



### **Curriculum Vitae of Filippo Spertino**

Filippo Spertino (FS), born in Torino on 8/9/1970, M.Sc. in Electrical Engineering (110/110) at Politecnico di Torino in the academic year 1994/95 discussing the thesis "Measurement procedures to obtain the current-voltage characteristics of the solar cells of a photovoltaic module".

In 1995 FS passed the State Examination for professional Doctor Engineer (140/140). He is "subject expert" in Electrical Measurements since 1997.

After having won the XI-cycle competition (first place), FS obtained his PhD in the academic year 1999/2000 discussing the thesis "Hybrid systems to supply residential users: grid/photovoltaics multi-target dispatch".

Therefore, FS is involved in the research concerning the design, development, testing of stand-alone and grid-connected photovoltaic systems for different applications.

From 1997 to 2001 he was graduate technician at Dept. of Electrical Engineering of Politecnico di Torino. During this activity, he got experience in experimental analysis of electrical devices by automatic data acquisition systems, which he implemented "ad hoc". Moreover, he performed calibration of measurement instruments in the Calibration Centre of Politecnico di Torino. He cooperated to student exercises in laboratory for the courses of Electrical Measurements, Electrical Machines and Modelling of Electro-mechanical Systems, belonging to the M.Sc. Course in Electrical Engineering.

From 2001 to 2014 FS has been Assistant Professor of Electric Power Systems ING-IND33 (Scientific Chief: Prof. G. Chicco) at Energy Department (formerly Dept. of Electrical Engineering) and is interested in Photovoltaics and Wind Energy Systems. Currently, he is an associate professor with full professor recognition within the Italian National Scientific Habilitation (ASN) in "Electrical Energy Engineering" (competition sector 09/E2) sub-branch "Electric Power Systems" (ING-IND/33).

About teaching activity, FS has carried out, in the academic year 2001/02, the exercises of the course Electric Power Systems for the Degree Course in "Electrical Engineering" (Alessandria branch), whereas (2002-2006) the exercises of the course Electric Power Systems for the M.Sc. Course in "Energy Engineering". From 2001 to 2005 he developed the part on the solar energy source in the course Non-Conventional Energy Sources and from 2002 to 2006 he developed the part on Photovoltaic systems in the course Non-Conventional Energy Systems for the M.Sc. Course in "Energy Engineering" (Vercelli branch). From 2008 to 2011 FS taught the course Systems for Electricity Production for the Degree in "Electrical Engineering".

Furthermore, since the academic year 2002/2003 until 2013/2014 he taught a course on Industrial Electric Power Systems (about 150 students enrolled) for the M.Sc. Course in “Management Engineering”. He teaches the Ph.D. student course "Photovoltaic generators and plants" (in English). Since the academic year 2012/2013, he teaches a course entitled Photovoltaic and Wind generation of Electricity (about 150 enrolled students) for various B.Sc. Engineering Courses. Currently, he teaches a course entitled Solar Photovoltaic Systems for M.Sc. in Energy and Nuclear Engineering.

FS was tutor or co-tutor of 216 theses in Electrical Engineering (mainly), Electronic Engineering, Energy Engineering, Engineering and Management, Environmental Engineering. For the Ph.D. course in "Electrical, Electronics and Communications Engineering" he has been supervisor of five Ph.Doctors and currently he is supervisor of four Ph.D. students.

The research activity on photovoltaic and wind power systems, begun from the study of the mismatch in the current-voltage characteristics due to manufacturing tolerances and partial shading of PV modules, extends to the mismatch between the curves "power-wind speed" of the turbine manufacturers and the same curves in the onsite actual operation. This activity includes, then, the experimental analysis of "power quality", energy efficiency, load management, reliability and availability of such systems, in which power electronics is of great importance.

FS is the author of over 150 publications, mostly in English, 48 journal papers, 3 review papers two articles on books (chapters), one monograph and more than 90 papers on proceedings of conferences. His h-index is 23 and the total number of citations is 2000+ from Scopus.