MINISTERIO DE CIENCIA E INNOVACIÓN

Cofinanciado por la Unión Europea

AGENCIA ESTATAL DE INVESTIGACIÓN

CURRICULUM VITAE (CVA) 4 pages

Part A. PERSONAL INFORMATION

First name	De La Casa Hernández	**CV date**	31/01/2024
Family name	Jesús		
Gender (*)	male	Birth date	---
e-mail	---	Web:http://blogs.ujaen.es/jcasa/investigacion	
WoS Researcher ID SCOPUS Author ID Contributor ID (ORCID) * Google Scholar		A-2835-2013 55457479000 0000-0001-9117-1689 J. C. Hernandez	

A.1. Current position

Position	Full Professor		
Initial date	23/02/2023		
Institution	University of Jaen		
Department/Center	Electrical Engineering Department	EPS of Jaen	
Country	Spain	Teleph.	+34635921694
Keywords/interests	electric motors; fault diagnosis; transient analysis; signal processing; aging and diagnosis of electric energy storage system (batteries, supercapacitors, capacitors); energy management and battery management; power electronics; renewable systems; microgrids; electric vehicles; power quality; power systems simulation; linear and nonlinear control; dynamical simulation; optimization		

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Industrial Engineer	University of Sevilla	1994
Phd	University of Jaen	2003

A.4. General indicators of quality of scientific production

Number of six-year research: 3. Date of the last six-year term granted: 31/12/2020 Total citations of articles: **2112** (WoS); **2509** (Scopus); **3177** (Scholar Google)

Total publications articles **102** (WoS); en cuartil (Q1):**22** (Q2):**54** (Q3):**19;** (T1):**34** (T2):**51**; H-index: **28** (WoS); **30** (Scopus); **33** (Scholar Google)

Part B. CV SUMMARY *(max. 5000 characters, including spaces)*

Jesus C. Hernandez received the M.S. degree in Industrial Engineering from the University of Seville (Spain), in 1995 and Ph.D. degree from the University of Jaen (Spain), in 2003. Nowadays he is Full Professor since 2023 in the Department of Electrical Engineering, University of Jaen.

Academic positions: (i) Secretary of the Department of Electrical Engineering (2012-2014); (ii) Deputy Director of Monitoring and Coordination of Deputy Director of Monitoring and Coordination of Titles in Higher Polytechnic School of Jaén (2014- present); (iii) Coordinator of the Master of Industrial Engineering at the University of Jaén (2014-);

Scientific activities: he is a member of the research group TEP152 'Research and Electric Technology (INYTE)', attached to the PAIDI. He has more than 100 publications in JCR journals, 1 book, 2 book chapter and 46 contributions in national and international conferences. He is reviewer of articles in 70 journals indexed in JCR and editor in 5 indexed journal JCR. He has been the principal investigator (PI1) of a project of the National R + D + i Plan of the Ministry of Economy, Industry and Competitiveness. He is PI1 in a Project of excellence, within the scope of the Andalusian Plan for Research, Development and Innovation (PAIDI 2020). He has participated / participates as a researcher in another 14 research projects obtained in public calls (2 European calls, 7 national calls, 5 autonomous calls and 5 national calls in Ibero-American countries). He has been the principal investigator in 2 research contracts with companies and has participated / participates as a researcher in another 18 research contracts with companies. He has been recognized for three six- year periods of investigation by the CNEAI.

Other merits and activities: He have completed 6 research stays: (i) 1 predoctoral (1.5 months) at the University of Havana (Cuba), (ii) 2 postdoctorals (3 months each) (2011/12 and 18/19) in the Second University of the Studi of Napoli (Italy). (iii) 2 postdocs (less than 1 month each) (2020/21 and 21/22) at the University of Talca (Chile). (iv) 1 postdoctoral fellowship (3 months) (2022) at the "Francisco José De Caldas" District University (Colombia). He has carried out 16 mobilities to European universities as a coordinator professor of Erasmus + programs. He has directed/co-directed 10 doctoral theses. He is a member of the School Board of the Higher Polytechnic School (EPSJ) since 2009 and of 12 EPSJ commissions. He has been a member of Aneca Architectural Engineering evaluation committee of the Monitor Verifica program.

Part C. RELEVANT MERITS

C.1. Publications

1. M.J. Ortega ,**J.C. Hernandez**, O.G. Garcia. Electric Power Systems Research, doi: 10.1016/j.epsr.2012.11.003
2. **J.C. Hernandez,** J. De la Cruz, P.G. Vidal, B. Ogayar. International Transactions on Electrical Energy Systems, 2013, doi: 10.1002/etep.1623
3. **J.C. Hernandez**, F.J. Ruiz-Rodriguez, F. Jurado. International Journal of Electrical Power & Energy System, 2013, doi: 10.1016/j.ijepes.2013.02.010
4. Juan Escobedo, Angeles Medina, **Jesus-Casa Hernandez**, Gabino Almonacid, Pedro Vidal. Advances in Electrical and Computer Engineering, 2013, doi: 10.4316/AECE.2014.03004
5. **Jesus C. Hernandez**, Maria J. Ortega, Angela Medina. International Transactions on Electrical Energy Systems, 2014, doi: 10.1002/etep.1767
6. F.J. Ruiz-Rodriguez, **J.C. Hernández,** F. Jurado. International Journal of Electrical Power and Energy Systems, 2014, doi:

10.1016/j.ijepes.2014.07.071
7. Francisco-Javier Ruiz-Rodriguez, **Jesus-Casa Hernandez**, Francisco Jurado. International Journal of Circuit Theory and Applications, 2015, doi: 10.1002/cta.2021
8. F Sanchez-Sutil, **J.C. Hernández**, C. Tobajas. Electric Power Systems Research, 2015, doi: 10.1016/j.epsr.2015.01.003
9. **Jesus Casa Hernandez**, Francisco Sanchez Sutil, Pedro Gomez Vidal. Turkish Journal of Electrical Engineering and Computer Sciences, 2015, doi: 10.3906/elk-1406-14
10. Pedro G. Bueno, **Jesus C. Hernández**, Francisco J. Ruiz-Rodriguez. IET Renewable Power Generation, 2016, doi: 10.1049/iet-rpg.2015.0331
11. **J.C. Hernandez**, F. Sanchez. IEEE Latin America Transactions, 2016, doi: 10.1109/TLA.2016.7587629
12. **Jesus C. Hernandez**, Pedro G. Bueno, Francisco Sanchez-Sutil. IET Renewable Power Generation, 2016, doi: 10.1049/iet-rpg.2016.0714
13. **J.C. Hernández**, F.J. Ruiz-Rodriguez, F. Jurado. Energy, 2017, doi: 10.1016/j.energy.2017.09.025
14. Francisco J. Ruiz-Rodríguez, **J.C. Hernández**, F. Jurado. Energies, 2017, doi: 10.3390/en10101536
15. Francisco Javier Ruiz-Rodriguez, **Jesus C. Hernández**, Francisco Jurado. International Transactions on Electrical Energy Systems, 2017, doi: 10.1002/etep.2490
16. **J.C. Hernández**, F. Sanchez-Sutil, P.G. Vidal, C. Rus-Casas. International Journal of Electrical Power and Energy Systems, 2018, doi: 10.1016/j.ijepes.2018.02.019
17. G. Jiménez-Castillo, F.J. Muñoz-Rodrígueza, C. Rus-Casas, **J.C. Hernández**, G.M.Tina. Measurement, 2019, doi: 10.1016/j.measurement.2018.10.075
18. D. Vera, F. Jurado, B. de Mena, **Jesús C. Hernández**. Energies, 2019, doi: 10.3390/en12030500
19. Alessanfro Formisano, Carlo Petrarca, **Jesus C. Hernández**, Francisco Jose Muñoz-Rodríguez. IET Renewable Power Generation, 2019, doi: 10.1049/iet-rpg.2018.6033
20. A. Cano-Ortega, F. J. Sánchez Sutil, **J.C. Hernández**. Sensors, 2019, doi: 10.3390/s19092172
21. J.C.Hernández, F.Sanchez-Sutil, F.J.Muñoz-Rodríguez. Energy, 2019, doi:10.101/j.energy.2019.157
22. F. Sanchez-Sutil, A. Cano-Ortega, **J.C. Hernandez**, C. Rus-Casas. Electronics, 2019, doi: 10.3390/electronics8080878
23. Leocario Hontoria-Garcia, Catalina Rus-Casas, Juan Domingo Aguilar-Peña, **Jesús C. Hernandez**. Sustainability, 2019, doi: 10.3390/su11195233
24. M. Gomez-Gonzalez, **J.C. Hernandez**, D Vera, F. Jurado. Energy, 2020, doi: 10.1016/j.energy.2019.116554
25. F.J. Ruiz-Rodriguez, **J.C. Hernández**, F. Jurado. International Journal of Electrical Power and Energy Systems, 2020, doi: 10.1016/j.ijepes.2019.105765
26. **J.C. Hernández**, F.J. Ruiz-Rodriguez, F. Jurado, F. Sanchez-Sutil. Electric Power Systems Research, 2020, doi: 10.1016/j.epsr.2020.106342
27. F.M. Serra, L.L. Martin Fernández, O.D. Montoya, W.J. Gil-González, **J.C. Hernández**. Electronics, 2020, doi: 10.3390/electronics9050847
28. Lopez, B. Ogayar, **J.C. Hernández**,F.S. Sutil. Energy Policy, 2020, doi: 10.1016/j.enpol.2020.111739
29. **J.C. Hernández**, F. Sanchez-Sutil, F.J. Muñoz-Rodríguez, C.R. Baier. Applied Energy, 2020, doi: 10.1016/j.apenergy.2020.115529
30. O.D. Montoya, W. Gil-González, **J.C. Hernández,** D.A. Giral-Ramírez, A. Medina-Quesada. Energies, 2020, doi: 10.3390/en13174440
31. M. Gomez-Gonzalez, **J.C. Hernández**, P.G. Vidal, F. Jurado. Journal of Power Sources, 2021, doi: 10.1016/j.jpowsour.2020.228918
32. Walter Gil-González, Oscar Danilo Montoya, Arul Rajagopalan, Luis Fernando Grisales-Noreña, **Jesus C. Hernández**. Energies, 2020, doi: 10.3390/en13184914
33. Juan A. Dominguez-Jimenez, Javier E. Campillo, Oscar Danilo Montoya, Enrique Delahoz, **Jesus C. Hernández**. Sustainability, 2020, doi: 10.3390/su12187769
34. Oscar Danilo Montoya, Walter Gil-González, Federico Martin-Serra, **Jesus C. Hernández**, Alexander Molina-Cabrera. Electronics, 2020, doi: 10.3390/electronics9101677
35. Angela Medina, **Jesus C. Hernández**, Emilio Muñoz-Cerón, Catalina Rus-Casas. Sustainability, 2020, doi: 10.3390/su12208421
36. **J.C. Hernandez**, F. Sanchez-Sutil, A. Cano-Ortega, C.R. Baier. Sensors, 2020, doi: 10.3390/s20216034
37. Oscar Danilo Montoya, Walter Gil-González, Andres Arias-Londoño, Arul Rajagopalan, **Jesus C. Hernández**. Energies, 2020, doi: 10.3390/en13215717
38. **Jesus C. Hernández**, Roberto Rangella, Antonio Cano, Alfredo Testa. IET Generation Transmission and Distribution, 2020, doi: 10.1049/iet-gtd.2020.1030
39. Oscar Danilo Montoya, Walter Gil-González, **Jesus C. Hernández**. Electronics, 2020, doi: 10.3390/electronics9122097
40. Francisco Jose Muñoz-Rodríguez, Gabino Jiménez-Castillo, **Jesus de la Casa Hernández**, Juan Domingo Aguilar Peña. Renewable Energy, 2021, doi: 10.1016/j.renene.2020.12.060
41. Alessandro Formisano, **Jesus C. Hernández**, Carlo Petrarca, Francisco Sanchez-Sutil. Electronics, 2021, doi: 10.3390/electronics10020120
42. Walter Gil-González, Alejandro Garces, Oscar Danilo Montoya, **Jesus C. Hernández**. Applied Sciences-Basel, 2021, doi: 10.3390/app11020627
43. Federico Molina-Martin, Oscar Danilo Montoya, Luis Fernando Grisales-Noreña, **Jesus C. Hernández**. Electronics, 2021, doi: 10.3390/electronics10020176
44. **J.C. Hernandez**, M. Gomez-Gonzalez, F. Sanchez-Sutil, F. Jurado. Journal of Energy Storage, 2021, doi: 10.1016/j.est.2021.102366

45. Oscar Danilo Montoya, Walter Gil-González, **Jesus C. Hernández**. Applied Sciences-Basel, 2021, doi: 10.3390/app11052175
46. **Jesus C. Hernández,** Carlos R. Baier. Sustainability, 2021, doi: 10.3390/su13042123
47. **Jesus C. Hernández**. Electronics, 2021, doi: 10.3390/electronics10050588
48. C. R. Baier, Roberto O. Ramirez, Esteban I. Marciel, **Jesus C. Hernandez**, Pedro E. Melın, Eduardo, E. Espinosa. IEEE Transactions on Power Electronics, 2021, doi: 10.1109/TPEL.2021.3065003
49. Oscar Danilo Montoya, Walter Gil-González, Alejandro Garces, Federico Serra, **Jesus C. Hernández**. Electric Power Systems Research, 2021, doi: 10.1016/j.epsr.2021.107273
50. Federico Molina-Martin, Oscar Danilo Montoya, Luis Fernando Grisales-Noreña, **Jesus C. Hernández**, Carlos A. Ramírez- Vanegas. Electronics, 2021, doi: 10.3390/electronics10091002
51. Walter Gil-González, Oscar Danilo Montoya, Andrés Escobar-Mejía, **Jesús C. Hernández.** Electronics, 2021, doi: 10.3390/electronics10091022
52. O.D. Montoya, J.A. Alarcon-Villamil, **Jesus C. Hernández**. Energies 2021, doi: 10.3390/en14154535
53. W. Gil-González, O.D. Montoya, C. Restrepo, **J.C. Hernández**. Sensorless adaptive voltage control for classical DC-DC converters feeding unknown loads: A generalized PI passivity-basedapproach. Sensors 2021 doi: 10.3390/s21196367
54. Sami Barmada, Alessandro Formisano, **Jesus C. Hernandez**, Francisco José J. Sánchez Sutil, Carlo Petrarca. COMPEL - The international journal for computation and mathematics in electrical and electronic engineering, 2021, doi: 10.1108/COMPEL- 06-2021-0209
55. Mauricio Sanabria-Villamizar, Maximiliano Bueno-Lopez, **Jesus C. Hernandez**, David Vera. International Journal of Electrical Power and Energy Systems. doi:
56. Oscar Danilo Montoya, Walter Gil-González, Federico Martin Serra, Cristian Hernan De Angelo, Jesus C. Hernández, Electronics 2021, doi: 10.3390/electronics10222819
57. Oscar Danilo Montoya, Lázaro Alvarado-Barrios, Jesus C. Hernández, Electronics 2021, doi: 10.3390/electronics10243102
58. F. Sánchez, A. Cano-Ortega, J.C. Hernández, Electronics 2021, doi: 10.3390/electronics10243152
59. Brandon Cortés-Caicedo, Federico Molina-Martin, Luis Fernando Grisales-Noreña, Oscar Danilo Montoya, J**esus C. Hernández**, Sensors 2022, doi: 10.3390/s22030851
60. Oscar Danilo Montoya, Edwin Rivas-Trujillo, **Jesus C. Hernández**, Electronics 2022, doi: 10.3390/electronics11060961
61. Á Medina-Quesada, OD Montoya, **JC Hernández**, Sensors 2022, doi: 10.3390/s22082914
62. Oscar Danilo Montoya, Diego Armando Giral-Ramírez, **Jesus C. Hernández**, Electronics 2022, doi: 10.3390/electronics11111680
63. Ángeles Medina-Quesada, Walter Gil-González, Oscar Danilo Montoya, Alexander Molina-Cabrera, **Jesus C. Hernández**, Electronics 2022, doi: 10.3390/electronics11111744
64. Miguel Martínez-Lavín, Raquel Villena-Ruiz, Andrés Honrubia-Escribano, **Jesús C. Hernández,** Emilio Gómez-Lázaro, Energy Reports 2022, doi: 10.1016/j.egyr.2022.06.078
65. Oscar Danilo Montoya, Ángeles Medina-Quesada, J**esus C. Hernández,** Electronics 2022, doi: 10.3390/electronics11132034
66. Luis Fernando Grisales-Noreña, Oscar Danilo Montoya, **Jesús C. Hernández**, Carlos Ramos-Paja, Alberto-Jesus Perea-Moreno, Mathematics 2022, doi: 10.3390/math10142453
67. Miguel Martınez-Lavin, Raquel Villena-Ruiz, Andres Honrubia-Escribano, **Jesus C. Hernandez**, Emilio Gomez-Lazaro, Electric Power Systems Research 2022, doi: 10.1016/j.epsr.2022.108676
68. **Jesus C. Hernández**, Francisco Jose Sanchez Sutil, Carlo Petrarca, Alessanfro Formisano, IET Renewable Power Generation 2022, doi: 10.1049/rpg2.12646
69. Víctor Manuel Garrido-Arévalo, Oscar Danilo Montoya, Ángeles Medina-Quesada, **Jesús C. Hernández**, Sensors 2022, doi: 10.3390/s22228676
70. Roque Aguado, David Vera, Francisco Jurado, Jesús C. Hernández, WP Woodhead Publishing, doi:10.1016/B978-0-323-98363-1.00009-0
71. A. Cano-Ortega, Miguel A. García-Cumbreras, Francisco Sánchez-Sutil, **Jesús C. Hernández**, Electronics 2022, doi: 10.3390/electronics11233991
72. Oscar Danilo Montoya, Walter Gil-González, **Jesus C. Hernández**, Energies 2023, doi: 10.3390/en16020589
73. Carlos R. Baier, Felipe A. Villarroel, Miguel A. Torres, Marcelo A. Perez, **J.C. Hernandez**, Eduardo E. Espinosa, IEEE Access 2023, doi: 10.1109/ACCESS.2023.3236499
74. Oscar Danilo Montoya, Luis Fernando Grisales-Noreña, **Jesus C. Hernández,** Energies 2023, doi: 10.3390/en16031105
75. Oscar Danilo Montoya, Luis Fernando Grisales-Noreña, **Jesús C. Hernández,** Batteries 2023, doi: 10.3390/batteries9020084
76. Oscar Danilo Montoya, Walter Gil-González, **Jesus C. Hernández**, Machines 2023, doi: 10.3390/machines11020177
77. Oscar Danilo Montoya, Luis Fernando Grisales-Noreña, **Jesus C. Hernández**, Energies 2023, doi: 10.3390/en16041729
78. A. Cano-Ortega, F. Sánchez-Sutil, J.C. Hernández, Electrical Engineering, doi: 10.1007/s00202-023-01783-w
79. Luis Fernando Grisales-Noreña, Oscar Danilo Montoya, Jesús C. Hernández, Batteries, doi: 10.3390/batteries9030190
80. Luis Fernando Grisales Noreña, Brandon Cortes-Caicedo, Oscar Danilo Montoya Giraldo, Jesús C. Hernández, Gerardo Alcalá, Journal of Energy Storage, doi: 10.1016/j.est.2023.107199
81. Luis Fernando Grisales Noreña, Jauder Alexander Ocampo-Toro, Oscar Danilo Montoya Giraldo, Jhon Montano, Jesús De la Casa Hernandez, Journal of Energy Storage, doi: 10.1016/j.est.2023.107240
82. Carlos R. Baier, Jesus C. Hernández, Patrick Wheel, Sensors, doi: 10.3390/s23084038
83. Oscar Montoya, Walter Gil González, Jesús C. Hernández,, IEEE Access, doi: 10.1109/ACCESS.2023.3267410
84. Oscar Danilo Montoya, Walter Gil-González, Jesus C. Hernández, Energies, doi: 10.3390/en16083532
85. Jorge Saavedra, Carlos R. Baier, Esteban Marciel, Marco Rivera, Alvaro Carreno, Jesús C. Hernandez, Pedro E. Melín, Electronics, doi: 10.3390/electronics12092052
86. Oscar Danilo Montoya, Luis Fernando Grisales-Noreña, Jesus C. Hernández, Energies, doi: 10.3390/en16093755
87. Walter Gil González, Sebastian Riffo, Oscar Danilo Montoya, Carlos Restrepo, Jesús C. Hernández,, IEEE Access, doi: 10.1109/ACCESS.2023.3275083
88. Yuly V. Garcia, Oscar Garzon, Carlos J. Delgado, Jan L. Diaz, Cesar A. Vega Penagos, Fabio Andrade, Adriana C. Luna and J. C. Hernandez, Energies, doi: 10.3390/en16124607
89. Francisco José Muñoz Rodríguez, Anastasiia Snytko, Jesús De la Casa Hernández, Catalina Rus-Casas, Gabino Jiménez-Castillo, Energy &

Buildings, doi: 10.1016/j.enbuild.2023.113280

C.2. Research projects

1. *Type of participation*: Principal Investigator; *Project reference*:723RT0150; *Title*: RIBIERSE-CYTED - Network for the large-scale integration of renewable energies in electrical systems; *Main researcher*: Jesús de la Casa Hernandez; *Financing entity*: Ibero-American Science And Technology Program For Development (CYTED 2022); Duration: 01/01/2023 -31/12/2026; *Funding received*: 80000 + 100000 €
2. *Type of participation*: Principal Investigator; *Project reference*: ProyExcel_00381; *Title*: Smart hybrid transformers for the provision of ancillary services; *Main researcher*: Jesús de la Casa Hernandez and Manuel Ortega Canol; *Financing entity*: Projects of excellence, under a competitive bidding regime, aimed at entities qualified as agents of the Andalusian Knowledge System, within the scope of the Andalusian Research, Development and Innovation Plan (PAIDI 2020); Duration: 01/12/2022 - 01/11/2024; *Funding received*: 166979 €
3. *Type of participation*: Principal Investigator; *Project reference*: ENE2017-83860-R; *Title*: New network services for smart renewable microgrids. Contribution to residential distributed generation; *Main researcher*: Jesús de la Casa Hernandez and Pedro Gómez Vidal; *Financing entity*: Ministry of Economy, Industry and Competitiveness. State Program of R + D + i Oriented to the Challenges of Society; *Duration*: 01/01/2018 - 01/01/2020; *Funding received*: 163350 €
4. *Type of participation*: Investigator; *Project reference*: EBM/FEDER UJA 2020 ref 1380927; *Title*: Contribution to the supply of electricity in small and medium-sized companies in Andalusia. AcoGED_PYMES (Photovoltaicself-consumption and Distributed Electricity Generation in SMEs); *Main researcher*: Catalina Rus Casas and Francisco José Muñoz Rodríguez; *Financing entity*: Andalusian FEDER Operational Program 2014-2020; *Duration*: 01/01/2021- 01/01/2022; *Funding received*: 49827€.
5. *Type of participation*: Investigator; *Project reference*: ITC-20111044; *Title*: FERROSMARTGRID: Development of the first smart grid for the energy management of the railway sector; *Main researcher*: Pedro Gómez Vidal; *Financing entity*: Ministry of Science and Innovation - FEDER Program - Innterconecta; *Duration*: 01/01/2012 – 01/01/2015; *Funding received*: 161566€
6. *Typeof participation*: Investigator; *Project reference*: P09-TEP-5254; *Title*: MODENER: Energy model based on the massive use of renewable energies in the province of Jaen; *Main researcher*: Julio Terrados Cepeda; *Financing entity*: Projects of Excellence, Junta de Andalucía; *Duration*: 12/03/2011 – 12/03/2014; *Funding received*: 63238 €
7. *Type of participation*: Investigator; *Project reference*: ENE2010-19744-C03-01; *Title*: Implementation of hybrid system modelling and control in the Digital Signal Processor (DSP); *Main researcher*: Francisco Jurado Melguizo; *Financing entity*: National Program of R + D + I Projects; *Duration*: 01/01/2011 – 01/01/2014; *Funding received*: 85910 €
8. *Type of participation*: Investigator; *Project reference*: IPT-2011-1468-920000; *Title*: SIGMAPLANTAS: Innovation in plants and models of Concentration Photovoltaic systems in Spain; *Main researcher*: Pedro Jesús Pérez Higueras and José Manuel Quero Reboul.; *Financing entity*: Ministry of Science and Innovation. National Plan for Scientific Research, Development and Technological Innovation 2008- 2011. INNPACTO Subprogram; *Duration*: 01/11/2011 – 31/12/2013; *Funding received*: 338968€
9. *Type of participation*: Investigator; *Project reference*: 575660-EPP-1-2016-1-FI-EPPKA2-KA; *Title*: Smart HEI-Business collaboration for skills and competitiveness (HEIBus); *Main researcher*: Anneli Kakko; *Financing entity*: Erasmus + Programme – Key Action 2 (KA2) – Cooperation for innovation and the exchange of good practices; *Duration*: 01/01/2017 -- 31/12/2019; *Funding received*: 988708 €.
10. *Type of participation*: Investigator; *Project reference*: FONDECYT #1160969; *Title*: High-performance modular inverters with reduced number of modules for medium-voltage grid applications; *Main researcher*: Carlos R. Baier; *Financing entity*: FONDECYT Regular National Projects Competition 2016, Chile; *Duration*: 01/04/2016 -- 31/03/2020; *Funding received*: 263978US$
11. *Type of participation*: Investigator; *Project reference*: FONDECYT #1201308; *Title*: Modular hybrid smart transformer with virtual inertia capability for distribution networks; *Main researcher*: Carlos R. Baier; *Financing entity*: FONDECYT Regular National Projects Competition 2020, Chile; *Duration*: 01/04/2020 -- 31/03/2024; *Funding received*: 190984 US$

C.3. Contracts, technological or transfer merits

1. *Type of participation: Investigator; Project reference: Expedient UJA: 4031; Title: Progress in the analysis of the technical and economic feasibility of photovoltaic solar energy for self-consumption in the industrial sector; Main researcher: Catalina Rus Casas and Francisco José Muñoz Rodríguez; Duration: 30/04/2020 -- 30/04/2022; Funding received: 25837€*
2. *Type of participation: Investigator; Project reference: Expedient UJA: 1366; Title: Technical and scientific advice for the design, installation and a*nalysis of the operation of a 6.5 MW photovoltaicplant of grouped nominal power connected to the grid in Lorca (Murcia); *Main researcher*: Gabino Almonacid Puche and Pedro Gómez Vidal; *Duration*: 30/11/2005 -- 30/05/2012; *Funding received*: 497508 €

C.4. Phd direction

1. *Optimization of the location of photovoltaic systems connected to the grid in electrical distribution networks. PhD candidate: Angeles Medina. 10/03/2008. Qualification of Excellent "Cum laude".*
2. *Application of probabilistic load flows in photovoltaic systems. PhD candidate: Francisco Javier Ruiz Rodríguez. 09/28/2013. Qualification of Excellent "Cum laude".*
3. *Contribution to the technological development of the interconnection of photovoltaic plants with distribution networks. Francisco J. de la Cruz. 04/12/2013. Qualification of Excellent "Cum laude".*
4. *Power quality in the interconnection of PV plants in distribution networks. PhD candidate: María Jesús Ortega Jódar. 05/10/2013. Qualification of Excellent "cum laude".*
5. *Contribution to the technological development of the protection of photovoltaic generators in fault conditions. PhD candidate: Oscar García García-8/11/2013. Qualification of Excellent "Cum laude".*
6. *Electrical protection of a multi-terminal DC node to power electric vehicle charging stations. PhD candidate: Francisco José Sánchez Sutil. 02/05/2016. Qualification of Excellent "Cum laude".*
7. *Contribution to the technological development of grid-scale photovoltaic systems to improve the stability of the electrical power system. Pedro Gómez Bueno. 04/06/2021. Excellent "Cum laude".*
8. *Contribution to technological development for the optimization of the location and operation of distributed energy resources in electrical distribution networks. Federico Molina Martín. 18/11/2022. Excellent "Cum laude".*
9. *Contribution to technological development for the certification of photovoltaic plants in the electrical power system. Miguel Martínez Lavín. 17/03/2023. Excellent "Cum laude".*
10. *Optimal integration of energy resources distributed in electrical distribution networks to improve their technical and economic operating conditions. Luis Fernando Grisales Noreña. 14/11/2023. Excellent "Cum laude".*