

2013–2016 Index to Feature Articles IEEE Electrification Magazine Vols. 1–4

This index covers all feature articles that appeared in IEEE Electrification Magazine during 2013–2016. The Author Index contains the primary entry for each article, listed under the first author's name. The primary entry includes the coauthors' names, the title of the article, and its location, specified by the publication abbreviation, year, month, and inclusive pagination. The Subject Index contains entries describing the article under all appropriate subject headings, plus the first author's name, the publication abbreviation, month, and year, and inclusive pages. Note that the article title is found only under the primary entry in the Author Index. (Index entries have been compiled from the 2013 through 2016 year-end indexes.)

Each index entry contains a link (blue text) to allow you to view the article's abstract in IEEE Xplore®.

AUTHOR INDEX

A

- Agelidis, V.**, see Vassallo, A., [MELEC Sept. 2015 22-29](#)
Aguero, J., see Bahramirad, S., [MELEC March 2015 48-55](#)
Akin, B., see Rajashekara, K., [MELEC Dec. 2013 64-73](#)
Akyol, B., see Katipamula, S., [MELEC Dec. 2016 15-22](#)
Albu, M., see Marnay, C., [MELEC March 2015 79-85](#)
Aminifar, F., see Gholami, A., [MELEC March 2016 18-24](#)
Arboleya, P., Bidaguren, P., and Armendariz, U., Energy Is On Board: Energy Storage and Other Alternatives in Modern Light Railways; [MELEC Sept. 2016 30-41](#)
Archibald, W., Li, Z., Shahidehpour, M., Johanns, S., and Levitsky, T., Islands in the Sun: The solar power deployment initiative at the University of the Virgin Islands; [MELEC March 2015 56-67](#)
Armendariz, U., see Arboleya, P., [MELEC Sept. 2016 30-41](#)
Asmus, P., Why Microgrids Are Moving into the Mainstream: Improving the efficiency of the larger power grid; [MELEC March 2014 12-19](#)

B

- Bahramirad, S.**, Khodaei, A., Svachula, J., and Aguero, J., Building Resilient Integrated Grids: One neighborhood at a time; [MELEC March 2015 48-55](#)
Baker, S., see Boston, T., [MELEC Sept. 2015 52-57](#)
Balamurali, A., see Kar, N., [MELEC Sept. 2013 21-31](#)
Ball, D., see Qiu, Q., [MELEC Dec. 2015 22-33](#)
Bandler, H., Public-Private Partnerships: Creating New Markets for Industry, Encouraging Social Engagement, and Improving Quality of Life; [MELEC March 2016 2-10](#)
Bartelt, R., see Staudt, V., [MELEC June 2015 40-48](#)
Bennion, K., see Moreno, G., [MELEC June 2014 42-49](#)
Bertrand, J., see Burr, M., [MELEC March 2014 30-39](#)
Bhavaraju, V., see Fu, Q., [MELEC Dec. 2013 21-29](#)
Bidaguren, P., see Arboleya, P., [MELEC Sept. 2016 30-41](#)
Bolton, K., see Pourbeik, P., [MELEC Sept. 2015 47-51](#)
Bongiorno, J., Boschetti, G., and Mariscotti, A., Low-Frequency Coupling: Phenomena in Electric Transportation Systems; [MELEC Sept. 2016 15-22](#)
Boroyevich, D., see Rodriguez-Diaz, E., [MELEC June 2016 20-28](#)
Boschetti, G., see Bongiorno, J., [MELEC Sept. 2016 15-22](#)
Bosich, D., see Vicenzutti, A., [MELEC June 2015 49-65](#)

- Boston, T.**, and Baker, S., Energy Storage: Balancing the 21st Century Power Grid; [MELEC Sept. 2015 52-57](#)
Bozhko, S., see Wheeler, P., [MELEC Dec. 2014 6-12](#)
Bunzel, S., see Schmerda, R., [MELEC Sept. 2013 32-39](#)
Burgos, R., see Rodriguez-Diaz, E., [MELEC June 2016 20-28](#)
Burr, M., Zimmer, M., Warner, G., Meloy, B., Bertrand, J., Levesque, W., and McDonald, J., Emerging Models for Microgrid Finance: Driven by the need to deliver value to end users; [MELEC March 2014 30-39](#)

C

- Cairolì, P.**, and Dougal, R., New Horizons in DC Shipboard Power Systems: New fault protection strategies are essential to the adoption of dc power systems; [MELEC Dec. 2013 38-45](#)
Caracciolo, F., Fumi, A., and Cinieri, E., Managing the Italian High-Speed Railway Network: Provisions for Reducing Interference Between Electric Traction Systems; [MELEC Sept. 2016 42-47](#)
Carnicero, A., see Jimenez-Octavio, J., [MELEC Sept. 2013 4-10](#)
Caron, H., see Ladoux, P., [MELEC Sept. 2014 6-15](#)
Che, L., Khodayar, M., and Shahidehpour, M., Adaptive Protection System for Microgrids: Protection practices of a functional microgrid system; [MELEC March 2014 66-80](#)
Chen, C., see Wang, Y., [MELEC June 2014 25-30](#)
Chen, F., see Rodriguez-Diaz, E., [MELEC June 2016 20-28](#)
Chen, M., see Krastev, I., [MELEC Sept. 2016 6-14](#)
Choe, S., see Kim, S., [MELEC June 2015 22-33](#)
Choi, B., Propulsion Powertrain Simulator: Future Turboelectric distributed-propulsion aircraft; [MELEC Dec. 2014 23-34](#)
Chong, A., see Marnay, C., [MELEC March 2015 79-85](#)
Chong, E., see Hansen, T., [MELEC March 2016 25-32](#)
Christensen, K., see Nordman, B., [MELEC June 2016 29-36](#)
Chung, S., see Marnay, C., [MELEC March 2015 79-85](#)
Cinieri, E., see Caracciolo, F., [MELEC Sept. 2016 42-47](#)
Clark, R., see Schmerda, R., [MELEC Sept. 2013 32-39](#)
Corzine, K., see Maqsood, A., [MELEC June 2016 58-64](#)
Cucala, A., see Pecharroman, R., [MELEC Sept. 2014 32-38](#)
Cuzner, R., see Jin, Z., [MELEC June 2016 45-57](#)
Cuzner, R., see Schmerda, R., [MELEC Sept. 2013 32-39](#)

D

- DeVoto, D.**, see Moreno, G., [MELEC June 2014 42-49](#)
Dimeas, A., Drenkard, S., Hatziaargyriou, N., Karnouskos, S., Kok, K., Ringelstein, J., and Weidlich, A., Smart Houses in the Smart Grid: Developing an interactive network; [MELEC March 2014 81-93](#)
Dixon, T., see Vassallo, A., [MELEC Sept. 2015 22-29](#)
Doerry, N., Naval Power Systems: Integrated power systems for the continuity of the electrical power supply; [MELEC June 2015 12-21](#)
Dougal, R., see Cairolì, P., [MELEC Dec. 2013 38-45](#)
Dragicevic, T., Vasquez, J., Guerrero, J., and Skrllec, D., Advanced LVDC Electrical Power Architectures and Microgrids: A step toward a new generation of power distribution networks; [MELEC March 2014 54-65](#)
Drenkard, S., see Dimeas, A., [MELEC March 2014 81-93](#)
Driesen, J., see Marnay, C., [MELEC March 2015 79-85](#)

E

Emadi, A., see Reisinger, R., *MELEC Dec. 2013 6-12*
Esteban, B., see Kar, N., *MELEC Sept. 2013 21-31*

F

Fabre, J., see Ladoux, P., *MELEC Sept. 2014 6-15*
Fahimi, B., see Shamsi, P., *MELEC Dec. 2013 59-63*
Fan, Z., see Oviedo, R., *MELEC June 2014 61-71*
Fernandez-Cardador, A., see Pecharroman, R., *MELEC Sept. 2014 32-38*
Fleeman, J., see Qiu, Q., *MELEC Dec. 2015 22-33*
Franco, I., see Pilo de la Fuente, E., *MELEC Sept. 2014 49-55*
Fromme, P., see Memon, S., *MELEC Sept. 2014 22-31*
Fu, Q., Hamidi, A., Nasiri, A., Bhavaraju, V., Krstic, S., and Theisen, P., The Role of Energy Storage in a Microgrid Concept: Examining the opportunities and promise of microgrids; *MELEC Dec. 2013 21-29*
Fumi, A., see Caracciolo, F., *MELEC Sept. 2016 42-47*
Funabashi, T., see Marnay, C., *MELEC March 2015 79-85*

G

Ganev, E., Selecting the Best Electric Machines for Electrical Power-Generation Systems: High-Performance Solutions for Aerospace More Electric Architectures; *MELEC Dec. 2014 13-22*
Gardner, R., see Sun, R., *MELEC Dec. 2015 34-45*
Ge, X., see Liu, L., *MELEC Dec. 2015 52-59*
Gearhart, C., Gonder, J., and Markel, T., Connectivity and Convergence: Transportation for the 21st Century; *MELEC June 2014 6-13*
Gevorgian, V., see Ma, Z., *MELEC Sept. 2015 30-40*
Gholami, A., Aminifar, F., and Shahidehpour, M., Front Lines Against the Darkness: Enhancing the Resilience of the Electricity Grid Through Microgrid Facilities; *MELEC March 2016 18-24*
Giadrossi, G., see Vicenzutti, A., *MELEC June 2015 49-65*
Ginart, A., see Restrepo, C., *MELEC Sept. 2015 14-21*
Girgis, R., and Vedante, K., Impact of GICs on Power Transformers: Overheating is not the real issue; *MELEC Dec. 2015 8-12*
Gonder, J., see Gearhart, C., *MELEC June 2014 6-13*
Gormus, S., see Oviedo, R., *MELEC June 2014 61-71*
Guerrero, J., see Dragicevic, T., *MELEC March 2014 54-65*
Guerrero, J., see Jin, Z., *MELEC June 2016 45-57*
Guerrero, J., see Rodriguez-Diaz, E., *MELEC June 2016 20-28*
Gwinner, D., see Ma, Z., *MELEC Sept. 2015 30-40*

H

Haack, J., see Katipamula, S., *MELEC Dec. 2016 15-22*
Hagerman, J., see Katipamula, S., *MELEC Dec. 2016 15-22*
Hale, E., see Hansen, T., *MELEC March 2016 25-32*
Hamidi, A., see Fu, Q., *MELEC Dec. 2013 21-29*
Hammerstrom, D., Widergren, S., and Irwin, C., Evaluating Transactive Systems: Historical and Current DOE Research and Development Activities; *MELEC Dec. 2016 30-36*
Hansen, T., Kadavil, R., Palmintier, B., Suryanarayanan, S., Maciejewski, A., Siegel, H., Chong, E., and Hale, E., Enabling Smart Grid Cosimulation Studies: Rapid Design and Development of the Technologies and Controls; *MELEC March 2016 25-32*
Hara, R., see Marnay, C., *MELEC March 2015 79-85*
Hasanzadeh, A., see Wang, H., *MELEC Dec. 2013 46-58*

Hatziargyriou, N., see Dimeas, A., *MELEC March 2014 81-93*
Hatziargyriou, N., see Latoufis, K., *MELEC March 2015 68-78*
Hatziargyriou, N., see Marnay, C., *MELEC March 2015 79-85*
Hawkins, S., see Rahman, K., *MELEC June 2014 14-24*
Heising, C., see Staudt, V., *MELEC June 2015 40-48*
Hernandez, G., see Katipamula, S., *MELEC Dec. 2016 15-22*
Hillmansen, S., see Krastev, I., *MELEC Sept. 2016 6-14*
Huang, S., see Pourbeik, P., *MELEC Sept. 2015 47-51*

I

Ipakchi, A., see Rahimi, F., *MELEC Dec. 2016 23-29*
Iravani, R., see Marnay, C., *MELEC March 2015 79-85*
Irwin, C., see Hammerstrom, D., *MELEC Dec. 2016 30-36*
Ise, T., see Marnay, C., *MELEC March 2015 79-85*
Iyer, K., see Kar, N., *MELEC Sept. 2013 21-31*

J

Jhunjunwala, A., Lolla, A., and Kaur, P., Solar-DC Microgrid for Indian Homes: A Transforming Power Scenario; *MELEC June 2016 10-19*
Jiang, Y., Liu, J., Tian, W., Shahidehpour, M., and Krishnamurthy, M., Energy Harvesting for the Electrification of Railway Stations: Getting a charge from the regenerative braking of trains; *MELEC Sept. 2014 39-48*
Jimenez, G., see Marnay, C., *MELEC March 2015 79-85*
Jimenez-Octavio, J., Sanchez-Rebollo, C., and Carnicero, A., The Dependence on Mechanical Design in Railway Electrification: Focusing on the ac Perspective; *MELEC Sept. 2013 4-10*
Jin, Z., Sulligoi, G., Cuzner, R., Meng, L., Vasquez, J., and Guerrero, J., Next-Generation Shipboard DC Power System: Introducing Smart Grid and dc Microgrid Technologies into Maritime Electrical Networks; *MELEC June 2016 45-57*
Johanns, S., see Archibald, W., *MELEC March 2015 56-67*
Johnson, N., see Podmore, R., *MELEC March 2016 11-17*
Julian, A., see Kelly, R., *MELEC Dec. 2013 30-37*
Jurkovic, S., see Rahman, K., *MELEC June 2014 14-24*

K

Kadavil, R., see Hansen, T., *MELEC March 2016 25-32*
Kannan, B., see Ravindra, K., *MELEC March 2014 20-29*
Kar, N., Iyer, K., Labak, A., Lu, X., Lai, C., Balamurali, A., Esteban, B., and Sid-Ahmed, M., Courting and Sparking: Wooing Consumers' Interest in the EV Market; *MELEC Sept. 2013 21-31*
Karnouskos, S., see Dimeas, A., *MELEC March 2014 81-93*
Katipamula, S., Haack, J., Hernandez, G., Akyol, B., and Hagerman, J., VOLTTRON: An Open-Source Software Platform of the Future; *MELEC Dec. 2016 15-22*
Katiraei, F., see Marnay, C., *MELEC March 2015 79-85*
Kaur, P., see Jhunjunwala, A., *MELEC June 2016 10-19*
Kelly, R., Oriti, G., and Julian, A., Reducing Fuel Consumption at a Remote Military Base: Introducing an energy management system; *MELEC Dec. 2013 30-37*
Khaligh, A., see Wang, H., *MELEC Dec. 2013 46-58*
Khersonsky, Y., Advancing New Technologies in Electrical Ships: IEEE standards are the risk mitigation tool; *MELEC June 2015 34-39*
Khodaei, A., see Bahramirad, S., *MELEC March 2015 48-55*
Khodayar, M., see Che, L., *MELEC March 2014 66-80*

- Khodayar, M.**, see Shahidehpour, M., *MELEC Sept. 2013 40-56*
- Kim, S.**, Choe, S., Ko, S., and Sul, S., A Naval Integrated Power System with a Battery Energy Storage System: Fuel efficiency, reliability, and quality of power; *MELEC June 2015 22-33*
- Ko, S.**, see Kim, S., *MELEC June 2015 22-33*
- Kok, K.**, see Dimeas, A., *MELEC March 2014 81-93*
- Kramer, W.**, see Ma, Z., *MELEC Sept. 2015 30-40*
- Krastev, I.**, Tricoli, P., Hillmansen, S., and Chen, M., Future of Electric Railways: Advanced Electrification Systems with Static Converters for ac Railways; *MELEC Sept. 2016 6-14*
- Krishnamurthy, D.**, see Pratt, A., *MELEC Dec. 2016 8-14*
- Krishnamurthy, M.**, see Jiang, Y., *MELEC Sept. 2014 39-48*
- Kroposki, B.**, see Marnay, C., *MELEC March 2015 79-85*
- Krstic, S.**, see Fu, Q., *MELEC Dec. 2013 21-29*
- Kulkarni, P.**, see Oviedo, R., *MELEC June 2014 61-71*

L

- Labak, A.**, see Kar, N., *MELEC Sept. 2013 21-31*
- Ladoux, P.**, Fabre, J., and Caron, H., Power-Quality Improvement in AC Railway Substations: The concept of chopper-controlled impedance; *MELEC Sept. 2014 6-15*
- Lai, C.**, see Kar, N., *MELEC Sept. 2013 21-31*
- Lamb, M.**, see Sun, R., *MELEC Dec. 2015 34-45*
- Larsen, R.**, see Podmore, R., *MELEC March 2016 11-17*
- Latoufis, K.**, Pazios, T., and Hatziaargyriou, N., Locally Manufactured Small Wind Turbines: Empowering communities for sustainable rural electrification; *MELEC March 2015 68-78*
- Levesque, W.**, see Burr, M., *MELEC March 2014 30-39*
- Levitsky, T.**, see Archibald, W., *MELEC March 2015 56-67*
- Li, Z.**, see Archibald, W., *MELEC March 2015 56-67*
- Liu, J.**, see Jiang, Y., *MELEC Sept. 2014 39-48*
- Liu, L.**, Wei, K., and Ge, X., GIC in Future Large-Scale Power Grids: An analysis of the problem; *MELEC Dec. 2015 52-59*
- Lolla, A.**, see Jhunjhunwala, A., *MELEC June 2016 10-19*
- Lopes, J.**, see Vasconcelos, H., *MELEC March 2015 25-35*
- Lopez-Lopez, A.**, see Pecharroman, R., *MELEC Sept. 2014 32-38*
- Louie, H.**, see Podmore, R., *MELEC March 2016 11-17*
- Lu, X.**, see Kar, N., *MELEC Sept. 2013 21-31*
- Lukic, S.**, and Pantic, Z., Cutting the Cord: Static and Dynamic Inductive Wireless Charging of Electric Vehicles; *MELEC Sept. 2013 57-64*
- Lunacek, M.**, see Pratt, A., *MELEC Dec. 2016 8-14*

M

- Ma, Z.**, Pesaran, A., Gevorgian, V., Gwinner, D., and Kramer, W., Energy Storage, Renewable Power Generation, and the Grid: NREL Capabilities Help to Develop and Test Energy-Storage Technologies; *MELEC Sept. 2015 30-40*
- Maciejewski, A.**, see Hansen, T., *MELEC March 2016 25-32*
- Madureira, A.**, see Vasconcelos, H., *MELEC March 2015 25-35*
- Maker, P.**, see Vassallo, A., *MELEC Sept. 2015 22-29*
- Mao, M.**, see Marnay, C., *MELEC March 2015 79-85*
- Maqsood, A.**, and Corzine, K., DC Microgrid Protection: Using the Coupled-Inductor Solid-State Circuit Breaker; *MELEC June 2016 58-64*
- Mariscotti, A.**, see Bongiorno, J., *MELEC Sept. 2016 15-22*
- Markel, T.**, see Gearhart, C., *MELEC June 2014 6-13*
- Marnay, C.**, Kroposki, B., Mao, M., Xu, H., Chong, A., Chung, S., Hara, R., Ise, T., Iravani, R., Katiraei, F., Albu, M., Hatziaargyriou, N., Funabashi, T., Reilly, J., Driesen, J., Jimenez, G., and Vallve, X., The Tianjin 2014 Symposium

- on Microgrids: A meeting of the minds for international microgrid experts; *MELEC March 2015 79-85*
- Marti, L.**, and Yiu, C., Real-Time Management of Geomagnetic Disturbances: Hydro One's eXtreme Space Weather control room tools; *MELEC Dec. 2015 46-51*
- Masrur, M.**, Toward Ground Vehicle Electrification in the U.S. Army: An Overview of Recent Activities; *MELEC March 2016 33-45*
- Matsuse, K.**, see Rajashekara, K., *MELEC March 2016 46-57*
- Mazumder, S.**, see Pilo de la Fuente, E., *MELEC Sept. 2014 49-55*
- McDonald, J.**, see Burr, M., *MELEC March 2014 30-39*
- McDonough, M.**, see Shamsi, P., *MELEC Dec. 2013 59-63*
- McVey, M.**, see Sun, R., *MELEC Dec. 2015 34-45*
- Meloy, B.**, see Burr, M., *MELEC March 2014 30-39*
- Memon, S.**, and Fromme, P., Stray-Current Corrosion and Mitigation: A synopsis of the technical methods used in dc transit systems; *MELEC Sept. 2014 22-31*
- Meng, L.**, see Jin, Z., *MELEC June 2016 45-57*
- Miranda, V.**, see Vasconcelos, H., *MELEC March 2015 25-35*
- Moreira, C.**, see Vasconcelos, H., *MELEC March 2015 25-35*
- Moreno, G.**, Narumanchi, S., Bennion, K., Waye, S., and DeVoto, D., Gaining Traction: Thermal Management and Reliability of Automotive Electric Traction-Drive Systems; *MELEC June 2014 42-49*

N

- Narumanchi, S.**, see Moreno, G., *MELEC June 2014 42-49*
- Nasiri, A.**, see Fu, Q., *MELEC Dec. 2013 21-29*
- Nordman, B.**, and Christensen, K., DC Local Power Distribution: Technology, Deployment, and Pathways to Success; *MELEC June 2016 29-36*
- Nowak, D.**, see Schmerda, R., *MELEC Sept. 2013 32-39*

O

- Oriti, G.**, see Kelly, R., *MELEC Dec. 2013 30-37*
- Overbye, T.**, see Shetye, K., *MELEC Dec. 2015 13-21*
- Oviedo, R.**, Fan, Z., Gormus, S., and Kulkarni, P., The Reign of EVs? An Economic Analysis from the Consumer's Perspective; *MELEC June 2014 61-71*

P

- Palmintier, B.**, see Hansen, T., *MELEC March 2016 25-32*
- Pantic, Z.**, see Lukic, S., *MELEC Sept. 2013 57-64*
- Pastena, L.**, A Catenary-Free Electrification for Urban Transport: An Overview of the Tramwave System; *MELEC Sept. 2014 16-21*
- Pastor, M.**, Rodriguez, L., and Velez, C., Flywheels Store to Save: Improving railway efficiency with energy storage; *MELEC Dec. 2013 13-20*
- Pazios, T.**, see Latoufis, K., *MELEC March 2015 68-78*
- Pecharroman, R.**, Lopez-Lopez, A., Cucala, A., and Fernandez-Cardador, A., Riding the Rails to DC Power Efficiency: Energy efficiency in dc-electrified metropolitan railways; *MELEC Sept. 2014 32-38*
- Pesaran, A.**, see Ma, Z., *MELEC Sept. 2015 30-40*
- Pilo de la Fuente, E.**, Mazumder, S., and Franco, I., Railway Electrical Smart Grids: An introduction to next-generation railway power systems and their operation; *MELEC Sept. 2014 49-55*
- Pires, C.**, What the IEC Tells Us About Stray Currents: Guidance for a Practical Approach; *MELEC Sept. 2016 23-29*
- Podmore, R.**, Larsen, R., Louie, H., Johnson, N., and Saha, S., Fueling Sustainability: The Exponential Impact of Empowering Off-Grid Communities; *MELEC March 2016 11-17*

- Pourbeik, P.**, Williams, S., Weber, J., Sanchez-Gasca, J., Senthil, J., Huang, S., and Bolton, K., Modeling and Dynamic Behavior of Battery Energy Storage: A Simple Model for Large-Scale Time-Domain Stability Studies; *MELEC Sept. 2015 47-51*
- Pratt, A.**, Krishnamurthy, D., Ruth, M., Wu, H., Lunacek, M., and Vaynsenk, P., Transactive Home Energy Management Systems: The Impact of Their Proliferation on the Electric Grid; *MELEC Dec. 2016 8-14*

Q

- Qiu, Q.**, Fleeman, J., and Ball, D., Geomagnetic Disturbance: A comprehensive approach by American Electric Power to address the impacts; *MELEC Dec. 2015 22-33*

R

- Rahimi, F.**, and Ipakchi, A., Using a Transactive Energy Framework: Providing Grid Services from Smart Buildings; *MELEC Dec. 2016 23-29*
- Rahman, K.**, Jurkovic, S., Hawkins, S., Tarnowsky, S., and Savagian, P., Propulsion System Design of a Battery Electric Vehicle: The Chevrolet Spark EV; *MELEC June 2014 14-24*
- Rajashankara, K.**, and Akin, B., Cryogenic Power Conversion Systems: The next step in the evolution of power electronics technology; *MELEC Dec. 2013 64-73*
- Rajashankara, K.**, Power Conversion Technologies for Automotive and Aircraft Systems: Applying Electric/Hybrid Vehicle Technology to More Electric Aircraft Systems; *MELEC June 2014 50-60*
- Rajashankara, K.**, Wang, Q., and Matsuse, K., Flying Cars: Challenges and Propulsion Strategies; *MELEC March 2016 46-57*
- Ramappa, N.**, see Ravindra, K., *MELEC March 2014 20-29*
- Ravindra, K.**, Kannan, B., and Ramappa, N., Microgrids: A Value-Based Paradigm: The need for the redefinition of microgrids; *MELEC March 2014 20-29*
- Reilly, J.**, see Marnay, C., *MELEC March 2015 79-85*
- Reisinger, R.**, and Emadi, A., Sensible Transportation Electrification: Get rid of inefficient powertrain designs; *MELEC Dec. 2013 6-12*
- Restrepo, C.**, Salazar, A., Schweizer, H., and Ginart, A., Residential Battery Storage: Is the Timing Right?; *MELEC Sept. 2015 14-21*
- Ringelstein, J.**, see Dimeas, A., *MELEC March 2014 81-93*
- Roach, M.**, Community Power and Fleet Microgrids: Meeting climate goals, enhancing system resilience, and stimulating local economic development; *MELEC March 2014 40-53*
- Rodriguez, L.**, see Pastor, M., *MELEC Dec. 2013 13-20*
- Rodriguez-Diaz, E.**, Chen, F., Vasquez, J., Guerrero, J., Burgos, R., and Boroyevich, D., Voltage-Level Selection of Future Two-Level LVdc Distribution Grids: A Compromise Between Grid Compatibility, Safety, and Efficiency; *MELEC June 2016 20-28*
- Ruth, M.**, see Pratt, A., *MELEC Dec. 2016 8-14*

S

- Saha, S.**, see Podmore, R., *MELEC March 2016 11-17*
- Salazar, A.**, see Restrepo, C., *MELEC Sept. 2015 14-21*
- Sanchez-Gasca, J.**, see Pourbeik, P., *MELEC Sept. 2015 47-51*
- Sanchez-Rebollo, C.**, see Jimenez-Octavio, J., *MELEC Sept. 2013 4-10*
- Savagian, P.**, see Rahman, K., *MELEC June 2014 14-24*

- Schmerda, R.**, Cuzner, R., Clark, R., Nowak, D., and Bunzel, S., Shipboard Solid-State Protection: Overview and Applications; *MELEC Sept. 2013 32-39*
- Schweizer, H.**, see Restrepo, C., *MELEC Sept. 2015 14-21*
- Senthil, J.**, see Pourbeik, P., *MELEC Sept. 2015 47-51*
- Shahidehpour, M.**, and Khodayar, M., Cutting Campus Energy Costs with Hierarchical Control: The Economical and Reliable Operation of a Microgrid; *MELEC Sept. 2013 40-56*
- Shahidehpour, M.**, see Archibald, W., *MELEC March 2015 56-67*
- Shahidehpour, M.**, see Che, L., *MELEC March 2014 66-80*
- Shahidehpour, M.**, see Gholami, A., *MELEC March 2016 18-24*
- Shahidehpour, M.**, see Jiang, Y., *MELEC Sept. 2014 39-48*
- Shamsi, P.**, McDonough, M., and Fahimi, B., Wide-Bandgap Semiconductor Technology: Its impact on the electrification of the transportation industry; *MELEC Dec. 2013 59-63*
- Shetye, K.**, and Overbye, T., Modeling and Analysis of GMD Effects on Power Systems: An overview of the impact on large-scale power systems; *MELEC Dec. 2015 13-21*
- Sid-Ahmed, M.**, see Kar, N., *MELEC Sept. 2013 21-31*
- Siegel, H.**, see Hansen, T., *MELEC March 2016 25-32*
- Singh, B.**, Wanner, K., and Vilar, Z., Novel and Ruggedized Power Electronics for Off-Highway Vehicles: The Challenges in Implementing Power Electronics and Drive Systems; *MELEC June 2014 31-41*
- Skrllec, D.**, see Dragicevic, T., *MELEC March 2014 54-65*
- Stanfield, S.**, and Vanega, A., Deploying Distributed Energy Storage: Near-Term Regulatory Considerations to Maximize Benefits; *MELEC Sept. 2015 41-46*
- Staudt, V.**, Bartelt, R., and Heising, C., Fault Scenarios in DC Ship Grids: The advantages and disadvantages of modular multilevel converters; *MELEC June 2015 40-48*
- Sul, S.**, see Kim, S., *MELEC June 2015 22-33*
- Sulligoi, G.**, see Jin, Z., *MELEC June 2016 45-57*
- Sulligoi, G.**, see Vicenzutti, A., *MELEC June 2015 49-65*
- Sun, R.**, McVey, M., Lamb, M., and Gardner, R., Mitigating Geomagnetic Disturbances: A summary of Dominion Virginia Power's efforts; *MELEC Dec. 2015 34-45*
- Suryanarayanan, S.**, see Hansen, T., *MELEC March 2016 25-32*
- Svachula, J.**, see Bahramirad, S., *MELEC March 2015 48-55*

T

- Tarnowsky, S.**, see Rahman, K., *MELEC June 2014 14-24*
- Theisen, P.**, see Fu, Q., *MELEC Dec. 2013 21-29*
- Tian, W.**, see Jiang, Y., *MELEC Sept. 2014 39-48*
- Tricoli, P.**, see Krastev, I., *MELEC Sept. 2016 6-14*

U

- Uzuka, T.**, Faster than a Speeding Bullet: An Overview of Japanese High-Speed Rail Technology and Electrification; *MELEC Sept. 2013 11-20*

V

- Valve, X.**, see Marnay, C., *MELEC March 2015 79-85*
- Vanega, A.**, see Stanfield, S., *MELEC Sept. 2015 41-46*
- Vasconcelos, H.**, Moreira, C., Madureira, A., Lopes, J., and Miranda, V., Advanced Control Solutions for Operating Isolated Power Systems: Examining the Portuguese islands; *MELEC March 2015 25-35*
- Vasquez, J.**, see Dragicevic, T., *MELEC March 2014 54-65*
- Vasquez, J.**, see Jin, Z., *MELEC June 2016 45-57*
- Vasquez, J.**, see Rodriguez-Diaz, E., *MELEC June 2016 20-28*

- Vassallo, A.**, Maker, P., Dixon, T., and Agelidis, V., Electricity Storage: Renewable Energy Applications in the Australian Context; *MELEC Sept. 2015 22-29*
- Vaynschenk, P.**, see Pratt, A., *MELEC Dec. 2016 8-14*
- Vedante, K.**, see Girgis, R., *MELEC Dec. 2015 8-12*
- Velez, C.**, see Pastor, M., *MELEC Dec. 2013 13-20*
- Vicenzutti, A.**, Bosich, D., Giadrossi, G., and Sulligoi, G., The Role of Voltage Controls in Modern All-Electric Ships: Toward the all electric ship; *MELEC June 2015 49-65*
- Vilar, Z.**, see Singh, B., *MELEC June 2014 31-41*

W

- Wang, H.**, Hasanzadeh, A., and Khaligh, A., Transportation Electrification: Conductive charging of electrified vehicles; *MELEC Dec. 2013 46-58*
- Wang, Q.**, see Rajashekara, K., *MELEC March 2016 46-57*
- Wang, Y.**, Xuhui, W., Chen, C., Yong, L., and Xu, L., Improving Peak Power in Electrified Vehicles: The Development of a Hierarchical Design Optimization Method; *MELEC June 2014 25-30*
- Wanner, K.**, see Singh, B., *MELEC June 2014 31-41*
- Warner, G.**, see Burr, M., *MELEC March 2014 30-39*
- Waye, S.**, see Moreno, G., *MELEC June 2014 42-49*
- Weber, J.**, see Pourbeik, P., *MELEC Sept. 2015 47-51*
- Wei, K.**, see Liu, L., *MELEC Dec. 2015 52-59*
- Weidlich, A.**, see Dimeas, A., *MELEC March 2014 81-93*
- Wheeler, P.**, and Bozhko, S., The More Electric Aircraft: Technology and Challenges; *MELEC Dec. 2014 6-12*
- Widergren, S.**, see Hammerstrom, D., *MELEC Dec. 2016 30-36*
- Williams, S.**, see Pourbeik, P., *MELEC Sept. 2015 47-51*
- Wu, H.**, see Pratt, A., *MELEC Dec. 2016 8-14*

X

- Xu, H.**, see Marnay, C., *MELEC March 2015 79-85*
- Xu, L.**, see Wang, Y., *MELEC June 2014 25-30*
- Xuhui, W.**, see Wang, Y., *MELEC June 2014 25-30*

Y

- Yanling, L.**, see Zhaohong, B., *MELEC March 2015 36-47*
- Yiu, C.**, see Marti, L., *MELEC Dec. 2015 46-51*
- Yong, L.**, see Wang, Y., *MELEC June 2014 25-30*
- Yuan, G.**, Rural Electrification Goes Local: Recent innovations in renewable generation, energy efficiency, and grid modernization; *MELEC March 2015 16-24*

Z

- Zhaohong, B.**, and Yanling, L., An Overview of Rural Electrification in China: History, technology, and emerging trends; *MELEC March 2015 36-47*
- Zimmer, M.**, see Burr, M., *MELEC March 2014 30-39*
- Zubieta, L.**, Are Microgrids the Future of Energy?: DC Microgrids from Concept to Demonstration to Deployment; *MELEC June 2016 37-44*

SUBJECT INDEX

A

AC motors

- Fault Scenarios in DC Ship Grids: The advantages and disadvantages of modular multilevel converters. *Staudt, V.*, +, *MELEC June 2015 40-48*
- Propulsion Powertrain Simulator: Future Turboelectric distributed-propulsion aircraft. *Choi, B.*, *MELEC Dec. 2014 23-34*

Actuators

- The More Electric Aircraft: Technology and Challenges. *Wheeler, P.*, +, *MELEC Dec. 2014 6-12*

Aerospace electronics

- The More Electric Aircraft: Technology and Challenges. *Wheeler, P.*, +, *MELEC Dec. 2014 6-12*

Aircraft

- Power Conversion Technologies for Automotive and Aircraft Systems: Applying Electric/Hybrid Vehicle Technology to More Electric Aircraft Systems. *Rajashekara, K.*, *MELEC June 2014 50-60*

Aircraft propulsion

- Flying Cars: Challenges and Propulsion Strategies. *Rajashekara, K.*, +, *MELEC March 2016 46-57*
- Power Conversion Technologies for Automotive and Aircraft Systems: Applying Electric/Hybrid Vehicle Technology to More Electric Aircraft Systems. *Rajashekara, K.*, *MELEC June 2014 50-60*
- Propulsion Powertrain Simulator: Future Turboelectric distributed-propulsion aircraft. *Choi, B.*, *MELEC Dec. 2014 23-34*
- The More Electric Aircraft: Technology and Challenges. *Wheeler, P.*, +, *MELEC Dec. 2014 6-12*

Airplanes

- The More Electric Aircraft: Technology and Challenges. *Wheeler, P.*, +, *MELEC Dec. 2014 6-12*

Analytical models

- Improving Peak Power in Electrified Vehicles: The Development of a Hierarchical Design Optimization Method. *Wang, Y.*, +, *MELEC June 2014 25-30*

Artificial intelligence

- Public-Private Partnerships: Creating New Markets for Industry, Encouraging Social Engagement, and Improving Quality of Life. *Bandler, H.*, *MELEC March 2016 2-10*

Asia

- The Tianjin 2014 Symposium on Microgrids: A meeting of the minds for international microgrid experts. *Marnay, C.*, +, *MELEC March 2015 79-85*

Atmospheric modeling

- Transactive Home Energy Management Systems: The Impact of Their Proliferation on the Electric Grid. *Pratt, A.*, +, *MELEC Dec. 2016 8-14*

Australia

- Electricity Storage: Renewable Energy Applications in the Australian Context. *Vassallo, A.*, +, *MELEC Sept. 2015 22-29*

Authentication

- VOLTRON: An Open-Source Software Platform of the Future. *Katipamula, S.*, +, *MELEC Dec. 2016 15-22*

Automobile industry

- Courting and Sparking: Wooing Consumers' Interest in the EV Market. *Kar, N.*, +, *MELEC Sept. 2013 21-31*

Automotive electronics

- Flying Cars: Challenges and Propulsion Strategies. *Rajashekara, K.*, +, *MELEC March 2016 46-57*

B

Batteries

- Advanced LVDC Electrical Power Architectures and Microgrids: A step toward a new generation of power distribution networks. *Dragicevic, T.*, +, *MELEC March 2014 54-65*
- Are Microgrids the Future of Energy?: DC Microgrids from Concept to Demonstration to Deployment. *Zubieta, L.*, *MELEC June 2016 37-44*
- Connectivity and Convergence: Transportation for the 21st Century. *Gearhart, C.*, +, *MELEC June 2014 6-13*

Electricity Storage: Renewable Energy Applications in the Australian Context. *Vassallo, A., +, MELEC Sept. 2015 22-29*

Energy Is On Board: Energy Storage and Other Alternatives in Modern Light Railways. *Arboleya, P., +, MELEC Sept. 2016 30-41*

Energy Storage, Renewable Power Generation, and the Grid: NREL Capabilities Help to Develop and Test Energy-Storage Technologies. *Ma, Z., +, MELEC Sept. 2015 30-40*

Energy Storage: Balancing the 21st Century Power Grid. *Boston, T., +, MELEC Sept. 2015 52-57*

Fueling Sustainability: The Exponential Impact of Empowering Off-Grid Communities. *Podmore, R., +, MELEC March 2016 11-17*

Modeling and Dynamic Behavior of Battery Energy Storage: A Simple Model for Large-Scale Time-Domain Stability Studies. *Pourbeik, P., +, MELEC Sept. 2015 47-51*

Power Conversion Technologies for Automotive and Aircraft Systems: Applying Electric/Hybrid Vehicle Technology to More Electric Aircraft Systems. *Rajashekara, K., MELEC June 2014 50-60*

Propulsion System Design of a Battery Electric Vehicle: The Chevrolet Spark EV. *Rahman, K., +, MELEC June 2014 14-24*

Reducing Fuel Consumption at a Remote Military Base: Introducing an energy management system. *Kelly, R., +, MELEC Dec. 2013 30-37*

Residential Battery Storage: Is the Timing Right?. *Restrepo, C., +, MELEC Sept. 2015 14-21*

Sensible Transportation Electrification: Get rid of inefficient powertrain designs. *Reisinger, R., +, MELEC Dec. 2013 6-12*

Solar-DC Microgrid for Indian Homes: A Transforming Power Scenario. *Jhunjunwala, A., +, MELEC June 2016 10-19*

The Reign of EVs? An Economic Analysis from the Consumer's Perspective. *Fan, Z., +, MELEC June 2014 61-71*

The Role of Energy Storage in a Microgrid Concept: Examining the opportunities and promise of microgrids. *Fu, Q., +, MELEC Dec. 2013 21-29*

Voltage-Level Selection of Future Two-Level LVdc Distribution Grids: A Compromise Between Grid Compatibility, Safety, and Efficiency. *Rodriguez-Diaz, E., +, MELEC June 2016 20-28*

Battery chargers

Cutting the Cord: Static and Dynamic Inductive Wireless Charging of Electric Vehicles. *Lukic, S., +, MELEC Sept. 2013 57-64*

Battery powered vehicles

Courting and Sparking: Wooing Consumers' Interest in the EV Market. *Kar, N., +, MELEC Sept. 2013 21-31*

Cutting the Cord: Static and Dynamic Inductive Wireless Charging of Electric Vehicles. *Lukic, S., +, MELEC Sept. 2013 57-64*

Braking systems

Energy Harvesting for the Electrification of Railway Stations: Getting a charge from the regenerative braking of trains. *Jiang, Y., +, MELEC Sept. 2014 39-48*

Bridge circuits

Fault Scenarios in DC Ship Grids: The advantages and disadvantages of modular multilevel converters. *Staudt, V., +, MELEC June 2015 40-48*

Brushless DC motors

Propulsion Powertrain Simulator: Future Turboelectric distributed-propulsion aircraft. *Choi, B., MELEC Dec. 2014 23-34*

Buildings

Evaluating Transactive Systems: Historical and Current DOE Research and Development Activities. *Hammerstrom, D., +, MELEC Dec. 2016 30-36*

C

Capacitors

Mitigating Geomagnetic Disturbances: A summary of Dominion Virginia Power's efforts. *Sun, R., +, MELEC Dec. 2015 34-45*

Real-Time Management of Geomagnetic Disturbances: Hydro One's eXtreme Space Weather control room tools. *Marti, L., +, MELEC Dec. 2015 46-51*

Carbon emissions

Riding the Rails to DC Power Efficiency: Energy efficiency in dc-electrified metropolitan railways. *Pecharroman, R., +, MELEC Sept. 2014 32-38*

Cathodes

Residential Battery Storage: Is the Timing Right?. *Restrepo, C., +, MELEC Sept. 2015 14-21*

Charging stations

Connectivity and Convergence: Transportation for the 21st Century. *Gearhart, C., +, MELEC June 2014 6-13*

Fueling Sustainability: The Exponential Impact of Empowering Off-Grid Communities. *Podmore, R., +, MELEC March 2016 11-17*

China

Energy Harvesting for the Electrification of Railway Stations: Getting a charge from the regenerative braking of trains. *Jiang, Y., +, MELEC Sept. 2014 39-48*

Circuit breakers

DC Microgrid Protection: Using the Coupled-Inductor Solid-State Circuit Breaker. *Maqsood, A., +, MELEC June 2016 58-64*

New Horizons in DC Shipboard Power Systems: New fault protection strategies are essential to the adoption of dc power systems. *Cairolì, P., +, MELEC Dec. 2013 38-45*

Circuit faults

DC Microgrid Protection: Using the Coupled-Inductor Solid-State Circuit Breaker. *Maqsood, A., +, MELEC June 2016 58-64*

Fault Scenarios in DC Ship Grids: The advantages and disadvantages of modular multilevel converters. *Staudt, V., +, MELEC June 2015 40-48*

New Horizons in DC Shipboard Power Systems: New fault protection strategies are essential to the adoption of dc power systems. *Cairolì, P., +, MELEC Dec. 2013 38-45*

Next-Generation Shipboard DC Power System: Introducing Smart Grid and dc Microgrid Technologies into Maritime Electrical Networks. *Jin, Z., +, MELEC June 2016 45-57*

Cities and towns

Smart Houses in the Smart Grid: Developing an interactive network. *Dimeas, A., +, MELEC March 2014 81-93*

Civil engineering

Why Microgrids Are Moving into the Mainstream: Improving the efficiency of the larger power grid. *Asmus, P., MELEC March 2014 12-19*

Coal

Solar-DC Microgrid for Indian Homes: A Transforming Power Scenario. *Jhunjunwala, A., +, MELEC June 2016 10-19*

Combustion engines

Sensible Transportation Electrification: Get rid of inefficient powertrain designs. *Reisinger, R., +, MELEC Dec. 2013 6-12*

Communities

Community Power and Fleet Microgrids: Meeting climate goals, enhancing system resilience, and stimulating local economic development. *Roach, M., MELEC March 2014 40-53*

Computational modeling

Enabling Smart Grid Cosimulation Studies: Rapid Design and Development of the Technologies and Controls. *Hansen, T., +, MELEC March 2016 25-32*

Modeling and Dynamic Behavior of Battery Energy Storage: A Simple Model for Large-Scale Time-Domain Stability Studies. *Pourbeik, P., +, MELEC Sept. 2015 47-51*

Computer architecture

Advanced LVDC Electrical Power Architectures and Microgrids: A step toward a new generation of power distribution networks. *Dragicevic, T., +, MELEC March 2014 54-65*

Connectors

DC Local Power Distribution: Technology, Deployment, and Pathways to Success. *Nordman, B., +, MELEC June 2016 29-36*

Consumer electronics

Advanced LVDC Electrical Power Architectures and Microgrids: A step toward a new generation of power distribution networks. *Dragicevic, T., +, MELEC March 2014 54-65*

Control systems

Advancing New Technologies in Electrical Ships: IEEE standards are the risk mitigation tool. *Khersonsky, Y., MELEC June 2015 34-39*

Building Resilient Integrated Grids: One neighborhood at a time. *Bahramirad, S., +, MELEC March 2015 48-55*

Energy Harvesting for the Electrification of Railway Stations: Getting a charge from the regenerative braking of trains. *Jiang, Y., +, MELEC Sept. 2014 39-48*

Smart Houses in the Smart Grid: Developing an interactive network. *Dimeas, A., +, MELEC March 2014 81-93*

Controllability

Railway Electrical Smart Grids: An introduction to next-generation railway power systems and their operation. *Pilo de la Fuente, E., +, MELEC Sept. 2014 49-55*

Corrosion

Stray-Current Corrosion and Mitigation: A synopsis of the technical methods used in dc transit systems. *Memon, S., +, MELEC Sept. 2014 22-31*

Cost benefit analysis

Evaluating Transactive Systems: Historical and Current DOE Research and Development Activities. *Hammerstrom, D., +, MELEC Dec. 2016 30-36*

Cost reduction

Cutting Campus Energy Costs with Hierarchical Control: The Economical and Reliable Operation of a Microgrid. *Shahidehpour, M., +, MELEC Sept. 2013 40-56*

Costs

Locally Manufactured Small Wind Turbines: Empowering communities for sustainable rural electrification. *Latoufis, K., +, MELEC March 2015 68-78*

Couplings

Low-Frequency Coupling: Phenomena in Electric Transportation Systems. *Bongiorno, J., +, MELEC Sept. 2016 15-22*

Cryogenics

Cryogenic Power Conversion Systems: The next step in the evolution of power electronics technology. *Rajashékara, K., +, MELEC Dec. 2013 64-73*

Current measurement

Impact of GICs on Power Transformers: Overheating is not the real issue. *Girgis, R., +, MELEC Dec. 2015 8-12*

Modeling and Analysis of GMD Effects on Power Systems: An overview of the impact on large-scale power systems. *Shetye, K., +, MELEC Dec. 2015 13-21*

D

Data models

Emerging Models for Microgrid Finance: Driven by the need to deliver value to end users. *Burr, M., +, MELEC March 2014 30-39*

Enabling Smart Grid Cosimulation Studies: Rapid Design and Development of the Technologies and Controls. *Hansen, T., +, MELEC March 2016 25-32*

DC motor protection

Shipboard Solid-State Protection: Overview and Applications. *Schmerda, R., +, MELEC Sept. 2013 32-39*

DC motors

DC Local Power Distribution: Technology, Deployment, and Pathways to Success. *Nordman, B., +, MELEC June 2016 29-36*

New Horizons in DC Shipboard Power Systems: New fault protection strategies are essential to the adoption of dc power systems. *Cairolj, P., +, MELEC Dec. 2013 38-45*

Riding the Rails to DC Power Efficiency: Energy efficiency in dc-electrified metropolitan railways. *Pecharroman, R., +, MELEC Sept. 2014 32-38*

Shipboard Solid-State Protection: Overview and Applications. *Schmerda, R., +, MELEC Sept. 2013 32-39*

Stray-Current Corrosion and Mitigation: A synopsis of the technical methods used in dc transit systems. *Memon, S., +, MELEC Sept. 2014 22-31*

What the IEC Tells Us About Stray Currents: Guidance for a Practical Approach. *Pires, C., MELEC Sept. 2016 23-29*

Decision making

Smart Houses in the Smart Grid: Developing an interactive network. *Dimeas, A., +, MELEC March 2014 81-93*

Degradation

Managing the Italian High-Speed Railway Network: Provisions for Reducing Interference Between Electric Traction Systems. *Caracciolo, F., +, MELEC Sept. 2016 42-47*

Density measurement

Improving Peak Power in Electrified Vehicles: The Development of a Hierarchical Design Optimization Method. *Wang, Y., +, MELEC June 2014 25-30*

Design methodology

Naval Power Systems: Integrated power systems for the continuity of the electrical power supply. *Doerry, N., MELEC June 2015 12-21*

Distributed power generation

Cutting Campus Energy Costs with Hierarchical Control: The Economical and Reliable Operation of a Microgrid. *Shahidehpour, M., +, MELEC Sept. 2013 40-56*

Dynamic scheduling

Energy Storage: Balancing the 21st Century Power Grid. *Boston, T., +, MELEC Sept. 2015 52-57*

E

Economics

Evaluating Transactive Systems: Historical and Current DOE Research and Development Activities. *Hammerstrom, D., +, MELEC Dec. 2016 30-36*

Public-Private Partnerships: Creating New Markets for Industry, Encouraging Social Engagement, and Improving Quality of Life. *Bandler, H.*, [MELEC March 2016 2-10](#)

Rural Electrification Goes Local: Recent innovations in renewable generation, energy efficiency, and grid modernization. *Yuan, G.*, [MELEC March 2015 16-24](#)

Solar-DC Microgrid for Indian Homes: A Transforming Power Scenario. *Jhunjhunwala, A.*, +, [MELEC June 2016 10-19](#)

The Reign of EVs? An Economic Analysis from the Consumer's Perspective. *Fan, Z.*, +, [MELEC June 2014 61-71](#)

Electric locomotives

Faster than a Speeding Bullet: An Overview of Japanese High-Speed Rail Technology and Electrification. *Uzuka, T.*, +, [MELEC Sept. 2013 11-20](#)

Electric motors

A Naval Integrated Power System with a Battery Energy Storage System: Fuel efficiency, reliability, and quality of power. *Kim, S.*, +, [MELEC June 2015 22-33](#)

Advancing New Technologies in Electrical Ships: IEEE standards are the risk mitigation tool. *Khersonsky, Y.*, [MELEC June 2015 34-39](#)

Fault Scenarios in DC Ship Grids: The advantages and disadvantages of modular multilevel converters. *Staudt, V.*, +, [MELEC June 2015 40-48](#)

Gaining Traction: Thermal Management and Reliability of Automotive Electric Traction-Drive Systems. *Moreno, G.*, [MELEC June 2014 42-49](#)

The Role of Voltage Controls in Modern All-Electric Ships: Toward the all electric ship. *Vicenzutti, A.*, +, [MELEC June 2015 49-65](#)

Electric potential

Deploying Distributed Energy Storage: Near-Term Regulatory Considerations to Maximize Benefits. *Stanfield, S.*, +, [MELEC Sept. 2015 41-46](#)

Geomagnetic Disturbance: A comprehensive approach by American Electric Power to address the impacts. *Qiu, Q.*, +, [MELEC Dec. 2015 22-33](#)

Modeling and Analysis of GMD Effects on Power Systems: An overview of the impact on large-scale power systems. *Shetye, K.*, +, [MELEC Dec. 2015 13-21](#)

Electric vehicles

Connectivity and Convergence: Transportation for the 21st Century. *Gearhart, C.*, +, [MELEC June 2014 6-13](#)

Gaining Traction: Thermal Management and Reliability of Automotive Electric Traction-Drive Systems. *Moreno, G.*, [MELEC June 2014 42-49](#)

Improving Peak Power in Electrified Vehicles: The Development of a Hierarchical Design Optimization Method. *Wang, Y.*, +, [MELEC June 2014 25-30](#)

Novel and Ruggedized Power Electronics for Off-Highway Vehicles: The Challenges in Implementing Power Electronics and Drive Systems. *Singh, B.*, [MELEC June 2014 31-41](#)

Power Conversion Technologies for Automotive and Aircraft Systems: Applying Electric/Hybrid Vehicle Technology to More Electric Aircraft Systems. *Rajashékara, K.*, [MELEC June 2014 50-60](#)

Propulsion Powertrain Simulator: Future Turboelectric distributed-propulsion aircraft. *Choi, B.*, [MELEC Dec. 2014 23-34](#)

Selecting the Best Electric Machines for Electrical Power-Generation Systems: High-Performance Solutions for Aerospace More Electric Architectures. *Ganev, E.*, [MELEC Dec. 2014 13-22](#)

The More Electric Aircraft: Technology and Challenges. *Wheeler, P.*, +, [MELEC Dec. 2014 6-12](#)

The Reign of EVs? An Economic Analysis from the Consumer's Perspective. *Fan, Z.*, +, [MELEC June 2014 61-71](#)

Transportation Electrification: Conductive charging of electrified vehicles. *Wang, H.*, +, [MELEC Dec. 2013 46-58](#)

What the IEC Tells Us About Stray Currents: Guidance for a Practical Approach. *Pires, C.*, [MELEC Sept. 2016 23-29](#)

Wide-Bandgap Semiconductor Technology: Its impact on the electrification of the transportation industry. *Shamsi, P.*, +, [MELEC Dec. 2013 59-63](#)

Electrical resistance measurement

What the IEC Tells Us About Stray Currents: Guidance for a Practical Approach. *Pires, C.*, [MELEC Sept. 2016 23-29](#)

Electrical safety

A Catenary-Free Electrification for Urban Transport: An Overview of the Tramway System. *Pastena, L.*, [MELEC Sept. 2014 16-21](#)

Electricity

Propulsion System Design of a Battery Electric Vehicle: The Chevrolet Spark EV. *Rahman, K.*, +, [MELEC June 2014 14-24](#)

Electricity supply industry

Advanced LVDC Electrical Power Architectures and Microgrids: A step toward a new generation of power distribution networks. *Dragicevic, T.*, +, [MELEC March 2014 54-65](#)

An Overview of Rural Electrification in China: History, technology, and emerging trends. *Zhaohong, B.*, +, [MELEC March 2015 36-47](#)

Building Resilient Integrated Grids: One neighborhood at a time. *Bahramirad, S.*, +, [MELEC March 2015 48-55](#)

Community Power and Fleet Microgrids: Meeting climate goals, enhancing system resilience, and stimulating local economic development. *Roach, M.*, [MELEC March 2014 40-53](#)

DC Microgrid Protection: Using the Coupled-Inductor Solid-State Circuit Breaker. *Maqsood, A.*, +, [MELEC June 2016 58-64](#)

Electricity Storage: Renewable Energy Applications in the Australian Context. *Vassallo, A.*, +, [MELEC Sept. 2015 22-29](#)

Enabling Smart Grid Cosimulation Studies: Rapid Design and Development of the Technologies and Controls. *Hansen, T.*, +, [MELEC March 2016 25-32](#)

Front Lines Against the Darkness: Enhancing the Resilience of the Electricity Grid Through Microgrid Facilities. *Gholami, A.*, +, [MELEC March 2016 18-24](#)

Fueling Sustainability: The Exponential Impact of Empowering Off-Grid Communities. *Podmore, R.*, +, [MELEC March 2016 11-17](#)

Geomagnetic Disturbance: A comprehensive approach by American Electric Power to address the impacts. *Qiu, Q.*, +, [MELEC Dec. 2015 22-33](#)

Islands in the Sun: The solar power deployment initiative at the University of the Virgin Islands. *Archibald, W.*, +, [MELEC March 2015 56-67](#)

Locally Manufactured Small Wind Turbines: Empowering communities for sustainable rural electrification. *Latoufis, K.*, +, [MELEC March 2015 68-78](#)

Microgrids: A Value-Based Paradigm: The need for the redefinition of microgrids. *Ravindra, K.*, +, [MELEC March 2014 20-29](#)

Mitigating Geomagnetic Disturbances: A summary of Dominion Virginia Power's efforts. *Sun, R.*, +, [MELEC Dec. 2015 34-45](#)

Rural Electrification Goes Local: Recent innovations in renewable generation, energy efficiency, and grid modernization. *Yuan, G.*, [MELEC March 2015 16-24](#)

Smart Houses in the Smart Grid: Developing an interactive network. *Dimeas, A., +, MELEC March 2014 81-93*

The Reign of EVs? An Economic Analysis from the Consumer's Perspective. *Fan, Z., +, MELEC June 2014 61-71*

The Tianjin 2014 Symposium on Microgrids: A meeting of the minds for international microgrid experts. *Marnay, C., +, MELEC March 2015 79-85*

Why Microgrids Are Moving into the Mainstream: Improving the efficiency of the larger power grid. *Asmus, P., MELEC March 2014 12-19*

Electrostatic discharges

Flywheels Store to Save: Improving railway efficiency with energy storage. *Pastor, M., +, MELEC Dec. 2013 13-20*

Energy consumption

Reducing Fuel Consumption at a Remote Military Base: Introducing an energy management system. *Kelly, R., +, MELEC Dec. 2013 30-37*

Sensible Transportation Electrification: Get rid of inefficient powertrain designs. *Reisinger, R., +, MELEC Dec. 2013 6-12*

The Role of Energy Storage in a Microgrid Concept: Examining the opportunities and promise of microgrids. *Fu, Q., +, MELEC Dec. 2013 21-29*

Energy conversion

Sensible Transportation Electrification: Get rid of inefficient powertrain designs. *Reisinger, R., +, MELEC Dec. 2013 6-12*

Energy distribution

Fault Scenarios in DC Ship Grids: The advantages and disadvantages of modular multilevel converters. *Staudt, V., +, MELEC June 2015 40-48*

Energy efficiency

Connectivity and Convergence: Transportation for the 21st Century. *Gearhart, C., +, MELEC June 2014 6-13*

Gaining Traction: Thermal Management and Reliability of Automotive Electric Traction-Drive Systems. *Moreno, G., MELEC June 2014 42-49*

GIS in Future Large-Scale Power Grids: An analysis of the problem. *Liu, L., +, MELEC Dec. 2015 52-59*

New Horizons in DC Shipboard Power Systems: New fault protection strategies are essential to the adoption of dc power systems. *Cairolì, P., +, MELEC Dec. 2013 38-45*

Power Conversion Technologies for Automotive and Aircraft Systems: Applying Electric/Hybrid Vehicle Technology to More Electric Aircraft Systems. *Rajashékara, K., MELEC June 2014 50-60*

Railway Electrical Smart Grids: An introduction to next-generation railway power systems and their operation. *Pilo de la Fuente, E., +, MELEC Sept. 2014 49-55*

Riding the Rails to DC Power Efficiency: Energy efficiency in dc-electrified metropolitan railways. *Pecharroman, R., +, MELEC Sept. 2014 32-38*

Why Microgrids Are Moving into the Mainstream: Improving the efficiency of the larger power grid. *Asmus, P., MELEC March 2014 12-19*

Energy exchange

Transportation Electrification: Conductive charging of electrified vehicles. *Wang, H., +, MELEC Dec. 2013 46-58*

Energy harvesting

Energy Harvesting for the Electrification of Railway Stations: Getting a charge from the regenerative braking of trains. *Jiang, Y., +, MELEC Sept. 2014 39-48*

Energy management

Building Resilient Integrated Grids: One neighborhood at a time. *Bahramirad, S., +, MELEC March 2015 48-55*

Community Power and Fleet Microgrids: Meeting climate goals, enhancing system resilience, and stimulating local economic development. *Roach, M., MELEC March 2014 40-53*

Energy Is On Board: Energy Storage and Other Alternatives in Modern Light Railways. *Arboleya, P., +, MELEC Sept. 2016 30-41*

Improving Peak Power in Electrified Vehicles: The Development of a Hierarchical Design Optimization Method. *Wang, Y., +, MELEC June 2014 25-30*

Microgrids: A Value-Based Paradigm: The need for the redefinition of microgrids. *Ravindra, K., +, MELEC March 2014 20-29*

Novel and Ruggedized Power Electronics for Off-Highway Vehicles: The Challenges in Implementing Power Electronics and Drive Systems. *Singh, B., MELEC June 2014 31-41*

Reducing Fuel Consumption at a Remote Military Base: Introducing an energy management system. *Kelly, R., +, MELEC Dec. 2013 30-37*

The Reign of EVs? An Economic Analysis from the Consumer's Perspective. *Fan, Z., +, MELEC June 2014 61-71*

Transactive Home Energy Management Systems: The Impact of Their Proliferation on the Electric Grid. *Pratt, A., +, MELEC Dec. 2016 8-14*

Using a Transactive Energy Framework: Providing Grid Services from Smart Buildings. *Rahimi, F., +, MELEC Dec. 2016 23-29*

Energy resources

Adaptive Protection System for Microgrids: Protection practices of a functional microgrid system. *Che, L., +, MELEC March 2014 66-80*

Enabling Smart Grid Cosimulation Studies: Rapid Design and Development of the Technologies and Controls. *Hansen, T., +, MELEC March 2016 25-32*

Energy storage

Advanced Control Solutions for Operating Isolated Power Systems: Examining the Portuguese islands. *Vasconcelos, H., +, MELEC March 2015 25-35*

Deploying Distributed Energy Storage: Near-Term Regulatory Considerations to Maximize Benefits. *Stanfield, S., +, MELEC Sept. 2015 41-46*

Electricity Storage: Renewable Energy Applications in the Australian Context. *Vassallo, A., +, MELEC Sept. 2015 22-29*

Energy Storage, Renewable Power Generation, and the Grid: NREL Capabilities Help to Develop and Test Energy-Storage Technologies. *Ma, Z., +, MELEC Sept. 2015 30-40*

Energy Storage: Balancing the 21st Century Power Grid. *Boston, T., +, MELEC Sept. 2015 52-57*

Modeling and Dynamic Behavior of Battery Energy Storage: A Simple Model for Large-Scale Time-Domain Stability Studies. *Pourbeik, P., +, MELEC Sept. 2015 47-51*

Residential Battery Storage: Is the Timing Right?. *Restrepo, C., +, MELEC Sept. 2015 14-21*

The Role of Energy Storage in a Microgrid Concept: Examining the opportunities and promise of microgrids. *Fu, Q., +, MELEC Dec. 2013 21-29*

Engines

- Flying Cars: Challenges and Propulsion Strategies. *Rajashekara, K., +, MELEC March 2016 46-57*
- Propulsion Powertrain Simulator: Future Turboelectric distributed-propulsion aircraft. *Choi, B., MELEC Dec. 2014 23-34*
- Propulsion System Design of a Battery Electric Vehicle: The Chevrolet Spark EV. *Rahman, K., +, MELEC June 2014 14-24*
- Sensible Transportation Electrification: Get rid of inefficient powertrain designs. *Reisinger, R., +, MELEC Dec. 2013 6-12*

Environmental factors

- Fueling Sustainability: The Exponential Impact of Empowering Off-Grid Communities. *Podmore, R., +, MELEC March 2016 11-17*
- Riding the Rails to DC Power Efficiency: Energy efficiency in dc-electrified metropolitan railways. *Pecharroman, R., +, MELEC Sept. 2014 32-38*
- Voltage-Level Selection of Future Two-Level LVdc Distribution Grids: A Compromise Between Grid Compatibility, Safety, and Efficiency. *Rodriguez-Diaz, E., +, MELEC June 2016 20-28*

Europe

- Managing the Italian High-Speed Railway Network: Provisions for Reducing Interference Between Electric Traction Systems. *Caracciolo, F., +, MELEC Sept. 2016 42-47*
- Power-Quality Improvement in AC Railway Substations: The concept of chopper-controlled impedance. *Ladoux, P., +, MELEC Sept. 2014 6-15*
- Smart Houses in the Smart Grid: Developing an interactive network. *Dimeas, A., +, MELEC March 2014 81-93*

F

Fault currents

- Adaptive Protection System for Microgrids: Protection practices of a functional microgrid system. *Che, L., +, MELEC March 2014 66-80*
- New Horizons in DC Shipboard Power Systems: New fault protection strategies are essential to the adoption of dc power systems. *Cairolì, P., +, MELEC Dec. 2013 38-45*

Fault tolerant systems

- Front Lines Against the Darkness: Enhancing the Resilience of the Electricity Grid Through Microgrid Facilities. *Gholami, A., +, MELEC March 2016 18-24*

Finance

- Emerging Models for Microgrid Finance: Driven by the need to deliver value to end users. *Burr, M., +, MELEC March 2014 30-39*

Flexible ac transmission systems

- Faster than a Speeding Bullet: An Overview of Japanese High-Speed Rail Technology and Electrification. *Uzuka, T., +, MELEC Sept. 2013 11-20*

Flywheels

- Flywheels Store to Save: Improving railway efficiency with energy storage. *Pastor, M., +, MELEC Dec. 2013 13-20*
- New Horizons in DC Shipboard Power Systems: New fault protection strategies are essential to the adoption of dc power systems. *Cairolì, P., +, MELEC Dec. 2013 38-45*

Frequency control

- Advanced Control Solutions for Operating Isolated Power Systems: Examining the Portuguese islands. *Vasconcelos, H., +, MELEC March 2015 25-35*

- Future of Electric Railways: Advanced Electrification Systems with Static Converters for ac Railways. *Krastev, I., +, MELEC Sept. 2016 6-14*

Frequency conversion

- Future of Electric Railways: Advanced Electrification Systems with Static Converters for ac Railways. *Krastev, I., +, MELEC Sept. 2016 6-14*

Frequency measurement

- Using a Transactive Energy Framework: Providing Grid Services from Smart Buildings. *Rahimi, F., +, MELEC Dec. 2016 23-29*

Fuel consumption

- Transportation Electrification: Conductive charging of electrified vehicles. *Wang, H., +, MELEC Dec. 2013 46-58*

Fuel economy

- Toward Ground Vehicle Electrification in the U.S. Army: An Overview of Recent Activities. *Masrur, M., MELEC March 2016 33-45*

Fuels

- A System Naval Integrated Power with a Battery Energy Storage System: Fuel efficiency, reliability, and quality of power. *Kim, S., +, MELEC June 2015 22-33*
- Connectivity and Convergence: Transportation for the 21st Century. *Gearhart, C., +, MELEC June 2014 6-13*
- Islands in the Sun: The solar power deployment initiative at the University of the Virgin Islands. *Archibald, W., +, MELEC March 2015 56-67*
- Reducing Fuel Consumption at a Remote Military Base: Introducing an energy management system. *Kelly, R., +, MELEC Dec. 2013 30-37*
- The Reign of EVs? An Economic Analysis from the Consumer's Perspective. *Fan, Z., +, MELEC June 2014 61-71*

G

Gallium nitride

- Wide-Bandgap Semiconductor Technology: Its impact on the electrification of the transportation industry. *Shamsi, P., +, MELEC Dec. 2013 59-63*

Generators

- A Naval Integrated Power System with a Battery Energy Storage System: Fuel efficiency, reliability, and quality of power. *Kim, S., +, MELEC June 2015 22-33*
- Fault Scenarios in DC Ship Grids: The advantages and disadvantages of modular multilevel converters. *Staudt, V., +, MELEC June 2015 40-48*
- Locally Manufactured Small Wind Turbines: Empowering communities for sustainable rural electrification. *Latoufis, K., +, MELEC March 2015 68-78*
- Naval Power Systems: Integrated power systems for the continuity of the electrical power supply. *Doerry, N., MELEC June 2015 12-21*
- Next-Generation Shipboard DC Power System: Introducing Smart Grid and dc Microgrid Technologies into Maritime Electrical Networks. *Jin, Z., +, MELEC June 2016 45-57*
- Novel and Ruggedized Power Electronics for Off-Highway Vehicles: The Challenges in Implementing Power Electronics and Drive Systems. *Singh, B., MELEC June 2014 31-41*
- Power Conversion Technologies for Automotive and Aircraft Systems: Applying Electric/Hybrid Vehicle Technology to More Electric Aircraft Systems. *Rajashekara, K., MELEC June 2014 50-60*
- Reducing Fuel Consumption at a Remote Military Base: Introducing an energy management system. *Kelly, R., +, MELEC Dec. 2013 30-37*

Selecting the Best Electric Machines for Electrical Power-Generation Systems: High-Performance Solutions for Aerospace More Electric Architectures. *Ganev, E., MELEC Dec. 2014 13-22*

The More Electric Aircraft: Technology and Challenges. *Wheeler, P., +, MELEC Dec. 2014 6-12*

The Role of Voltage Controls in Modern All-Electric Ships: Toward the all electric ship. *Vicenzutti, A., +, MELEC June 2015 49-65*

Toward Ground Vehicle Electrification in the U.S. Army: An Overview of Recent Activities. *Masrur, M., MELEC March 2016 33-45*

Geological measurements

Real-Time Management of Geomagnetic Disturbances: Hydro One's eXtreme Space Weather control room tools. *Marti, L., +, MELEC Dec. 2015 46-51*

Geomagnetism

Geomagnetic Disturbance: A comprehensive approach by American Electric Power to address the impacts. *Qiu, Q., +, MELEC Dec. 2015 22-33*

GIC in Future Large-Scale Power Grids: An analysis of the problem. *Liu, L., +, MELEC Dec. 2015 52-59*

Impact of GICs on Power Transformers: Overheating is not the real issue. *Girgis, R., +, MELEC Dec. 2015 8-12*

Mitigating Geomagnetic Disturbances: A summary of Dominion Virginia Power's efforts. *Sun, R., +, MELEC Dec. 2015 34-45*

Modeling and Analysis of GMD Effects on Power Systems: An overview of the impact on large-scale power systems. *Shetye, K., +, MELEC Dec. 2015 13-21*

Real-Time Management of Geomagnetic Disturbances: Hydro One's eXtreme Space Weather control room tools. *Marti, L., +, MELEC Dec. 2015 46-51*

Government policies

An Overview of Rural Electrification in China: History, technology, and emerging trends. *Zhaohong, B., +, MELEC March 2015 36-47*

Building Resilient Integrated Grids: One neighborhood at a time. *Bahramirad, S., +, MELEC March 2015 48-55*

Public-Private Partnerships: Creating New Markets for Industry, Encouraging Social Engagement, and Improving Quality of Life. *Bandler, H., MELEC March 2016 2-10*

Rural Electrification Goes Local: Recent innovations in renewable generation, energy efficiency, and grid modernization. *Yuan, G., MELEC March 2015 16-24*

Voltage-Level Selection of Future Two-Level LVdc Distribution Grids: A Compromise Between Grid Compatibility, Safety, and Efficiency. *Rodriguez-Diaz, E., +, MELEC June 2016 20-28*

Green products

Riding the Rails to DC Power Efficiency: Energy efficiency in dc-electrified metropolitan railways. *Pecharroman, R., +, MELEC Sept. 2014 32-38*

Grounding

Managing the Italian High-Speed Railway Network: Provisions for Reducing Interference Between Electric Traction Systems. *Caracciolo, F., +, MELEC Sept. 2016 42-47*

H

Harmonic analysis

Impact of GICs on Power Transformers: Overheating is not the real issue. *Girgis, R., +, MELEC Dec. 2015 8-12*

Mitigating Geomagnetic Disturbances: A summary of Dominion Virginia Power's efforts. *Sun, R., +, MELEC Dec. 2015 34-45*

Heating

Real-Time Management of Geomagnetic Disturbances: Hydro One's eXtreme Space Weather control room tools. *Marti, L., +, MELEC Dec. 2015 46-51*

High-temperature superconductors

Cryogenic Power Conversion Systems: The next step in the evolution of power electronics technology. *Rajashekara, K., +, MELEC Dec. 2013 64-73*

Home appliances

Enabling Smart Grid Cosimulation Studies: Rapid Design and Development of the Technologies and Controls. *Hansen, T., +, MELEC March 2016 25-32*

Transactive Home Energy Management Systems: The Impact of Their Proliferation on the Electric Grid. *Pratt, A., +, MELEC Dec. 2016 8-14*

Voltage-Level Selection of Future Two-Level LVdc Distribution Grids: A Compromise Between Grid Compatibility, Safety, and Efficiency. *Rodriguez-Diaz, E., +, MELEC June 2016 20-28*

Home automation

Transactive Home Energy Management Systems: The Impact of Their Proliferation on the Electric Grid. *Pratt, A., +, MELEC Dec. 2016 8-14*

Hurricanes

Islands in the Sun: The solar power deployment initiative at the University of the Virgin Islands. *Archibald, W., +, MELEC March 2015 56-67*

Hybrid electric vehicles

Cutting the Cord: Static and Dynamic Inductive Wireless Charging of Electric Vehicles. *Lukic, S., +, MELEC Sept. 2013 57-64*

Power Conversion Technologies for Automotive and Aircraft Systems: Applying Electric/Hybrid Vehicle Technology to More Electric Aircraft Systems. *Rajashekara, K., MELEC June 2014 50-60*

Hybrid power systems

Power Conversion Technologies for Automotive and Aircraft Systems: Applying Electric/Hybrid Vehicle Technology to More Electric Aircraft Systems. *Rajashekara, K., MELEC June 2014 50-60*

I

IEEE standards

Advancing New Technologies in Electrical Ships: IEEE standards are the risk mitigation tool. *Khersonsky, Y., MELEC June 2015 34-39*

India

Microgrids: A Value-Based Paradigm: The need for the redefinition of microgrids. *Ravindra, K., +, MELEC March 2014 20-29*

Solar-DC Microgrid for Indian Homes: A Transforming Power Scenario. *Jhunjunwala, A., +, MELEC June 2016 10-19*

Induction motors

Novel and Ruggedized Power Electronics for Off-Highway Vehicles: The Challenges in Implementing Power Electronics and Drive Systems. *Singh, B., MELEC June 2014 31-41*

Inductive power transmission

Cutting the Cord: Static and Dynamic Inductive Wireless Charging of Electric Vehicles. *Lukic, S., +, MELEC Sept. 2013 57-64*

Inductors

DC Microgrid Protection: Using the Coupled-Inductor Solid-State Circuit Breaker. *Maqsood, A., +, MELEC June 2016 58-64*

Managing the Italian High-Speed Railway Network: Provisions for Reducing Interference Between Electric Traction Systems. *Caracciolo, F.*, +, [MELEC Sept. 2016 42-47](#)

Information technology

Railway Electrical Smart Grids: An introduction to next-generation railway power systems and their operation. *Pilo de la Fuente, E.*, +, [MELEC Sept. 2014 49-55](#)

Insulated gate bipolar transistors

Energy Is On Board: Energy Storage and Other Alternatives in Modern Light Railways. *Arbolea, P.*, +, [MELEC Sept. 2016 30-41](#)

Shipboard Solid-State Protection: Overview and Applications. *Schmerda, R.*, +, [MELEC Sept. 2013 32-39](#)

Insulation life

Managing the Italian High-Speed Railway Network: Provisions for Reducing Interference Between Electric Traction Systems. *Caracciolo, F.*, +, [MELEC Sept. 2016 42-47](#)

Integrated circuit modeling

Improving Peak Power in Electrified Vehicles: The Development of a Hierarchical Design Optimization Method. *Wang, Y.*, +, [MELEC June 2014 25-30](#)

Interference

Low-Frequency Coupling: Phenomena in Electric Transportation Systems. *Bongiorno, J.*, +, [MELEC Sept. 2016 15-22](#)

Managing the Italian High-Speed Railway Network: Provisions for Reducing Interference Between Electric Traction Systems. *Caracciolo, F.*, +, [MELEC Sept. 2016 42-47](#)

Internet of things

Public-Private Partnerships: Creating New Markets for Industry, Encouraging Social Engagement, and Improving Quality of Life. *Bandler, H.*, [MELEC March 2016 2-10](#)

Inverters

Novel and Ruggedized Power Electronics for Off-Highway Vehicles: The Challenges in Implementing Power Electronics and Drive Systems. *Singh, B.*, [MELEC June 2014 31-41](#)

Residential Battery Storage: Is the Timing Right?. *Restrepo, C.*, +, [MELEC Sept. 2015 14-21](#)

Toward Ground Vehicle Electrification in the U.S. Army: An Overview of Recent Activities. *Masrur, M.*, [MELEC March 2016 33-45](#)

Why Microgrids Are Moving into the Mainstream: Improving the efficiency of the larger power grid. *Asmus, P.*, [MELEC March 2014 12-19](#)

Investments

Building Resilient Integrated Grids: One neighborhood at a time. *Bahramirad, S.*, +, [MELEC March 2015 48-55](#)

Emerging Models for Microgrid Finance: Driven by the need to deliver value to end users. *Burr, M.*, +, [MELEC March 2014 30-39](#)

Public-Private Partnerships: Creating New Markets for Industry, Encouraging Social Engagement, and Improving Quality of Life. *Bandler, H.*, [MELEC March 2016 2-10](#)

K

Kinetic theory

Flywheels Store to Save: Improving railway efficiency with energy storage. *Pastor, M.*, +, [MELEC Dec. 2013 13-20](#)

L

Land vehicles

Toward Ground Vehicle Electrification in the U.S. Army: An Overview of Recent Activities. *Masrur, M.*, [MELEC March 2016 33-45](#)

Light rail systems

Energy Is On Board: Energy Storage and Other Alternatives in Modern Light Railways. *Arbolea, P.*, +, [MELEC Sept. 2016 30-41](#)

Lithium

Residential Battery Storage: Is the Timing Right?. *Restrepo, C.*, +, [MELEC Sept. 2015 14-21](#)

Load management

Deploying Distributed Energy Storage: Near-Term Regulatory Considerations to Maximize Benefits. *Stanfield, S.*, +, [MELEC Sept. 2015 41-46](#)

Enabling Smart Grid Cosimulation Studies: Rapid Design and Development of the Technologies and Controls. *Hansen, T.*, +, [MELEC March 2016 25-32](#)

Modeling and Analysis of GMD Effects on Power Systems: An overview of the impact on large-scale power systems. *Shetye, K.*, +, [MELEC Dec. 2015 13-21](#)

Rural Electrification Goes Local: Recent innovations in renewable generation, energy efficiency, and grid modernization. *Yuan, G.*, [MELEC March 2015 16-24](#)

Transactive Home Energy Management Systems: The Impact of Their Proliferation on the Electric Grid. *Pratt, A.*, +, [MELEC Dec. 2016 8-14](#)

Logic gates

DC Microgrid Protection: Using the Coupled-Inductor Solid-State Circuit Breaker. *Maqsood, A.*, +, [MELEC June 2016 58-64](#)

Wide-Bandgap Semiconductor Technology: Its impact on the electrification of the transportation industry. *Shamsi, P.*, +, [MELEC Dec. 2013 59-63](#)

Logistics

Toward Ground Vehicle Electrification in the U.S. Army: An Overview of Recent Activities. *Masrur, M.*, [MELEC March 2016 33-45](#)

Low frequency noise

Low-Frequency Coupling: Phenomena in Electric Transportation Systems. *Bongiorno, J.*, +, [MELEC Sept. 2016 15-22](#)

M

Magnetic fields

Low-Frequency Coupling: Phenomena in Electric Transportation Systems. *Bongiorno, J.*, +, [MELEC Sept. 2016 15-22](#)

Management

Real-Time Management of Geomagnetic Disturbances: Hydro One's eXtreme Space Weather control room tools. *Marti, L.*, +, [MELEC Dec. 2015 46-51](#)

Marine power systems

Shipboard Solid-State Protection: Overview and Applications. *Schmerda, R.*, +, [MELEC Sept. 2013 32-39](#)

Marine vehicles

A Naval Integrated Power System with a Battery Energy Storage System: Fuel efficiency, reliability, and quality of power. *Kim, S.*, +, [MELEC June 2015 22-33](#)

Advancing New Technologies in Electrical Ships: IEEE standards are the risk mitigation tool. *Khersonsky, Y.*, [MELEC June 2015 34-39](#)

Fault Scenarios in DC Ship Grids: The advantages and disadvantages of modular multilevel converters. *Staudt, V., +, MELEC June 2015 40-48*

Naval Power Systems: Integrated power systems for the continuity of the electrical power supply. *Doerry, N., MELEC June 2015 12-21*

Next-Generation Shipboard DC Power System: Introducing Smart Grid and dc Microgrid Technologies into Maritime Electrical Networks. *Jin, Z., +, MELEC June 2016 45-57*

The Role of Voltage Controls in Modern All-Electric Ships: Toward the all electric ship. *Vicenzutti, A., +, MELEC June 2015 49-65*

Toward Ground Vehicle Electrification in the U.S. Army: An Overview of Recent Activities. *Masrur, M., MELEC March 2016 33-45*

Market opportunities

Public-Private Partnerships: Creating New Markets for Industry, Encouraging Social Engagement, and Improving Quality of Life. *Bandler, H., MELEC March 2016 2-10*

Market research

Public-Private Partnerships: Creating New Markets for Industry, Encouraging Social Engagement, and Improving Quality of Life. *Bandler, H., MELEC March 2016 2-10*

Marketing and sales

Courting and Sparking: Wooing Consumers' Interest in the EV Market. *Kar, N., +, MELEC Sept. 2013 21-31*

Mass transit systems

A Catenary-Free Electrification for Urban Transport: An Overview of the Tramwave System. *Pastena, L., MELEC Sept. 2014 16-21*

Mechanical power transmission

A Naval Integrated Power System with a Battery Energy Storage System: Fuel efficiency, reliability, and quality of power. *Kim, S., +, MELEC June 2015 22-33*

Sensible Transportation Electrification: Get rid of inefficient powertrain designs. *Reisinger, R., +, MELEC Dec. 2013 6-12*

Meteorology

Islands in the Sun: The solar power deployment initiative at the University of the Virgin Islands. *Archibald, W., +, MELEC March 2015 56-67*

Real-Time Management of Geomagnetic Disturbances: Hydro One's eXtreme Space Weather control room tools. *Marti, L., +, MELEC Dec. 2015 46-51*

Riding the Rails to DC Power Efficiency: Energy efficiency in dc-electrified metropolitan railways. *Pecharroman, R., +, MELEC Sept. 2014 32-38*

Transactive Home Energy Management Systems: The Impact of Their Proliferation on the Electric Grid. *Pratt, A., +, MELEC Dec. 2016 8-14*

VOLTRON: An Open-Source Software Platform of the Future. *Katipamula, S., +, MELEC Dec. 2016 15-22*

Microgrids

Adaptive Protection System for Microgrids: Protection practices of a functional microgrid system. *Che, L., +, MELEC March 2014 66-80*

Are Microgrids the Future of Energy?: DC Microgrids from Concept to Demonstration to Deployment. *Zubieta, L., MELEC June 2016 37-44*

Building Resilient Integrated Grids: One neighborhood at a time. *Bahramirad, S., +, MELEC March 2015 48-55*

Community Power and Fleet Microgrids: Meeting climate goals, enhancing system resilience, and stimulating local economic development. *Roach, M., MELEC March 2014 40-53*

DC Microgrid Protection: Using the Coupled-Inductor Solid-State Circuit Breaker. *Maqsood, A., +, MELEC June 2016 58-64*

Emerging Models for Microgrid Finance: Driven by the need to deliver value to end users. *Burr, M., +, MELEC March 2014 30-39*

Front Lines Against the Darkness: Enhancing the Resilience of the Electricity Grid Through Microgrid Facilities. *Gholami, A., +, MELEC March 2016 18-24*

Fueling Sustainability: The Exponential Impact of Empowering Off-Grid Communities. *Podmore, R., +, MELEC March 2016 11-17*

GIC in Future Large-Scale Power Grids: An analysis of the problem. *Liu, L., +, MELEC Dec. 2015 52-59*

Microgrids: A Value-Based Paradigm: The need for the redefinition of microgrids. *Ravindra, K., +, MELEC March 2014 20-29*

Next-Generation Shipboard DC Power System: Introducing Smart Grid and dc Microgrid Technologies into Maritime Electrical Networks. *Jin, Z., +, MELEC June 2016 45-57*

Solar-DC Microgrid for Indian Homes: A Transforming Power Scenario. *Jhunjunwala, A., +, MELEC June 2016 10-19*

The Role of Energy Storage in a Microgrid Concept: Examining the opportunities and promise of microgrids. *Fu, Q., +, MELEC Dec. 2013 21-29*

The Tianjin 2014 Symposium on Microgrids: A meeting of the minds for international microgrid experts. *Marnay, C., +, MELEC March 2015 79-85*

Using a Transactive Energy Framework: Providing Grid Services from Smart Buildings. *Rahimi, F., +, MELEC Dec. 2016 23-29*

Why Microgrids Are Moving into the Mainstream: Improving the efficiency of the larger power grid. *Asmus, P., MELEC March 2014 12-19*

Microprocessors

Advanced LVDC Electrical Power Architectures and Microgrids: A step toward a new generation of power distribution networks. *Dragicevic, T., +, MELEC March 2014 54-65*

Military communication

Naval Power Systems: Integrated power systems for the continuity of the electrical power supply. *Doerry, N., MELEC June 2015 12-21*

Military equipment

Reducing Fuel Consumption at a Remote Military Base: Introducing an energy management system. *Kelly, R., +, MELEC Dec. 2013 30-37*

Toward Ground Vehicle Electrification in the U.S. Army: An Overview of Recent Activities. *Masrur, M., MELEC March 2016 33-45*

Modeling

Modeling and Analysis of GMD Effects on Power Systems: An overview of the impact on large-scale power systems. *Shetye, K., +, MELEC Dec. 2015 13-21*

MOSFET

Cryogenic Power Conversion Systems: The next step in the evolution of power electronics technology. *Rajashekara, K., +, MELEC Dec. 2013 64-73*

Wide-Bandgap Semiconductor Technology: Its impact on the electrification of the transportation industry. *Shamsi, P., +, MELEC Dec. 2013 59-63*

Motor drives

Wide-Bandgap Semiconductor Technology: Its impact on the electrification of the transportation industry. *Shamsi, P., +, MELEC Dec. 2013 59-63*

N

Nanoscale devices

DC Local Power Distribution: Technology, Deployment, and Pathways to Success. *Nordman, B.*, +, [MELEC June 2016 29-36](#)

Network security

Front Lines Against the Darkness: Enhancing the Resilience of the Electricity Grid Through Microgrid Facilities. *Gholami, A.*, +, [MELEC March 2016 18-24](#)

Network topology

Adaptive Protection System for Microgrids: Protection practices of a functional microgrid system. *Che, L.*, +, [MELEC March 2014 66-80](#)

Next generation networking

Railway Electrical Smart Grids: An introduction to next-generation railway power systems and their operation. *Pilo de la Fuente, E.*, +, [MELEC Sept. 2014 49-55](#)

O

Ocean temperature

Islands in the Sun: The solar power deployment initiative at the University of the Virgin Islands. *Archibald, W.*, +, [MELEC March 2015 56-67](#)

Oil insulation

Real-Time Management of Geomagnetic Disturbances: Hydro One's eXtreme Space Weather control room tools. *Marti, L.*, +, [MELEC Dec. 2015 46-51](#)

Open source software

VOLTTRON: An Open-Source Software Platform of the Future. *Katipamula, S.*, +, [MELEC Dec. 2016 15-22](#)

Optimization

Electricity Storage: Renewable Energy Applications in the Australian Context. *Vassallo, A.*, +, [MELEC Sept. 2015 22-29](#)

P

Pantographs

Faster than a Speeding Bullet: An Overview of Japanese High-Speed Rail Technology and Electrification. *Uzuka, T.*, +, [MELEC Sept. 2013 11-20](#)

The Dependence on Mechanical Design in Railway Electrification: Focusing on the ac Perspective. *Jimenez-Octavio, J.*, +, [MELEC Sept. 2013 4-10](#)

Peer-to-peer computing

Evaluating Transactive Systems: Historical and Current DOE Research and Development Activities. *Hammerstrom, D.*, +, [MELEC Dec. 2016 30-36](#)

Petroleum

Propulsion System Design of a Battery Electric Vehicle: The Chevrolet Spark EV. *Rahman, K.*, +, [MELEC June 2014 14-24](#)

The Reign of EVs? An Economic Analysis from the Consumer's Perspective. *Fan, Z.*, +, [MELEC June 2014 61-71](#)

Phasor measurement

Cutting Campus Energy Costs with Hierarchical Control: The Economical and Reliable Operation of a Microgrid. *Shahidehpour, M.*, +, [MELEC Sept. 2013 40-56](#)

Photovoltaic systems

Advanced Control Solutions for Operating Isolated Power Systems: Examining the Portuguese islands. *Vasconcelos, H.*, +, [MELEC March 2015 25-35](#)

Pipes

Stray-Current Corrosion and Mitigation: A synopsis of the technical methods used in dc transit systems. *Memon, S.*, +, [MELEC Sept. 2014 22-31](#)

Pollution control

Riding the Rails to DC Power Efficiency: Energy efficiency in dc-electrified metropolitan railways. *Pecharroman, R.*, +, [MELEC Sept. 2014 32-38](#)

Power bipolar transistors

Shipboard Solid-State Protection: Overview and Applications. *Schmerda, R.*, +, [MELEC Sept. 2013 32-39](#)

Power cables

Fault Scenarios in DC Ship Grids: The advantages and disadvantages of modular multilevel converters. *Staudt, V.*, +, [MELEC June 2015 40-48](#)

Naval Power Systems: Integrated power systems for the continuity of the electrical power supply. *Doerry, N.*, [MELEC June 2015 12-21](#)

Power consumption

Adaptive Protection System for Microgrids: Protection practices of a functional microgrid system. *Che, L.*, +, [MELEC March 2014 66-80](#)

Power conversion

Cryogenic Power Conversion Systems: The next step in the evolution of power electronics technology. *Rajashekara, K.*, +, [MELEC Dec. 2013 64-73](#)

Flying Cars: Challenges and Propulsion Strategies. *Rajashekara, K.*, +, [MELEC March 2016 46-57](#)

New Horizons in DC Shipboard Power Systems: New fault protection strategies are essential to the adoption of dc power systems. *Cairolì, P.*, +, [MELEC Dec. 2013 38-45](#)

Power distribution

Are Microgrids the Future of Energy?: DC Microgrids from Concept to Demonstration to Deployment. *Zubieta, L.*, [MELEC June 2016 37-44](#)

Community Power and Fleet Microgrids: Meeting climate goals, enhancing system resilience, and stimulating local economic development. *Roach, M.*, [MELEC March 2014 40-53](#)

DC Local Power Distribution: Technology, Deployment, and Pathways to Success. *Nordman, B.*, +, [MELEC June 2016 29-36](#)

Deploying Distributed Energy Storage: Near-Term Regulatory Considerations to Maximize Benefits. *Stanfield, S.*, +, [MELEC Sept. 2015 41-46](#)

Front Lines Against the Darkness: Enhancing the Resilience of the Electricity Grid Through Microgrid Facilities. *Gholami, A.*, +, [MELEC March 2016 18-24](#)

Locally Manufactured Small Wind Turbines: Empowering communities for sustainable rural electrification. *Latoufis, K.*, +, [MELEC March 2015 68-78](#)

The Role of Energy Storage in a Microgrid Concept: Examining the opportunities and promise of microgrids. *Fu, Q.*, +, [MELEC Dec. 2013 21-29](#)

The Tianjin 2014 Symposium on Microgrids: A meeting of the minds for international microgrid experts. *Marnay, C.*, +, [MELEC March 2015 79-85](#)

Using a Transactive Energy Framework: Providing Grid Services from Smart Buildings. *Rahimi, F.*, +, [MELEC Dec. 2016 23-29](#)

Voltage-Level Selection of Future Two-Level LVdc Distribution Grids: A Compromise Between Grid Compatibility, Safety, and Efficiency. *Rodriguez-Diaz, E.*, +, [MELEC June 2016 20-28](#)

Power distribution planning

Adaptive Protection System for Microgrids: Protection practices of a functional microgrid system. *Che, L.*, +, [MELEC March 2014 66-80](#)

Advanced LVDC Electrical Power Architectures and Microgrids: A step toward a new generation of power distribution networks. *Dragicevic, T.*, +, [MELEC March 2014 54-65](#)

Microgrids: A Value-Based Paradigm: The need for the redefinition of microgrids. *Ravindra, K., +, MELEC March 2014 20-29*

Smart Houses in the Smart Grid: Developing an interactive network. *Dimeas, A., +, MELEC March 2014 81-93*

Power distribution protection

Shipboard Solid-State Protection: Overview and Applications. *Schmerda, R., +, MELEC Sept. 2013 32-39*

Power distribution reliability

Cutting Campus Energy Costs with Hierarchical Control: The Economical and Reliable Operation of a Microgrid. *Shahidehpour, M., +, MELEC Sept. 2013 40-56*

Power electronics

Gaining Traction: Thermal Management and Reliability of Automotive Electric Traction-Drive Systems. *Moreno, G., MELEC June 2014 42-49*

Selecting the Best Electric Machines for Electrical Power-Generation Systems: High-Performance Solutions for Aerospace More Electric Architectures. *Ganev, E., MELEC Dec. 2014 13-22*

The More Electric Aircraft: Technology and Challenges. *Wheeler, P., +, MELEC Dec. 2014 6-12*

Power field effect transistors

Shipboard Solid-State Protection: Overview and Applications. *Schmerda, R., +, MELEC Sept. 2013 32-39*

Power generation

A Naval Integrated Power System with a Battery Energy Storage System: Fuel efficiency, reliability, and quality of power. *Kim, S., +, MELEC June 2015 22-33*

Electricity Storage: Renewable Energy Applications in the Australian Context. *Vassallo, A., +, MELEC Sept. 2015 22-29*

Selecting the Best Electric Machines for Electrical Power-Generation Systems: High-Performance Solutions for Aerospace More Electric Architectures. *Ganev, E., MELEC Dec. 2014 13-22*

The Role of Voltage Controls in Modern All-Electric Ships: Toward the all electric ship. *Vicenzutti, A., +, MELEC June 2015 49-65*

Power generation control

Cutting Campus Energy Costs with Hierarchical Control: The Economical and Reliable Operation of a Microgrid. *Shahidehpour, M., +, MELEC Sept. 2013 40-56*

Power generation economics

Cutting Campus Energy Costs with Hierarchical Control: The Economical and Reliable Operation of a Microgrid. *Shahidehpour, M., +, MELEC Sept. 2013 40-56*

Power generation planning

Advancing New Technologies in Electrical Ships: IEEE standards are the risk mitigation tool. *Khersonsky, Y., MELEC June 2015 34-39*

Power grids

A Naval Integrated Power System with a Battery Energy Storage System: Fuel efficiency, reliability, and quality of power. *Kim, S., +, MELEC June 2015 22-33*

Adaptive Protection System for Microgrids: Protection practices of a functional microgrid system. *Che, L., +, MELEC March 2014 66-80*

Are Microgrids the Future of Energy?: DC Microgrids from Concept to Demonstration to Deployment. *Zubieta, L., MELEC June 2016 37-44*

DC Local Power Distribution: Technology, Deployment, and Pathways to Success. *Nordman, B., +, MELEC June 2016 29-36*

DC Microgrid Protection: Using the Coupled-Inductor Solid-State Circuit Breaker. *Maqsood, A., +, MELEC June 2016 58-64*

Emerging Models for Microgrid Finance: Driven by the need to deliver value to end users. *Burr, M., +, MELEC March 2014 30-39*

Enabling Smart Grid Cosimulation Studies: Rapid Design and Development of the Technologies and Controls. *Hansen, T., +, MELEC March 2016 25-32*

Fault Scenarios in DC Ship Grids: The advantages and disadvantages of modular multilevel converters. *Staudt, V., +, MELEC June 2015 40-48*

Front Lines Against the Darkness: Enhancing the Resilience of the Electricity Grid Through Microgrid Facilities. *Gholami, A., +, MELEC March 2016 18-24*

Fueling Sustainability: The Exponential Impact of Empowering Off-Grid Communities. *Podmore, R., +, MELEC March 2016 11-17*

GIC in Future Large-Scale Power Grids: An analysis of the problem. *Liu, L., +, MELEC Dec. 2015 52-59*

Microgrids: A Value-Based Paradigm: The need for the redefinition of microgrids. *Ravindra, K., +, MELEC March 2014 20-29*

Transportation Electrification: Conductive charging of electrified vehicles. *Wang, H., +, MELEC Dec. 2013 46-58*

Using a Transactive Energy Framework: Providing Grid Services from Smart Buildings. *Rahimi, F., +, MELEC Dec. 2016 23-29*

Why Microgrids Are Moving into the Mainstream: Improving the efficiency of the larger power grid. *Asmus, P., MELEC March 2014 12-19*

Power markets

Fueling Sustainability: The Exponential Impact of Empowering Off-Grid Communities. *Podmore, R., +, MELEC March 2016 11-17*

Microgrids: A Value-Based Paradigm: The need for the redefinition of microgrids. *Ravindra, K., +, MELEC March 2014 20-29*

Power overhead lines

The Dependence on Mechanical Design in Railway Electrification: Focusing on the ac Perspective. *Jimenez-Octavio, J., +, MELEC Sept. 2013 4-10*

Power quality

Building Resilient Integrated Grids: One neighborhood at a time. *Bahramirad, S., +, MELEC March 2015 48-55*

Power-Quality Improvement in AC Railway Substations: The concept of chopper-controlled impedance. *Ladoux, P., +, MELEC Sept. 2014 6-15*

Power semiconductor switches

Shipboard Solid-State Protection: Overview and Applications. *Schmerda, R., +, MELEC Sept. 2013 32-39*

Power supplies

A Catenary-Free Electrification for Urban Transport: An Overview of the Tramwave System. *Pastena, L., MELEC Sept. 2014 16-21*

Energy Storage, Renewable Power Generation, and the Grid: NREL Capabilities Help to Develop and Test Energy-Storage Technologies. *Ma, Z., +, MELEC Sept. 2015 30-40*

GIC in Future Large-Scale Power Grids: An analysis of the problem. *Liu, L., +, MELEC Dec. 2015 52-59*

Solar-DC Microgrid for Indian Homes: A Transforming Power Scenario. *Jhunjunwala, A., +, MELEC June 2016 10-19*

Power system dynamics

Naval Power Systems: Integrated power systems for the continuity of the electrical power supply. *Doerry, N., MELEC June 2015 12-21*

Power system economics

- Advanced Control Solutions for Operating Isolated Power Systems: Examining the Portuguese islands. *Vasconcelos, H.*, +, [MELEC March 2015 25-35](#)
- An Overview of Rural Electrification in China: History, technology, and emerging trends. *Zhaohong, B.*, +, [MELEC March 2015 36-47](#)
- Community Power and Fleet Microgrids: Meeting climate goals, enhancing system resilience, and stimulating local economic development. *Roach, M.*, [MELEC March 2014 40-53](#)
- Emerging Models for Microgrid Finance: Driven by the need to deliver value to end users. *Burr, M.*, +, [MELEC March 2014 30-39](#)
- Locally Manufactured Small Wind Turbines: Empowering communities for sustainable rural electrification. *Latoufis, K.*, +, [MELEC March 2015 68-78](#)
- Microgrids: A Value-Based Paradigm: The need for the redefinition of microgrids. *Ravindra, K.*, +, [MELEC March 2014 20-29](#)
- Rural Electrification Goes Local: Recent innovations in renewable generation, energy efficiency, and grid modernization. *Yuan, G.*, [MELEC March 2015 16-24](#)
- Smart Houses in the Smart Grid: Developing an interactive network. *Dimeas, A.*, +, [MELEC March 2014 81-93](#)
- The Tianjin 2014 Symposium on Microgrids: A meeting of the minds for international microgrid experts. *Marnay, C.*, +, [MELEC March 2015 79-85](#)

Power system faults

- Front Lines Against the Darkness: Enhancing the Resilience of the Electricity Grid Through Microgrid Facilities. *Gholami, A.*, +, [MELEC March 2016 18-24](#)

Power system planning

- Advanced Control Solutions for Operating Isolated Power Systems: Examining the Portuguese islands. *Vasconcelos, H.*, +, [MELEC March 2015 25-35](#)
- Advanced LVDC Electrical Power Architectures and Microgrids: A step toward a new generation of power distribution networks. *Dragicevic, T.*, +, [MELEC March 2014 54-65](#)
- An Overview of Rural Electrification in China: History, technology, and emerging trends. *Zhaohong, B.*, +, [MELEC March 2015 36-47](#)
- Emerging Models for Microgrid Finance: Driven by the need to deliver value to end users. *Burr, M.*, +, [MELEC March 2014 30-39](#)
- Fueling Sustainability: The Exponential Impact of Empowering Off-Grid Communities. *Podmore, R.*, +, [MELEC March 2016 11-17](#)
- Microgrids: A Value-Based Paradigm: The need for the redefinition of microgrids. *Ravindra, K.*, +, [MELEC March 2014 20-29](#)
- Solar-DC Microgrid for Indian Homes: A Transforming Power Scenario. *Jhunjunwala, A.*, +, [MELEC June 2016 10-19](#)
- The Tianjin 2014 Symposium on Microgrids: A meeting of the minds for international microgrid experts. *Marnay, C.*, +, [MELEC March 2015 79-85](#)

Power system reliability

- A Naval Integrated Power System with a Battery Energy Storage System: Fuel efficiency, reliability, and quality of power. *Kim, S.*, +, [MELEC June 2015 22-33](#)
- Are Microgrids the Future of Energy?: DC Microgrids from Concept to Demonstration to Deployment. *Zubieta, L.*, [MELEC June 2016 37-44](#)
- Building Resilient Integrated Grids: One neighborhood at a time. *Bahramirad, S.*, +, [MELEC March 2015 48-55](#)

- Front Lines Against the Darkness: Enhancing the Resilience of the Electricity Grid Through Microgrid Facilities. *Gholami, A.*, +, [MELEC March 2016 18-24](#)
- Geomagnetic Disturbance: A comprehensive approach by American Electric Power to address the impacts. *Qiu, Q.*, +, [MELEC Dec. 2015 22-33](#)
- Mitigating Geomagnetic Disturbances: A summary of Dominion Virginia Power's efforts. *Sun, R.*, +, [MELEC Dec. 2015 34-45](#)
- Power-Quality Improvement in AC Railway Substations: The concept of chopper-controlled impedance. *Ladoux, P.*, +, [MELEC Sept. 2014 6-15](#)
- Railway Electrical Smart Grids: An introduction to next-generation railway power systems and their operation. *Pilo de la Fuente, E.*, +, [MELEC Sept. 2014 49-55](#)
- Stray-Current Corrosion and Mitigation: A synopsis of the technical methods used in dc transit systems. *Memon, S.*, +, [MELEC Sept. 2014 22-31](#)
- The Role of Energy Storage in a Microgrid Concept: Examining the opportunities and promise of microgrids. *Fu, Q.*, +, [MELEC Dec. 2013 21-29](#)
- Voltage-Level Selection of Future Two-Level LVdc Distribution Grids: A Compromise Between Grid Compatibility, Safety, and Efficiency. *Rodriguez-Diaz, E.*, +, [MELEC June 2016 20-28](#)

Power system stability

- Advanced Control Solutions for Operating Isolated Power Systems: Examining the Portuguese islands. *Vasconcelos, H.*, +, [MELEC March 2015 25-35](#)
- Impact of GICs on Power Transformers: Overheating is not the real issue. *Girgis, R.*, +, [MELEC Dec. 2015 8-12](#)
- Modeling and Analysis of GMD Effects on Power Systems: An overview of the impact on large-scale power systems. *Shetye, K.*, +, [MELEC Dec. 2015 13-21](#)
- Modeling and Dynamic Behavior of Battery Energy Storage: A Simple Model for Large-Scale Time-Domain Stability Studies. *Pourbeik, P.*, +, [MELEC Sept. 2015 47-51](#)

Power systems

- Advancing New Technologies in Electrical Ships: IEEE standards are the risk mitigation tool. *Khersonsky, Y.*, [MELEC June 2015 34-39](#)
- Gaining Traction: Thermal Management and Reliability of Automotive Electric Traction-Drive Systems. *Moreno, G.*, [MELEC June 2014 42-49](#)
- Improving Peak Power in Electrified Vehicles: The Development of a Hierarchical Design Optimization Method. *Wang, Y.*, +, [MELEC June 2014 25-30](#)
- New Horizons in DC Shipboard Power Systems: New fault protection strategies are essential to the adoption of dc power systems. *Cairolì, P.*, +, [MELEC Dec. 2013 38-45](#)
- Novel and Ruggedized Power Electronics for Off-Highway Vehicles: The Challenges in Implementing Power Electronics and Drive Systems. *Singh, B.*, [MELEC June 2014 31-41](#)
- The Role of Voltage Controls in Modern All-Electric Ships: Toward the all electric ship. *Vicenzutti, A.*, +, [MELEC June 2015 49-65](#)

Power transformers

- Impact of GICs on Power Transformers: Overheating is not the real issue. *Girgis, R.*, +, [MELEC Dec. 2015 8-12](#)
- Mitigating Geomagnetic Disturbances: A summary of Dominion Virginia Power's efforts. *Sun, R.*, +, [MELEC Dec. 2015 34-45](#)

Power transmission lines

- A Catenary-Free Electrification for Urban Transport: An Overview of the Tramwave System. *Pastena, L.*, [MELEC Sept. 2014 16-21](#)

Power transmission planning

Using a Transactive Energy Framework: Providing Grid Services from Smart Buildings. *Rahimi, F.*, +, [MELEC Dec. 2016 23-29](#)

Production facilities

Advanced Control Solutions for Operating Isolated Power Systems: Examining the Portuguese islands. *Vasconcelos, H.*, +, [MELEC March 2015 25-35](#)

Propulsion

A Naval Integrated Power System with a Battery Energy Storage System: Fuel efficiency, reliability, and quality of power. *Kim, S.*, +, [MELEC June 2015 22-33](#)

Next-Generation Shipboard DC Power System: Introducing Smart Grid and dc Microgrid Technologies into Maritime Electrical Networks. *Jin, Z.*, +, [MELEC June 2016 45-57](#)

Propulsion System Design of a Battery Electric Vehicle: The Chevrolet Spark EV. *Rahman, K.*, +, [MELEC June 2014 14-24](#)

The Role of Voltage Controls in Modern All-Electric Ships: Toward the all electric ship. *Vicenzutti, A.*, +, [MELEC June 2015 49-65](#)

Q

Quality of service

The Dependence on Mechanical Design in Railway Electrification: Focusing on the ac Perspective. *Jimenez-Octavio, J.*, +, [MELEC Sept. 2013 4-10](#)

R

Rail transportation

A Catenary-Free Electrification for Urban Transport: An Overview of the Tramway System. *Pastena, L.*, [MELEC Sept. 2014 16-21](#)

Energy Harvesting for the Electrification of Railway Stations: Getting a charge from the regenerative braking of trains. *Jiang, Y.*, +, [MELEC Sept. 2014 39-48](#)

Flywheels Store to Save: Improving railway efficiency with energy storage. *Pastor, M.*, +, [MELEC Dec. 2013 13-20](#)

Future of Electric Railways: Advanced Electrification Systems with Static Converters for ac Railways. *Krastev, I.*, +, [MELEC Sept. 2016 6-14](#)

Low-Frequency Coupling: Phenomena in Electric Transportation Systems. *Bongiorno, J.*, +, [MELEC Sept. 2016 15-22](#)

Managing the Italian High-Speed Railway Network: Provisions for Reducing Interference Between Electric Traction Systems. *Caracciolo, F.*, +, [MELEC Sept. 2016 42-47](#)

Power-Quality Improvement in AC Railway Substations: The concept of chopper-controlled impedance. *Ladoux, P.*, +, [MELEC Sept. 2014 6-15](#)

Railway Electrical Smart Grids: An introduction to next-generation railway power systems and their operation. *Pilo de la Fuente, E.*, +, [MELEC Sept. 2014 49-55](#)

Riding the Rails to DC Power Efficiency: Energy efficiency in dc-electrified metropolitan railways. *Pecharroman, R.*, +, [MELEC Sept. 2014 32-38](#)

Stray-Current Corrosion and Mitigation: A synopsis of the technical methods used in dc transit systems. *Memon, S.*, +, [MELEC Sept. 2014 22-31](#)

What the IEC Tells Us About Stray Currents: Guidance for a Practical Approach. *Pires, C.*, [MELEC Sept. 2016 23-29](#)

Railway electrification

Faster than a Speeding Bullet: An Overview of Japanese High-Speed Rail Technology and Electrification. *Uzuka, T.*, +, [MELEC Sept. 2013 11-20](#)

The Dependence on Mechanical Design in Railway Electrification: Focusing on the ac Perspective. *Jimenez-Octavio, J.*, +, [MELEC Sept. 2013 4-10](#)

Railway industry

Faster than a Speeding Bullet: An Overview of Japanese High-Speed Rail Technology and Electrification. *Uzuka, T.*, +, [MELEC Sept. 2013 11-20](#)

Reactive power

Future of Electric Railways: Advanced Electrification Systems with Static Converters for ac Railways. *Krastev, I.*, +, [MELEC Sept. 2016 6-14](#)

Impact of GICs on Power Transformers: Overheating is not the real issue. *Girgis, R.*, +, [MELEC Dec. 2015 8-12](#)

Modeling and Analysis of GMD Effects on Power Systems: An overview of the impact on large-scale power systems. *Shetye, K.*, +, [MELEC Dec. 2015 13-21](#)

Power-Quality Improvement in AC Railway Substations: The concept of chopper-controlled impedance. *Ladoux, P.*, +, [MELEC Sept. 2014 6-15](#)

Real-time systems

Public-Private Partnerships: Creating New Markets for Industry, Encouraging Social Engagement, and Improving Quality of Life. *Bandler, H.*, [MELEC March 2016 2-10](#)

Real-Time Management of Geomagnetic Disturbances: Hydro One's eXtreme Space Weather control room tools. *Marti, L.*, +, [MELEC Dec. 2015 46-51](#)

Smart Houses in the Smart Grid: Developing an interactive network. *Dimeas, A.*, +, [MELEC March 2014 81-93](#)

Rectifiers

Energy Is On Board: Energy Storage and Other Alternatives in Modern Light Railways. *Arboleya, P.*, +, [MELEC Sept. 2016 30-41](#)

What the IEC Tells Us About Stray Currents: Guidance for a Practical Approach. *Pires, C.*, [MELEC Sept. 2016 23-29](#)

Relays

Adaptive Protection System for Microgrids: Protection practices of a functional microgrid system. *Che, L.*, +, [MELEC March 2014 66-80](#)

Reluctance motors

Flywheels Store to Save: Improving railway efficiency with energy storage. *Pastor, M.*, +, [MELEC Dec. 2013 13-20](#)

Renewable energy resources

Using a Transactive Energy Framework: Providing Grid Services from Smart Buildings. *Rahimi, F.*, +, [MELEC Dec. 2016 23-29](#)

Renewable energy sources

An Overview of Rural Electrification in China: History, technology, and emerging trends. *Zhaohong, B.*, +, [MELEC March 2015 36-47](#)

Are Microgrids the Future of Energy?: DC Microgrids from Concept to Demonstration to Deployment. *Zubieta, L.*, [MELEC June 2016 37-44](#)

Community Power and Fleet Microgrids: Meeting climate goals, enhancing system resilience, and stimulating local economic development. *Roach, M.*, [MELEC March 2014 40-53](#)

Connectivity and Convergence: Transportation for the 21st Century. *Gearhart, C.*, +, [MELEC June 2014 6-13](#)

Deploying Distributed Energy Storage: Near-Term Regulatory Considerations to Maximize Benefits. *Stanfield, S.*, +, [MELEC Sept. 2015 41-46](#)

Electricity Storage: Renewable Energy Applications in the Australian Context. *Vassallo, A.*, +, [MELEC Sept. 2015 22-29](#)

Energy Storage, Renewable Power Generation, and the Grid: NREL Capabilities Help to Develop and Test

Energy-Storage Technologies. *Ma, Z., +, MELEC Sept. 2015 30-40*

Locally Manufactured Small Wind Turbines: Empowering communities for sustainable rural electrification. *Latoufis, K., +, MELEC March 2015 68-78*

Modeling and Dynamic Behavior of Battery Energy Storage: A Simple Model for Large-Scale Time-Domain Stability Studies. *Pourbeik, P., +, MELEC Sept. 2015 47-51*

Research and development

Flying Cars: Challenges and Propulsion Strategies. *Rajashekara, K., +, MELEC March 2016 46-57*

The Tianjin 2014 Symposium on Microgrids: A meeting of the minds for international microgrid experts. *Marnay, C., +, MELEC March 2015 79-85*

Resistance heating

Energy Storage: Balancing the 21st Century Power Grid. *Boston, T., +, MELEC Sept. 2015 52-57*

Gaining Traction: Thermal Management and Reliability of Automotive Electric Traction-Drive Systems. *Moreno, G., MELEC June 2014 42-49*

Resource management

VOLTRON: An Open-Source Software Platform of the Future. *Katipamula, S., +, MELEC Dec. 2016 15-22*

Risk management

Emerging Models for Microgrid Finance: Driven by the need to deliver value to end users. *Burr, M., +, MELEC March 2014 30-39*

Road vehicles

Connectivity and Convergence: Transportation for the 21st Century. *Gearhart, C., +, MELEC June 2014 6-13*

Gaining Traction: Thermal Management and Reliability of Automotive Electric Traction-Drive Systems. *Moreno, G., MELEC June 2014 42-49*

Improving Peak Power in Electrified Vehicles: The Development of a Hierarchical Design Optimization Method. *Wang, Y., +, MELEC June 2014 25-30*

Novel and Ruggedized Power Electronics for Off-Highway Vehicles: The Challenges in Implementing Power Electronics and Drive Systems. *Singh, B., MELEC June 2014 31-41*

Rotors

Locally Manufactured Small Wind Turbines: Empowering communities for sustainable rural electrification. *Latoufis, K., +, MELEC March 2015 68-78*

Rural areas

An Overview of Rural Electrification in China: History, technology, and emerging trends. *Zhaohong, B., +, MELEC March 2015 36-47*

Locally Manufactured Small Wind Turbines: Empowering communities for sustainable rural electrification. *Latoufis, K., +, MELEC March 2015 68-78*

Rural Electrification Goes Local: Recent innovations in renewable generation, energy efficiency, and grid modernization. *Yuan, G., MELEC March 2015 16-24*

S

Safety

Low-Frequency Coupling: Phenomena in Electric Transportation Systems. *Bongiorno, J., +, MELEC Sept. 2016 15-22*

Secondary cells

Cutting the Cord: Static and Dynamic Inductive Wireless Charging of Electric Vehicles. *Lukic, S., +, MELEC Sept. 2013 57-64*

Sensitivity analysis

The Dependence on Mechanical Design in Railway Electrification: Focusing on the ac Perspective. *Jimenez-Octavio, J., +, MELEC Sept. 2013 4-10*

Ships

New Horizons in DC Shipboard Power Systems: New fault protection strategies are essential to the adoption of dc power systems. *Cairolì, P., +, MELEC Dec. 2013 38-45*

Shipboard Solid-State Protection: Overview and Applications. *Schmerda, R., +, MELEC Sept. 2013 32-39*

Silicon carbide

Wide-Bandgap Semiconductor Technology: Its impact on the electrification of the transportation industry. *Shamsi, P., +, MELEC Dec. 2013 59-63*

Silicon compounds

Shipboard Solid-State Protection: Overview and Applications. *Schmerda, R., +, MELEC Sept. 2013 32-39*

Smart Buildings

Evaluating Transactive Systems: Historical and Current DOE Research and Development Activities. *Hammerstrom, D., +, MELEC Dec. 2016 30-36*

Smart buildings

Smart Houses in the Smart Grid: Developing an interactive network. *Dimeas, A., +, MELEC March 2014 81-93*

Transactive Home Energy Management Systems: The Impact of Their Proliferation on the Electric Grid. *Pratt, A., +, MELEC Dec. 2016 8-14*

Using a Transactive Energy Framework: Providing Grid Services from Smart Buildings. *Rahimi, F., +, MELEC Dec. 2016 23-29*

VOLTRON: An Open-Source Software Platform of the Future. *Katipamula, S., +, MELEC Dec. 2016 15-22*

Smart cities

Front Lines Against the Darkness: Enhancing the Resilience of the Electricity Grid Through Microgrid Facilities. *Gholami, A., +, MELEC March 2016 18-24*

Public-Private Partnerships: Creating New Markets for Industry, Encouraging Social Engagement, and Improving Quality of Life. *Bandler, H., MELEC March 2016 2-10*

Using a Transactive Energy Framework: Providing Grid Services from Smart Buildings. *Rahimi, F., +, MELEC Dec. 2016 23-29*

Smart grids

Enabling Smart Grid Cosimulation Studies: Rapid Design and Development of the Technologies and Controls. *Hansen, T., +, MELEC March 2016 25-32*

Evaluating Transactive Systems: Historical and Current DOE Research and Development Activities. *Hammerstrom, D., +, MELEC Dec. 2016 30-36*

Railway Electrical Smart Grids: An introduction to next-generation railway power systems and their operation. *Pilo de la Fuente, E., +, MELEC Sept. 2014 49-55*

Smart Houses in the Smart Grid: Developing an interactive network. *Dimeas, A., +, MELEC March 2014 81-93*

Using a Transactive Energy Framework: Providing Grid Services from Smart Buildings. *Rahimi, F., +, MELEC Dec. 2016 23-29*

Why Microgrids Are Moving into the Mainstream: Improving the efficiency of the larger power grid. *Asmus, P., MELEC March 2014 12-19*

Social factors

Rural Electrification Goes Local: Recent innovations in renewable generation, energy efficiency, and grid modernization. *Yuan, G., MELEC March 2015 16-24*

Sociology

An Overview of Rural Electrification in China: History, technology, and emerging trends. *Zhaohong, B.*, +, [MELEC March 2015 36-47](#)

Solar panels

Fueling Sustainability: The Exponential Impact of Empowering Off-Grid Communities. *Podmore, R.*, +, [MELEC March 2016 11-17](#)

Solar-DC Microgrid for Indian Homes: A Transforming Power Scenario. *Jhunjhunwala, A.*, +, [MELEC June 2016 10-19](#)

Solar power

Islands in the Sun: The solar power deployment initiative at the University of the Virgin Islands. *Archibald, W.*, +, [MELEC March 2015 56-67](#)

Solar storms

Mitigating Geomagnetic Disturbances: A summary of Dominion Virginia Power's efforts. *Sun, R.*, +, [MELEC Dec. 2015 34-45](#)

Sparks

Propulsion System Design of a Battery Electric Vehicle: The Chevrolet Spark EV. *Rahman, K.*, +, [MELEC June 2014 14-24](#)

Stability analysis

Modeling and Dynamic Behavior of Battery Energy Storage: A Simple Model for Large-Scale Time-Domain Stability Studies. *Pourbeik, P.*, +, [MELEC Sept. 2015 47-51](#)

Static power converters

Future of Electric Railways: Advanced Electrification Systems with Static Converters for ac Railways. *Krastev, I.*, +, [MELEC Sept. 2016 6-14](#)

Static VAr compensators

Faster than a Speeding Bullet: An Overview of Japanese High-Speed Rail Technology and Electrification. *Uzuka, T.*, +, [MELEC Sept. 2013 11-20](#)

Statistical analysis

An Overview of Rural Electrification in China: History, technology, and emerging trends. *Zhaohong, B.*, +, [MELEC March 2015 36-47](#)

Rural Electrification Goes Local: Recent innovations in renewable generation, energy efficiency, and grid modernization. *Yuan, G.*, [MELEC March 2015 16-24](#)

Stator cores

Improving Peak Power in Electrified Vehicles: The Development of a Hierarchical Design Optimization Method. *Wang, Y.*, +, [MELEC June 2014 25-30](#)

Stator windings

Improving Peak Power in Electrified Vehicles: The Development of a Hierarchical Design Optimization Method. *Wang, Y.*, +, [MELEC June 2014 25-30](#)

Stators

Gaining Traction: Thermal Management and Reliability of Automotive Electric Traction-Drive Systems. *Moreno, G.*, [MELEC June 2014 42-49](#)

Storage containers

Energy Harvesting for the Electrification of Railway Stations: Getting a charge from the regenerative braking of trains. *Jiang, Y.*, +, [MELEC Sept. 2014 39-48](#)

Storms

Mitigating Geomagnetic Disturbances: A summary of Dominion Virginia Power's efforts. *Sun, R.*, +, [MELEC Dec. 2015 34-45](#)

Substations

Adaptive Protection System for Microgrids: Protection practices of a functional microgrid system. *Che, L.*, +, [MELEC March 2014 66-80](#)

Energy Is On Board: Energy Storage and Other Alternatives in Modern Light Railways. *Arboleya, P.*, +, [MELEC Sept. 2016 30-41](#)

Flywheels Store to Save: Improving railway efficiency with energy storage. *Pastor, M.*, +, [MELEC Dec. 2013 13-20](#)

Future of Electric Railways: Advanced Electrification Systems with Static Converters for ac Railways. *Krastev, I.*, +, [MELEC Sept. 2016 6-14](#)

Geomagnetic Disturbance: A comprehensive approach by American Electric Power to address the impacts. *Qiu, Q.*, +, [MELEC Dec. 2015 22-33](#)

Power-Quality Improvement in AC Railway Substations: The concept of chopper-controlled impedance. *Ladoux, P.*, +, [MELEC Sept. 2014 6-15](#)

What the IEC Tells Us About Stray Currents: Guidance for a Practical Approach. *Pires, C.*, [MELEC Sept. 2016 23-29](#)

Supercapacitors

Energy Is On Board: Energy Storage and Other Alternatives in Modern Light Railways. *Arboleya, P.*, +, [MELEC Sept. 2016 30-41](#)

Supply and demand

Microgrids: A Value-Based Paradigm: The need for the redefinition of microgrids. *Ravindra, K.*, +, [MELEC March 2014 20-29](#)

Sustainable development

Fueling Sustainability: The Exponential Impact of Empowering Off-Grid Communities. *Podmore, R.*, +, [MELEC March 2016 11-17](#)

Sustainable energy

Riding the Rails to DC Power Efficiency: Energy efficiency in dc-electrified metropolitan railways. *Pecharroman, R.*, +, [MELEC Sept. 2014 32-38](#)

Switches

Adaptive Protection System for Microgrids: Protection practices of a functional microgrid system. *Che, L.*, +, [MELEC March 2014 66-80](#)

DC Microgrid Protection: Using the Coupled-Inductor Solid-State Circuit Breaker. *Maqsood, A.*, +, [MELEC June 2016 58-64](#)

Switching circuits

Next-Generation Shipboard DC Power System: Introducing Smart Grid and dc Microgrid Technologies into Maritime Electrical Networks. *Jin, Z.*, +, [MELEC June 2016 45-57](#)

Synchronization

Cutting Campus Energy Costs with Hierarchical Control: The Economical and Reliable Operation of a Microgrid. *Shahidehpour, M.*, +, [MELEC Sept. 2013 40-56](#)

Synchronous motors

Cryogenic Power Conversion Systems: The next step in the evolution of power electronics technology. *Rajashekara, K.*, +, [MELEC Dec. 2013 64-73](#)

Propulsion Powertrain Simulator: Future Turboelectric distributed-propulsion aircraft. *Choi, B.*, [MELEC Dec. 2014 23-34](#)

System-on-chip

Modeling and Dynamic Behavior of Battery Energy Storage: A Simple Model for Large-Scale Time-Domain Stability Studies. *Pourbeik, P.*, +, [MELEC Sept. 2015 47-51](#)

Transportation Electrification: Conductive charging of electrified vehicles. *Wang, H.*, +, [MELEC Dec. 2013 46-58](#)

T

Telecommunication services

Advanced LVDC Electrical Power Architectures and Microgrids: A step toward a new generation of power distribution networks. *Dragicevic, T., +, MELEC March 2014 54-65*

Telecommunications

Voltage-Level Selection of Future Two-Level LVdc Distribution Grids: A Compromise Between Grid Compatibility, Safety, and Efficiency. *Rodriguez-Diaz, E., +, MELEC June 2016 20-28*

Temperature

Cryogenic Power Conversion Systems: The next step in the evolution of power electronics technology. *Rajashekara, K., +, MELEC Dec. 2013 64-73*

Temperature control

Cryogenic Power Conversion Systems: The next step in the evolution of power electronics technology. *Rajashekara, K., +, MELEC Dec. 2013 64-73*

Temperature dependence

Cryogenic Power Conversion Systems: The next step in the evolution of power electronics technology. *Rajashekara, K., +, MELEC Dec. 2013 64-73*

Temperature measurement

Real-Time Management of Geomagnetic Disturbances: Hydro One's eXtreme Space Weather control room tools. *Marti, L., +, MELEC Dec. 2015 46-51*

Thermal resistance

Gaining Traction: Thermal Management and Reliability of Automotive Electric Traction-Drive Systems. *Moreno, G., MELEC June 2014 42-49*

Thyristors

Shipboard Solid-State Protection: Overview and Applications. *Schmerda, R., +, MELEC Sept. 2013 32-39*

Time-frequency analysis

The Role of Voltage Controls in Modern All-Electric Ships: Toward the all electric ship. *Vicenzutti, A., +, MELEC June 2015 49-65*

Traction motors

Faster than a Speeding Bullet: An Overview of Japanese High-Speed Rail Technology and Electrification. *Uzuka, T., +, MELEC Sept. 2013 11-20*

Novel and Ruggedized Power Electronics for Off-Highway Vehicles: The Challenges in Implementing Power Electronics and Drive Systems. *Singh, B., MELEC June 2014 31-41*

Traffic control

Flying Cars: Challenges and Propulsion Strategies. *Rajashekara, K., +, MELEC March 2016 46-57*

Transactive energy

Evaluating Transactive Systems: Historical and Current DOE Research and Development Activities. *Hammerstrom, D., +, MELEC Dec. 2016 30-36*

Transactive Home Energy Management Systems: The Impact of Their Proliferation on the Electric Grid. *Pratt, A., +, MELEC Dec. 2016 8-14*

Using a Transactive Energy Framework: Providing Grid Services from Smart Buildings. *Rahimi, F., +, MELEC Dec. 2016 23-29*

VOLTTRON: An Open-Source Software Platform of the Future. *Katipamula, S., +, MELEC Dec. 2016 15-22*

Transformers

Impact of GICs on Power Transformers: Overheating is not the real issue. *Girgis, R., +, MELEC Dec. 2015 8-12*

Transportation

The Reign of EVs? An Economic Analysis from the Consumer's Perspective. *Fan, Z., +, MELEC June 2014 61-71*

Wide-Bandgap Semiconductor Technology: Its impact on the electrification of the transportation industry. *Shamsi, P., +, MELEC Dec. 2013 59-63*

Turbines

Propulsion Powertrain Simulator: Future Turboelectric distributed-propulsion aircraft. *Choi, B., MELEC Dec. 2014 23-34*

The More Electric Aircraft: Technology and Challenges. *Wheeler, P., +, MELEC Dec. 2014 6-12*

U

Universal Serial Bus

DC Local Power Distribution: Technology, Deployment, and Pathways to Success. *Nordman, B., +, MELEC June 2016 29-36*

Urban areas

A Catenary-Free Electrification for Urban Transport: An Overview of the Tramwave System. *Pastena, L., MELEC Sept. 2014 16-21*

Front Lines Against the Darkness: Enhancing the Resilience of the Electricity Grid Through Microgrid Facilities. *Gholami, A., +, MELEC March 2016 18-24*

Public-Private Partnerships: Creating New Markets for Industry, Encouraging Social Engagement, and Improving Quality of Life. *Bandler, H., MELEC March 2016 2-10*

Rural Electrification Goes Local: Recent innovations in renewable generation, energy efficiency, and grid modernization. *Yuan, G., MELEC March 2015 16-24*

Using a Transactive Energy Framework: Providing Grid Services from Smart Buildings. *Rahimi, F., +, MELEC Dec. 2016 23-29*

US Department of Defense

A Naval Integrated Power System with a Battery Energy Storage System: Fuel efficiency, reliability, and quality of power. *Kim, S., +, MELEC June 2015 22-33*

Naval Power Systems: Integrated power systems for the continuity of the electrical power supply. *Doerry, N., MELEC June 2015 12-21*

Toward Ground Vehicle Electrification in the U.S. Army: An Overview of Recent Activities. *Masrur, M., MELEC March 2016 33-45*

US Department of Energy

Building Resilient Integrated Grids: One neighborhood at a time. *Bahramirad, S., +, MELEC March 2015 48-55*

Evaluating Transactive Systems: Historical and Current DOE Research and Development Activities. *Hammerstrom, D., +, MELEC Dec. 2016 30-36*

V

Variable speed drives

Shipboard Solid-State Protection: Overview and Applications. *Schmerda, R., +, MELEC Sept. 2013 32-39*

Vehicles

Propulsion System Design of a Battery Electric Vehicle: The Chevrolet Spark EV. *Rahman, K., +, MELEC June 2014 14-24*

Voltage control

Future of Electric Railways: Advanced Electrification Systems with Static Converters for ac Railways. *Krastev, I., +, MELEC Sept. 2016 6-14*

Geomagnetic Disturbance: A comprehensive approach by American Electric Power to address the impacts. *Qiu, Q., +, MELEC Dec. 2015 22-33*

Power-Quality Improvement in AC Railway Substations: The concept of chopper-controlled impedance. *Ladoux, P., +, MELEC Sept. 2014 6-15*

The Role of Voltage Controls in Modern All-Electric Ships: Toward the all electric ship. *Vicenzutti, A., +, MELEC June 2015 49-65*

Transportation Electrification: Conductive charging of electrified vehicles. *Wang, H., +, MELEC Dec. 2013 46-58*

Voltage-Level Selection of Future Two-Level LVdc Distribution Grids: A Compromise Between Grid Compatibility, Safety, and Efficiency. *Rodriguez-Diaz, E., +, MELEC June 2016 20-28*

Voltage measurement

Modeling and Analysis of GMD Effects on Power Systems: An overview of the impact on large-scale power systems. *Shetye, K., +, MELEC Dec. 2015 13-21*

What the IEC Tells Us About Stray Currents: Guidance for a Practical Approach. *Pires, C., MELEC Sept. 2016 23-29*

W

Water heating

Energy Storage: Balancing the 21st Century Power Grid. *Boston, T., +, MELEC Sept. 2015 52-57*

Transactive Home Energy Management Systems: The Impact of Their Proliferation on the Electric Grid. *Pratt, A., +, MELEC Dec. 2016 8-14*

Water resources

Energy Storage: Balancing the 21st Century Power Grid. *Boston, T., +, MELEC Sept. 2015 52-57*

Wheels

Flying Cars: Challenges and Propulsion Strategies. *Rajashekara, K., +, MELEC March 2016 46-57*

Wind energy generation

Energy Storage, Renewable Power Generation, and the Grid: NREL Capabilities Help to Develop and Test Energy-Storage Technologies. *Ma, Z., +, MELEC Sept. 2015 30-40*

Wind power generation

Advanced Control Solutions for Operating Isolated Power Systems: Examining the Portuguese islands. *Vasconcelos, H., +, MELEC March 2015 25-35*

Community Power and Fleet Microgrids: Meeting climate goals, enhancing system resilience, and stimulating local economic development. *Roach, M., MELEC March 2014 40-53*

Energy Storage, Renewable Power Generation, and the Grid: NREL Capabilities Help to Develop and Test Energy-Storage Technologies. *Ma, Z., +, MELEC Sept. 2015 30-40*

GIC in Future Large-Scale Power Grids: An analysis of the problem. *Liu, L., +, MELEC Dec. 2015 52-59*

Rural Electrification Goes Local: Recent innovations in renewable generation, energy efficiency, and grid modernization. *Yuan, G., MELEC March 2015 16-24*

Wind turbines

Locally Manufactured Small Wind Turbines: Empowering communities for sustainable rural electrification. *Latoufis, K., +, MELEC March 2015 68-78*