



## 1. Personal data.

Name and Surname	Fco. Javier Heredia Cervera		
DNI	46533591Z	Birthdate:	March 2, 1965. Spain
Institution	Universitat Politècnica de Catalunya		
Dpt. / Centre	Department of Statistics and Operations Research School of Mathematics and Statistics (FME)		
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		Web page:	<a href="http://www-eio.upc.es/~heredia">http://www-eio.upc.es/~heredia</a>
Professional category	Associate professor (TU)	Start date	1998
PhD, Operations Research	Universitat Politècnica de Catalunya		1995
Licenciado en Ciencias Físicas	Universitat de Barcelona		1988

## 2. Résumé.

Currently I am associate professor (Professor Titular d'Universitat) at the Department of Statistics and Operational Research of the UPC. My main area of interest is the modeling of multistage stochastic programming problems and their resolution through mixed integer non-linear programming algorithms. I have applied this methodology to problems in energy systems and supply chain in several research projects with both public and private funding. Four recognized six years' periods of investigation ("sexenios"), the last one granted in June 2019. 32 publications including JCR papers (most of them in Q1 and Q2), chapters of book and indexed proceedings full papers. 59 presentations to congresses, almost all international. I have participated in a total of 19 funded research projects, seven of them as IP.

## 3. 5 selected publications within the period 2015-2020 (full list [here](#)).

- Daniel Ramón-Lumbierres, F.-Javier Heredia, Joaquim Minguella-Canela, Asier Muguruza-Blanco (4/2). 2020. Optimal postponement in supply chain network design under uncertainty: an application for additive manufacturing International journal of production research. Taylor & Francis. ISSN 0020-7543.
- Mattia Barbero, Cristina Corchero, Lluc Canals, Lucia Igualada, F.-Javier Heredia (5/5). 2020. Critical evaluation of European balancing markets to enable the participation of Demand Aggregators Applied energy. 264-114707, pp.1-23. ISSN 0306-2619.
- Heredia, F.-Javier; Cifuentes, J.; Corchero, C.(3/1). 2018. Stochastic optimal generation bid to electricity markets with emissions risk constraints Journal of environmental management. 207-1, pp.432-443. ISSN 0301-4797.
- Heredia, F.-Javier; Cuadrado, M.; Corchero, C.(3/1). 2018. On optimal participation in the electricity markets of wind power plants with battery energy storage systems Computers & operations research. 96, pp.316-329. ISSN 0305-0548.
- Leire Citores, Cristina Corchero, F.-Javier Heredia, "A stochastic programming model for the tertiary control of microgrids", 12th International Conference on the European Energy Market (EEM15), Lisbon, Portugal., IEEE, pp. 1-6, 19-22/05/2015

## 4. Activities of knowledge and technology transfer (recent, full list [here](#)).

- OPTIMITZACIÓ DE RESERVES CABLE EN BOBINES (ORCB) TOP-CABLE, SA. IP: Fco. Javier Heredia Cervera. (Department of Statistics and Operations Research). 01/06/2020- 01/09/2020. 11.500 €.
- Strategic analytical models in supply chain design through mathematical optimization ACCENTURE TECHNOLOGY LABS. IP: Fco. Javier Heredia Cervera. (Department of Statistics and Operations Research). 16/11/2016-P3Y1M16D. 70.255,02 €.
- Strategic analytical models in supply chain design through mathematical optimization



ACCENTURE TECHNOLOGY LABS. IP: Fco. Javier Heredia Cervera. (Department of Statistics and Operations Research). 16/11/2016-P3Y2M29D. 133.250,91 €.

## 5. Supervision of master and Ph.D. students.

- **Master Thesis ([full list](#)):** 19 Master thesis advised, on the topics of OR and mathematical optimization methods (specially stochastic optimization) applied to energy, Industry 4.0, supply chain and logistics, transportation and data science. They correspond to MSc thesis in masters of Statistics and Operations research (MESIO-FME), Machine-learning and Data Science (MIRI-FIB), and Engineering (Industrial and Energy engineering, ETSEIB).
- **Ph. D. Thesis:**
  - Marlyn Dayana Cuadrado Guevara, "Multistage Scenario Trees Generation for Renewable Energy Systems Optimization", Dept. of Statistics and Operations Research, UPC. 2020.
  - Cristina Corchero, "Short Term Bidding Strategies for a Generation Company in the Iberian Electricity Market", Dept. of Statistics and Operations Research, UPC. 2011. Currently position: Serra Hunter professor et the dept. of Stat. and IR, UPC, and leader of the Energy Systems Analytics group, Insitut de recerca en energia de Catalunya.
  - Cesar Beltran, "Generalized unit commitment by the radar multiplier method", Dept. of Statistics and Operations Research, UPC. 2001. Currently position: Associate professor (TU) at Universidad Rey Juan Carlos, Madrid.

## 6. Main funded research projects (recent, [full list here](#)).

- 2019 Doctorat Industrial, Modelos de optimización matemática en la gestión de centros comerciales AGAUR. Agència de Gestió d'Ajuts Universitaris i de Recerca. IP: Fco. Javier Heredia Cervera. (Department of Statistics and Operations Research). 07/09/2020- 07/09/2023. 33.960 €.
- RTI2018-097580-B-I00, Modelling and optimization of large-scale structured problems and applications AGENCIA ESTATAL DE INVESTIGACION. IP: Jordi Castro and Fco. Javier Heredia Cervera. (Department of Statistics and Operations Research). 01/01/2019- 31/12/2022. 82.885 €.
- MTM2013-48462-C2-1-R, Forecasting and optimization of wind generation in energy markets - 1 MIN DE ECONOMIA Y COMPETITIVIDAD. IP: Fco. Javier Heredia Cervera. (Department of Statistics and Operations Research). 01/01/2014- 31/12/2017. 59.290 €.
- DPI2008-02153, PLANIFICACIÓN ÓPTIMA DE LA GENERACIÓN ELÉCTRICA A CORTO Y MEDIO PLAZO EN ENTORNOS DE MERCADOS MÚLTIPLES CON RESTRICCIONES DE RIESGO Ministerio de Ciencia e Innovación (MICINN). Fco. Javier Heredia Cervera. (Department of Statistics and Operations Research). 01/01/2009- 30/03/2013. 155.721,62 €.

## 7. Other merits.

- Several vice-dean academic positions in the Faculty of Mathematics and Statistics, UPC ([full list](#)).
- Referee of several journals in optimization, operations research and energy engineering (EJOR, CAOR, IEEE-Trans. on PWS, IEEE-Systems, ANOR, TOP,...).
- Research project evaluator of the ANEP and AGAUR.