

# Unai San Miguel Alzórriz

## Curriculum Vitae

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### Personal information

Married, 3 daughters  
Born in 1974 in Spain

### Education

1992–2000 **Aeronautical Engineer**, *Universidad Politécnica de Madrid*.  
Master thesis: *Preliminary design of a wind turbine*

### Experience

- 2010–Present **R & D Engineer**, *ACCIONA Windpower*, Navarra.  
In the Blades design area, developed tools to perform aerodynamic design and analysis of wind turbine blades.  
◦ Design of AW61.2, AW64.7, AW64.7\_2 (with prebending) blades
- 2007–2010 **R & D Engineer**, *ACCIONA Windpower*, Navarra.  
In the Patents and research area, I took part in research projects, managed some patents and did technological surveillance.  
◦ Researcher in project *EOLIA: Deep water offshore wind technologies*
- 2000–2007 **R & D Engineer**, *Gamesa Eólica*, Navarra.  
In the Aerodynamics, Loads and Siting area, I took part in projects with a broad scope: calculation and certification of design loads, measured loads analysis, aerodynamic design of blades, complex terrain wind flow assessment, product support from the overall performance of the wind turbine point of view.
- 1999–2000 **Internship**, *Gamesa Eólica*, Navarra.  
In the Aerodynamics, Loads and Siting area.

### Computer skills

- Basic AcuSolve, FLUENT, Stan (RStan)
- Intermediate python, Matlab, R. I can use these to do pre- and post-processing tasks in data and simulation analysis. I have written at least one package/toolbox of each to help me and my colleagues in our daily tasks.
- Intermediate L<sup>A</sup>T<sub>E</sub>X, Microsoft Office, Bladed.

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## Publications

- 2017 *Global sensitivity analysis of the blade geometry variables on the wind turbine performance.*, F. Echeverría, F. Mallor, U. San Miguel, Wind Energy, DOI: 10.1002/we.2111
- 2014 *Airfoil family design for large offshore wind turbine blades.*, B. Méndez, X. Munduate, U. San Miguel, 5th Science of Making Torque from Wind Conference, Volume: 524, June 2014, DOI: 10.1088/1742-6596/524/1/012022
- Evolutionary blade design tool for maximizing energy in a wind turbine.*, E. Echeverría, J. Sanz-Corretge, U. San Miguel, E. Llorente, EWEA 2014, Barcelona
- 2001 *Flow over topographic configurations of interest: Comparison of results of different models.*, M. Esteban, A. Crespo, J. García, J. Hernández, U. San Miguel, EWEC 2001, Copenhagen

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## Communication Skills

- 2000–2005 Teacher in two sessions of the ETSII UPM course *Expert in design and planning of wind farms*.

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## Languages

Spanish	<b>Native</b>
English	<b>Good</b>
French	<b>Basic</b>

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## Interests

- Wind turbines aeroelasticity, data science and statistics, bayesian reasoning, data visualization.
- Pastry cooking, hiking.