CURRICULUM VITAE
di
Cristian Bovo

Cristian Bovo was born 1973 in Sesto San Giovanni (Milano). He received his MS degree in Electrical Engineering at the Politecnico di Milano on 21th December 1998. In 1999 he obtained the habilitation to the engineer activity. In 2002, he received the PhD Degree discussing a thesis titled "Application of multi objective methodologies in the context of the electricity market" at the Department of Electrical Engineering, Politecnico di Milano. From March 2002 to 31st July 2002 he joined as Postdoctoral Researcher at the Department of Electrical Engineering, Politecnico di Milano. From 1st August 2002, he joined as Assistant Professor at the Electrical Department of Politecnico di Milano and from 1st January 2008 he joined at the Department of Energy, Politecnico di Milano. From August 2015 was Associate Professor at the Department of Energy, Politecnico di Milano.
In January 2021 he moved to the Department of Electrical, Computer and Biomedical Engineering of the University of Pavia and from 1st November 2023 he is a full professor in Electric power systems.

The research is focused on many different topics regarding the planning and operation of power system. In particular, one of the topics has been focused on the methodological aspects related to optimization problems. The research was oriented to the study of both classical optimization algorithms and artificial intelligence techniques such as genetic algorithms, neural networks, fuzzy systems and neuro-fuzzy-genetic techniques. Another subject regards the interaction among security issues and electricity market. In this context, the research is aimed at investigating the impact of the technical constraints of the network on the market structure. The research activity is also oriented to the definition of models of electricity market in order to provide simulation tools to assess the technical and economic consequences of the strategic choices of the market operators with particular reference on the interaction between the day ahead electricity market and the ancillary services market. Another topic regards the definition of new objective function for Optimal Reactive Power Flow problems. The objective of this research line is concerned the definition of new objective functions directly related to the security of the electrical system for ORPF problems.
Recently, the research activity is focused on the integration of the non-programmable Renewable Energy Sources (RES) in the electricity system. In particular, probabilistic approaches are adopted to compute the state of the system and to define new security operational criteria in presence of a strong penetration of wind and photovoltaic power plants. In this context, the research activity is also oriented on the voltage regulation issues and on the state estimation problem of medium and low voltage systems characterized by few measurements points. Finally, another research activity regards the definition of criteria design for microgrid in presence of a mix of traditional generators, RES and storage system.

He has been responsible for several research contracts with the main European and Italian operators, including Repower and Siemens Italia, and the Italian TSO, Terna Spa.

Cristian Bovo received the award for the best paper for the paper A. Berizzi, C. Bovo, "The use of genetic algorithms for the localization and sizing of passive filters," presented at 9th International Conference on Harmonics and Quality of Power (ICHQP), Orlando, Florida, 1-4October, 2000. This work was also presented as an invited paper at the International Conference on Intelligent System Application to Power Systems (ISAP), Budapest, Hungary, 18-21 June, 2001.