

**Part A. DATOS PERSONALES**

Nombre	Enrique	
Apellidos	Granada Álvarez	
Sexo (*)	Varón	
Dirección email	egranada@uvigo.es	URL Web
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-1689-9992

**A.1. Situación profesional actual**

Puesto	Catedrático de Universidad
Organismo/ Institución	Universidad de Vigo
Departamento/ Centro	Ingeniería Mecánica
País	España
Palabras clave	Eficiencia Energética en Edificación

**A.3. Formación Académica**

Grado/Master/Tesis	Universidad/Pais
Doctor Ingeniero Industrial	Universidad de Vigo

**C.1. Publicaciones más importantes en libros y revistas con “peer review” y conferencias (ver instrucciones).**

1. Cordeiro-Costas, M., Pérez-Orozco, R., Hernandez-Cruz, P., Troncoso-Pastoriza, F., Granada-Álvarez, E. *Hybrid LSTM-MLP model with NSGA-II-based hyperparameter optimization for non-invasive occupancy estimation* (2025) *Energy and AI*, 22, 100643
2. Cordeiro-Costas, M., Villanueva, D., Eguía-Oller, P., Granada-Álvarez, E. *Intelligent energy storage management trade-off system applied to Deep Learning predictions* (2023) *Journal of Energy Storage*, 61, 106784
3. Martínez-Comesaña, M., Eguía-Oller, P., Martínez-Torres, J., Febrero-Garrido, L., Granada-Álvarez, E. *Optimisation of thermal comfort and indoor air quality estimations applied to in-use buildings combining NSGA-III and XGBoost.* (2022) *Sustainable Cities and Society*, 80, 103723
4. Eguía, P., Martínez-Mariño, S., Granada-Álvarez, E., Febrero-Garrido, L. *Empirical validation of a multizone building model coupled with an air flow network under complex realistic situations* (2021) *Energy and Buildings*, 249, art. no. 111197
5. Martínez-Mariño, S., Eguía, P., Granada-Álvarez, E., Erkoreka-González, A. *Simulation and validation of indoor temperatures and relative humidity in multi-zone buildings under occupancy conditions using multi-objective calibration* (2021) *Building and Environment*, 200, art. no. 107973
6. Martínez, S., Eguía, P., Granada, E., Moazami, A., Hamdy, M. *A performance comparison of multi-objective optimization-based approaches for calibrating white-box building energy models.* (2020) *Energy and Buildings*, 216, art. no. 109942
7. Martínez, S., Pérez, E., Eguía, P., Erkoreka, A., Granada, E. *Model calibration and exergoeconomic optimization with NSGA-II applied to a residential cogeneration* (2020) *Applied Thermal Engineering*, 169, art. no. 114916
8. Troncoso-Pastoriza, F., Eguía, P., Díaz-Redondo, R.P., Granada-Álvarez, E. *Use of BIM data as input and output for improved detection of lighting elements in buildings* (2019) *Automation in Construction*, 106, art. no. 102852
9. González-Gil, A., López-González, J.L., Fernández, M., Eguía, P., Erkoreka, A., Granada, E. *Thermal energy demand and potential energy savings in a Spanish surgical suite through calibrated simulations* (2018) *Energy and Buildings*, 174, pp. 513-526
10. Eguía, P., Alonso, J.M., Saavedra, Á., Arce Fariña, E., Granada, E. *Improving the calibration of building simulation with interpolated weather datasets* (2018) *Renewable Energy*, 122, pp. 608-618
11. Fernández, M., Conde, B., Eguía, P., Granada, E. *Parameter identification of a round-robin test box model using a deterministic and probabilistic methodology* (2018) *Journal of Building Performance Simulation*, 11 (6), pp. 623-638



12. Eguía, P., Alonso, J.M., Saavedra, Á., Arce Fariña, E., *Granada, E. Improving transient thermal simulations of single dwellings using interpolated weather data* (2017) *Energy and Buildings*, 135, pp. 212-224
13. Development of a new multi-stage building energy model calibration methodology and validation in a public library. Cacabelos, A., Eguía, P., Febrero, L., *Granada, E.* 2017. *Energy and Buildings* 146, pp. 182-199
14. Improving transient thermal simulations of single dwellings using interpolated weather data. Eguía Oller, P., Alonso Rodríguez, J.M., Saavedra González, Á., Arce Fariña, E., *Granada Álvarez, E.* 2017. *Energy and Buildings* 135, pp. 212-224
15. Weather datasets generated using kriging techniques to calibrate building thermal simulations with TRNSYS. Eguía, P., *Granada, E.*, Alonso, J.M., Arce, E., Saavedra, A. 2016 *Journal of Building Engineering* 7, pp. 78-91

## **C.2. Congresos,**

1. Modelling and calibration of a radiant floor heating system using TRNSYS. 1st International Workshop on Innovative Tools for Research in Energy Efficiency. INTRE<sup>2</sup>. Internacional. Bilbao 2025.
2. TRNSYS model calibration of a residential building with a radiant floor heating system to generate synthetic data. 4<sup>th</sup> National and 5<sup>th</sup> International Conference in Engineering Thermodynamics. Zaragoza 2025.
3. Active Learning for Sustainability: An Escape Room Experience on Energy Efficiency and Sustainable Development Goals. 4<sup>th</sup> National and 5<sup>th</sup> International Conference in Engineering Thermodynamics. Zaragoza 2025.
4. Application of a building energy simulation methodology based on sensitivity analysis and Bayesian calibration to a PASLINK test cell case study. XI Congreso Nacional y II Internacional de Ingeniería Termodinámica. Internacional. Albacete 2019.
5. Artificial lighting data acquisition in buildings for BIM integration based on computer vision. XI Congreso Nacional y II Internacional de Ingeniería Termodinámica. Internacional. Albacete 2019.
6. Building energy simulation using new interpolated forecast weather datasets. XI Congreso Nacional y II Internacional de Ingeniería Termodinámica. Internacional. Albacete 2019.
7. Lighting performance assessing of road lighting installations based on the identification of the luminaires' maintenance factor. XI Congreso Nacional y II Internacional de Ingeniería Termodinámica. Internacional. Albacete 2019.
8. BCORE: an automated energy simulation and calibration software tool for buildings. 8<sup>o</sup> Congreso Europeo sobre Eficiencia Energética y Sostenibilidad en Arquitectura y Urbanismo. Internacional. Donostia, España 2017