

# Ortzi Akizu-Gardoki



**Sustainability and Energy Footprint Researcher**  
**Technical Drawing and Graphic Design Lecturer**

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**Language:** Basque (Mother tongue), Spanish (Mother tongue), Italian (Academic Level), English (Academic Level)

## **Current position:**

He is currently a lecturer at The University of the Basque Country (UPV/EHU), at the Faculty of Engineering of Vitoria-Gasteiz since 2011, in the Department of Graphic Design and Engineering Projects. His research is focused in understanding the Energy Footprint (EF) embodied in products and services, in order to link sustainability to product design field. Currently he is collaborating with the University of New South Wales Sydney (UNSW) using the Global Multi Regional Input-Output (GMRIO) methodology, to understand the impact of outsourcing the industrial supply chains to other countries.

## **Academic Formation:**

**Master Degree:** Renewable Energy and Distributed Generation (2009-2011)

- University of the Basque Country, Spain – [www.ehu.eus](http://www.ehu.eus)

**Master Degree:** Eco-Efficient Product Design (2005-2008)

- Polytechnic University Of Turin, Italy – [www.polito.it](http://www.polito.it)

**Bachelor Degree:** Industrial Design (2005-2008)

- Polytechnic University Of Milan, Italy – [www.polimi.it](http://www.polimi.it)

**Bachelor Degree:** Engineering in Industrial Design (2001-2005)

- University of Mondragón, Spain – [www.mondragon.edu](http://www.mondragon.edu)

## **Work Experience:**

**University Lecturer:** at the University of the Basque country – UPV/EHU (2012 - now)

*DEPARTMENT:* Graphic Design and Engineering Projects.

*LECTURING SUBJECTS:* Technical Drawing, Computed Aided Design and Project Management.

[www.ehu.eus](http://www.ehu.eus)

**University Lecturer:** at the National Distance Education University – UNED (2014 - 2016)

*DEPARTMENT:* Graphic Design and Engineering Projects.

*LECTURING SUBJECTS:* Technical Drawing and Computed Aided Design.

[www.uned.es](http://www.uned.es)

**Designer:** at Zuhaitza Sustainable Design (2014 - now)

*POSITION:* President of the association and Graphic and Product Designer

[www.zuhaitza.org](http://www.zuhaitza.org)

**Project Manager:** at Baltistan Foundation Non-Governmental Organization (2009 - 2012)

*POSITION:* Coordinator of Infrastructure Unit of the organization

*LECTURING SUBJECTS:* Technical Drawing and Computed Aided Design.

[www.baltistan.eus](http://www.baltistan.eus)

**Researcher:** at Tecnalía Research Institute (2008 - 2009)

*RESEARCH PROJECT:* Electric vehicles connection to the grid, analysis of the national market

[www.tecnalia.com](http://www.tecnalia.com)

**Assistant Engineer:** at Ekain-Taldea Company (2008 - 2009)

*POSITION:* Design of Solar Photovoltaic Installations

[www.ekain-taldea.com](http://www.ekain-taldea.com)

## Journal Papers:

### 1. Journal Paper (Impact Factor: 2.262)

Contributions of Bottom-Up Energy Transitions in Germany: A case Study Analysis  
Akizu, O., Bueno, G., Barcena, I., Kurt, E., Topaloglu, N., Lopez, J.M. (2018)  
Energies 2018, 11(4), 849  
<https://doi.org/10.3390/en11040849>

### 2. Journal Paper (Impact Factor: 3.582)

Tracing the emerging energy transitions in the Global North and the Global South.  
Akizu, O., Urkidi, L., Bueno, G., Lago, R., Barcena, I., Mantxo, M., Basurko, I. Lopez, J.M. (2017)  
International Journal of Hydrogen Energy, 42/28 (2017) pp. 18045-18063  
<https://doi.org/10.1016/j.ijhydene.2017.04.297>

### 3. Journal Paper (Impact Factor: 3.582)

Measuring global effectiveness of integrated electric energy systems.  
Larrañaga, J.M., Zulueta, E., Lopez-Guede, J.M, Larrañaga, A., Akizu, O. (2017)  
International Journal of Hydrogen Energy, 2017  
<https://doi.org/10.1016/j.ijhydene.2017.04.057>

### 4. Journal Paper (Impact Factor: 0.939)

Electricity Demand under Electric Vehicle Penetration in 2030:  
A Comparative Study for UK and Spain. Towards an aggregation system  
Papadopoulos, P., Akizu, O., Cipcigan, L., Jenkins, N., Zabala, E. (2011)  
Journal of Power and Energy, 2011, Volume: 225 issue: 5, page(s): 551-566  
<https://doi.org/10.1177/0957650911406343>

### 5. Journal Paper (Impact Factor: - )

Bases académicas en estudios universitarios técnicos para una transición energética.  
Akizu, O., Sainz de Murieta, J., Bueno, G. (2016)  
Ikastorrata e-Journal on Didactics, 2016, 17 (4) pag. 45-55  
ISSN: 1988-5911 - Depósito legal: BI-3615-07  
[http://www.ehu.eus/ikastorrata/17\\_alea/4.pdf](http://www.ehu.eus/ikastorrata/17_alea/4.pdf)

### 6. Journal Paper (Impact Factor: - )

Ingeniería y Desarrollo Humano: Tecnologías para el desarrollo humano (TpDH)  
Sainz de Murieta, J., Akizu, O. (2016)  
Ikastorrata e-Journal on Didactics, 2016, 17 (4) pag. 8-30  
ISSN: 1988-5911 - Depósito legal: BI-3615-07  
[http://www.ehu.eus/ikastorrata/17\\_alea/2.pdf](http://www.ehu.eus/ikastorrata/17_alea/2.pdf)

### 7. Journal Paper (Impact Factor: - )

e-Betetz: una experiencia multidisciplinar y multicampus para integrar las bases de la sostenibilidad en el grado de ingeniería  
Sainz de Murieta, J., Akizu, O. (2016)  
Ikastorrata e-Journal on Didactics, 2016, 17 (4) pag. 111-126  
ISSN: 1988-5911 - Depósito legal: BI-3615-07  
[http://www.ehu.eus/ikastorrata/17\\_alea/7.pdf](http://www.ehu.eus/ikastorrata/17_alea/7.pdf)

### 8. Journal Paper (Impact Factor: - )

“El modelo 3D como base para la documentación y difusión de los elementos patrimoniales. Aplicación al mausoleo romano denominado ‘la Sinagoga’ de Sádaba (Zaragoza, España).”  
Valle Melón J.M, Pérez Vidiella P., Rodríguez Miranda A., Sánchez Velasco J., D’Anna C.M., Uceda Queiros S., Akizu Gardoki O. (2016)  
Restauración Arqueológica, RA 1-2016, pagg. 4-19, ISSN 1724-9686 (print) | ISSN 2465-2377 (online)  
<http://dx.doi.org/10.13128/RA-19316>

### 9. Journal Paper (Impact Factor: - )

Transiciones energéticas para cambiar el clima  
Leire Urkidi, Rosa Lago, Izaro Basurko, Martín Mantxo, Iñaki Barcena, Ortzi Akizu (2015)  
VIENTO SUR, Número 142/Octubre 2015 (Pag. 83-90) - ISSN: 1133-5637 (Latindex)  
[http://vientosur.info/IMG/pdf/VS142\\_Grupo\\_TRADEBU\\_Transiciones\\_energeticas\\_para\\_cambiar\\_el\\_clima.pdf](http://vientosur.info/IMG/pdf/VS142_Grupo_TRADEBU_Transiciones_energeticas_para_cambiar_el_clima.pdf)

## 10. Journal Paper (Impact Factor: -)

Transiciones energéticas ante el cambio climático: problemáticas e ideas fuerza

Leire Urkidi, Rosa Lago, Izaro Basurko, Martín Mantxo, Iñaki Barcena, Ortzi Akizu (2016)

BOLETÍN ECOS 33 (Pag. 1-9) ISSN:1989-8495 - FUHEM ECOSOCIAL

[https://www.fuhem.es/media/cdv/file/biblioteca/Boletin\\_ECOS/33/transiciones-energeticas\\_L\\_URKIDI-et-al.pdf](https://www.fuhem.es/media/cdv/file/biblioteca/Boletin_ECOS/33/transiciones-energeticas_L_URKIDI-et-al.pdf)

## Conferences publications:

### 1. Conference Paper

Hidden Energy Flows: justice and responsibility in outsourcing goods and services

Akizu, O., Bueno, G., López-Guede, J.M. (2017)

LONDON. 6<sup>th</sup> International Conference on Energy and Environment Technologies and Equipment (EEETE '17)

<http://wseas.org/cms.action?id=16035>

### 2. Conference Paper

Sustainability education in bachelor degrees of engineering: diagnosis and suggestions to prevent deficiencies.

Rodríguez, A., Ochoa de Erbe, I., Akizu, O. (2017)

INTERNATIONAL CONFERENCE ON ENGINEERING EDUCATION FOR THE TWENTY-FIRST CENTURY

ICEE21C 2017 - Castellón (Spain)

### 3. Conference Paper

e-Betez, Integrating the sustainability and open source knowledge in engineering degrees.

Sainz de Murieta, J., Akizu, O. (2017)

INTERNATIONAL CONFERENCE ON ENGINEERING EDUCATION FOR THE TWENTY-FIRST CENTURY

ICEE21C 2017 - Castellón (Spain)

### 4. Conference Paper

The university as a catalyst for the integration of sustainable engineering into present-day industry.

Akizu, O., Ochoa de Erbe, I., Rodríguez, A., Sainz de Murieta, J., (2017)

INTERNATIONAL CONFERENCE ON ENGINEERING EDUCATION FOR THE TWENTY-FIRST CENTURY

ICEE21C 2017 - Castellón (Spain)

### 5. Conference Paper

Solar panel suitability map and assessment of the location of installed panels in roofs in the municipality of Vitoria-Gasteiz (Álava, Spain)

Bastarrika, A., Ustarroz, A., Akizu, O., Artano, K., López-Guede, J.M., Martínez-Blanco, P., Mesanza, A., Torre, L. (2017)

ECRES 2017 Conference – Sarajevo - <http://www.ewres.info>

### 6. Conference Paper

Testing of the use of low environmental impact materials in renewable energy installations

Uriarte, J., Akizu, O., Boyano, A., González-González, A., López-Guede, J.M. (2017)

ECRES 2017 Conference – Sarajevo - <http://www.ewres.info>

### 7. Conference Paper

The role of international energy dependency on national welfare

Akizu, O., Kurt, E., Bueno, G., López-Guede, J.M., Arto, I. (2017)

ECRES 2017 Conference – Sarajevo - <http://www.ewres.info>

### 8. Conference Paper

Ascertaining emerging German bottom-up energy transitions through case study analysis

Akizu, O., Bueno, G., Barcena, I., López-Guede, J.M. (2017)

ECRES 2017 Conference – Sarajevo - <http://www.ewres.info>

### 9. Conference Paper

Ascertaining the arising Energy Transition in Global North and Global South

Akizu, O., Bueno, G., Urkidi, L., Lago, R., Barcena, I., Mantxo, M., Basurko, I. Lopez, J.M.(2016)

ECRES 2016 Conference – Turkey

### 10. Conference Paper

Overall Efficiency of an Integrated Electrical System

Larrañaga, J.M., Zulueta, E., Lopez-Guede, J.M, Larrañaga, A., Akizu, O. (2016)

ECRES 2016 Conference - Turkey  
www.ewres.info/PROCEEDINGS.rar

#### 11. Conference Paper

Assessment and impact of the storage management of grid connected electric vehicles according to a business model analysis  
Madina, C., Akizu, O., Zabala, E. (2009)  
European Conference: Smart Grids and Mobility, Würzburg (16-17 June 2009)

#### 12. Conference Paper

Conocimiento ambiental y desarrollo sostenible en el ámbito de alumnos universitarios  
Rodríguez, A., Río, R., Villota, N., García, V., Larrañaga J.M., Gavilanes, J., Gómez M., Garechana, G., Akizu, O. (2016)  
XVII Encuentro Internacional Virtual Educa - 20-24 Junio 2016 - San Juan de Puerto Rico, Puerto Rico

#### 13. Conference Poster

Competencias medioambientales en titulaciones universitarias poster para; congreso de investigación en innovación educativa  
Rodríguez-Andara Alejandro, Villota Natalia, Gavilanes Javier, Río Rosa, García-Marina Vanesa, Gómez-Pérez Melchor, Larrañaga Jesús María, Garechana Gaizka, Larruscain Jaso (2016)  
Congreso de investigación en Innovación Educativa, Bilbao 24,25 Mayo 2016

#### 14. Conference Poster

Iniciativa Intercampus de trabajo colaborativo bajo claves de open source y electrónica ética.  
Akizu, O., Sainz de Murieta, J. (2016)  
III International Congress of Development Studies - June 29 until July 1, 2016  
REEDES - Red Española de Estudios del Desarrollo - Universidad de Zaragoza  
<http://congresoreedesiii.unizar.es>

### Books:

#### 1. Book

Catálogo de Ingeniería Sostenible 2016-2018  
Akizu, O., Ochoa de Eribe, I., Gómez de Balugera, Z., Rodríguez, A., López de Arcaute, M., Vispo, I., Herreros, P. (2017)  
Editorial Service of the UPV/EHU (Pages: 94)  
ISBN: 978-84-9082-606-5

#### 2. Book

Catálogo de Ingeniería Sostenible 2014-2016  
Akizu, O., Ochoa de Eribe, I., Gómez de Balugera, Z., Rodríguez, A., López de Arcaute, M., Vispo, I., Herreros, P. (2017)  
Editorial Service of the UPV/EHU (Pages: 92)  
ISBN: 978-84-9082-373-6

#### 3. Book

Nuevos modelos energéticos: estado del arte e interpretación de modelos sostenibles de producción y consumo de energía y recurso  
Akizu, O., Mazón J., Bueno, G. (2010)  
Editorial Service of the UPV/EHU (Pages: 208)  
ISBN: 978-84-9860-938-7 (<https://addi.ehu.es/handle/10810/12398>)

#### 4. Book

El desarrollo humano y las energías renovables: integración e impacto social de sistemas energéticos de generación distribuida en entornos rurales de países en vías de desarrollo  
Akizu, O., Cámara, T., Mazón J., Bueno, G. (2010)  
Editorial Service of the UPV/EHU (Pages: 156)  
ISBN: 978-84-9860-939-4 (<https://addi.ehu.es/handle/10810/12397>)

## 5. Book

Transiciones energéticas. Sostenibilidad y democracia energética  
Urkidi, L., Aurrekoetxea, R., Basurko, I., Mantxo, M., Bárcena, I., Akizu, O. (2015)  
Editorial Service of the UPV/EHU (Pages: 232)  
ISBN: 978-84-9082-204-3

## 6. Book

Energía trantsizioak: iraunkortasuna eta demokrazia energetikoa  
Urkidi, L., Aurrekoetxea, R., Basurko, I., Mantxo, M., Bárcena, I., Akizu, O. (2016)  
Editorial Service of the UPV/EHU (Pages: 234)  
ISBN: 978-84-9082-311-8

## Research Projects:

### 1. Energy Transitions Research

PROJECT TITLE: mPOWER :  
Municipal Action Public Engagement and Routes Towards Energy Transition  
CODE: H2020-EE-2017-09 - 785171  
FUNDER: European Union - Horizon 2020  
LEAD RESEARCHER: Joe Galloway – University of Glasgow.  
TEAM LEADER Iñaki Barcena Hinojal – University of the Basque Country  
FUNDING Total: 1,999,365,25 € // Team: 134.615,00 €

### 2. Solidarity and collaborative spaces Research

PROJECT TITLE: Nuevas solidaridades, reciprocidades y alianzas: la emergencia de espacios colaborativos de participación política y redefinición de la ciudadanía, SOLIDARY  
CODE: CSO2017-82903-R  
FUNDER: Spanish Ministry of Economy and Competitiveness, MINECO  
LEAD RESEARCHER: Mari Luz Esteban Galarza

### 3. Renewable Energy Systems

PROJECT TITLE: IESRES- Innovative European Studies on Renewable Energy Systems  
<http://www.ecerg.com/iesres/iesres.html>  
CODE: 2015-1-TR01-KA203-021342  
FUNDER: Lifelong Learning Programme – European Union – ERASMUS+ Project  
LEAD RESEARCHERS: Erol Kurt / Jose Manuel Lopez-Guede

### 4. Energy Democracy Research

PROJECT TITLE: Transición Democracia Energética en el Sur y en el Norte: TRADENER  
CODE: PRO - 2016K3/0009  
FUNDER: Basque Agency for Cooperation to Development  
LEAD RESEARCHER: Iñaki Barcena Hinojal  
FUNDING: 264,608.69 €

### 5. Energy Transitions Research

PROJECT TITLE: Cooperación para un nuevo modelo energético: La transición democrática de la deuda ecológica al buen vivir. TRADEBU  
CODE: PRO - 2013K3/0034  
FUNDER: Basque Agency for Cooperation to Development  
LEAD RESEARCHER: Iñaki Barcena Hinojal  
FUNDING: 174.845,03 €