Short CV

1. Name and surname **Paolo DI BARBA**

a) father surname: Di Barba
b) name of the parents: Bianca, Giovanni (late)
c) mother surname: Basso

2. Date and place of birth: 21 June 1963, Albenga (Italy)

3. Citizenship: Italian (passport YA1690672, Italy)

4. Tax payer identification code: DBRPLA63H21A145L

5. Address

Home: Via Luigi Tosi n.2, I-27100 Pavia, Italy
Job: Dept of Electrical, Computer and Biomedical Engineering
University of Pavia
Via Ferrata n.5, I-27100 Pavia, Italy
e-mail: paolo.dibarba@unipv.it
daytime phone: +39-0382-985250 (office 1)
+39-0382-985265 (office 2)

6. Education

Master of Science in Electronic Engineering (with honours), University of Pavia, 1988
PhD in Electrical Engineering, Lodz University of Technology, Poland, 2003
DSc in Electrical Engineering, Lodz University of Technology, Poland, 2013

7. Career

University of Pavia	Researcher	1/4/1991- 31/3/1994
University of Pavia	Senior researcher	1/4/1994- 31/10/1998
University of Pavia	Associate professor	1/11/1998- 30/9/2002
University of Pavia	Full professor	1/10/2002 on
Lodz Univ. of Technology	Visiting professor	1/10/2013 on

8. Scientific and academic profile

In the year 2002, Paolo Di Barba was appointed as a full professor of electrical engineering (tenure track position) at the University of Pavia, where he currently teaches various courses (at both BSc and MSc levels) in the following areas:

- circuit theory;
- field theory;

- principles and applications of electrical engineering;
- numerical models for electricity and magnetism.

At the time being, he is the head of the doctoral school in Electronics, Computer Science and Electrical Engineering, University of Pavia.

He is a member of the steering committee of the Research Centre for the History of Electrical Technology, University of Pavia.

He is responsible of the Electromagnetic Device CAD Laboratory at the Department of Electrical, Computer and Biomedical Engineering, University of Pavia, where he currently leads a group of young scientists active in the area of computational electromagnetics.

His scientific interests are focused on the analysis and synthesis of electric and magnetic fields, with special emphasis on evolutionary algorithms for inverse problems and optimisation. Main applications include computer-aided design of electromagnetic and electromechanical devices.

In this area, he has been one of the pioneering researchers who contributed to transfer the theory of Pareto optimality from classical microeconomics to computational electromagnetics.

More recently, he has been involved in the study of coupled-field inverse problems, characterized by magnetic and thermal domains: it is a multidisciplinary subject of research, rapidly growing e.g. in the area of clinical hyperthermia for oncological therapies.

As far as publications are concerned, he is author or co-author of more than 150 papers, presented to international conferences or published in international journals.

In particular, he is the author of the monograph entitled “Multiobjective Shape Design in Electricity and Magnetism” (Springer, 2010) and a co-author of the textbook entitled “Field Models in Electricity and Magnetism" (Springer, 2008).

He is an associate editor of the IEEE Transactions on Magnetics – Conferences.

He has been guest editor of special issues of international journals, and also invited speaker of international conferences.

He is a member of the steering committee of international symposia in the area of computational electromagnetism, in particular:

- Intl Symposium on Electromagnetic Fields in Electrical Engineering (ISEF),
- Workshop on Optimization and Inverse Problems in Electromagnetism (OIPE).

He is a member of the editorial board of COMPUMAG (Conference on the Computation of Electromagnetic Fields), a major international forum of the electromagnetic community.

He regularly acts as a reviewer for various international journals, like e.g.:

- *International Journal of Applied Electromagnetics and Mechanics - IJAEM*;
- *International Journal for Computation and Mathematics in Electrical and Electronic Engineering - COMPEL*;
- *IEEE Transactions on Magnetics.*

He contributes to research projects in cooperation with various international institutions, in particular:

- Institute of Mechatronics and Information Systems, Lodz University of Technology;

- Faculty of Electrical Engineering at the West Pomeranian University of Technology in Szczecin;
- Ecole Centrale de Lille, Lab. d'Electrotechnique et d'Electronique de Puissance ;
- Dipartimento di Ingegneria Industriale, Università degli Studi di Padova.

In the year 2009, he was an invited professor at the West Pomeranian University of Technology in Szczecin, and also at the Lodz University of Technology.
In the year 2010, he was an invited professor at the Académie de Lille – Université d'Artois.
In the academic year 2009-2010 he was a visiting professor at the University of Padova.
In the year 2011, he was an invited professor at the Lodz University of Technology.

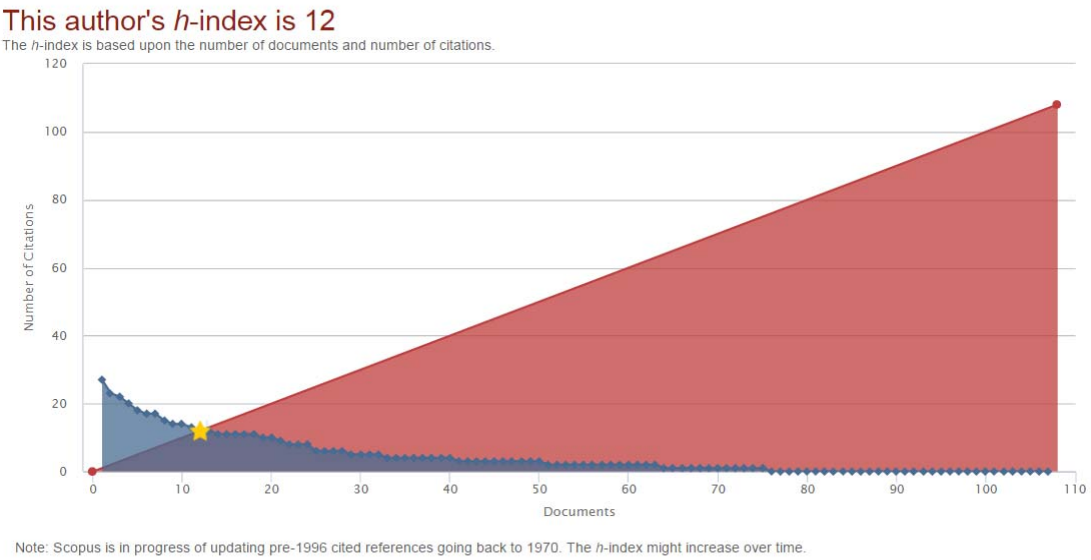
At the University of Pavia he is the local coordinator of a granted TEMPUS project, the scope of which is to implement a new Master of Engineering in Microsystem Design at four technical universities in Ukraine, i.e. Donetsk. Kiev, Kharkov, and Lviv; the other partners are the Lodz University of Technology, the Technical University of Ilmenau, and the INSA-Lyon.

He has been a member of the IEEE Society since the year 1995, as well as a member of the International Compumag Society since its very beginning (year 1995).

He acted as a scientific consultant of Infolytica Corporation (Montreal, Canada) for the development of a code devoted to the automated optimal design of electromagnetic devices, based on the finite-element method for the field analysis. This was a major project of know-how transfer from university to industrial world.

He is a scientific consultant of the ABB Corporate Research Centre (Baden, Switzerland) in the area of thermal and dielectric design of power transformers.

Last update: May 2015



Citation index: 476