

EUROPEAN
CURRICULUM VITAE
FORMAT



PERSONAL INFORMATION

Name
Telephone
E-mail
Nationality
Date of Birth

COLOMBO LUIGI PIETRO MARIA

+39 02 2399 3887

luigi.colombo@polimi.it

ITALIAN

1973/11/23

WORK EXPERIENCE

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

2014/12/16 – TODAY

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

University

Associate professor

(Courses: Engineering Thermodynamics, Multiphase Systems and Technologies)

Teaching and scientific research.

Head of the Laboratory of Optical Measurements for Heat Transfer (since 2009).

Head of the Air-Oil-Water Facility of the Multiphase Flow Laboratory (since 2014).

Co-Responsible of the Student Internships for the Degree in Energy Engineering (since 2006). Member of the Self Evaluation Board of the BSc/MSc Programme in Energy Engineering for the EUR-ACE® Label (since 2011)

Secretary of the Board of the BSc/MSc Programme in Energy Engineering (since 2014).

Director's delegate for Teaching at the Department of Energy.

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

2005/05/02 – 2014/12/15

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

University

Assistant professor

(Courses: Engineering Thermodynamics, Heat and Mass Transfer)

Teaching and scientific research.

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

2004/05/04 – 2005/05/01

POLITECNICO DI MILANO – DIPARTIMENTO DI ENERGETICA
P.a Leonardo da Vinci 32 – 20133 MILANO – ITALY

University

Research Fellow at the Laboratory of Heat Transfer Optical Measurements

Scientific research and teaching

EDUCATION AND TRAINING

- Date (from – to) **2002/01/03 – 2004/03/05**
- Name and type of institution POLITECNICO DI MILANO – DIPARTIMENTO DI ENERGETICA P.za L. Da Vinci, 32 – 20133 MILANO – ITALY
- Principal subjects Holographic Interferometry, Digital Speckle Photography, Convective Heat Transfer
- Title of qualification awarded PhD degree cum laude obtained discussing the thesis “Application of Optical Methods to the Study of Forced Convection Heat Transfer”.

- Date (from – to) **1992/15/09 – 1999/22/12**
- Name and type of institution POLITECNICO DI MILANO – DIPARTIMENTO DI ENERGETICA P.za L. Da Vinci, 32 – 20133 MILANO – ITALY
- Principal subjects Digital Signal Processing
- Title of qualification awarded Electronic engineer – Sub-topic Bioengineering – grade 91/100
Beat to beat Relationships among Heart Frequency, Breathing and Ventricular Volume by ECG Techniques.

RESEARCH ACTIVITY

My research interests are mainly related to the field of heat and mass transfer where I deal with both experimental activity and numerical models. The various contributions documented by scientific publications can be grouped in the following research lines:

1. Thermal analysis of electronic devices, in particular LED and Systems on Package.
2. Single-phase convective heat transfer. The studies are mainly devoted to heat transfer enhancement in forced convection and/or involve the application of innovative optical techniques (IR-thermography, holographic interferometry, digital speckle photography, background oriented schlieren) to the measurement of the local heat transfer convective coefficient.
3. Two-phase flow and heat transfer. Experimental activities have been carried out to characterize:
 - a. Heat transfer enhancement during boiling and condensation of refrigerants flowing in microfin tubes.
 - b. Fluid dynamics of liquid-liquid or gas-liquid mixtures.
 - c. Water transport in fuel cell components.
4. Analysis of Energy Systems. Modelling activities mainly in the field of applied thermal engineering for:
 - a. Civil/industrial plants.
 - b. Cogeneration.
 - c. Solar systems.

MEMBERSHIPS

Member of the Italian Union of Thermo-Fluid Dynamics (UIT)

Reviewer for the following journals: ASME Journal of Thermal Science and Engineering Applications, ASME Journal of Electronic Packaging, ASME Journal of Solar Energy Engineering, ASME Journal of Engineering for Gas Turbines and Power, Applied Physics Letters, Experimental Thermal and Fluid Science, Applied Thermal Engineering, Applied Energy, International Journal of Refrigeration.