

## MICHEL RIVIER ABBAD

### Academic

- Ph. D. in Electrical Engineering from I.C.A.I. – Universidad Pontificia Comillas (April 1998)
- Electrical Engineer from I.C.A.I. – Universidad Pontificia Comillas (June 1986)

### Professional evolution

- Since July 2002 Director at the Instituto De Investigación Tecnológica (IIT) of the Universidad Pontificia Comillas, Madrid
- April 93 – June 02 Research staff and deputy director from 1999 at IIT, and Assistant Professor in the School of Electrical Engineering of the same University.
- Project manager, principal investigator and/or participant investigator of more than fifteen research projects in the following areas:
- Electric Power System Engineering.
  - Modeling, analysis, optimization and control of operation and planning of generation, transmission and distribution in large electrical systems.
  - Electricity economics and regulation. Transmission pricing.
- April 88-April 93 Research assistant at the Instituto de Investigación Tecnológica (IIT) from Universidad Pontificia Comillas.

### Teaching experience

#### University courses:

Since October 93: Escuela Técnica Superior de Ingeniería (ICAI.), Universidad Pontificia Comillas,

#### Bachelor courses

- *Electrical Machines*
- *Generation, Transmission and Distribution of Power Systems*
- *Operation of Power Systems*
- *Systems Engineering*
- *Coordination of bachelor thesis within the Electricity Engineer branch*

#### Doctoral and Postgraduate Courses

- *Regulation and Economics of Electrical Energy Transmission systems*

#### Specialized courses:

- 2004-05 Lecturer: Master **Gas and Electricity** organized by REPSOL
- April 2003 Lecturer: Course **Curso de Negocio Energético** organized by the Club Español de la Energía. MADRID, Spain
- February 2003 Organizer and Lecturer: International Course organized under the European program EES-UETP **Introduction to Optimization Techniques applied to Power Systems Generation Operation Planning**. Madrid, Spain.
- April 2002 Lecturer: Course **Curso de Negocio Energético** organized by the Club Español de la Energía. MADRID, Spain
- March 2002 Lecturer: international Course **First Training Course for Energy Regulators**, organized by mean of the Council of European Energy Regulators. Palma de Mallorca. Spain.
- June 2000 Organizer: international Course organized under the european program CREG-ALURE "**Regulation and economy of electrical energy transmission systems**" in Bucaramanga, Colombia
- November 1999 Organizer and Lecturer: international Course organized under the european program CREG-ALURE "**Regulation and economy of electrical energy transmission systems**" in Santiago de Chile, Chile
- July 1999 Lecturer: international Course organized under the european program CREG-ALURE "**Introduction to Electrical Energy Regulatory Issues**" Cuernavaca, Méjico

- October 1998 Lecturer: international Course organized under the european program COMETT II "**Electricity Markets: Fundamentals and International Experiences**" Oporto, Portugal
- March 1996 Lecturer: international Course organized under the european program COMETT II "**Some Recent Advances on Optimisation and Simulation of Generation Management**" Paris
- September 1994 Lecturer: international Course "**Electric Energy Markets**" for CIDESPA

## Publications

- 2005 M. Ventosa, Á. Baíllo, A. Ramos, M. Rivier "**Electricity market modelling trends**" Energy Policy. Vol 33 Pag 897 - 913
- May 2004 Á. Baíllo, M. Ventosa, A. Ramos, M. Rivier "**Optimal offering strategies for generation companies operating in electricity spot markets**". IEEE Transactions on Power Systems. Vol:19 Pag:745-753
- June 2003 J. Reneses, Á. Baíllo, E. Centeno, M. Ventosa, M. Rivier, A. Ramos: "**Strategies to fulfill medium-term objectives through short-term operation in competitive power markets**". IEEE PowerTech 2003, June, 2003. Bolonia, Italia
- August 2002 M. Rivier, I. J. Pérez Arriaga, C. Vázquez, "**Will the California crisis perturb Spain's liberalization process?**" IEEE Power Engineering Review, August 2002
- May 2002 C. Vázquez, M. Rivier, I. J. Pérez Arriaga "**A market approach to long-term security of supply**" IEEE Transactions on Power Systems, Vol. 17, No. 2, pp. 349-357, May 2002
- January 2002 C. Vázquez, M. Rivier, I. J. Pérez Arriaga "**Production Cost Minimization Versus onsumer Payment Minimization in Electricity Pools**" IEEE Transactions on Power Systems Vol 17, Nº 1 January 2002, pag 119 - 127
- 2001 Á. Baíllo, M. Ventosa, A. Ramos, M. Rivier, and A. Canseco, "**Strategic Unit Commitment for Generation in Deregulated Electricity Markets,**" in *The Next Generation of Electric Power Unit Commitment Models, International Series in Operations Research & Management Science*, B. F. Hobbs, M. H. Rothkopf, R. P. O'Neill, and H.-P. Chao, Eds., 1st ed. Boston: Kluwer Academic Publishers, 2001, pp. 227-248.
- 2001 Rivier, M.; Ventosa, M.; Ramos, A. "**A generation operation planning model in deregulated electricity markets based on the complementarity problem**" in *Complementarity: Applications, algorithms and Extensions*, Michael C. Ferris, Olvi L. Mangasarian and Jong-Shi Pang, Eds., Kluwer Academic Publishers, 2001, pp. 273-295.
- May 2001 Carlos Vázquez, Michel Rivier, Ignacio J. Pérez-Arriaga, "**If Pay-as-Bid Auctions Are Not a Solution for California, then Why Not a Reliability Market?**", The Electricity Journal, pp. 41-48.
- 1998 Ramos, A.; Ventosa, M.; Rivier, M. "**Modeling Competition in Electric Energy Markets by Equilibrium Constraints**" Utilities Policy 7 (4) Pag 233-242

## Other Activities

PhD thesis supervised:

- January 2001 Mariano Ventosa; "**Modelling Generation Operation in Liberalized Electricity Markets by the Complementarity Problem**", ICAI Engineer School. Universidad Pontificia Comillas
- September 2002 Álvaro Baíllo; "**A Methodology to Develop Optimal Schedules and Offering Strategies for a Generation Company Operating in a Short-Term Electricity Market**", ICAI Engineer School. Universidad Pontificia Comillas
- September 2003 Carlos Vázquez; "**Electricity Market Clearing Models**", ICAI Engineer School. Universidad Pontificia Comillas