

Josep M. Guerrero
Electric Power Systems and Microgrids
Center for Research on Microgrids



Publications

Intelligent Learning Approaches for Renewable and Sustainable Energy

Guerrero, J. M. (Editor), Gupta, P. (Editor), Kandari, R. (Editor) & Micallef, A. (Editor), 1 Jan 2024, Elsevier. 299 p.

Guest editorial: Highly efficient and reliable power converters for microgrid applications

Guerrero, J. M., Sathik M, J., Shalchi Alisha, R. & Almakhles, D., 12 Jan 2023, In: *Frontiers in Energy Research*. 10, 1101342.

Equivalent modeling study of aviation lithium-ion batteries

Guerrero, J. M., Chen, L., Wang, S., Long, T., Xiao, X. & Liang, Y., 1 Jan 2023, *State Estimation Strategies in Lithium-ion Battery Management Systems*. Elsevier Espana, p. 125-139 15 p.

Microgrids: Modeling, Control, and Applications

Guerrero, J. M. (Editor) & Kandari, R. (Editor), 17 Oct 2021, Academic Press. 254 p.

Guest Editorial Special Section on Energy Internet

Guerrero, J. M., Guan, Y., Vasquez, J. C. & Sun, K., Mar 2019, In: *IEEE Transactions on Industrial Informatics*. 15, 3, p. 1753-1755 3 p., 8606128.

Guest Editorial Special Issue on Structured DC Microgrids

Guerrero, J. M. & Tan, D. F. D., Sept 2017, In: *IEEE Journal of Emerging and Selected Topics in Power Electronics*. 5, 3, p. 925-927 3 p., 7997964.

Guest Editorial Energy Conversion in Next-generation Electric Ships

Guerrero, J., Davoudi, A., Belkhat, M., Benbouzid, M. E. H., Corzine, K. A., Cramer, A. M., Dougal, R., Gamini, S., Khersonsky, Y., Kouros, S., Molinas, M., Monti, A., Tang, Y., Opila, D., Hennie, E., Sorensen, A. J., Sulligoi, G., Sudhoff, S. D., Sun, K. & Tarasiuk, T., Jun 2017, In: *IEEE Transactions on Energy Conversion*. 32, 2, p. 735-736 2 p., 7931765.

Guest Editorial Special Issue on Power Quality in Smart Grids

Guerrero, J. M., Jan 2017, In: *IEEE Transactions on Smart Grid*. 8, 1, p. 379-381 3 p.

Shipboard Microgrids: Maritime Islanded Power Systems Technologies

Guerrero, J. M., Jin, Z., Liu, W., Othman, M. B., Savaghebi, M., Anvari-Moghaddam, A., Meng, L. & Vasquez, J. C., Jun 2016, *Proceedings of PCIM ASIA 2016. International Exhibition and Conference for Power Electronics, Intelligent Motion, Renewable Energy and Energy Management*. VDE Verlag GMBH, p. 135-142 8 p.

Uninterruptible power supplies

Guerrero, J. M. & Vasquez, J. C., 19 Apr 2016, *Power Electronics and Motor Drives*. CRC Press, p. 18.1-18.22

Guest Editorial: Special Section on Smart DC Distribution Systems

Guerrero, J. M., Davoudi, A., Aminifar, F., Jatskevich, J. & Kakigano, H., Sept 2014, In: *IEEE Transactions on Smart Grid*. 5, 5, p. 2473-2475 3 p.

What are microgrids?

Guerrero, J. M., Dec 2013, In: *IEEE Industrial Electronics Magazine*. 7, 4, 2 p.

Advanced Control Architectures for Intelligent Microgrids—Part II: Power Quality, Energy Storage, and AC/DC Microgrids
Guerrero, J. M., Chiang Loh, P., Lee, T.-L. & Chandorkar, M., Apr 2013, In: IEEE Transactions on Industrial Electronics. 60, 4, p. 1263-1270

Introduction to the special section on distributed generation and microgrids

Guerrero, J. M., Blaabjerg, F., Li, Y. W., Mohamed, Y. A. R. I. & Salama, M. M. A., Apr 2013, In: IEEE Transactions on Industrial Electronics. 60, 4, p. 1251-1253 3 p., 6361319.

Advanced Control Architectures for Intelligent MicroGrids, Part I: Decentralized and Hierarchical Control

Guerrero, J. M., Chandorkar, M., Lee, T.-L. & Loh, P. C., 2013, In: IEEE Transactions on Industrial Electronics. 60, 4, p. 1254-1262

Multiple Distributed Smart Microgrids with a Self-Autonomous, Energy Harvesting Wireless Sensor Network

Guerrero, J. M. & Kheng Tan, Y., 2012, *Smart Grid Infrastructure & Networking*. Iniewski, K. (ed.). 1 ed. McGraw-Hill, p. 249-290 42 p.

Editorial: Special issue on power electronics for microgrids - Part II

Guerrero, J. M., 1 Dec 2011, In: IEEE Transactions on Power Electronics. 26, 3, p. 659-663 5 p., 5873645.

Hierarchical control of droop-controlled AC and DC microgrids - A general approach toward standardization

Guerrero, J. M., Vasquez, J. C., Matas, J., De Vicuña, L. G. & Castilla, M., 1 Jan 2011, In: IEEE Transactions on Industrial Electronics. 58, 1, p. 158-172 15 p., 5546958.

Uninterruptible Power Supplies

Guerrero, J. M. & Vasquez, J. C., 1 Jan 2011, *The Industrial Electronics Handbook - Five Volume Set*. CRC Press, p. 18-1-18-22

Connecting Renewable Energy Sources into the Smartgrid

Guerrero, J. M., 2011, *Proceedings of the 2011 IEEE International Symposium on Industrial Electronics (ISIE)*. IEEE Press, p. 2400-2566 167 p.

Microgrids: Integration of distributed energy resources into the smart-grid

Guerrero, J. M., 27 Dec 2010, *ISIE 2010 - 2010 IEEE International Symposium on Industrial Electronics*. p. 4281-4414 134 p. 5637667

Guest editorial: Editorial special issue on power electronics for microgrids - Part I

Guerrero, J. M., 1 Dec 2010, In: IEEE Transactions on Power Electronics. 25, 12, p. 2885-2888 4 p., 5613192.

Hierarchical control of power plants with microgrid operation

Guerrero, J. M., Vásquez, J. C., Savaghebi, M., De La Hoz, J. & Martín, H., 1 Dec 2010, *Proceedings - IECON 2010, 36th Annual Conference of the IEEE Industrial Electronics Society*. p. 3006-3011 6 p. 5674954

Control strategy for flexible microgrid based on parallel line-interactive UPS systems

Guerrero, J. M., Vásquez, J. C., Matas, J., Castilla, M. & García de Vicuña, L., 1 Apr 2009, In: IEEE Transactions on Industrial Electronics. 56, 3, p. 726-736 11 p.

Control of distributed uninterruptible power supply systems

Guerrero, J. M., Hang, L. & Uceda, J., 18 Aug 2008, In: IEEE Transactions on Industrial Electronics. 55, 8, p. 2845-2859 15 p.

Guest editorial

Guerrero, J. M. & Uceda, J., 18 Aug 2008, In: IEEE Transactions on Industrial Electronics. 55, 8, p. 2842-2844 3 p.

Control of line-interactive UPS connected in parallel forming a microgrid
Guerrero, J. M., Berbel, N., Matas, J., Sosa, J. L. & De Vicuña, L. G., 1 Dec 2007, *2007 IEEE International Symposium on Industrial Electronics, ISIE 2007, Proceedings*. p. 2667-2672 6 p. 4375029

Droop control method with virtual output impedance for parallel operation of uninterruptible power supply systems in a microgrid

Guerrero, J. M., Berbel, N., Matas, J., Sosa, J. L. & De Vicuña, L. G., 1 Dec 2007, *APEC 2007 - 22nd Annual IEEE Applied Power Electronics Conference and Exposition*. p. 1126-1132 7 p. 4195859

Parallel operation of uninterruptible power supply systems in MicroGrids

Guerrero, J. M., Vásquez, J. C., Matas, J., Sosa, J. L. & De Vicuña, L. G., 1 Dec 2007, *2007 European Conference on Power Electronics and Applications, EPE*. 4417733

Author's reply [2]

Guerrero, J. M., 1 Sept 2007, In: *IEEE Industrial Electronics Magazine*. 1, 3, 1 p.

Decentralized control for parallel operation of distributed generation inverters using resistive output impedance

Guerrero, J. M., Matas, J., de Vicuna, L. G., Castilla, M. & Miret, J., 1 Apr 2007, In: *IEEE Transactions on Industrial Electronics*. 54, 2, p. 994-1004 11 p.

Uninterruptible power supply systems provide protection

Guerrero, J. M., de Vicuña, L. G. & Uceda, J., 1 Mar 2007, In: *IEEE Industrial Electronics Magazine*. 1, 1, p. 28-38 11 p.

Decentralized control for parallel operation of distributed generation inverters in microgrids using resistive output impedance

Guerrero, J. M., Berbel, N., Matas, J., De Vicuña, L. G. & Miret, J., 1 Dec 2006, *IECON 2006 - 32nd Annual Conference on IEEE Industrial Electronics*. p. 5149-5154 6 p. 4153715

Droop control method for the parallel operation of online uninterruptible power systems using resistive output impedance

Guerrero, J. M., Berbel, N., De Vicuña, L. G., Matas, J., Miret, J. & Castilla, M., 13 Oct 2006, *Twenty-First Annual IEEE Applied Power Electronics Conference and Exposition, APEC '06*. Vol. 2006. p. 1716-1722 7 p. 1620772

Wireless-control strategy for parallel operation of distributed-generation inverters

Guerrero, J. M., Matas, J., De Vicuña, L. G., Castilla, M. & Miret, J., 1 Oct 2006, In: *IEEE Transactions on Industrial Electronics*. 53, 5, p. 1461-1470 10 p.

Wireless-control strategy for parallel operation of distributed generation inverters

Guerrero, J. M., Matas, J., De Vicuña, L. G., Berbel, N. & Sosa, J., 1 Dec 2005, *Proceedings of the IEEE International Symposium on Industrial Electronics 2005, ISIE 2005*. Vol. II. p. 845-850 6 p. 1529025

Decentralized control for parallel operation of distributed generation inverters using resistive output impedance

Guerrero, J. M., Berbel, N., Matas, J., Sosa, J. L., Cruz, J. & Alentorn, A., Dec 2005, *2005 European Conference on Power Electronics and Applications*. Vol. 2005. 1665636

Simple feedback linearizing controller to reduce audiosusceptibility and load disturbance in the full-bridge current doubler synchronous rectifier

Guerrero, J. M., García De Vicuña, L., Berbel, N., Sosa, J. & Castilla, M., Dec 2005, *Twentieth Annual IEEE Applied Power Electronics Conference and Exposition, APEC 2005*. Vol. 2. p. 689-694 6 p. 1453042

Steady-state invariant frequency and amplitude droop control using adaptive output impedance for parallel-connected UPS inverters

Guerrero, J. M., De Vicuña, L. G., Matas, J., Miret, J. & Cruz, J., Dec 2005, *Twentieth Annual IEEE Applied Power Electronics Conference and Exposition, APEC 2005*. Vol. 1. p. 560-566 7 p. 1452997

Output impedance design of parallel-connected UPS inverters with wireless load-sharing control
Guerrero, J. M., García de Vicuña, L., Matas, J., Castilla, M. & Miret, J., Aug 2005, In: IEEE Transactions on Industrial Electronics. 52, 4, p. 1126-1135 10 p.

Output impedance design of parallel-connected UPS inverters
Guerrero, J. M., De Vicuña, L. G., Matas, J., Miret, J. & Castilla, M., 1 Dec 2004, p. 1123-1128. 6 p.

Parallel operation of Half-Bridge Converters with Current-Doubler Rectifier uUsing feedback linearization control
Guerrero, J. M., De Vicuna, L. G., Matas, J., Cruz, J. & Miret, J., Dec 2004, p. 1159-1164. 6 p.

Output impedance performance for parallel operation of UPS inverters using wireless and average current-sharing controllers
Guerrero, J. M., De Vicuña, L. G., Miret, J., Matas, J. & Cruz, J., Nov 2004, *2004 IEEE 35th Annual Power Electronics Specialists Conference, PESC04*. Vol. 4. p. 2482-2488 7 p.

A wireless controller to enhance dynamic performance of parallel inverters in distributed generation systems
Guerrero, J. M., de Vicuna, L. G., Matas, J., Castilla, M. & Miret, J., 1 Sept 2004, In: IEEE Transactions on Power Electronics. 19, 5, p. 1205-1213 9 p.

A high-performance DSP-controller for parallel operation of online UPS systems
Guerrero, J. M., De Vicuña, L. G., Matas, J., Miret, J. & Castilla, M., May 2004, p. 463-469. 7 p.

A Wireless Controller for Parallel Inverters in Distributed Online UPS Systems
Guerrero, J. M., García de Vicuña, L., Matas, J., Miret, J. & Castilla, M., 1 Dec 2003, p. 1637-1642. 6 p.

A wireless load sharing controller to improve dynamic performance of parallel-connected UPS inverters
Guerrero, J. M., García de Vicuña, L., Matas, J., Miret, J. & Castilla, M., Aug 2003, In: PESC Record - IEEE Annual Power Electronics Specialists Conference. 3, p. 1408-1413 6 p.

A nonlinear feed-forward control technique for single-phase UPS inverters
Guerrero, J. M., De Vicuña, L. G., Miret, J. & Matas, J., 1 Dec 2002, p. 257-261. 5 p.

Steady-state invariant-frequency control of parallel redundant uninterruptible power supplies
Guerrero, J. M., Garcia de Vicuña, L., Matas, J. & Miret, J., Dec 2002, p. 274-277. 4 p.

Integral control technique for single-phase UPS inverter
Guerrero, J. M., De Vicuña, L. G., Miret, J., Matas, J. & Castilla, M., 1 Jan 2002, *ISIE 2002 - Proceedings of the 2002 IEEE International Symposium on Industrial Electronics*. IEEE (Institute of Electrical and Electronics Engineers), Vol. 4. p. 1043-1048 6 p. 1025931.

Parallel operation of charge-controlled-DC-DC converters
Guerrero, J. M., De Vicuña, L. G., Miret, J., Matas, J. & López, Ó., Jan 2002, *ISIE 2002 - Proceedings of the 2002 IEEE International Symposium on Industrial Electronics*. IEEE (Institute of Electrical and Electronics Engineers), Vol. 4. p. 1086-1090 5 p. 1025939

Activities

Workshop: IoT-driven eNErgy sysTEms (INET) - Advances and Applications

Anvari-Moghaddam, A. (Lecturer), Guan, Y. (Lecturer), Quintero, J. C. V. (Lecturer) & Guerrero, J. M. (Lecturer)
30 Jul 2018

Special Issue "IoT and Energy Internet" (Event)

Guerrero, J. M. (Editor), Vasquez, J. C. (Editor) & Guan, Y. (Editor)
26 Jul 2018 → 9 Sept 2019

Tutorial: Advances in Microgrids Control and Management

Anvari-Moghaddam, A. (Lecturer), Shafiee, Q. (Lecturer), Bevrani, H. (Lecturer) & Guerrero, J. M. (Lecturer)
20 Feb 2018 → 21 Feb 2018

Tutorial: The Internet of Energy - The Building Block for the Future Smart Grids

Savaghebi, M. (Lecturer), Quintero, J. C. V. (Lecturer), Guan, Y. (Lecturer) & Guerrero, J. M. (Lecturer)
29 Oct 2017

Special Section on "Energy Internet" (Event)

Guerrero, J. M. (Editor), Guan, Y. (Editor), Vasquez, J. C. (Editor) & Sun, K. (Editor)
28 Aug 2017 → 31 Dec 2018

Keynote: Advanced Control Architectures of DC Microgrids

Guerrero, J. M. (Lecturer)
10 Jun 2015

Keynote Plenary session: Future challenges on microgrids and DC homes

Guerrero, J. M. (Lecturer)
21 May 2014

Keynote: Microgrid Technologies for Future Electric Vehicle Charging Stations

Guerrero, J. M. (Lecturer)
16 May 2014

Keynote: New technologies and future challenges on MicroGrid Research

Guerrero, J. M. (Speaker)
26 Mar 2014

Invited presentation: Advanced Control Architectures for Intelligent Microgrids

Guerrero, J. M. (Lecturer)
25 Aug 2011

Press clippings

40 nye medlemmer optaget i ATV i 2021

Wæhrens, B. V., Guerrero, J. M., Gram-Hanssen, K., Smedskjær, M. M., Chen, Z., Rosendahl, L. & Hose, K.
21/06/2021
1 item of Media coverage

55 danske forskere er blandt verdens mest citerede

Blaabjerg, F., Guerrero, J. M., Lund, H., Mathiesen, B. V., Nielsen, P. H., Wang, X. & Vasquez, J. C.
29/11/2021
1 item of Media coverage

Computer-professorat med Obelsk Støtte

Pedersen, G. F., Guerrero, J. M., Birkelund, S. & Grimshaw, M.
30/04/2012
16 items of Media coverage

Dansk forsker kåret som verdens bedste inden for elektroingeniørvidenskab

Blaabjerg, F., Guerrero, J. M., Teodorescu, R., Chen, Z., Vasquez, J. C., E. Mogensen, P., Pedersen, K. I. & Popovski, P.

31/03/2023 → 04/04/2023
3 items of Media coverage

Fornem hæder til AAU-professor

Guerrero, J. M.
06/12/2014
12 items of Media coverage

Forskning i fremtidens el-systemer

Guerrero, J. M.
03/01/2014
5 items of Media coverage

Mikroanlæg skal sikre bæredygtig energiforsyning

Guerrero, J. M.
28/05/2019
1 item of Media coverage

NAVNE I NOTER

Guerrero, J. M.
25/12/2013
1 item of Media coverage

NAVNE I NOTER

Guerrero, J. M.
25/12/2013
1 item of Media coverage

Navne i noter

Guerrero, J. M.
14/12/2014
1 item of Media coverage

Stochastic optimization for PV-powered EV charging stations

Guerrero, J. M.
22/09/2025
1 item of Media coverage

Svinghjul kan give billigere strøm til søs

Guerrero, J. M.
12/01/2015
10 items of Media coverage

Syv forskere fra Aalborg Universitet på Clarivates "Highly Cited Researchers List 2017"

Blaabjerg, F., Guerrero, J. M., Lund, H., Mathiesen, B. V., Teodorescu, R., Torp-Pedersen, C. & Quintero, J. C. V.
21/11/2017
1 item of Media coverage

Villum Fonden udvælger 11 nye investigators

Guerrero, J. M.
02/05/2019
1 item of Media coverage

Aalborgprofessor skal udvikle bæredygtig energiforsyning

Guerrero, J. M.
02/04/2019

12 items of Media coverage

Projects

Active filter functionalities for power converters in wind power plants

Guerrero, J. M. (Project Manager), Chaudhary, S. (Project Participant), Teodorescu, R. (Project Participant), Bak, C. L. (Project Participant), Freijedo Fernandez, F. D. (Project Participant), Hoseinzadeh, B. (Project Participant) & Lascu, C. V. (Project Participant)

01/04/2014 → 31/03/2016

A Digital Twin framework in Microgrids including Renewable Generation and Energy Storage

Safavi, V. (PI), Guerrero, J. M. (Supervisor), Vasquez, J. C. (Supervisor) & Bazmohammadi, N. (Supervisor)

01/08/2021 → 22/02/2025

ASSET: A holistic and Scalable Solution for Research, Innovation and Education in Energy Transition

Guerrero, J. M. (PI), Vasquez, J. C. (Project Participant), Akhavan, A. (Project Participant), Nasir, M. (Project Participant) & Guldbæk, B. K. (Project Coordinator)

Horizon Europe

01/05/2019 → 30/04/2021

Analysis and Optimization of VSG Stability in Microgrids under Large-Signal Disturbances

Jiang, B. (PI), Guerrero, J. M. (Supervisor) & Vasquez, J. C. (Supervisor)

01/04/2021 → 21/12/2024

DiCyPS: Center for Data-Intensive Cyber-Physical Systems

Larsen, K. G. (PI), Skou, A. (Col), Pedersen, T. B. (Col), Jensen, C. S. (Col), Kjeldskov, J. (Col), Skov, M. B. (Col), Nielsen, B. (Col), Lahrmann, H. (Col), Bak-Jensen, B. (Col), Guerrero, J. M. (Col) & Raptis, D. (Project Participant)

Innovation Fund Denmark

01/01/2015 → 31/12/2020

CROM: Center for Research on Microgrids

Guerrero, J. M. (PI), Vasquez, J. C. (Project Participant), Tinajero, G. D. A. (Project Participant), Akhavan, A. (Project Participant), Barrios Flores, M. A. (Project Participant) & Pugliese, A. A. (Project Coordinator)

Villum Foundation

01/08/2019 → 31/12/2025

MMGrid: Control and Management of Multi-Microgrid Clusters in Taiwan

Guerrero, J. M. (Project Manager), Dragicevic, T. (Project Participant), Vasquez, J. C. (Project Participant) & Wu, D. (Project Participant)

01/01/2013 → 31/12/2013

Control Strategies of Power Electronic Converters for MVDC Shipboard Microgrids

Xu, L. (PI), Guerrero, J. M. (Supervisor) & Vasquez, J. C. (Supervisor)

15/02/2019 → 14/02/2022

Cyber-resilient Control Structures in DC Microgrids with Cyber-Physical Threats

Basati, A. (PI), Guerrero, J. M. (Supervisor) & Vasquez, J. C. (Supervisor)

01/11/2019 → 31/10/2023

Cyber Security based Distributed Control for DC Microgrids and Multiple Microgrids Clusters

Tan, S. (PI), Guerrero, J. M. (PI) & Vasquez, J. C. (PI)

15/12/2018 → 14/12/2021

SALICRU: DC Voltage Railways Catenary - DCVOLTA

Guerrero, J. M. (PI), Vasquez, J. C. (Col), Barrios Flores, M. A. (Project Participant), Golestan, S. (Project Participant) & Guldbæk, B. K. (Project Coordinator)

Salicru S.A.
01/07/2021 → 31/12/2022

Decentralized Adaptive Protection Schemes in Micro Grid Clusters

De La Cruz, J. (PI), Guerrero, J. M. (Supervisor) & Vasquez, J. C. (Supervisor)
01/11/2021 → 31/10/2024

Design, Control, and Power Management of Small Satellite Microgrids

Yaqoob, M. (PI), Guerrero, J. M. (Supervisor) & Vasquez, J. C. (Supervisor)
01/03/2019 → 28/02/2022

Distributed Converter And MicroGrid Advanced Control Algorithm Project

Guerrero, J. M. (PI), Vasquez, J. C. (CoPI), Akhavan, A. (Project Participant), Wei, B. (Project Participant) & Guldbæk, B. K. (Project Coordinator)
Huawei Technologies Co., Ltd.
25/09/2018 → 31/05/2020

Dynamic Performance and Power Quality of Large-Scale Grid-Connected Wind Power Plants

Ullah, M. (PI), Guerrero, J. M. (Supervisor), Vasquez, J. C. (Supervisor) & Guan, Y. (Supervisor)
01/03/2023 → 28/02/2026

Efficiensea

Guerrero, J. M. (Project Manager), Dragicevic, T. (Project Participant), Meng, L. (Project Participant), Vasquez, J. C. (Project Participant) & Miltersen, A. H. (Project Coordinator)
Innovation Fund Denmark
16/03/2015 → 15/03/2018

Energy Management System for Renewable Energy Sources Integrated Microgrids

Wu, J. (PI), Guerrero, J. M. (Supervisor) & Vasquez, J. C. (Supervisor)
15/02/2021 → 14/02/2024

Energy Management System in Shipboard Microgrid

Othman, M. B. (PI), Anvari-Moghaddam, A. (Supervisor) & Guerrero, J. M. (Supervisor)
20/04/2016 → 01/05/2019

Energy Management Systems based on Internet of Things/ Energy Internet for Smart Homes

Arbab Zavar, B. (PI), Guerrero, J. M. (Supervisor) & Vasquez, J. C. (Supervisor)
01/10/2018 → 30/09/2021

Flexible electric vehicle charging infrastructure (Flex-ChEV)

Guerrero, J. M. (Project Manager), Dragicevic, T. (Project Participant), SUN, B. (Project Participant), Schaltz, E. (Project Participant), Vasquez, J. C. (Project Participant) & Shafiee, Q. (Project Participant)
01/03/2014 → 29/02/2016

Future Residential LVDC Power Distribution Architectures

Vasquez, J. C. (Project Manager) & Guerrero, J. M. (Project Participant)
01/01/2014 → 31/12/2014

HeatReFlex: Green and Flexible District Heating/Cooling

Anvari-Moghaddam, A. (PI), Guerrero, J. M. (Project Participant), Nami, H. (Project Participant) & Mohammadiatloo, B. (Project Participant)
Danida Fellowship Centre
01/05/2019 → 30/04/2022

Harmonic Control Architectures for Virtual Synchronous Generator-based Distributed Generation Systems

Li, S. (PI), Guerrero, J. M. (Supervisor) & Vasquez, J. C. (Supervisor)

01/04/2021 → 30/09/2024

HECATE: HECATE - Hybrid Electric Regional Aircraft Distribution Technologies

Guerrero, J. M. (PI), Vasquez, J. C. (CoPI), Wei, B. (Project Participant), Bazmohammadi, N. (Project Participant), Lashab, A. (Project Participant), Tan, S. (Project Participant) & Pugliese, A. A. (Project Coordinator)

Horizon JU Innovation Action

01/01/2023 → 31/12/2025

Holistic Optimization and Control of Green Fuel-Powered Heavy Microgrids: A Sustainable Solution for Enhanced Energy Efficiency

Shao, J. (PI), Guerrero, J. M. (Supervisor) & Wei, B. (Supervisor)

01/07/2023 → 30/06/2026

iDClab: Intelligent DC Microgrid Living Lab

Guerrero, J. M. (PI), Vasquez, J. C. (Project Participant), Diaz, E. R. (Project Participant) & Golestan, S. (Project Participant)

Det Strategiske Forskningsråd

01/01/2014 → 31/12/2017

DiCyPS: IT-Infrastructures for Control, Optimization and Management in Energy Systems

Guerrero, J. M. (Project Participant), Anvari-Moghaddam, A. (Project Participant), Vasquez, J. C. (Project Participant), Bak-Jensen, B. (Project Manager) & Guldbæk, B. K. (Project Coordinator)

Innovation Fund Denmark

01/01/2015 → 31/12/2020

Large-Scale Integration of Renewable Energy Power Plants and Flexible Demand in the Egyptian Electric Grid

Ali, H. (PI), Guerrero, J. M. (Supervisor) & Vasquez, J. C. (Supervisor)

01/04/2021 → 30/09/2024

LastWind: Large-Scale Integration of Wind Power Generation in Ethiopia - LastWind

Guan, Y. (PI), Guerrero, J. M. (Project Participant), Vasquez, J. C. (Project Participant), Javidsharifi, M. (Project Participant), Yu, Y. (CoPI), Kang, W. (Project Participant) & Pugliese, A. A. (Project Coordinator)

Danida Fellowship Centre

01/08/2023 → 31/07/2026

MICROGRID TECHNOLOGIES FOR FUTURE OFFSHORE WIND POWER PLANTS

Yu, Y. (PI), Guerrero, J. M. (Supervisor) & Vasquez, J. C. (Supervisor)

01/02/2020 → 31/01/2023

TECH-IN: Microgrid Technologies for Remote Indonesian Islands

Vasquez, J. C. (PI), Guan, Y. (Project Participant), Vasquez, J. C. (Supervisor), Guerrero, J. M. (Project Participant) & Pugliese, A. A. (Project Coordinator)

Danida Fellowship Centre

01/05/2021 → 30/11/2024

MeTER_Demo: Microgrid Technology Research and Demonstration

Guerrero, J. M. (Project Manager), Wu, D. (Project Participant), Guan, Y. (Project Participant), Vasquez, J. C. (Project Participant) & Savaghebi, M. (Project Participant)

01/04/2014 → 31/03/2017

HyMG: Microgrid technology research based on wind/PV/storage hybrid system

Guerrero, J. M. (Project Manager), Vasquez, J. C. (Project Participant) & Wu, D. (Project Participant)

01/01/2013 → 31/12/2013

Modeling of Solar Cells and Environmental Conditions for Space Microgrids

Raya-Armenta, J. M. (PI), Guerrero, J. M. (Supervisor), Vasquez, J. C. (Supervisor) & Saez, D. (Supervisor)
01/01/2019 → 31/12/2021

NEST: National Research Infrastructure Roadmap

Sahlin, S. L. (PI), Vasquez, J. C. (CoPI), Barrios Flores, M. A. (Project Applicant), Tinajero, G. D. A. (Project Participant), Arbab Zavar, B. (Project Participant), Guerrero, J. M. (Project Participant) & Pugliese, A. A. (Project Coordinator)
Nationalt Udvalg for Forskningsinfrastruktur (NUFI)
01/01/2024 → 31/12/2026

Flywheel : Off-Shore Application of the Flywheel Energy Storage

Guerrero, J. M. (Project Manager), Dragicevic, T. (Project Participant) & Anvari-Moghaddam, A. (Project Participant)
Den Danske Maritime Fond
13/11/2014 → 28/02/2016

OFFSHORE WIND FARMS LARGE-SCALE INTEGRATION IN TURKEY

Chaudhary, S. (Project Participant), Guerrero, J. M. (PI), Vasquez, J. C. (Project Coordinator), Tinajero, G. D. A. (Project Participant) & Høyer, M. (Project Participant)
01/06/2020 → 31/05/2023

VICINITY: Open virtual neighbourhood network to connect IoT infrastructures and smart objects

Guan, Y. (Project Participant), Vasquez, J. C. (Project Participant), Guerrero, J. M. (Project Coordinator) & Miltersen, A. H. (Project Coordinator)
European Commission
01/01/2016 → 31/12/2019

Photovoltaic Energy Supply for future Energy Neutral Base Stations

Javidsharifi, M. (PI), Kerekes, T. (Supervisor) & Guerrero, J. M. (Supervisor)
01/07/2019 → 03/07/2022

PLANNING, CONTROL, AND ENERGY MANAGEMENT OF SPACE MULTI-MICROGRID CLUSTERS FOR SPACE LUNAR BASES

Saha, D. (PI), Guerrero, J. M. (Supervisor) & Vasquez, J. C. (Supervisor)
01/02/2020 → 31/07/2023

Power management systems for shipboard ZED-based Multi-Microgrid Clusters

Xie, P. (PI), Guerrero, J. M. (Supervisor) & Vasquez, J. C. (Supervisor)
15/12/2018 → 14/12/2021

REMCE: Renewable Energy based Minigrid Clusters in Ethiopia

Chaudhary, S. (PI), Golestan, S. (Project Participant), Guan, Y. (Project Participant), Wu, Y. (Project Participant), Vasquez, J. C. (Supervisor), Guerrero, J. M. (Supervisor) & Pugliese, A. A. (Project Coordinator)
Danida Fellowship Centre
01/05/2021 → 31/12/2024

REConnect: Renewable Energy Converters Connected in Parallel

Guerrero, J. M. (PI), Vasquez, J. C. (CoI), Guan, Y. (Project Applicant) & Guldbæk, B. K. (Project Coordinator)
ReConvert BV
01/08/2020 → 15/12/2020

REConnect: Renewable Energy Converters Connected to Grid

Guan, Y. (PI), Guerrero, J. M. (Project Coordinator), Vasquez, J. C. (Project Manager), Zwam, A. V. (Project Coordinator), Meersman, B. (Project Participant) & Oostveen, B. (Project Participant)
01/08/2020 → 31/12/2020

**Resilient Planning and Operational Management Systems for Islanded Microgrids in Disaster-Vulnerable Communities
(TECH-IN: Microgrid Technologies for Remote and Island Communities under Natural Disasters)**

Ali, M. (PI), Guerrero, J. M. (Supervisor), Vasquez, J. C. (Supervisor) & Guan, Y. (Supervisor)
01/01/2022 → 31/12/2025

SYNCHRONY: SYNCHRONY - Synchronization of Parallel Single-Phase Inverters with Power Sharing Control

Guerrero, J. M. (PI), Vasquez, J. C. (CoPI), Golestan, S. (Project Participant), Akhavan, A. (Project Participant), Barrios Flores, M. A. (Project Participant), Guldbæk, B. K. (Project Coordinator) & Pugliese, A. A. (Project Coordinator)

Private funding
01/06/2020 → 31/05/2024

The Energy Internet - Integrating Internet of Things into the Smart Grid

Vasquez, J. C. (PI), Guerrero, J. M. (CoI), Gui, Y. (Project Participant), Diaz, E. R. (Project Participant) & Garcia, E. J. P. (Project Participant)

Aalborg University
01/01/2017 → 31/12/2019

To Enhance the Fault Ride Through Capability of Doubly Fed Induction Generator using Direct Matrix Converter for Wind Turbines

Asim, A. (PI), Vasquez, J. C. (Supervisor), Guan, Y. (Supervisor) & Guerrero, J. M. (Supervisor)
01/10/2023 → 30/09/2026

TROY: UPS SLC-TROY Project

Guerrero, J. M. (Project Manager), Vasquez, J. C. (Project Participant), Zhang, C. (Project Participant), Wei, B. (Project Participant) & Gui, Y. (Project Participant)

Others
01/04/2015 → 01/06/2017