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Updated on August 29, 2018



## Ramos Galán, Andrés

Category: Ordinary Own of the Higher Technical School of Engineering (ICAI) ([https://translate.googleusercontent.com/translate\\_c?](https://translate.googleusercontent.com/translate_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://www.comillas.edu/&xid=172)

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Department of Industrial Organization

“ He received the degree of Industrial Engineer from the Universidad Pontificia Comillas in 1982 and the Doctor of Industrial Engineering from the Polytechnic University of Madrid in 1990. From 1982 to 1984 he was a fellow of the Technological Institute for Postgraduates. In 1984 he joined the Universidad Pontificia Comillas. He is currently Ordinary Professor of the ETS of Engineering ICAI in the Department of Industrial Organization and the Institute of Technological Research. He has been Director of the MBA in the Global Energy Industry since 2015. From 1999 to 2008 he was Director of the Department of Industrial Organization. In 1998 he was Director of Technological Research Institute. He was Visiting Professor at Stanford University in California (USA) in the academic year 1991-92, at the Massachusetts Institute of Technology in the summer of 2009 and every January 2010 to 2017 and at Aalborg University, Denmark, in February 2017 and February 2018. Reviewer of international magazines and conferences and evaluator of the National Agency for Evaluation and Prospective (ANEP). His areas of interest include the exploitation, planning and economics of electric power systems, the application of operational research and software development. He teaches undergraduate and master's degrees about the application of quantitative methods in the improvement of decision making and data analysis. ”

## Contact



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## Academic training

Doctor / Industrial Engineer, Polytechnic University of Madrid.

Industrial Engineer, Universidad Pontificia Comillas.

## Research areas

Mathematical techniques of operational research and its application to large problems. Large-scale optimization techniques. Stochastic optimization.

Planning and operation of electric power systems (generation and transport planning models, generation operation models).

Economy of the electric sector.

## Areas of knowledge

Statistics and Operational Research.

## Teaching experience

Professor Andrés Ramos Galán has 22 years of experience in this University, and in recent years has taught the following subjects:

- Statistics II
- Decision support models in the electric power industry
- Preliminary research project
- Quantitative methods for the decision
- Optional complementary. Current developments in power systems
- Optimization techniques
- Analysis of data for the decision
- Master's Thesis
- Fundamentals on electrical engineering and optimization techniques
- Deterministic optimization / Deterministic optimization










## Selected Publications












C. Gentile, GA Morales Spain, A. Ramos Galán, A tight MIP formulation of the unit commitment problem with start-up and shut-down constraints. EURO Journal on Computational Optimization. Vol. 5, No. 1, p. 177-201, March 2017. ISSN: 2192-4406. Repository: <http://hdl.handle.net/11531/15525>










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-  JP Chaves Ávila, F. Báñez Chicharro, A. Ramos Galán, Impact of support schemes and market rules on renewable electricity generation and system operation: the Spanish case. IET Renewable Power Generation. Vol. 11, no. 3, p. 238-244, February 2017. ISSN: 1752-1416. Repository: <http://hdl.handle.net/11531/15535> ([https://translate.googleusercontent.com/translate\\_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/15](https://translate.googleusercontent.com/translate_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/15)
-  M. Moradi, H. Abdi, S. Lumbreras Sancho, A. Ramos Galán, S. Karimi, Transmission expansion planning in the presence of wind farms with a mixed AC and DC power flow model using an imperialist competitive algorithm. Electric Power Systems Research. Vol. 140, p. 493-506, November 2016. ISSN: 0378-7796. Repository: <http://hdl.handle.net/11531/14860> ([https://translate.googleusercontent.com/translate\\_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/14](https://translate.googleusercontent.com/translate_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/14)
-  A. Ramos Galán, ML Rivier Abbad, J. García González, JM<sup>a</sup> Latorre Canteli, GA Morales Spain, Assessment of operation reserves in hydrothermal electric systems with high wind generation, in 13th International Conference on the European Energy Market - EEM16, Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência, Oporto, 2016. ISBN: 978-1-5090-1299-2. Repository: <http://hdl.handle.net/11531/11707> ([https://translate.googleusercontent.com/translate\\_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/11](https://translate.googleusercontent.com/translate_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/11)
-  GA Morales Spain, CM Correa-Posada, A. Ramos Galán, Tight and compact MIP formulation of configuration-based combined-cycle units. IEEE Transactions on Power Systems. Vol. 31, n° 2, pgs. 1350-1359, March 2016. ISSN: 0885-8950. Repository: <http://hdl.handle.net/11531/7681> ([https://translate.googleusercontent.com/translate\\_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/76](https://translate.googleusercontent.com/translate_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/76)
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-  GA Morales Spain, C. Gentile, A. Ramos Galán, Tight MIP formulations of the power-based unit commitment problem. Or Spectrum. Vol. 37, n° 4, pgs. 929-950, October 2015. ISSN: 0171-6468. Repository: <http://hdl.handle.net/11531/4819> ([https://translate.googleusercontent.com/translate\\_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/48](https://translate.googleusercontent.com/translate_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/48)
-  GA Morales Spain, JM<sup>a</sup> Latorre Canteli, A. Ramos Galán, Tight and compact MILP formulation for the thermal unit commitment problem, in Young Energy Economists and Engineers Seminar - YEEES 2015, Association des Economistes de l'Energie, Paris, 2015. ISBN: (NULL) Repository: <http://hdl.handle.net/11531/7960> ([https://translate.googleusercontent.com/translate\\_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/79](https://translate.googleusercontent.com/translate_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/79)
-  S. Lumbreras Sancho, A. Ramos Galán, P. Sánchez Martín, Automatic selection of candidate investments for transmission expansion planning. International Journal of Electrical Power & Energy Systems. Vol 59, pgs. 130-140, July 2014. ISSN: 0142-0615. Repository: <http://hdl.handle.net/11531/4897> ([https://translate.googleusercontent.com/translate\\_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/48](https://translate.googleusercontent.com/translate_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/48) NENApetdw-w)

-  B. Dupont, K. Dietrich, A. Ramos Galán, R. Belmans, Impact of residential demand response on power system operation: a Belgian case study. *Applied Energy* Vol. 122, pgs. 1-10, June 2014. ISSN: 0306-2619. Repository: <http://hdl.handle.net/11531/4902> ([https://translate.googleusercontent.com/translate\\_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/4902AoXv3h1FMbNb61dd9iQ](https://translate.googleusercontent.com/translate_c?depth=1&hl=en&prev=search&rurl=translate.google.com.sg&sl=es&sp=nmt4&u=http://hdl.handle.net/11531/4902AoXv3h1FMbNb61dd9iQ)) .
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## Other relevant activities

Director of the MBA in the Global Energy Industry of the Universidad Pontificia Comillas, jointly organized with the University of Strathclyde.

Co-organizer of the Applied Mathematical Programming and Modeling Congress (APMOD 2006) and the 7th International Conference on the European Energy Market (EEM 10).

Member of the Follow-up Committee of the Iberdrola Chair of Energy and Innovation. Comillas Pontifical University.

Evaluator of The Research Council of Norway, Austrian Science Fund FWF, National Agency for Evaluation and Prospective (ANEP), Netherlands Science Foundations NWO and STW.

## Professional experience

Since 1982 I have participated in more than one hundred research contracts for electricity companies, mainly Spanish (Endesa, Unión Fenosa, REE, Iberdrola), but also European and South American. I have also done research for the National Energy Commission (CNE) and other government institutions.

## External accreditations

Sexenio Engineering and Architecture - Communication, Computing and Electronics Engineering (2011-2016).

Sexenio Engineering and Architecture - Communication, Computing and Electronics Engineering (2005-2010).

Sexenio Engineering and Architecture - Communication, Computing and Electronics Engineering (1989-2004).

ACAP Certification - Private University Doctor Professor (06/07/2005).

ACAP Certification - Contracted Professor Doctor (06/07/2005).

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