 36, Iss. 7, pp. 1993-2003) DOI:10.1016/j.renene.2010.12.027
8. Manzolini G, Macchi E, Binotti M, Gazzani M (2011), "Integration of SEWGS for carbon capture in natural gas combined cycle. Part A: Thermodynamic performances", *International Journal of Greenhouse Gas Control*, (Vol. 5, Iss. 2, pp. 200-213), DOI:10.1016/j.ijggc.2010.08.006
9. Manzolini G, Macchi E, Binotti M, Gazzani M (2011), "Integration of SEWGS for carbon capture in Natural Gas Combined Cycle. Part B: Reference case comparison" *International Journal of Greenhouse Gas Control*, (Vol. 5, Iss. 2, pp. 214-225) DOI:10.1016/j.ijggc.2010.08.007
10. Basile A, Campanari S, Manzolini G, Iulianelli A, Longo T, Liguori S, De Falco M, Piemonte V (2011), "Methane steam reforming in a Pd-Ag membrane reformer: An experimental study on reaction pressure influence at middle temperature" *Int. Journal of Hydrogen Energy*, (Vol. 36, Iss. 2, pp. 1531-1539) DOI:10.1016/j.ijhydene.2010.10.101