2019 Index IEEE Transactions on Transportation Electrification Vol. 5

This index covers all technical items—papers, correspondence, reviews, etc.—that appeared in this periodical during 2019, and items from previous years that were commented upon or corrected in 2019. Departments and other items may also be covered if they have been judged to have archival value.

The Author Index contains the primary entry for each item, listed under the first author's name. The primary entry includes the coauthors' names, the title of the paper or other item, and its location, specified by the publication abbreviation, year, month, and inclusive pagination. The Subject Index contains entries describing the item under all appropriate subject headings, plus the first author's name, the publication abbreviation, month, and year, and inclusive pages. Note that the item title is found only under the primary entry in the Author Index.

Author Index

А

- Abrahamsson, P., Marquez-Fernandez, F.J., and Alakula, M., Thermal Modeling and Analysis of an Alternating Short-Segmented Conductive ERS; *TTE Dec.* 2019 1078-1086
- Acquaviva, A., Wallmark, O., Grunditz, E.A., Lundmark, S.T., and Thiringer, T., Computationally Efficient Modeling of Electrical Machines With Cooling Jacket; *TTE Sept. 2019 618-629*

Afridi, K.K., see Sinha, S., TTE Dec. 2019 1040-1059

- Ahmad, A., Alam, M.S., and Mohamed, A.A.S., Design and Interoperability Analysis of Quadruple Pad Structure for Electric Vehicle Wireless Charging Application; *TTE Dec.* 2019 934-945
- Ahmad, F., Alam, M.S., Shariff, S.M., and Krishnamurthy, M., A Cost-Efficient Approach to EV Charging Station Integrated Community Microgrid: A Case Study of Indian Power Market; *TTE March* 2019 200-214
- Ahmad, I., see Moghaddam, Z., TTE March 2019 226-238
- Ahmad, M., see Zhao, W., TTE June 2019 433-443
- Akin, B., see Qi, Y., TTE June 2019 395-404
- Alakula, M., see Abrahamsson, P., TTE Dec. 2019 1078-1086
- Alam, M.S., see Ahmad, F., TTE March 2019 200-214
- Alam, M.S., see Ahmad, A., TTE Dec. 2019 934-945
- Alatise, O., see Wu, R., TTE Dec. 2019 1349-1359
- An, F., Song, W., Yang, K., Yang, S., and Ma, L., A Simple Power Estimation With Triple Phase-Shift Control for the Output Parallel DAB DC–DC Converters in Power Electronic Traction Transformer for Railway Locomotive Application; *TTE March 2019 299-310*

Andert, J., see Etzold, K., TTE Dec. 2019 1419-1429

Andonovic, I., see Jones, C.E., TTE June 2019 479-489

Anvari, B., see Morya, A.K., TTE March 2019 3-20

- Asef, P., Perpina, R.B., and Lapthorn, A.C., Optimal Pole Number for Magnetic Noise Reduction in Variable-Speed Permanent Magnet Synchronous Machines With Fractional-Slot Concentrated Windings; *TTE March 2019* 126-134
- Asemani, M.H., see Torabi-Farsani, K., TTE Dec. 2019 1182-1189
- Asher, Z.D., see Limb, B.J., TTE March 2019 135-146
- Atkinson, R., see Jones, C.E., TTE June 2019 479-489
- Atutxa-Lekue, I., see Valera-Garcia, J.J., TTE March 2019 324-334
- Azad, A.N., Echols, A., Kulyukin, V.A., Zane, R., and Pantic, Z., Analysis, Optimization, and Demonstration of a Vehicular Detection System Intended for Dynamic Wireless Charging Applications; *TTE March 2019 147-161*
- Azeez, N.A., see Vincent, D., TTE Dec. 2019 1060-1077

В

Badfar, F., *see* Torabi-Farsani, K., *TTE Dec. 2019 1182-1189* Bai, H., *see* Fu, Y., *TTE March 2019 162-173*

- Bai, H., see Fu, Y., TTE Dec. 2019 1169-1181
- Bai, H., see Liu, C., TTE Sept. 2019 650-658
- Balsara, P.T., see Patil, D., TTE Dec. 2019 988-1003
- Banerjee, D., see Li, Z., *TTE June 2019 405-415* Baranwal, R., see Das, D., *TTE March 2019 186-199*
- Basu, K., see Das, D., TTE March 2019 186-199
- Bauman, J., see Mobarak, M.H., TTE Dec. 2019 1097-1111
- Bauman, J., see Leahey, N., TTE June 2019 444-455
- Benzaquen, J., Fateh, F., Shadmand, M.B., and Mirafzal, B., Performance Comparison of Active Rectifier Control Schemes in More Electric Aircraft Applications; *TTE Dec. 2019 1470-1479*
- Bernardini, G., see Serafini, J., TTE Sept. 2019 782-794
- Bian, F., see Ma, A., TTE June 2019 385-394
- Bilgin, B., see Dorneles Callegaro, A., TTE March 2019 93-106
- Bilgin, B., Liang, J., Terzic, M.V., Dong, J., Rodriguez, R., Trickett, E., and Emadi, A., Modeling and Analysis of Electric Motors: State-of-the-Art Review; *TTE Sept. 2019 602-617*
- Bongiorno, M., see Kersten, A., TTE Sept. 2019 659-671
- Bradley, T.H., see Limb, B.J., TTE March 2019 135-146
- Brown, I.P., see Salameh, M., TTE Dec. 2019 1395-1405
- Brown, L.E., see Jafari, M., TTE Dec. 2019 1254-1267
- Bryden, T.S., Hilton, G., Dimitrov, B., Ponce de Leon, C., and Cruden, A., Rating a Stationary Energy Storage System Within a Fast Electric Vehicle Charging Station Considering User Waiting Times; *TTE Dec. 2019 879-889*
- Bubert, A., see Kersten, A., TTE June 2019 416-432
- Burt, G.M., see Flynn, M., TTE Dec. 2019 1458-1469
- Burt, G.M., see Jones, C.E., TTE June 2019 479-489
- Burt, G.M., see Flynn, M., TTE June 2019 465-478

С

- Caicedo-Narvaez, C., see Liang, J., TTE March 2019 118-125
- Calearo, L., Thingvad, A., Suzuki, K., and Marinelli, M., Grid Loading Due to EV Charging Profiles Based on Pseudo-Real Driving Pattern and User Behavior; *TTE Sept. 2019 683-694*
- Cao, Y., see Cui, G., TTE Sept. 2019 702-714
- Castillo-Zamora, I.U., Huynh, P.S., Vincent, D., Perez-Pinal, F.J., Rodriguez-Licea, M.A., and Williamson, S.S., Hexagonal Geometry Coil for a WPT High-Power Fast Charging Application; *TTE Dec.* 2019 946-956
- Cebon, D., see Nicolaides, D., TTE Sept. 2019 769-781
- Chan, K.W., see Zhang, X., TTE Dec. 2019 1134-1144
- Chang, F., see Teichert, O., TTE Sept. 2019 672-682
- Chasiotis, I.D., and Karnavas, Y.L., A Generic Multi-Criteria Design Approach Toward High Power Density and Fault-Tolerant Low-Speed PMSM for Pod Applications; *TTE June 2019 356-370*
- Che, Y., see Lv, X., TTE Sept. 2019 727-744
- Chelliah, T.R., see Kumar, B.A., TTE June 2019 565-578
- Chemudupati, V.G.S., see Lakshminarayanan, V., TTE March 2019 174-185
- Chen, C., see Fu, Y., TTE March 2019 162-173
- Chen, C., see Fu, Y., TTE Dec. 2019 1169-1181
- Chen, J., see Wang, K., TTE Sept. 2019 745-757
- Chen, J., Shen, J., Shen, P., Song, Q., and Gong, C., Investigation on the Selection and Design of Step-Up/Down 18-Pulse ATRUs for More Electric Aircrafts; *TTE Sept. 2019 795-811*
- Chen, J., see Chen, J., TTE Sept. 2019 795-811
- Chen, Q., see Tan, C., TTE Sept. 2019 695-701
- Chen, Q., see Zhang, L., TTE June 2019 524-534
- Chen, W., see Liu, J., TTE March 2019 271-284

Chen, W., see Li, Q., TTE June 2019 552-564

Chen, W., see Liu, J., TTE Dec. 2019 1279-1293

- Chen, X., see Wang, W., TTE Sept. 2019 584-601
- Cheng, H., see Hong, Y., TTE June 2019 502-514
- Choe, J., see Lee, M., TTE Dec. 2019 890-902
- Choi, S., see Mohammad, M., TTE Dec. 2019 957-967
- Cleary, A., see Jones, C.E., TTE June 2019 479-489
- Cota, K.A., Gray, P.A., Pathmanathan, M., and Lehn, P.W., An Approach for Selecting Compensation Capacitances in Resonance-Based EV Wireless Power Transfer Systems With Switched Capacitors; *TTE Dec. 2019 1004-1014*
- Crabb, B., see Limb, B.J., TTE March 2019 135-146
- Cremaschini, M., see Serafini, J., TTE Sept. 2019 782-794
- Cruden, A., see Bryden, T.S., TTE Dec. 2019 879-889
- Cui, G., Liu, Y., Wang, T., Luo, L., Liang, C., Hu, S., Li, Y., Cao, Y., Xie, B., Xu, J., and Zhang, Z., Supercapacitor Integrated Railway Static Power Conditioner for Regenerative Braking Energy Recycling and Power Quality Improvement of High-Speed Railway System; *TTE Sept. 2019 702-714*
- Cui, N., see Shang, Y., TTE March 2019 252-261

D

- Das, D., Weise, N., Basu, K., Baranwal, R., and Mohan, N., A Bidirectional Soft-Switched DAB-Based Single-Stage Three-Phase AC–DC Converter for V2G Application; *TTE March 2019 186-199*
- Davletzhanova, Z., see Wu, R., TTE Dec. 2019 1349-1359
- De Doncker, R.W., see Kersten, A., TTE June 2019 416-432
- Dell'Isola, D., Urbain, M., Weber, M., Pierfederici, S., and Meibody-Tabar, F., Optimal Design of a DC–DC Boost Converter in Load Transient Conditions, Including Control Strategy and Stability Constraint; *TTE Dec. 2019 1214-1224*
- Deng, W., and Zuo, S., Electromagnetic Vibration and Noise of the Permanent-Magnet Synchronous Motors for Electric Vehicles: An Overview; *TTE March* 2019 59-70
- Desai, C., and Pillay, P., Back EMF, Torque–Angle, and Core Loss Characterization of a Variable-Flux Permanent-Magnet Machine; *TTE June 2019 371-384*
- Dimitrov, B., see Bryden, T.S., TTE Dec. 2019 879-889
- Divakarla, K.P., Emadi, A., and Razavi, S., A Cognitive Advanced Driver Assistance Systems Architecture for Autonomous-Capable Electrified Vehicles; *TTE March 2019 48-58*
- Djekanovic, N., see Soares, R., TTE Dec. 2019 925-933
- Djurovic, S., see Mohammed, A., TTE Dec. 2019 1370-1382
- Dong, J., see Bilgin, B., TTE Sept. 2019 602-617
- **Dorneles Callegaro, A.,** Liang, J., Jiang, J.W., Bilgin, B., and Emadi, A., Radial Force Density Analysis of Switched Reluctance Machines: The Source of Acoustic Noise; *TTE March 2019 93-106*

Doval-Gandoy, J., see Morya, A.K., TTE March 2019 3-20

- Du, G., Wang, J., Zhu, Z., Hu, Y., and Zhang, D., Effect of Crossing Power Restraint on Reflux Safety Parameters in Multitrain Subway Systems; *TTE* June 2019 490-501
- Duan, B., see Shang, Y., TTE March 2019 252-261

Е

- Ebrahimi, M., see Mirahki, H., TTE Sept. 2019 630-637
- Echols, A., see Azad, A.N., TTE March 2019 147-161
- Ehsani, M., see Ershad, N.F., TTE June 2019 456-464
- El-Taweel, N.A., Khani, H., and Farag, H.E.Z., Analytical Size Estimation Methodologies for Electrified Transportation Fueling Infrastructures Using Public–Domain Market Data; *TTE Sept. 2019 840-851*
- Elbuluk, M.E., see Mohammad, M., TTE Dec. 2019 957-967
- Elsayad, N., see Shojaie, M., TTE March 2019 31-47
- Emadi, A., see Dorneles Callegaro, A., TTE March 2019 93-106
- Emadi, A., see Divakarla, K.P., TTE March 2019 48-58
- **Emadi, A.,** *see* Bilgin, B., *TTE Sept.* 2019 602-617
- Emiliari, in, see Birgin, B., 11E Sept. 2019 002 017
- Ershad, N.F., Mehrjardi, R., and Ehsani, M., Development of a Kinetic Energy Recovery System Using an Active Electromagnetic Slip Coupling; *TTE June* 2019 456-464

Etzold, K., Fahrbach, T., Klein, S., Scheer, R., Guse, D., Klawitter, M., Pischinger, S., and Andert, J., Function Development With an Electric-Machine-in-the-Loop Setup: A Case Study; *TTE Dec.* 2019 1419-1429

F

- Fahimi, B., see Liang, J., TTE March 2019 118-125
- Fahimi, B., see Patil, D., TTE Dec. 2019 988-1003
- Fahimi, B., see Mirahki, H., TTE Sept. 2019 630-637
- Fahrbach, T., see Etzold, K., TTE Dec. 2019 1419-1429
- Fajri, P., see Heydari, S., TTE March 2019 262-270
- Fang, S., Gou, B., Wang, Y., Xu, Y., Shang, C., and Wang, H., Optimal Hierarchical Management of Shipboard Multibattery Energy Storage System Using a Data-Driven Degradation Model; *TTE Dec.* 2019 1306-1318
- Farag, H.E.Z., see El-Taweel, N.A., TTE Sept. 2019 840-851
- Fateh, F., see Benzaquen, J., TTE Dec. 2019 1470-1479
- Feng, D., Lin, S., Yang, Q., Lin, X., He, Z., and Li, W., Reliability Evaluation for Traction Power Supply System of High-Speed Railway Considering Relay Protection; *TTE March 2019 285-298*
- Feng, G., see Li, Z., TTE Dec. 2019 1430-1440
- Feng, G., see Li, Z., TTE June 2019 405-415
- Feng, H., see Tu, H., TTE Dec. 2019 861-878
- Ficuciello, C., see Serafini, J., TTE Sept. 2019 782-794
- Flack, T.J., see Sarafianos, D., TTE June 2019 347-355
- Flynn, M., Sztykiel, M., Jones, C.E., Norman, P.J., Burt, G.M., Miller, P., and Husband, M., Protection and Fault Management Strategy Maps for Future Electrical Propulsion Aircraft; *TTE Dec.* 2019 1458-1469
- Flynn, M., Jones, C.E., Norman, P.J., and Burt, G.M., A Fault Management-Oriented Early-Design Framework for Electrical Propulsion Aircraft; *TTE June* 2019 465-478
- Fu, R., see Lv, X., TTE Sept. 2019 727-744
- Fu, Y., Li, Y., Huang, Y., Lu, X., Zou, K., Chen, C., and Bai, H., Imbalanced Load Regulation Based on Virtual Resistance of A Three-Phase Four-Wire Inverter for EV Vehicle-to-Home Applications; *TTE March 2019 162-173*
- Fu, Y., Li, Y., Huang, Y., Bai, H., Zou, K., Lu, X., and Chen, C., Design Methodology of a Three-Phase Four-Wire EV Charger Operated at the Autonomous Mode; *TTE Dec.* 2019 1169-1181

G

- Gaillard, A., see Zhuo, S., TTE Sept. 2019 638-649
- Galea, M., see Lukic, M., TTE Dec. 2019 1441-1457
- Galigekere, V., see Patil, D., TTE Dec. 2019 988-1003
- Galloway, S.J., see Jones, C.E., TTE June 2019 479-489
- Gangavarapu, S., and Rathore Gae, A.K., A Three-Phase Single-Stage Isolated Flyback-Based PFC Converter With Leakage Energy Recovery Clamping Circuit; *TTE Dec.* 2019 1155-1168
- Gao, F., see Huangfu, Y., TTE Dec. 2019 1268-1278
- Gao, F., see Zhuo, S., TTE Sept. 2019 638-649
- Gao, F., see Liu, C., TTE Sept. 2019 650-658
- Gao, Z., see Mao, D., TTE Dec. 2019 1124-1133
- Gardner, M.C., see Morya, A.K., TTE March 2019 3-20
- Gauchia, L., see Jafari, M., TTE Dec. 2019 1254-1267
- Gechter, F., see Liu, C., TTE Sept. 2019 650-658
- Gennaretti, M., see Serafini, J., TTE Sept. 2019 782-794
- Ghosh, S.S., see Sarafianos, D., TTE June 2019 347-355
- Giangrande, P., see Lukic, M., TTE Dec. 2019 1441-1457
- Gong, C., see Chen, J., TTE Sept. 2019 795-811
- Gonzalez, J.O., see Wu, R., TTE Dec. 2019 1349-1359
- Gooi, H.B., see Wang, B., TTE Dec. 2019 1190-1201
- Gou, B., see Fang, S., TTE Dec. 2019 1306-1318
- Gray, P.A., see Cota, K.A., TTE Dec. 2019 1004-1014
- Grunditz, E.A., see Acquaviva, A., TTE Sept. 2019 618-629
- Grunditz, E.A., see Kersten, A., TTE Sept. 2019 659-671
- Grunditz, E.A., see Kersten, A., TTE June 2019 416-432
- Guerrero, J.M., see Zhaoxia, X., TTE Sept. 2019 828-839
- Guo, L., see Zhou, L., TTE Dec. 2019 1319-1328

Guo, L., see Huangfu, Y., *TTE Dec.* 2019 1268-1278 Guo, Y., see Zhang, Y., *TTE Dec.* 2019 968-976 Gurusamy, V., see Qi, Y., *TTE June* 2019 395-404 Guse, D., see Etzold, K., *TTE Dec.* 2019 1419-1429

Η

- Habibi, D., see Moghaddam, Z., TTE March 2019 226-238
- Hamilton, A.W., see Jones, C.E., TTE June 2019 479-489
- Han, Y., see Liu, J., TTE Dec. 2019 1279-1293
- Han, Y., see Li, Q., TTE June 2019 552-564
- Hatziargyriou, N.D., see Kleftakis, V.A., TTE June 2019 515-523
- He, Z., see Feng, D., TTE March 2019 285-298
- He, Z., see Zhu, X., TTE March 2019 311-323
- He, Z., see Wang, K., TTE Sept. 2019 745-757
- He, Z., see Jiang, X., TTE Sept. 2019 715-726
- Hebala, A., see Lukic, M., TTE Dec. 2019 1441-1457
- Heydari, S., Fajri, P., Rasheduzzaman, M., and Sabzehgar, R., Maximizing Regenerative Braking Energy Recovery of Electric Vehicles Through Dynamic Low-Speed Cutoff Point Detection; *TTE March* 2019 262-270
- Hilton, G., see Bryden, T.S., TTE Dec. 2019 879-889
- Hong, C., Huang, W., and Hu, Z., Design and Analysis of a High-Speed Dual Stator Slotted Solid-Rotor Axial-Flux Induction Motor; *TTE March 2019* 71-79
- Hong, Y., Shuai, Z., Cheng, H., Tu, C., Li, Y., and Shen, Z.J., Stability Analysis of Low-Frequency Oscillation in Train-Network System Using RLC Circuit Model; *TTE June 2019 502-514*
- Hu, H., see Zhu, X., TTE March 2019 311-323
- Hu, H., see Wang, K., TTE Sept. 2019 745-757
- Hu, H., see Jiang, X., TTE Sept. 2019 715-726
- Hu, J., see Zhang, X., TTE Dec. 2019 1134-1144
- Hu, S., see Cui, G., TTE Sept. 2019 702-714
- Hu, X., Liu, W., Lin, X., and Xie, Y., A Comparative Study of Control-Oriented Thermal Models for Cylindrical Li-Ion Batteries; *TTE Dec.* 2019 1237-1253
- Hu, X., see Liu, K., TTE Dec. 2019 1225-1236
- Hu, Y., see Du, G., TTE June 2019 490-501
- Hu, Z., see Hong, C., TTE March 2019 71-79
- Huaimin, L., see Zhaoxia, X., TTE Sept. 2019 828-839
- Huang, K., Liu, Z., Su, D., and Zheng, Z., A Traction Network Chain-Circuit Model With Detailed Consideration of Integrated Grounding System in Tunnel Path; *TTE June 2019 535-551*
- Huang, L., see Zhou, L., TTE Dec. 2019 1319-1328
- Huang, W., see Hong, C., TTE March 2019 71-79
- Huang, Y., see Fu, Y., TTE March 2019 162-173
- Huang, Y., see Fu, Y., TTE Dec. 2019 1169-1181
- Huang, Z., see Zhang, Y., TTE Dec. 2019 1294-1305
- Huangfu, Y., Guo, L., Ma, R., and Gao, F., An Advanced Robust Noise Suppression Control of Bidirectional DC–DC Converter for Fuel Cell Electric Vehicle; *TTE Dec. 2019 1268-1278*
- Huangfu, Y., see Zhuo, S., TTE Sept. 2019 638-649
- Husband, M., see Flynn, M., TTE Dec. 2019 1458-1469
- Huynh, P.S., see Castillo-Zamora, I.U., TTE Dec. 2019 946-956
- Huynh, P.S., see Vincent, D., TTE Dec. 2019 1060-1077
- Huynh, P.S., and Williamson, S.S., Analysis and Design of Soft-Switching Active-Clamping Half-Bridge Boost Inverter for Inductive Wireless Charging Applications; *TTE Dec.* 2019 1027-1039

J

- Jafari, M., Brown, L.E., and Gauchia, L., Hierarchical Bayesian Model for Probabilistic Analysis of Electric Vehicle Battery Degradation; *TTE Dec.* 2019 1254-1267
- Ji, J., see Xu, L., TTE Dec. 2019 1360-1369
- Ji, J., see Ma, A., TTE June 2019 385-394
- Jiang, D., see Zhu, L., TTE March 2019 80-92
- Jiang, J., see Lu, J., TTE Dec. 2019 977-987
- Jiang, J.W., see Dorneles Callegaro, A., TTE March 2019 93-106

- Jiang, X., Hu, H., Yang, X., He, Z., Qian, Q., and Tricoli, P., Analysis and Adaptive Mitigation Scheme of Low-Frequency Oscillations in AC Railway Traction Power Systems; *TTE Sept. 2019* 715-726
- Jiang, Y., see Liu, K., TTE Dec. 2019 1225-1236

Jones, C.E., see Flynn, M., TTE Dec. 2019 1458-1469

- Jones, C.E., Tachtatzis, C., Hamilton, A.W., Norman, P.J., Cleary, A., Galloway, S.J., Atkinson, R., Burt, G.M., Michie, C., and Andonovic, I., A Novel Methodology for Macroscale, Thermal Characterization of Carbon Fiber-Reinforced Polymer for Integrated Aircraft Electrical Power Systems; *TTE June* 2019 479-489
- Jones, C.E., see Flynn, M., TTE June 2019 465-478

K

- Kar, N.C., see Li, Z., TTE Dec. 2019 1430-1440
- Kar, N.C., see Li, Z., TTE June 2019 405-415
- Karnavas, Y.L., see Chasiotis, I.D., TTE June 2019 356-370
- Ke, Z., see Yang, Y., TTE Dec. 2019 1202-1213
- Kersten, A., Theliander, O., Grunditz, E.A., Thiringer, T., and Bongiorno, M., Battery Loss and Stress Mitigation in a Cascaded H-Bridge Multilevel Inverter for Vehicle Traction Applications by Filter Capacitors; *TTE Sept.* 2019 659-671
- Kersten, A., Oberdieck, K., Bubert, A., Neubert, M., Grunditz, E.A., Thiringer, T., and De Doncker, R.W., Fault Detection and Localization for Limp Home Functionality of Three-Level NPC Inverters With Connected Neutral Point for Electric Vehicles; *TTE June 2019 416-432*
- Khani, H., see El-Taweel, N.A., TTE Sept. 2019 840-851
- Khooban, M.H., see Torabi-Farsani, K., TTE Dec. 2019 1182-1189
- Kim, J., see Lee, M., TTE Dec. 2019 890-902
- Kisacikoglu, M.C., see Ucer, E., TTE March 2019 215-225
- Klawitter, M., see Etzold, K., TTE Dec. 2019 1419-1429
- Kleftakis, V.A., and Hatziargyriou, N.D., Optimal Control of Reversible Substations and Wayside Storage Devices for Voltage Stabilization and Energy Savings in Metro Railway Networks; *TTE June 2019 515-523*
- Klein, S., see Etzold, K., TTE Dec. 2019 1419-1429
- Koyuncu, I., see Ucer, E., TTE March 2019 215-225
- Krishnamurthy, M., see Pozo, A., TTE March 2019 21-30
- Krishnamurthy, M., see Ahmad, F., TTE March 2019 200-214
- Krishnamurthy, M., see Salameh, M., TTE Dec. 2019 1395-1405
- Kulyukin, V.A., see Azad, A.N., TTE March 2019 147-161
- Kumar, A., see Sinha, S., TTE Dec. 2019 1040-1059
- Kumar, B.A., Selvaraj, R., Chelliah, T.R., and Ramesh, U.S., Improved Fuel-Use Efficiency in Diesel–Electric Tugboats With an Asynchronous Power Generating Unit; *TTE June 2019 565-578*
- Kuperman, A., Comments on "Analysis, Design, and Optimization of LC /S Compensation Topology With Excellent Load-Independent Voltage Output for Inductive Power Transfer" *TTE Dec.* 2019 1480-1483
- Kushwaha, R., and Singh, B., A Modified Luo Converter-Based Electric Vehicle Battery Charger With Power Quality Improvement; *TTE Dec. 2019 1087-1096*

L

- Lai, C., see Li, Z., TTE Dec. 2019 1430-1440
- Lai, C., see Li, Z., TTE June 2019 405-415
- Lai, J., see Lee, M., TTE Dec. 2019 890-902
- Lakshminarayanan, V., Chemudupati, V.G.S., Pramanick, S.K., and Rajashekara, K., Real-Time Optimal Energy Management Controller for Electric Vehicle Integration in Workplace Microgrid; *TTE March* 2019 174-185
- Lapthorn, A.C., see Asef, P., TTE March 2019 126-134
- Leahey, N., and Bauman, J., A Fast Plant-Controller Optimization Process for Mild Hybrid Vehicles; *TTE June 2019 444-455*
- Lee, M., Yeh, C., Yu, O., Kim, J., Choe, J., and Lai, J., Modeling and Control of Three-Level Boost Rectifier Based Medium-Voltage Solid-State Transformer for DC Fast Charger Application; *TTE Dec.* 2019 890-902
- Lehn, P.W., see Viana, C., TTE Dec. 2019 903-911
- Lehn, P.W., see Cota, K.A., TTE Dec. 2019 1004-1014

- Lehn, P.W., see Pathmanathan, M., TTE Dec. 2019 1015-1026
- Li, P., see Zhang, X., TTE Dec. 2019 1134-1144
- Li, Q., see Zhu, L., TTE March 2019 80-92
- Li, Q., see Liu, J., TTE March 2019 271-284
- Li, Q., see Liu, J., TTE Dec. 2019 1279-1293
- Li, Q., Su, B., Pu, Y., Han, Y., Wang, T., Yin, L., and Chen, W., A State Machine Control Based on Equivalent Consumption Minimization for Fuel Cell/ Supercapacitor Hybrid Tramway; *TTE June 2019 552-564*
- Li, W., see Feng, D., TTE March 2019 285-298
- Li, W., see Li, Z., TTE Dec. 2019 1430-1440
- Li, W., see Li, Z., TTE June 2019 405-415
- Li, Y., see Fu, Y., TTE March 2019 162-173
- Li, Y., see Fu, Y., TTE Dec. 2019 1169-1181
- Li, Y., see Liu, K., TTE Dec. 2019 1225-1236
- Li, Y., see Cui, G., TTE Sept. 2019 702-714
- Li, Y., see Zhao, W., TTE June 2019 433-443
- Li, Y., see Hong, Y., TTE June 2019 502-514
- Li, Z., Feng, G., Lai, C., Li, W., and Kar, N.C., Machine Parameter-Independent Maximum Torque Per Ampere Control for Dual Three-Phase PMSMs; *TTE* Dec. 2019 1430-1440
- Li, Z., Feng, G., Lai, C., Banerjee, D., Li, W., and Kar, N.C., Current Injection-Based Multi-parameter Estimation for Dual Three-Phase IPMSM Considering VSI Nonlinearity; *TTE June 2019 405-415*
- Liang, C., see Cui, G., TTE Sept. 2019 702-714
- Liang, J., see Dorneles Callegaro, A., TTE March 2019 93-106
- Liang, J., Parsapour, A., Yang, Z., Caicedo-Narvaez, C., Moallem, M., and Fahimi, B., Optimization of Air-Gap Profile in Interior Permanent-Magnet Synchronous Motors for Torque Ripple Mitigation; *TTE March 2019 118-*125
- Liang, J., see Bilgin, B., TTE Sept. 2019 602-617
- Lienkamp, M., see Teichert, O., TTE Sept. 2019 672-682
- Limb, B.J., Asher, Z.D., Bradley, T.H., Sproul, E., Trinko, D.A., Crabb, B., Zane, R., and Quinn, J.C., Economic Viability and Environmental Impact of In-Motion Wireless Power Transfer; *TTE March* 2019 135-146
- Lin, D., see Lu, J., TTE Dec. 2019 977-987
- Lin, S., see Feng, D., TTE March 2019 285-298
- Lin, X., see Feng, D., TTE March 2019 285-298
- Lin, X., see Hu, X., TTE Dec. 2019 1237-1253
- Liu, C., see Song, Z., TTE Dec. 2019 1383-1394
- Liu, C., Bai, H., Ma, R., Zhang, X., Gechter, F., and Gao, F., A Network Analysis Modeling Method of the Power Electronic Converter for Hardware-inthe-Loop Application; *TTE Sept. 2019 650-658*
- Liu, J., Li, Q., Chen, W., Yan, Y., and Wang, X., A Fast Fault Diagnosis Method of the PEMFC System Based on Extreme Learning Machine and Dempster– Shafer Evidence Theory; *TTE March* 2019 271-284
- Liu, J., Li, Q., Han, Y., Zhang, G., Meng, X., Yu, J., and Chen, W., PEMFC Residual Life Prediction Using Sparse Autoencoder-Based Deep Neural Network; *TTE Dec.* 2019 1279-1293
- Liu, K., Hu, X., Wei, Z., Li, Y., and Jiang, Y., Modified Gaussian Process Regression Models for Cyclic Capacity Prediction of Lithium-Ion Batteries; *TTE Dec.* 2019 1225-1236
- Liu, L., see Morya, A.K., TTE March 2019 3-20
- Liu, M., see Zhang, Y., TTE Dec. 2019 1294-1305
- Liu, M., see Zhang, X., TTE Dec. 2019 1134-1144
- Liu, W., see Hu, X., TTE Dec. 2019 1237-1253
- Liu, W., see Zhao, W., TTE June 2019 433-443
- Liu, Y., see Wang, B., TTE Dec. 2019 1190-1201
- Liu, Y., see Cui, G., TTE Sept. 2019 702-714
- Liu, Z., see Mamun, A., TTE March 2019 239-251
- Liu, Z., see Zhang, Y., TTE Dec. 2019 1294-1305
- Liu, Z., see Huang, K., TTE June 2019 535-551
- Llano, D.X., see Sarafianos, D., TTE June 2019 347-355
- Loh, P.C., see Soares, R., TTE Dec. 2019 925-933

Long, R., see Zhang, L., TTE June 2019 524-534

Lu, J., Zhu, G., Lin, D., Zhang, Y., Jiang, J., and Mi, C.C., Unified Load-Independent ZPA Analysis and Design in CC and CV Modes of Higher Order Resonant Circuits for WPT Systems; *TTE Dec.* 2019 977-987

- Lu, X., see Fu, Y., TTE March 2019 162-173
- Lu, X., see Fu, Y., TTE Dec. 2019 1169-1181
- Lukic, M., Giangrande, P., Hebala, A., Nuzzo, S., and Galea, M., Review, Challenges, and Future Developments of Electric Taxiing Systems; *TTE Dec.* 2019 1441-1457
- Lukic, S., Onar, O., and Pantic, Z., Guest Editorial Special Issue on High-Power Fast Chargers and Wireless Charging; *TTE Dec. 2019 858-860*
- Lukic, S., see Tu, H., TTE Dec. 2019 861-878
- Lundmark, S.T., see Acquaviva, A., TTE Sept. 2019 618-629
- Luo, L., see Cui, G., TTE Sept. 2019 702-714
- Lv, X., Wang, X., Che, Y., and Fu, R., Eigenvalue-Based Harmonic Instability Analysis of Electrical Railway Vehicle-Network System; *TTE Sept. 2019* 727-744

М

- Ma, A., Zhao, W., Xu, L., Ji, J., and Bian, F., Influence of Armature Windings Pole Numbers on Performances of Linear Permanent-Magnet Vernier Machines; *TTE June 2019 385-394*
- Ma, L., see An, F., TTE March 2019 299-310
- Ma, R., see Huangfu, Y., TTE Dec. 2019 1268-1278
- Ma, R., see Liu, C., TTE Sept. 2019 650-658
- Madhusudhanan, A.K., see Nicolaides, D., TTE Sept. 2019 769-781
- Mamun, A., Liu, Z., Rizzo, D.M., and Onori, S., An Integrated Design and Control Optimization Framework for Hybrid Military Vehicle Using Lithium-Ion Battery and Supercapacitor as Energy Storage Devices; *TTE March 2019* 239-251
- Manandhar, U., see Wang, B., TTE Dec. 2019 1190-1201
- Mao, D., Yuan, C., Gao, Z., Wang, J., and Zhao, R., Online Prediction for Transmission Cascading Outages Induced by Ultrafast PEV Charging; *TTE Dec.* 2019 1124-1133
- Marinelli, M., see Calearo, L., TTE Sept. 2019 683-694
- Marquez-Fernandez, F.J., see Abrahamsson, P., TTE Dec. 2019 1078-1086
- Masoum, M.A.S., see Moghaddam, Z., TTE March 2019 226-238
- Mawby, P.A., see Wu, R., TTE Dec. 2019 1349-1359
- McMahon, R.A., see Sarafianos, D., TTE June 2019 347-355
- Mehrjardi, R., see Ershad, N.F., TTE June 2019 456-464
- Meibody-Tabar, F., see Dell'Isola, D., TTE Dec. 2019 1214-1224
- Meintz, A., see Ucer, E., TTE March 2019 215-225
- Meng, X., see Liu, J., TTE Dec. 2019 1279-1293
- Menis, R., see Vicenzutti, A., TTE Sept. 2019 812-827
- Mi, C.C., see Lu, J., TTE Dec. 2019 977-987
- Michie, C., see Jones, C.E., TTE June 2019 479-489
- Miles, J., see Nicolaides, D., TTE Sept. 2019 769-781
- Miller, J.M., see Patil, D., TTE Dec. 2019 988-1003
- Miller, P., see Flynn, M., TTE Dec. 2019 1458-1469
- Mirafzal, B., see Benzaquen, J., TTE Dec. 2019 1470-1479
- Mirahki, H., Moallem, M., Ebrahimi, M., and Fahimi, B., Asymmetrical Magnet Shape Optimization Based on S-C Mapping for Torque Profile Mitigation in Unidirectional Application of SPMS Machine; *TTE Sept. 2019 630-637*
- Moallem, M., see Liang, J., TTE March 2019 118-125
- Moallem, M., see Mirahki, H., TTE Sept. 2019 630-637
- Mobarak, M.H., and Bauman, J., Vehicle-Directed Smart Charging Strategies to Mitigate the Effect of Long-Range EV Charging on Distribution Transformer Aging; *TTE Dec. 2019 1097-1111*
- Moghaddam, Z., Ahmad, I., Habibi, D., and Masoum, M.A.S., A Coordinated Dynamic Pricing Model for Electric Vehicle Charging Stations; *TTE March* 2019 226-238
- Mohamed, A.A.S., see Ahmad, A., TTE Dec. 2019 934-945
- Mohammad, M., Choi, S., and Elbuluk, M.E., Loss Minimization Design of Ferrite Core in a DD-Coil-Based High-Power Wireless Charging System for Electrical Vehicle Application; *TTE Dec. 2019 957-967*
- Mohammed, A., and Djurovic, S., FBG Thermal Sensing Ring Scheme for Stator Winding Condition Monitoring in PMSMs; *TTE Dec. 2019 1370-1382*
- Mohammed, O.A., see Shojaie, M., TTE March 2019 31-47
- Mohan, N., see Das, D., TTE March 2019 186-199
- Moradisizkoohi, H., see Shojaie, M., TTE March 2019 31-47

Morya, A.K., Gardner, M.C., Anvari, B., Liu, L., Yepes, A.G., Doval-Gandoy, J., and Toliyat, H.A., Wide Bandgap Devices in AC Electric Drives: Opportunities and Challenges; *TTE March 2019 3-20*

Ν

- Na, X., see Nicolaides, D., TTE Sept. 2019 769-781
- Narimani, M., see Salem, A., TTE Dec. 2019 1329-1348
- Narimani, M., see Ramezani, A., TTE Dec. 2019 1112-1123
- Neubert, M., see Kersten, A., TTE June 2019 416-432
- Nicolaides, D., Madhusudhanan, A.K., Na, X., Miles, J., and Cebon, D., Technoeconomic Analysis of Charging and Heating Options for an Electric Bus Service in London; *TTE Sept. 2019 769-781*
- Nie, S., see Pathmanathan, M., TTE Dec. 2019 1015-1026
- Norman, P.J., see Flynn, M., TTE Dec. 2019 1458-1469
- Norman, P.J., see Jones, C.E., TTE June 2019 479-489
- Norman, P.J., see Flynn, M., TTE June 2019 465-478
- Nuzzo, S., see Lukic, M., TTE Dec. 2019 1441-1457

0

Oberdieck, K., *see* Kersten, A., *TTE June 2019 416-432* **Onar, O.**, *see* Lukic, S., *TTE Dec. 2019 858-860* **Ongel, A.,** *see* Teichert, O., *TTE Sept. 2019 672-682* **Onori, S.,** *see* Mamun, A., *TTE March 2019 239-251*

Р

- Paire, D., see Zhuo, S., TTE Sept. 2019 638-649
- Pan, J., see Yang, Y., TTE Dec. 2019 1202-1213
- Pantic, Z., see Azad, A.N., TTE March 2019 147-161
- Pantic, Z., see Lukic, S., TTE Dec. 2019 858-860
- Paolone, M., see Tudor, D., TTE Dec. 2019 1406-1418
- Parsapour, A., see Liang, J., TTE March 2019 118-125
- Pathmanathan, M., see Cota, K.A., TTE Dec. 2019 1004-1014
- Pathmanathan, M., Nie, S., Yakop, N., and Lehn, P.W., Field-Oriented Control of a Three-Phase Wireless Power Transfer System Transmitter; *TTE Dec.* 2019 1015-1026
- Patil, D., Miller, J.M., Fahimi, B., Balsara, P.T., and Galigekere, V., A Coil Detection System for Dynamic Wireless Charging of Electric Vehicle; *TTE Dec.* 2019 988-1003
- Patnaik, L., see Vincent, D., TTE Dec. 2019 1060-1077
- Perez-Pinal, F.J., see Castillo-Zamora, I.U., TTE Dec. 2019 946-956

Perpina, R.B., see Asef, P., TTE March 2019 126-134

- Pickering, S., see Sarafianos, D., TTE June 2019 347-355
- Pierfederici, S., see Dell'Isola, D., TTE Dec. 2019 1214-1224
- Pillay, P., see Desai, C., TTE June 2019 371-384
- Pischinger, S., see Etzold, K., TTE Dec. 2019 1419-1429
- Ponce de Leon, C., see Bryden, T.S., TTE Dec. 2019 879-889
- **Pozo, A.,** Shen, J.Z., and Krishnamurthy, M., Improved Proportional Base Driver for SiC BJTs; *TTE March 2019 21-30*
- Pramanick, S.K., see Lakshminarayanan, V., TTE March 2019 174-185
- Praneeth, A.V.J.S., and Williamson, S.S., Modeling, Design, Analysis, and Control of a Nonisolated Universal On-Board Battery Charger for Electric Transportation; *TTE Dec.* 2019 912-924
- Pu, Y., see Li, Q., TTE June 2019 552-564

Q

- Qi, Y., Zafarani, M., Gurusamy, V., and Akin, B., Advanced Severity Monitoring of Interturn Short Circuit Faults in PMSMs; *TTE June 2019 395-404*
- Qian, Q., see Jiang, X., TTE Sept. 2019 715-726
- Qiu, J., see Zhang, X., TTE Dec. 2019 1134-1144
- Qu, R., see Zhu, L., TTE March 2019 80-92
- Quan, S., see Zhang, L., TTE June 2019 524-534
- Quinn, J.C., see Limb, B.J., TTE March 2019 135-146

R

- Raja, R., Sebastian, T., and Wang, M., Online Stator Inductance Estimation for Permanent Magnet Motors Using PWM Excitation; *TTE March 2019 107-*117
- Rajashekara, K., see Lakshminarayanan, V., TTE March 2019 174-185
- Rames, C., see Ucer, E., TTE March 2019 215-225
- Ramesh, U.S., see Kumar, B.A., TTE June 2019 565-578
- Ramezani, A., and Narimani, M., A New Wireless EV Charging System With Integrated DC–DC Magnetic Element; *TTE Dec. 2019 1112-1123*
- Rasheduzzaman, M., see Heydari, S., TTE March 2019 262-270
- Rathore Gae, A.K., see Gangavarapu, S., TTE Dec. 2019 1155-1168
- Razavi, S., see Divakarla, K.P., TTE March 2019 48-58
- Regensburger, B., see Sinha, S., TTE Dec. 2019 1040-1059
- Rizzo, D.M., see Mamun, A., TTE March 2019 239-251
- Rodriguez, R., see Bilgin, B., TTE Sept. 2019 602-617
- Rodriguez-Licea, M.A., see Castillo-Zamora, I.U., TTE Dec. 2019 946-956
- Ronanki, D., and Williamson, S.S., A Simplified Space Vector Pulse Width Modulation Implementation in Modular Multilevel Converters for Electric Ship Propulsion Systems; *TTE March 2019 335-342*

S

- Sabillon, C., Singh, B.N., and Venkatesh, B., Technoeconomic Models for the Optimal Inclusion of Hydrogen Trains in Electricity Markets; *TTE Sept.* 2019 758-768
- Sabzehgar, R., see Heydari, S., TTE March 2019 262-270
- Salameh, M., Brown, I.P., and Krishnamurthy, M., Fundamental Evaluation of Data Clustering Approaches for Driving Cycle-Based Machine Design Optimization; *TTE Dec.* 2019 1395-1405
- Salem, A., and Narimani, M., A Review on Multiphase Drives for Automotive Traction Applications; *TTE Dec. 2019 1329-1348*
- Sarafianos, D., Llano, D.X., Ghosh, S.S., McMahon, R.A., Pickering, S., and Flack, T.J., Control Strategy for a Multiphase Lundell-Alternator/ Active-Rectifier System in 14 V Automotive Power Systems; *TTE June 2019* 347-355
- Scheer, R., see Etzold, K., TTE Dec. 2019 1419-1429
- Sebastian, T., see Raja, R., TTE March 2019 107-117
- Selvaraj, R., see Kumar, B.A., TTE June 2019 565-578
- Serafini, J., Cremaschini, M., Bernardini, G., Solero, L., Ficuciello, C., and Gennaretti, M., Conceptual All-Electric Retrofit of Helicopters: Review, Technological Outlook, and a Sample Design; *TTE Sept. 2019 782-794*
- Shadmand, M.B., see Benzaquen, J., TTE Dec. 2019 1470-1479
- Shang, C., see Fang, S., TTE Dec. 2019 1306-1318
- Shang, Y., Zhang, Q., Cui, N., Duan, B., and Zhang, C., An Optimized Mesh-Structured Switched-Capacitor Equalizer for Lithium-Ion Battery Strings; *TTE March* 2019 252-261
- Shariff, S.M., see Ahmad, F., TTE March 2019 200-214
- Shen, J., see Chen, J., TTE Sept. 2019 795-811
- Shen, J.Z., see Pozo, A., TTE March 2019 21-30
- Shen, P., see Chen, J., TTE Sept. 2019 795-811
- Shen, Z.J., see Hong, Y., TTE June 2019 502-514
- Shi, P., see Xu, D., TTE Dec. 2019 1145-1154
- Shojaie, M., Elsayad, N., Moradisizkoohi, H., and Mohammed, O.A., Design and Experimental Verification of a High-Voltage Series-Stacked GaN eHEMT Module for Electric Vehicle Applications; *TTE March 2019 31-47*
- Shuai, Z., see Hong, Y., TTE June 2019 502-514
- Singh, B., see Kushwaha, R., TTE Dec. 2019 1087-1096
- Singh, B.N., see Sabillon, C., TTE Sept. 2019 758-768
- Sinha, S., Kumar, A., Regensburger, B., and Afridi, K.K., A New Design Approach to Mitigating the Effect of Parasitics in Capacitive Wireless Power Transfer Systems for Electric Vehicle Charging; *TTE Dec.* 2019 1040-1059
- Soares, R., Djekanovic, N., Wallmark, O., and Loh, P.C., Integration of Magnified Alternating Current in Battery Fast Chargers Based on DC–DC Converters Using Transformerless Resonant Filter Design; *TTE Dec.* 2019 925-933
- Solero, L., see Serafini, J., TTE Sept. 2019 782-794
- Song, Q., see Chen, J., TTE Sept. 2019 795-811

Song, Q., see Zhao, W., TTE June 2019 433-443

- Song, W., see An, F., TTE March 2019 299-310
- Song, Z., Liu, C., and Zhao, H., Investigation on Magnetic Force of a Flux-Modulated Double-Rotor Permanent Magnet Synchronous Machine for Hybrid Electric Vehicle; *TTE Dec.* 2019 1383-1394
- Sproul, E., see Limb, B.J., TTE March 2019 135-146
- Srdic, S., see Tu, H., TTE Dec. 2019 861-878

Su, B., see Li, Q., TTE June 2019 552-564

- Su, C., see Zhaoxia, X., TTE Sept. 2019 828-839
- Su, D., see Huang, K., TTE June 2019 535-551
- Sulligoi, G., see Vicenzutti, A., TTE Sept. 2019 812-827
- Suzuki, K., see Calearo, L., TTE Sept. 2019 683-694
- Sztykiel, M., see Flynn, M., TTE Dec. 2019 1458-1469

Т

- Tachtatzis, C., see Jones, C.E., TTE June 2019 479-489
- Tan, C., Chen, Q., Zhou, K., and Zhang, L., A Simple High-Performance Current Control Strategy for V2G Three-Phase Four-Leg Inverter With LCL Filter; TTE Sept. 2019 695-701
- Tan, X., see Wang, B., TTE Dec. 2019 1190-1201
- Tao, C., see Zhang, Y., TTE Dec. 2019 968-976
- Tao, H., see Zhu, X., TTE March 2019 311-323
- Teichert, O., Chang, F., Ongel, A., and Lienkamp, M., Joint Optimization of Vehicle Battery Pack Capacity and Charging Infrastructure for Electrified Public Bus Systems; *TTE Sept. 2019* 672-682
- Terzic, M.V., see Bilgin, B., TTE Sept. 2019 602-617
- Theliander, O., see Kersten, A., TTE Sept. 2019 659-671
- Thingvad, A., see Calearo, L., TTE Sept. 2019 683-694
- Thiringer, T., see Acquaviva, A., TTE Sept. 2019 618-629
- Thiringer, T., see Kersten, A., TTE Sept. 2019 659-671
- Thiringer, T., see Kersten, A., TTE June 2019 416-432
- Tianli, Z., see Zhaoxia, X., TTE Sept. 2019 828-839
- Tolbert, L.M., see Zhu, L., TTE March 2019 80-92
- Toliyat, H.A., see Morya, A.K., TTE March 2019 3-20
- Torabi-Farsani, K., Asemani, M.H., Badfar, F., Vafamand, N., and Khooban, M.H., Robust Mixed μ -Synthesis Frequency Regulation in AC Mobile Power Grids; *TTE Dec.* 2019 1182-1189
- Trickett, E., see Bilgin, B., TTE Sept. 2019 602-617
- Tricoli, P., see Jiang, X., TTE Sept. 2019 715-726
- Trinko, D.A., see Limb, B.J., TTE March 2019 135-146
- Tu, C., see Hong, Y., TTE June 2019 502-514
- Tu, H., Feng, H., Srdic, S., and Lukic, S., Extreme Fast Charging of Electric Vehicles: A Technology Overview; *TTE Dec.* 2019 861-878
- Tudor, D., and Paolone, M., Optimal Design of the Propulsion System of a Hyperloop Capsule; *TTE Dec. 2019 1406-1418*

U

Ucer, E., Koyuncu, I., Kisacikoglu, M.C., Yavuz, M., Meintz, A., and Rames, C., Modeling and Analysis of a Fast Charging Station and Evaluation of Service Quality for Electric Vehicles; *TTE March 2019 215-225*

Urbain, M., see Dell'Isola, D., TTE Dec. 2019 1214-1224

V

- Vafamand, N., see Torabi-Farsani, K., TTE Dec. 2019 1182-1189
- Valera-Garcia, J.J., and Atutxa-Lekue, I., On the Optimal Design of Hybrid-Electric Power Systems for Offshore Vessels; *TTE March 2019 324-334*
- Vasquez, J.C., see Zhaoxia, X., TTE Sept. 2019 828-839
- Venkatesh, B., see Sabillon, C., TTE Sept. 2019 758-768
- Viana, C., and Lehn, P.W., A Drivetrain Integrated DC Fast Charger With Buck and Boost Functionality and Simultaneous Drive/Charge Capability; *TTE* Dec. 2019 903-911
- Vicenzutti, A., Menis, R., and Sulligoi, G., All-Electric Ship-Integrated Power Systems: Dependable Design Based on Fault Tree Analysis and Dynamic Modeling; *TTE Sept. 2019 812-827*

- Vincent, D., see Castillo-Zamora, I.U., TTE Dec. 2019 946-956
- Vincent, D., Huynh, P.S., Azeez, N.A., Patnaik, L., and Williamson, S.S., Evolution of Hybrid Inductive and Capacitive AC Links for Wireless EV Charging—A Comparative Overview; *TTE Dec.* 2019 1060-1077

W

- Wallmark, O., see Soares, R., TTE Dec. 2019 925-933
- Wallmark, O., see Acquaviva, A., TTE Sept. 2019 618-629
- Wang, B., Zhang, X., Manandhar, U., Gooi, H.B., Liu, Y., and Tan, X., Bidirectional Three-Level Cascaded Converter With Deadbeat Control for HESS in Solar-Assisted Electric Vehicles; *TTE Dec.* 2019 1190-1201
- Wang, D., see Zhou, L., TTE Dec. 2019 1319-1328
- Wang, G., see Zhang, X., TTE Dec. 2019 1134-1144
- Wang, H., see Fang, S., TTE Dec. 2019 1306-1318
- Wang, J., see Zhou, L., TTE Dec. 2019 1319-1328
- Wang, J., see Mao, D., TTE Dec. 2019 1124-1133
- Wang, J., see Wang, W., TTE Sept. 2019 584-601
- Wang, J., see Du, G., TTE June 2019 490-501
- Wang, K., Hu, H., Chen, J., Zhu, J., Zhong, X., and He, Z., System-Level Dynamic Energy Consumption Evaluation for High-Speed Railway; *TTE* Sept. 2019 745-757
- Wang, L., see Zhou, L., TTE Dec. 2019 1319-1328
- Wang, L., see Zhang, Y., TTE Dec. 2019 968-976

Wang, M., see Raja, R., TTE March 2019 107-117

- Wang, T., see Cui, G., TTE Sept. 2019 702-714
- Wang, T., see Li, Q., TTE June 2019 552-564
- Wang, W., Chen, X., and Wang, J., Motor/Generator Applications in Electrified Vehicle Chassis—A Survey; *TTE Sept. 2019 584-601*
- Wang, X., see Liu, J., TTE March 2019 271-284
- Wang, X., see Lv, X., TTE Sept. 2019 727-744
- Wang, Y., see Fang, S., TTE Dec. 2019 1306-1318
- Weber, M., see Dell'Isola, D., TTE Dec. 2019 1214-1224
- Wei, Z., see Liu, K., TTE Dec. 2019 1225-1236
- Weise, N., see Das, D., TTE March 2019 186-199
- Wen, H., see Yang, Y., TTE Dec. 2019 1202-1213
- Williamson, S.S., see Ronanki, D., TTE March 2019 335-342
- Williamson, S.S., see Castillo-Zamora, I.U., TTE Dec. 2019 946-956
- Williamson, S.S., see Vincent, D., TTE Dec. 2019 1060-1077
- Williamson, S.S., see Praneeth, A.V.J.S., TTE Dec. 2019 912-924
- Williamson, S.S., see Huynh, P.S., TTE Dec. 2019 1027-1039
- Wu, M., see Xu, L., TTE Dec. 2019 1360-1369
- Wu, R., Gonzalez, J.O., Davletzhanova, Z., Mawby, P.A., and Alatise, O., The Potential of SiC Cascode JFETs in Electric Vehicle Traction Inverters; *TTE Dec.* 2019 1349-1359

Х

- Xie, B., see Cui, G., TTE Sept. 2019 702-714
- Xie, Y., see Hu, X., TTE Dec. 2019 1237-1253
- Xu, A., see Xu, D., TTE Dec. 2019 1145-1154
- Xu, D., Xu, A., Yang, C., and Shi, P., Uniform State-of-Charge Control Strategy for Plug-and-Play Electric Vehicle in Super-UPS; *TTE Dec.* 2019 1145-1154
- Xu, J., see Cui, G., TTE Sept. 2019 702-714
- Xu, L., see Zhang, Y., TTE Dec. 2019 1294-1305
- Xu, L., Zhao, W., Wu, M., and Ji, J., Investigation of Slot–Pole Combination of Dual-Permanent-Magnet-Excited Vernier Machines by Using Air-Gap Field Modulation Theory; *TTE Dec.* 2019 1360-1369
- Xu, L., see Yang, Y., TTE Dec. 2019 1202-1213
- Xu, L., see Zhuo, S., TTE Sept. 2019 638-649
- Xu, L., see Ma, A., TTE June 2019 385-394
- Xu, Y., see Fang, S., TTE Dec. 2019 1306-1318

Y

Yakop, N., see Pathmanathan, M., *TTE Dec. 2019 1015-1026* Yan, Y., see Liu, J., *TTE March 2019 271-284*

- Yang, C., see Xu, D., TTE Dec. 2019 1145-1154
- Yang, K., see An, F., TTE March 2019 299-310
- Yang, Q., see Feng, D., TTE March 2019 285-298
- Yang, S., see An, F., TTE March 2019 299-310
- Yang, X., see Jiang, X., TTE Sept. 2019 715-726
- Yang, Y., Pan, J., Wen, H., Zhang, Z., Ke, Z., and Xu, L., Double-Vector Model Predictive Control for Single-Phase Five-Level Actively Clamped Converters; TTE Dec. 2019 1202-1213
- Yang, Z., see Liang, J., TTE March 2019 118-125
- Yavuz, M., see Ucer, E., TTE March 2019 215-225
- Yeh, C., see Lee, M., TTE Dec. 2019 890-902
- Yepes, A.G., see Morya, A.K., TTE March 2019 3-20
- Yin, L., see Li, Q., TTE June 2019 552-564
- Yu, J., see Liu, J., TTE Dec. 2019 1279-1293
- Yu, O., see Lee, M., TTE Dec. 2019 890-902
- Yuan, C., see Mao, D., TTE Dec. 2019 1124-1133
- Yuan, S., see Zhou, L., TTE Dec. 2019 1319-1328

Z

- Zafarani, M., see Qi, Y., TTE June 2019 395-404
- Zane, R., see Azad, A.N., TTE March 2019 147-161
- Zane, R., see Limb, B.J., TTE March 2019 135-146
- Zhang, C., see Shang, Y., TTE March 2019 252-261
- Zhang, C., see Zhang, Y., TTE Dec. 2019 1294-1305
- Zhang, D., see Du, G., TTE June 2019 490-501
- Zhang, G., see Liu, J., TTE Dec. 2019 1279-1293
- Zhang, L., see Tan, C., TTE Sept. 2019 695-701
- Zhang, L., Zhou, Z., Chen, Q., Long, R., and Quan, S., Model Predictive Control for Electrochemical Impedance Spectroscopy Measurement of Fuel Cells Based on Neural Network Optimization; TTE June 2019 524-534
- Zhang, Q., see Shang, Y., TTE March 2019 252-261

Zhang, X., see Wang, B., TTE Dec. 2019 1190-1201

- Zhang, X., Li, P., Hu, J., Liu, M., Wang, G., Qiu, J., and Chan, K.W., Yen's Algorithm-Based Charging Facility Planning Considering Congestion in Coupled Transportation and Power Systems; TTE Dec. 2019 1134-1144
- Zhang, X., see Liu, C., TTE Sept. 2019 650-658
- Zhang, Y., Zhang, C., Huang, Z., Xu, L., Liu, Z., and Liu, M., Real-Time Energy Management Strategy for Fuel Cell Range Extender Vehicles Based on Nonlinear Control; TTE Dec. 2019 1294-1305
- Zhang, Y., Wang, L., Guo, Y., and Tao, C., Null-Coupled Magnetic Integration for EV Wireless Power Transfer System; TTE Dec. 2019 968-976
- Zhang, Y., see Lu, J., TTE Dec. 2019 977-987
- Zhang, Z., see Yang, Y., TTE Dec. 2019 1202-1213
- Zhang, Z., see Cui, G., TTE Sept. 2019 702-714
- Zhao, H., see Song, Z., TTE Dec. 2019 1383-1394
- Zhao, R., see Mao, D., TTE Dec. 2019 1124-1133
- Zhao, W., see Xu, L., TTE Dec. 2019 1360-1369
- Zhao, W., Song, Q., Liu, W., Ahmad, M., and Li, Y., Distributed Electric Powertrain Test Bench With Dynamic Load Controlled by Neuron PI Speed-Tracking Method; TTE June 2019 433-443
- Zhao, W., see Ma, A., TTE June 2019 385-394
- Zhaoxia, X., Tianli, Z., Huaimin, L., Guerrero, J.M., Su, C., and Vasquez, J.C., Coordinated Control of a Hybrid-Electric-Ferry Shipboard Microgrid; TTE Sent. 2019 828-839
- Zheng, Z., see Huang, K., TTE June 2019 535-551
- Zhong, X., see Wang, K., TTE Sept. 2019 745-757
- Zhou, K., see Tan, C., TTE Sept. 2019 695-701
- Zhou, L., Wang, J., Wang, L., Yuan, S., Huang, L., Wang, D., and Guo, L., A Method for Hot-Spot Temperature Prediction and Thermal Capacity Estimation for Traction Transformers in High-Speed Railway Based on Genetic Programming; TTE Dec. 2019 1319-1328
- Zhou, Z., see Zhang, L., TTE June 2019 524-534
- Zhu, G., see Lu, J., TTE Dec. 2019 977-987
- Zhu, J., see Wang, K., TTE Sept. 2019 745-757

- Zhu, L., Jiang, D., Qu, R., Tolbert, L.M., and Li, Q., Design of Power Hardware-in-the-Loop Simulations for Integrated Starter-Generator Systems; TTE March 2019 80-92
- Zhu, X., Hu, H., Tao, H., and He, Z., Stability Analysis of PV Plant-Tied MVdc Railway Electrification System; TTE March 2019 311-323
- Zhu, Z., see Du, G., TTE June 2019 490-501
- Zhuo, S., Xu, L., Gaillard, A., Huangfu, Y., Paire, D., and Gao, F., Robust Open-Circuit Fault Diagnosis of Multi-Phase Floating Interleaved DC-DC Boost Converter Based on Sliding Mode Observer; TTE Sept. 2019 638-649 Zou, K., see Fu, Y., TTE March 2019 162-173
- Zou, K., see Fu, Y., TTE Dec. 2019 1169-1181
- Zuo, S., see Deng, W., TTE March 2019 59-70

Subject Index

Numeric

- **III-V** semiconductors
 - Design and Experimental Verification of a High-Voltage Series-Stacked GaN eHEMT Module for Electric Vehicle Applications. Shojaie, M., +, TTE March 2019 31-47

Α

AC motor drives

Wide Bandgap Devices in AC Electric Drives: Opportunities and Challenges. Morya, A.K., +, TTE March 2019 3-20

AC-AC power converters

Investigation on the Selection and Design of Step-Up/Down 18-Pulse ATRUs for More Electric Aircrafts. Chen, J., +, TTE Sept. 2019 795-811

AC-DC power converters

A Bidirectional Soft-Switched DAB-Based Single-Stage Three-Phase AC-DC Converter for V2G Application. Das, D., +, TTE March 2019 186-199 Acceleration control

A Cognitive Advanced Driver Assistance Systems Architecture for Autonomous-Capable Electrified Vehicles. Divakarla, K.P., +, TTE March 2019 48-58

Acoustic noise

- Modeling and Analysis of Electric Motors: State-of-the-Art Review. Bilgin, B., +, TTE Sept. 2019 602-617
- Optimization of Air-Gap Profile in Interior Permanent-Magnet Synchronous Motors for Torque Ripple Mitigation. Liang, J., +, TTE March 2019 118-125
- Radial Force Density Analysis of Switched Reluctance Machines: The Source of Acoustic Noise. Dorneles Callegaro, A., +, TTE March 2019 93-106

Adaptive control

Analysis and Adaptive Mitigation Scheme of Low-Frequency Oscillations in AC Railway Traction Power Systems. Jiang, X., +, TTE Sept. 2019 715-726

Modeling and Control of Three-Level Boost Rectifier Based Medium-Voltage Solid-State Transformer for DC Fast Charger Application. Lee, M., +, TTE Dec. 2019 890-902

Adhesion

Distributed Electric Powertrain Test Bench With Dynamic Load Controlled by Neuron PI Speed-Tracking Method. Zhao, W., +, TTE June 2019 433-443

Aerodynamics

Conceptual All-Electric Retrofit of Helicopters: Review, Technological Outlook, and a Sample Design. Serafini, J., +, TTE Sept. 2019 782-794

Aerospace components

A Novel Methodology for Macroscale, Thermal Characterization of Carbon Fiber-Reinforced Polymer for Integrated Aircraft Electrical Power Systems. Jones, C.E., +, TTE June 2019 479-489

Conceptual All-Electric Retrofit of Helicopters: Review, Technological Outlook, and a Sample Design. Serafini, J., +, TTE Sept. 2019 782-794

Aerospace electronics

Protection and Fault Management Strategy Maps for Future Electrical Propulsion Aircraft. Flynn, M., +, TTE Dec. 2019 1458-1469

Aerospace industry

Review, Challenges, and Future Developments of Electric Taxiing Systems. Lukic, M., +, TTE Dec. 2019 1441-1457

Aerospace propulsion

A Fault Management-Oriented Early-Design Framework for Electrical Propulsion Aircraft. Flynn, M., +, TTE June 2019 465-478

Aerospace safety

A Novel Methodology for Macroscale, Thermal Characterization of Carbon Fiber-Reinforced Polymer for Integrated Aircraft Electrical Power Systems. Jones, C.E., +, TTE June 2019 479-489

Aging

- Hierarchical Bayesian Model for Probabilistic Analysis of Electric Vehicle Battery Degradation. Jafari, M., +, TTE Dec. 2019 1254-1267
- Modified Gaussian Process Regression Models for Cyclic Capacity Prediction of Lithium-Ion Batteries. Liu, K., +, TTE Dec. 2019 1225-1236
- PEMFC Residual Life Prediction Using Sparse Autoencoder-Based Deep Neural Network. Liu, J., +, TTE Dec. 2019 1279-1293
- Vehicle-Directed Smart Charging Strategies to Mitigate the Effect of Long-Range EV Charging on Distribution Transformer Aging. Mobarak, M.H., +, TTE Dec. 2019 1097-1111

Agricultural machinery

Review, Challenges, and Future Developments of Electric Taxiing Systems. Lukic, M., +, TTE Dec. 2019 1441-1457

Air gaps

- A New Design Approach to Mitigating the Effect of Parasitics in Capacitive Wireless Power Transfer Systems for Electric Vehicle Charging. Sinha, S., +, TTE Dec. 2019 1040-1059
- Investigation of Slot-Pole Combination of Dual-Permanent-Magnet-Excited Vernier Machines by Using Air-Gap Field Modulation Theory. Xu, L., +, TTE Dec. 2019 1360-1369
- Investigation on Magnetic Force of a Flux-Modulated Double-Rotor Permanent Magnet Synchronous Machine for Hybrid Electric Vehicle. Song, Z., +, TTE Dec. 2019 1383-1394
- Null-Coupled Magnetic Integration for EV Wireless Power Transfer System. Zhang, Y., +, TTE Dec. 2019 968-976

Optimization of Air-Gap Profile in Interior Permanent-Magnet Synchronous Motors for Torque Ripple Mitigation. Liang, J., +, TTE March 2019 118-125

Air pollution

Economic Viability and Environmental Impact of In-Motion Wireless Power Transfer. Limb, B.J., +, TTE March 2019 135-146

Air pollution control

A Fast Plant-Controller Optimization Process for Mild Hybrid Vehicles. Leahey, N., +, TTE June 2019 444-455

Air traffic control

Review, Challenges, and Future Developments of Electric Taxiing Systems. Lukic, M., +, TTE Dec. 2019 1441-1457

Aircraft

- A Fault Management-Oriented Early-Design Framework for Electrical Propulsion Aircraft. Flynn, M., +, TTE June 2019 465-478
- Conceptual All-Electric Retrofit of Helicopters: Review, Technological Outlook, and a Sample Design. Serafini, J., +, TTE Sept. 2019 782-794
- Performance Comparison of Active Rectifier Control Schemes in More Electric Aircraft Applications. Benzaquen, J., +, TTE Dec. 2019 1470-1479
- Protection and Fault Management Strategy Maps for Future Electrical Propulsion Aircraft. Flynn, M., +, TTE Dec. 2019 1458-1469
- Review, Challenges, and Future Developments of Electric Taxiing Systems. Lukic, M., +, TTE Dec. 2019 1441-1457

Aircraft power systems

- A Fault Management-Oriented Early-Design Framework for Electrical Propulsion Aircraft. Flynn, M., +, TTE June 2019 465-478
- A Novel Methodology for Macroscale, Thermal Characterization of Carbon Fiber-Reinforced Polymer for Integrated Aircraft Electrical Power Systems. Jones, C.E., +, TTE June 2019 479-489
- Investigation on the Selection and Design of Step-Up/Down 18-Pulse ATRUs for More Electric Aircrafts. Chen, J., +, TTE Sept. 2019 795-811

Aircraft propulsion

Performance Comparison of Active Rectifier Control Schemes in More Electric Aircraft Applications. Benzaquen, J., +, TTE Dec. 2019 1470-1479

Protection and Fault Management Strategy Maps for Future Electrical Propulsion Aircraft. Flynn, M., +, TTE Dec. 2019 1458-1469

Review, Challenges, and Future Developments of Electric Taxiing Systems. Lukic, M., +, TTE Dec. 2019 1441-1457

Airports

Review, Challenges, and Future Developments of Electric Taxiing Systems. Lukic, M., +, TTE Dec. 2019 1441-1457

Alternators

Control Strategy for a Multiphase Lundell-Alternator/Active-Rectifier System in 14 V Automotive Power Systems. Sarafianos, D., +, TTE June 2019 347-355

Analytical models

A Comparative Study of Control-Oriented Thermal Models for Cylindrical Li-Ion Batteries. Hu, X., +, TTE Dec. 2019 1237-1253

Asynchronous generators

Improved Fuel-Use Efficiency in Diesel-Electric Tugboats With an Asynchronous Power Generating Unit. Kumar, B.A., +, TTE June 2019 565-578 Automatic voltage control

Modeling, Design, Analysis, and Control of a Nonisolated Universal On-Board Battery Charger for Electric Transportation. Praneeth, A.V.J.S., + TTE Dec. 2019 912-924

Automotive electric vehicles

Motor/Generator Applications in Electrified Vehicle Chassis-A Survey. Wang, W., +, TTE Sept. 2019 584-601

Automotive electronics

Control Strategy for a Multiphase Lundell-Alternator/Active-Rectifier System in 14 V Automotive Power Systems. Sarafianos, D., +, TTE June 2019 347-355

Autotransformers

Batteries

Investigation on the Selection and Design of Step-Up/Down 18-Pulse ATRUs for More Electric Aircrafts. Chen, J., +, TTE Sept. 2019 795-811 Auxiliary transmitters

An Approach for Selecting Compensation Capacitances in Resonance-Based EV Wireless Power Transfer Systems With Switched Capacitors. Cota, K.A., +, TTE Dec. 2019 1004-1014

B

- A Drivetrain Integrated DC Fast Charger With Buck and Boost Functionality and Simultaneous Drive/Charge Capability. Viana, C., +, TTE Dec. 2019 903-911
- A Modified Luo Converter-Based Electric Vehicle Battery Charger With Power Quality Improvement. Kushwaha, R., +, TTE Dec. 2019 1087-1096
- An Advanced Robust Noise Suppression Control of Bidirectional DC-DC Converter for Fuel Cell Electric Vehicle. Huangfu, Y., +, TTE Dec. 2019 1268-1278
- Bidirectional Three-Level Cascaded Converter With Deadbeat Control for HESS in Solar-Assisted Electric Vehicles. Wang, B., +, TTE Dec. 2019 1190-1201
- Extreme Fast Charging of Electric Vehicles: A Technology Overview. Tu, H., +, TTE Dec. 2019 861-878
- Guest Editorial Special Issue on High-Power Fast Chargers and Wireless Charging. Lukic, S., +, TTE Dec. 2019 858-860
- Hexagonal Geometry Coil for a WPT High-Power Fast Charging Application. Castillo-Zamora, I.U., +, TTE Dec. 2019 946-956
- Hierarchical Bayesian Model for Probabilistic Analysis of Electric Vehicle Battery Degradation. Jafari, M., +, TTE Dec. 2019 1254-1267
- Integration of Magnified Alternating Current in Battery Fast Chargers Based on DC-DC Converters Using Transformerless Resonant Filter Design. Soares, R., +, TTE Dec. 2019 925-933
- Modified Gaussian Process Regression Models for Cyclic Capacity Prediction of Lithium-Ion Batteries. Liu, K., +, TTE Dec. 2019 1225-1236
- Optimal Design of the Propulsion System of a Hyperloop Capsule. Tudor, D., +, TTE Dec. 2019 1406-1418
- Optimal Hierarchical Management of Shipboard Multibattery Energy Storage System Using a Data-Driven Degradation Model. Fang, S., +, TTE Dec. 2019 1306-1318

- Rating a Stationary Energy Storage System Within a Fast Electric Vehicle Charging Station Considering User Waiting Times. *Bryden, T.S.*, +, *TTE Dec.* 2019 879-889
- Robust Mixed μ -Synthesis Frequency Regulation in AC Mobile Power Grids. *Torabi-Farsani*, K., +, *TTE Dec.* 2019 1182-1189
- Thermal Modeling and Analysis of an Alternating Short-Segmented Conductive ERS. Abrahamsson, P., +, TTE Dec. 2019 1078-1086
- Vehicle-Directed Smart Charging Strategies to Mitigate the Effect of Long-Range EV Charging on Distribution Transformer Aging. *Mobarak, M.H.*, +, *TTE Dec. 2019 1097-1111*
- Yen's Algorithm-Based Charging Facility Planning Considering Congestion in Coupled Transportation and Power Systems. *Zhang, X.*, +, *TTE Dec.* 2019 1134-1144

Battery chargers

- A Bidirectional Soft-Switched DAB-Based Single-Stage Three-Phase AC– DC Converter for V2G Application. *Das*, *D.*, +, *TTE March 2019 186-199* Imbalanced Load Regulation Based on Virtual Resistance of A Three-Phase
- Four-Wire Inverter for EV Vehicle-to-Home Applications. *Fu*, *Y*, +, *TTE March* 2019 162-173

Battery powered vehicles

- A Bidirectional Soft-Switched DAB-Based Single-Stage Three-Phase AC– DC Converter for V2G Application. *Das*, *D.*, +, *TTE March 2019 186-199*
- A Cognitive Advanced Driver Assistance Systems Architecture for Autonomous-Capable Electrified Vehicles. *Divakarla, K.P.*, +, *TTE March 2019* 48-58
- A Coordinated Dynamic Pricing Model for Electric Vehicle Charging Stations. *Moghaddam, Z.*, +, *TTE March 2019 226-238*
- A Cost-Efficient Approach to EV Charging Station Integrated Community Microgrid: A Case Study of Indian Power Market. *Ahmad, F., +, TTE March* 2019 200-214
- Battery Loss and Stress Mitigation in a Cascaded H-Bridge Multilevel Inverter for Vehicle Traction Applications by Filter Capacitors. *Kersten*, *A.*, +, *TTE Sept. 2019 659-671*
- Grid Loading Due to EV Charging Profiles Based on Pseudo-Real Driving Pattern and User Behavior. *Calearo*, L., +, *TTE Sept. 2019 683-694*
- Imbalanced Load Regulation Based on Virtual Resistance of A Three-Phase Four-Wire Inverter for EV Vehicle-to-Home Applications. *Fu*, *Y*, +, *TTE March* 2019 162-173
- Joint Optimization of Vehicle Battery Pack Capacity and Charging Infrastructure for Electrified Public Bus Systems. *Teichert, O.*, +, *TTE Sept.* 2019 672-682
- Technoeconomic Analysis of Charging and Heating Options for an Electric Bus Service in London. *Nicolaides*, D., +, *TTE Sept. 2019* 769-781

Battery storage plants

Joint Optimization of Vehicle Battery Pack Capacity and Charging Infrastructure for Electrified Public Bus Systems. *Teichert, O.*, +, *TTE Sept.* 2019 672-682

Bayes methods

Hierarchical Bayesian Model for Probabilistic Analysis of Electric Vehicle Battery Degradation. *Jafari, M.*, +, *TTE Dec. 2019 1254-1267*

Biological system modeling

Hierarchical Bayesian Model for Probabilistic Analysis of Electric Vehicle Battery Degradation. *Jafari, M.*, +, *TTE Dec. 2019 1254-1267*

Boats

Improved Fuel-Use Efficiency in Diesel–Electric Tugboats With an Asynchronous Power Generating Unit. *Kumar, B.A.*, +, *TTE June 2019 565-578*

Brakes

Maximizing Regenerative Braking Energy Recovery of Electric Vehicles Through Dynamic Low-Speed Cutoff Point Detection. *Heydari, S., +, TTE March 2019 262-270*

Bridge circuits

- A Simple Power Estimation With Triple Phase-Shift Control for the Output Parallel DAB DC–DC Converters in Power Electronic Traction Transformer for Railway Locomotive Application. *An, F.*, +, *TTE March 2019* 299-310
- An Advanced Robust Noise Suppression Control of Bidirectional DC–DC Converter for Fuel Cell Electric Vehicle. *Huangfu, Y.*, +, *TTE Dec. 2019* 1268-1278

Capacitance

 A New Design Approach to Mitigating the Effect of Parasitics in Capacitive Wireless Power Transfer Systems for Electric Vehicle Charging. *Sinha*, *S.*,
+, *TTE Dec. 2019 1040-1059*

С

- An Approach for Selecting Compensation Capacitances in Resonance-Based EV Wireless Power Transfer Systems With Switched Capacitors. *Cota, K.A.*, +, *TTE Dec.* 2019 1004-1014
- Imbalanced Load Regulation Based on Virtual Resistance of A Three-Phase Four-Wire Inverter for EV Vehicle-to-Home Applications. *Fu*, *Y*, +, *TTE March* 2019 162-173

Capacitors

- A Modified Luo Converter-Based Electric Vehicle Battery Charger With Power Quality Improvement. *Kushwaha, R., +, TTE Dec. 2019 1087-1096*
- A New Design Approach to Mitigating the Effect of Parasitics in Capacitive Wireless Power Transfer Systems for Electric Vehicle Charging. *Sinha*, *S.*, +, *TTE Dec.* 2019 1040-1059
- A Three-Phase Single-Stage Isolated Flyback-Based PFC Converter With Leakage Energy Recovery Clamping Circuit. *Gangavarapu, S.*, +, *TTE Dec.* 2019 1155-1168
- An Approach for Selecting Compensation Capacitances in Resonance-Based EV Wireless Power Transfer Systems With Switched Capacitors. *Cota, K.A.*, +, *TTE Dec.* 2019 1004-1014
- Design Methodology of a Three-Phase Four-Wire EV Charger Operated at the Autonomous Mode. Fu, Y., +, TTE Dec. 2019 1169-1181
- Double-Vector Model Predictive Control for Single-Phase Five-Level Actively Clamped Converters. Yang, Y., +, TTE Dec. 2019 1202-1213
- Optimal Design of a DC–DC Boost Converter in Load Transient Conditions, Including Control Strategy and Stability Constraint. *Dell'Isola*, *D.*, +, *TTE Dec.* 2019 1214-1224

Carbon fiber reinforced plastics

A Novel Methodology for Macroscale, Thermal Characterization of Carbon Fiber-Reinforced Polymer for Integrated Aircraft Electrical Power Systems. *Jones, C.E.*, +, *TTE June 2019 479-489*

Charging stations

- Extreme Fast Charging of Electric Vehicles: A Technology Overview. *Tu*, *H*., +, *TTE Dec.* 2019 861-878
- Rating a Stationary Energy Storage System Within a Fast Electric Vehicle Charging Station Considering User Waiting Times. *Bryden, T.S.*, +, *TTE Dec.* 2019 879-889

Circuit faults

- A Drivetrain Integrated DC Fast Charger With Buck and Boost Functionality and Simultaneous Drive/Charge Capability. *Viana, C.*, +, *TTE Dec. 2019* 903-911
- A Review on Multiphase Drives for Automotive Traction Applications. Salem, A., +, TTE Dec. 2019 1329-1348
- FBG Thermal Sensing Ring Scheme for Stator Winding Condition Monitoring in PMSMs. *Mohammed*, A., +, *TTE Dec.* 2019 1370-1382

Clamps

A Three-Phase Single-Stage Isolated Flyback-Based PFC Converter With Leakage Energy Recovery Clamping Circuit. *Gangavarapu, S.*, +, *TTE Dec.* 2019 1155-1168

Closed loop systems

Robust Open-Circuit Fault Diagnosis of Multi-Phase Floating Interleaved DC–DC Boost Converter Based on Sliding Mode Observer. *Zhuo, S., +, TTE Sept. 2019 638-649*

Clustering algorithms

Fundamental Evaluation of Data Clustering Approaches for Driving Cycle-Based Machine Design Optimization. *Salameh, M.*, +, *TTE Dec. 2019* 1395-1405

Clustering methods

Fundamental Evaluation of Data Clustering Approaches for Driving Cycle-Based Machine Design Optimization. *Salameh, M.*, +, *TTE Dec. 2019* 1395-1405

Cobalt alloys

Back EMF, Torque–Angle, and Core Loss Characterization of a Variable-Flux Permanent-Magnet Machine. *Desai, C.*, +, *TTE June 2019 371-384*

Cognitive systems

A Cognitive Advanced Driver Assistance Systems Architecture for Autonomous-Capable Electrified Vehicles. *Divakarla, K.P.*, +, *TTE March 2019* 48-58

Coils

- Analysis, Optimization, and Demonstration of a Vehicular Detection System Intended for Dynamic Wireless Charging Applications. *Azad, A.N.*, +, *TTE March* 2019 147-161
- Null-Coupled Magnetic Integration for EV Wireless Power Transfer System. Zhang, Y., +, TTE Dec. 2019 968-976

Composite materials

Computationally Efficient Modeling of Electrical Machines With Cooling Jacket. Acquaviva, A., +, TTE Sept. 2019 618-629

Computational fluid dynamics

```
Computationally Efficient Modeling of Electrical Machines With Cooling Jacket. Acquaviva, A., +, TTE Sept. 2019 618-629
```

Computational modeling

- A Comparative Study of Control-Oriented Thermal Models for Cylindrical Li-Ion Batteries. *Hu, X., +, TTE Dec. 2019 1237-1253*
- Function Development With an Electric-Machine-in-the-Loop Setup: A Case Study. *Etzold*, *K.*, +, *TTE Dec. 2019 1419-1429*
- Thermal Modeling and Analysis of an Alternating Short-Segmented Conductive ERS. Abrahamsson, P., +, TTE Dec. 2019 1078-1086

Conductors

Thermal Modeling and Analysis of an Alternating Short-Segmented Conductive ERS. *Abrahamsson*, P., +, *TTE Dec.* 2019 1078-1086

Control system synthesis

Supercapacitor Integrated Railway Static Power Conditioner for Regenerative Braking Energy Recycling and Power Quality Improvement of High-Speed Railway System. *Cui*, *G.*, +, *TTE Sept. 2019 702-714*

Cooling

Computationally Efficient Modeling of Electrical Machines With Cooling Jacket. *Acquaviva, A.*, +, *TTE Sept. 2019 618-629*

Core loss

Loss Minimization Design of Ferrite Core in a DD-Coil-Based High-Power Wireless Charging System for Electrical Vehicle Application. *Mohammad*, M., +, TTE Dec. 2019 957-967

Cost benefit analysis

Guest Editorial Special Issue on High-Power Fast Chargers and Wireless Charging. Lukic, S., +, TTE Dec. 2019 858-860

Couplers

A New Wireless EV Charging System With Integrated DC–DC Magnetic Element. *Ramezani*, *A.*, +, *TTE Dec.* 2019 1112-1123

Couplings

- A Coil Detection System for Dynamic Wireless Charging of Electric Vehicle. *Patil*, D., +, *TTE Dec.* 2019 988-1003
- A New Design Approach to Mitigating the Effect of Parasitics in Capacitive Wireless Power Transfer Systems for Electric Vehicle Charging. *Sinha, S.*,
 +, *TTE Dec. 2019 1040-1059*
- A New Wireless EV Charging System With Integrated DC–DC Magnetic Element. *Ramezani*, A., +, *TTE Dec.* 2019 1112-1123
- Design and Interoperability Analysis of Quadruple Pad Structure for Electric Vehicle Wireless Charging Application. *Ahmad, A., +, TTE Dec. 2019* 934-945
- Field-Oriented Control of a Three-Phase Wireless Power Transfer System Transmitter. *Pathmanathan, M.*, +, *TTE Dec. 2019 1015-1026*
- Loss Minimization Design of Ferrite Core in a DD-Coil-Based High-Power Wireless Charging System for Electrical Vehicle Application. *Mohammad*, *M.*, +, *TTE Dec*. 2019 957-967
- Machine Parameter-Independent Maximum Torque Per Ampere Control for Dual Three-Phase PMSMs. *Li*, *Z*., +, *TTE Dec. 2019 1430-1440*
- Null-Coupled Magnetic Integration for EV Wireless Power Transfer System. Zhang, Y., +, TTE Dec. 2019 968-976

Current distribution

A Traction Network Chain-Circuit Model With Detailed Consideration of Integrated Grounding System in Tunnel Path. *Huang, K.*, +, *TTE June 2019* 535-551

Customer satisfaction

Data models

Modeling and Analysis of a Fast Charging Station and Evaluation of Service Quality for Electric Vehicles. *Ucer, E., +, TTE March 2019 215-225* **Customer services**

Modeling and Analysis of a Fast Charging Station and Evaluation of Service Quality for Electric Vehicles. *Ucer, E., +, TTE March 2019 215-225*

D

- A Comparative Study of Control-Oriented Thermal Models for Cylindrical Li-Ion Batteries. *Hu, X., +, TTE Dec. 2019 1237-1253*
- Vehicle-Directed Smart Charging Strategies to Mitigate the Effect of Long-Range EV Charging on Distribution Transformer Aging. *Mobarak*, *M.H.*, +, *TTE Dec.* 2019 1097-1111
- Yen's Algorithm-Based Charging Facility Planning Considering Congestion in Coupled Transportation and Power Systems. *Zhang, X., +, TTE Dec.* 2019 1134-1144

DC-AC power converters

- Coordinated Control of a Hybrid-Electric-Ferry Shipboard Microgrid. Zhaoxia, X., +, TTE Sept. 2019 828-839
- DC-DC power converters
 - A Bidirectional Soft-Switched DAB-Based Single-Stage Three-Phase AC– DC Converter for V2G Application. *Das*, *D.*, +, *TTE March 2019 186-199*
 - A Simple Power Estimation With Triple Phase-Shift Control for the Output Parallel DAB DC–DC Converters in Power Electronic Traction Transformer for Railway Locomotive Application. *An, F.*, +, *TTE March 2019* 299-310
 - An Advanced Robust Noise Suppression Control of Bidirectional DC–DC Converter for Fuel Cell Electric Vehicle. *Huangfu, Y.*, +, *TTE Dec. 2019* 1268-1278
 - Bidirectional Three-Level Cascaded Converter With Deadbeat Control for HESS in Solar-Assisted Electric Vehicles. Wang, B., +, TTE Dec. 2019 1190-1201
 - Coordinated Control of a Hybrid-Electric-Ferry Shipboard Microgrid. Zhaoxia, X., +, TTE Sept. 2019 828-839
 - Improved Proportional Base Driver for SiC BJTs. Pozo, A., +, TTE March 2019 21-30
 - Integration of Magnified Alternating Current in Battery Fast Chargers Based on DC–DC Converters Using Transformerless Resonant Filter Design. *Soares, R.*, +, *TTE Dec. 2019 925-933*
 - Model Predictive Control for Electrochemical Impedance Spectroscopy Measurement of Fuel Cells Based on Neural Network Optimization. *Zhang, L.*, +, *TTE June 2019 524-534*
 - Robust Open-Circuit Fault Diagnosis of Multi-Phase Floating Interleaved DC–DC Boost Converter Based on Sliding Mode Observer. *Zhuo, S.*, +, *TTE Sept. 2019 638-649*
 - Stability Analysis of PV Plant-Tied MVdc Railway Electrification System. *Zhu*, *X.*, +, *TTE March 2019 311-323*
 - Supercapacitor Integrated Railway Static Power Conditioner for Regenerative Braking Energy Recycling and Power Quality Improvement of High-Speed Railway System. *Cui*, *G.*, +, *TTE Sept. 2019 702-714*

Decision making

Joint Optimization of Vehicle Battery Pack Capacity and Charging Infrastructure for Electrified Public Bus Systems. *Teichert, O.*, +, *TTE Sept.* 2019 672-682

Degradation

- Modified Gaussian Process Regression Models for Cyclic Capacity Prediction of Lithium-Ion Batteries. *Liu*, K., +, *TTE Dec.* 2019 1225-1236
- Optimal Hierarchical Management of Shipboard Multibattery Energy Storage System Using a Data-Driven Degradation Model. *Fang, S.*, +, *TTE Dec. 2019 1306-1318*

Delay effects

Design Methodology of a Three-Phase Four-Wire EV Charger Operated at the Autonomous Mode. *Fu*, *Y*, +, *TTE Dec. 2019 1169-1181*

Delays

Design Methodology of a Three-Phase Four-Wire EV Charger Operated at the Autonomous Mode. *Fu*, *Y*, +, *TTE Dec. 2019 1169-1181*

- Distributed Electric Powertrain Test Bench With Dynamic Load Controlled by Neuron PI Speed-Tracking Method. *Zhao, W.,* +, *TTE June 2019 433-443*
- Yen's Algorithm-Based Charging Facility Planning Considering Congestion in Coupled Transportation and Power Systems. *Zhang, X.*, +, *TTE Dec.* 2019 1134-1144

Demagnetization

Modeling and Analysis of Electric Motors: State-of-the-Art Review. *Bilgin, B., +, TTE Sept. 2019 602-617*

Demand side management

A Coordinated Dynamic Pricing Model for Electric Vehicle Charging Stations. *Moghaddam, Z.*, +, *TTE March 2019 226-238*

Design engineering

- A Fast Plant-Controller Optimization Process for Mild Hybrid Vehicles. Leahey, N., +, TTE June 2019 444-455
- A Novel Methodology for Macroscale, Thermal Characterization of Carbon Fiber-Reinforced Polymer for Integrated Aircraft Electrical Power Systems. *Jones, C.E.*, +, *TTE June 2019 479-489*
- All-Electric Ship-Integrated Power Systems: Dependable Design Based on Fault Tree Analysis and Dynamic Modeling. *Vicenzutti, A., +, TTE Sept.* 2019 812-827
- Conceptual All-Electric Retrofit of Helicopters: Review, Technological Outlook, and a Sample Design. *Serafini*, *J.*, +, *TTE Sept. 2019* 782-794
- Modeling and Analysis of Electric Motors: State-of-the-Art Review. *Bilgin*, *B.*, +, *TTE Sept. 2019 602-617*
- Motor/Generator Applications in Electrified Vehicle Chassis—A Survey. Wang, W., +, TTE Sept. 2019 584-601

Design methodology

Integration of Magnified Alternating Current in Battery Fast Chargers Based on DC–DC Converters Using Transformerless Resonant Filter Design. *Soares, R.*, +, *TTE Dec. 2019 925-933*

Design optimization

Fundamental Evaluation of Data Clustering Approaches for Driving Cycle-Based Machine Design Optimization. *Salameh, M.*, +, *TTE Dec. 2019* 1395-1405

Diesel engines

Coordinated Control of a Hybrid-Electric-Ferry Shipboard Microgrid. Zhaoxia, X., +, TTE Sept. 2019 828-839

Improved Fuel-Use Efficiency in Diesel–Electric Tugboats With an Asynchronous Power Generating Unit. *Kumar, B.A., +, TTE June 2019 565-578*

- Diesel-electric generators
 - Coordinated Control of a Hybrid-Electric-Ferry Shipboard Microgrid. Zhaoxia, X., +, TTE Sept. 2019 828-839

Digital control

Robust Open-Circuit Fault Diagnosis of Multi-Phase Floating Interleaved DC–DC Boost Converter Based on Sliding Mode Observer. *Zhuo, S., +, TTE Sept. 2019 638-649*

Distributed Bragg reflectors

A Modified Luo Converter-Based Electric Vehicle Battery Charger With Power Quality Improvement. *Kushwaha, R., +, TTE Dec. 2019 1087-1096* Distributed power generation

- A Cost-Efficient Approach to EV Charging Station Integrated Community Microgrid: A Case Study of Indian Power Market. *Ahmad, F., +, TTE March 2019 200-214*
- Coordinated Control of a Hybrid-Electric-Ferry Shipboard Microgrid. Zhaoxia, X., +, TTE Sept. 2019 828-839
- Real-Time Optimal Energy Management Controller for Electric Vehicle Integration in Workplace Microgrid. *Lakshminarayanan, V.*, +, *TTE March* 2019 174-185

Driver circuits

Design and Experimental Verification of a High-Voltage Series-Stacked GaN eHEMT Module for Electric Vehicle Applications. *Shojaie, M.*, +, *TTE March 2019 31-47*

Driver information systems

A Cognitive Advanced Driver Assistance Systems Architecture for Autonomous-Capable Electrified Vehicles. *Divakarla, K.P.*, +, *TTE March 2019* 48-58 Analysis, Optimization, and Demonstration of a Vehicular Detection System Intended for Dynamic Wireless Charging Applications. *Azad, A.N.*, +, *TTE March* 2019 147-161

Dynamic response

A Simple Power Estimation With Triple Phase-Shift Control for the Output Parallel DAB DC–DC Converters in Power Electronic Traction Transformer for Railway Locomotive Application. *An, F.*, +, *TTE March 2019* 299-310

Model Predictive Control for Electrochemical Impedance Spectroscopy Measurement of Fuel Cells Based on Neural Network Optimization. *Zhang, L.*, +, *TTE June 2019 524-534*

Dynamometers

Distributed Electric Powertrain Test Bench With Dynamic Load Controlled by Neuron PI Speed-Tracking Method. *Zhao, W.*, +, *TTE June 2019 433-443*

Е

Earth electrodes

- A Traction Network Chain-Circuit Model With Detailed Consideration of Integrated Grounding System in Tunnel Path. *Huang, K.*, +, *TTE June 2019* 535-551
- Eigenvalues and eigenfunctions

Eigenvalue-Based Harmonic Instability Analysis of Electrical Railway Vehicle-Network System. Lv, X., +, TTE Sept. 2019 727-744

Electric current control

- A Simple High-Performance Current Control Strategy for V2G Three-Phase Four-Leg Inverter With *LCL* Filter. *Tan, C.*, +, *TTE Sept. 2019 695-701*
- Analysis and Adaptive Mitigation Scheme of Low-Frequency Oscillations in AC Railway Traction Power Systems. *Jiang, X., +, TTE Sept. 2019 715-726* Development of a Kinetic Energy Recovery System Using an Active Electro-

magnetic Slip Coupling. Ershad, N.F., +, TTE June 2019 456-464

Stability Analysis of Low-Frequency Oscillation in Train-Network System Using RLC Circuit Model. *Hong, Y.*, +, *TTE June 2019 502-514*

Electric drives

Conceptual All-Electric Retrofit of Helicopters: Review, Technological Outlook, and a Sample Design. *Serafini, J.*, +, *TTE Sept. 2019* 782-794

Electric generators

Design of Power Hardware-in-the-Loop Simulations for Integrated Starter– Generator Systems. *Zhu, L., +, TTE March 2019 80-92*

Electric impedance

- A Traction Network Chain-Circuit Model With Detailed Consideration of Integrated Grounding System in Tunnel Path. *Huang, K.*, +, *TTE June 2019* 535-551
- Stability Analysis of Low-Frequency Oscillation in Train-Network System Using RLC Circuit Model. *Hong*, Y., +, *TTE June 2019 502-514*

Electric locomotives

- Analysis and Adaptive Mitigation Scheme of Low-Frequency Oscillations in AC Railway Traction Power Systems. *Jiang, X., +, TTE Sept. 2019* 715-726
- Stability Analysis of Low-Frequency Oscillation in Train-Network System Using RLC Circuit Model. *Hong*, Y, +, *TTE June 2019 502-514*
- Stability Analysis of PV Plant-Tied MVdc Railway Electrification System. *Zhu, X., +, TTE March 2019 311-323*

Electric machines

- Computationally Efficient Modeling of Electrical Machines With Cooling Jacket. Acquaviva, A., +, TTE Sept. 2019 618-629
- Development of a Kinetic Energy Recovery System Using an Active Electromagnetic Slip Coupling. *Ershad*, *N.F.*, +, *TTE June 2019 456-464*

Fundamental Evaluation of Data Clustering Approaches for Driving Cycle-Based Machine Design Optimization. *Salameh, M.*, +, *TTE Dec. 2019* 1395-1405

Electric motors

Modeling and Analysis of Electric Motors: State-of-the-Art Review. *Bilgin*, *B.*, +, *TTE Sept. 2019 602-617*

Electric potential

- Advanced Severity Monitoring of Interturn Short Circuit Faults in PMSMs. *Qi*, *Y*, +, *TTE June 2019 395-404*
- Back EMF, Torque–Angle, and Core Loss Characterization of a Variable-Flux Permanent-Magnet Machine. *Desai, C.*, +, *TTE June 2019 371-384*

Electric propulsion

- A Fault Management-Oriented Early-Design Framework for Electrical Propulsion Aircraft. *Flynn, M.*, +, *TTE June 2019 465-478*
- Conceptual All-Electric Retrofit of Helicopters: Review, Technological Outlook, and a Sample Design. *Serafini, J.*, +, *TTE Sept. 2019 782-794*

Electric vehicle charging

- A New Design Approach to Mitigating the Effect of Parasitics in Capacitive Wireless Power Transfer Systems for Electric Vehicle Charging. *Sinha*, *S.*, +, *TTE Dec.* 2019 1040-1059
- Analysis, Optimization, and Demonstration of a Vehicular Detection System Intended for Dynamic Wireless Charging Applications. *Azad, A.N.*, +, *TTE March* 2019 147-161
- Analytical Size Estimation Methodologies for Electrified Transportation Fueling Infrastructures Using Public–Domain Market Data. *El-Taweel*, *N.A.*, +, *TTE Sept. 2019 840-851*
- Economic Viability and Environmental Impact of In-Motion Wireless Power Transfer. *Limb, B.J.*, +, *TTE March 2019 135-146*
- Extreme Fast Charging of Electric Vehicles: A Technology Overview. *Tu*, *H*., +, *TTE Dec.* 2019 861-878
- Joint Optimization of Vehicle Battery Pack Capacity and Charging Infrastructure for Electrified Public Bus Systems. *Teichert, O.*, +, *TTE Sept.* 2019 672-682
- Rating a Stationary Energy Storage System Within a Fast Electric Vehicle Charging Station Considering User Waiting Times. *Bryden, T.S., +, TTE Dec. 2019 879-889*
- Real-Time Optimal Energy Management Controller for Electric Vehicle Integration in Workplace Microgrid. Lakshminarayanan, V., +, TTE March 2019 174-185
- Technoeconomic Analysis of Charging and Heating Options for an Electric Bus Service in London. *Nicolaides*, D., +, *TTE Sept. 2019* 769-781
- Vehicle-Directed Smart Charging Strategies to Mitigate the Effect of Long-Range EV Charging on Distribution Transformer Aging. *Mobarak, M.H.*, +, *TTE Dec. 2019 1097-1111*

Electric vehicles

- A Bidirectional Soft-Switched DAB-Based Single-Stage Three-Phase AC– DC Converter for V2G Application. *Das, D., +, TTE March 2019 186-199*
- A Cognitive Advanced Driver Assistance Systems Architecture for Autonomous-Capable Electrified Vehicles. *Divakarla, K.P.*, +, *TTE March 2019* 48-58
- A Simple High-Performance Current Control Strategy for V2G Three-Phase Four-Leg Inverter With LCL Filter. Tan, C., +, TTE Sept. 2019 695-701
- All-Electric Ship-Integrated Power Systems: Dependable Design Based on Fault Tree Analysis and Dynamic Modeling. *Vicenzutti, A., +, TTE Sept.* 2019 812-827
- Analysis, Optimization, and Demonstration of a Vehicular Detection System Intended for Dynamic Wireless Charging Applications. *Azad, A.N.*, +, *TTE March* 2019 147-161
- Analytical Size Estimation Methodologies for Electrified Transportation Fueling Infrastructures Using Public–Domain Market Data. *El-Taweel*, *N.A.*, +, *TTE Sept. 2019 840-851*
- Design and Experimental Verification of a High-Voltage Series-Stacked GaN eHEMT Module for Electric Vehicle Applications. *Shojaie, M.*, +, *TTE March 2019 31-47*
- Electromagnetic Vibration and Noise of the Permanent-Magnet Synchronous Motors for Electric Vehicles: An Overview. *Deng, W.*, +, *TTE March* 2019 59-70
- Fault Detection and Localization for Limp Home Functionality of Three-Level NPC Inverters With Connected Neutral Point for Electric Vehicles. *Kersten, A.*, +, *TTE June 2019 416-432*
- Guest Editorial Special Issue on High-Power Fast Chargers and Wireless Charging. Lukic, S., +, TTE Dec. 2019 858-860
- Modeling and Analysis of a Fast Charging Station and Evaluation of Service Quality for Electric Vehicles. *Ucer, E., +, TTE March 2019 215-225*
- Unified Load-Independent ZPA Analysis and Design in CC and CV Modes of Higher Order Resonant Circuits for WPT Systems. *Lu*, *J.*, +, *TTE Dec*. 2019 977-987

Electrical engineering computing

A Fast Fault Diagnosis Method of the PEMFC System Based on Extreme Learning Machine and Dempster–Shafer Evidence Theory. *Liu*, *J.*, +, *TTE March* 2019 271-284

Electrochemical impedance spectroscopy

Model Predictive Control for Electrochemical Impedance Spectroscopy Measurement of Fuel Cells Based on Neural Network Optimization. *Zhang, L.*, +, *TTE June 2019 524-534*

Electrolysis

Technoeconomic Models for the Optimal Inclusion of Hydrogen Trains in Electricity Markets. *Sabillon, C.*, +, *TTE Sept. 2019* 758-768

Electrolytic capacitors

Battery Loss and Stress Mitigation in a Cascaded H-Bridge Multilevel Inverter for Vehicle Traction Applications by Filter Capacitors. *Kersten, A.*, +, *TTE Sept.* 2019 659-671

Electromagnetics

Machine Parameter-Independent Maximum Torque Per Ampere Control for Dual Three-Phase PMSMs. *Li*, *Z*., +, *TTE Dec*. 2019 1430-1440

Electron tubes

Optimal Design of the Propulsion System of a Hyperloop Capsule. *Tudor, D.*, +, *TTE Dec.* 2019 1406-1418

Energy conservation

Optimal Control of Reversible Substations and Wayside Storage Devices for Voltage Stabilization and Energy Savings in Metro Railway Networks. *Kleftakis, V.A.*, +, *TTE June 2019 515-523*

Energy consumption

- A Fast Plant-Controller Optimization Process for Mild Hybrid Vehicles. Leahey, N., +, TTE June 2019 444-455
- Improved Fuel-Use Efficiency in Diesel–Electric Tugboats With an Asynchronous Power Generating Unit. *Kumar, B.A., +, TTE June 2019 565-578*

System-Level Dynamic Energy Consumption Evaluation for High-Speed Railway. *Wang, K.*, +, *TTE Sept. 2019* 745-757

Energy management

- A Cost-Efficient Approach to EV Charging Station Integrated Community Microgrid: A Case Study of Indian Power Market. *Ahmad, F., +, TTE March* 2019 200-214
- A State Machine Control Based on Equivalent Consumption Minimization for Fuel Cell/ Supercapacitor Hybrid Tramway. *Li*, *Q*., +, *TTE June 2019* 552-564
- On the Optimal Design of Hybrid-Electric Power Systems for Offshore Vessels. Valera-Garcia, J.J., +, TTE March 2019 324-334
- Real-Time Energy Management Strategy for Fuel Cell Range Extender Vehicles Based on Nonlinear Control. Zhang, Y., +, TTE Dec. 2019 1294-1305
- Real-Time Optimal Energy Management Controller for Electric Vehicle Integration in Workplace Microgrid. *Lakshminarayanan, V.*, +, *TTE March* 2019 174-185
- Supercapacitor Integrated Railway Static Power Conditioner for Regenerative Braking Energy Recycling and Power Quality Improvement of High-Speed Railway System. *Cui*, *G.*, +, *TTE Sept. 2019* 702-714
- System-Level Dynamic Energy Consumption Evaluation for High-Speed Railway. *Wang, K.*, +, *TTE Sept. 2019* 745-757

Energy storage

- An Integrated Design and Control Optimization Framework for Hybrid Military Vehicle Using Lithium-Ion Battery and Supercapacitor as Energy Storage Devices. *Mamun*, A., +, *TTE March 2019 239-251*
- Coordinated Control of a Hybrid-Electric-Ferry Shipboard Microgrid. Zhaoxia, X., +, TTE Sept. 2019 828-839
- On the Optimal Design of Hybrid-Electric Power Systems for Offshore Vessels. Valera-Garcia, J.J., +, TTE March 2019 324-334
- Optimal Control of Reversible Substations and Wayside Storage Devices for Voltage Stabilization and Energy Savings in Metro Railway Networks. *Kleftakis, V.A., +, TTE June 2019 515-523*

Equivalent circuits

- A Traction Network Chain-Circuit Model With Detailed Consideration of Integrated Grounding System in Tunnel Path. *Huang, K.*, +, *TTE June 2019* 535-551
- Advanced Severity Monitoring of Interturn Short Circuit Faults in PMSMs. *Qi*, *Y*, +, *TTE June 2019 395-404*

Design and Analysis of a High-Speed Dual Stator Slotted Solid-Rotor Axial-Flux Induction Motor. *Hong, C.*, +, *TTE March 2019 71-79*

F

Failure analysis

- A Fast Fault Diagnosis Method of the PEMFC System Based on Extreme Learning Machine and Dempster–Shafer Evidence Theory. *Liu*, *J.*, +, *TTE March* 2019 271-284
- Online Prediction for Transmission Cascading Outages Induced by Ultrafast PEV Charging. *Mao, D.*, +, *TTE Dec. 2019 1124-1133*
- Reliability Evaluation for Traction Power Supply System of High-Speed Railway Considering Relay Protection. *Feng, D.*, +, *TTE March 2019 285-*298

Fault diagnosis

- A Fast Fault Diagnosis Method of the PEMFC System Based on Extreme Learning Machine and Dempster–Shafer Evidence Theory. *Liu*, *J.*, +, *TTE March* 2019 271-284
- A Fault Management-Oriented Early-Design Framework for Electrical Propulsion Aircraft. *Flynn, M.*, +, *TTE June 2019 465-478*
- Advanced Severity Monitoring of Interturn Short Circuit Faults in PMSMs. *Qi*, *Y*, +, *TTE June 2019 395-404*
- Fault Detection and Localization for Limp Home Functionality of Three-Level NPC Inverters With Connected Neutral Point for Electric Vehicles. *Kersten, A.*, +, *TTE June 2019 416-432*
- Robust Open-Circuit Fault Diagnosis of Multi-Phase Floating Interleaved DC–DC Boost Converter Based on Sliding Mode Observer. *Zhuo, S.*, +, *TTE Sept. 2019 638-649*

Fault tolerance

A Review on Multiphase Drives for Automotive Traction Applications. Salem, A., +, TTE Dec. 2019 1329-1348

Fault tolerant systems

A Review on Multiphase Drives for Automotive Traction Applications. Salem, A., +, TTE Dec. 2019 1329-1348

Fault trees

- All-Electric Ship-Integrated Power Systems: Dependable Design Based on Fault Tree Analysis and Dynamic Modeling. *Vicenzutti, A., +, TTE Sept.* 2019 812-827
- Reliability Evaluation for Traction Power Supply System of High-Speed Railway Considering Relay Protection. *Feng, D.*, +, *TTE March 2019 285-298*

Feature extraction

PEMFC Residual Life Prediction Using Sparse Autoencoder-Based Deep Neural Network. *Liu, J.*, +, *TTE Dec. 2019 1279-1293*

Feedback

- Imbalanced Load Regulation Based on Virtual Resistance of A Three-Phase Four-Wire Inverter for EV Vehicle-to-Home Applications. *Fu*, *Y*, +, *TTE March* 2019 162-173
- Stability Analysis of Low-Frequency Oscillation in Train-Network System Using RLC Circuit Model. *Hong, Y., +, TTE June 2019 502-514*

Feedforward systems

Modeling and Control of Three-Level Boost Rectifier Based Medium-Voltage Solid-State Transformer for DC Fast Charger Application. *Lee*, *M.*, +, *TTE Dec.* 2019 890-902

Ferrites

- Loss Minimization Design of Ferrite Core in a DD-Coil-Based High-Power Wireless Charging System for Electrical Vehicle Application. *Mohammad*, *M*., +, *TTE Dec.* 2019 957-967
- Null-Coupled Magnetic Integration for EV Wireless Power Transfer System. Zhang, Y., +, TTE Dec. 2019 968-976

Field effect transistor switches

Design and Experimental Verification of a High-Voltage Series-Stacked GaN eHEMT Module for Electric Vehicle Applications. *Shojaie, M.*, +, *TTE March 2019 31-47*

Field programmable gate arrays

A Network Analysis Modeling Method of the Power Electronic Converter for Hardware-in-the-Loop Application. *Liu, C., +, TTE Sept. 2019 650-658* Model Predictive Control for Electrochemical Impedance Spectroscopy Measurement of Fuel Cells Based on Neural Network Optimization. *Zhang, L., +, TTE June 2019 524-534*

Filters

Battery Loss and Stress Mitigation in a Cascaded H-Bridge Multilevel Inverter for Vehicle Traction Applications by Filter Capacitors. *Kersten*, *A.*, +, *TTE Sept. 2019 659-671*

Finite element analysis

- A Generic Multi-Criteria Design Approach Toward High Power Density and Fault-Tolerant Low-Speed PMSM for Pod Applications. *Chasiotis, I.D.*, +, *TTE June 2019 356-370*
- Advanced Severity Monitoring of Interturn Short Circuit Faults in PMSMs. *Qi*, *Y*, +, *TTE June 2019 395-404*
- Asymmetrical Magnet Shape Optimization Based on S-C Mapping for Torque Profile Mitigation in Unidirectional Application of SPMS Machine. *Mirahki, H., +, TTE Sept. 2019 630-637*
- Computationally Efficient Modeling of Electrical Machines With Cooling Jacket. Acquaviva, A., +, TTE Sept. 2019 618-629
- Design and Analysis of a High-Speed Dual Stator Slotted Solid-Rotor Axial-Flux Induction Motor. *Hong, C.,* +, *TTE March 2019 71-79*
- Influence of Armature Windings Pole Numbers on Performances of Linear Permanent-Magnet Vernier Machines. Ma, A., +, TTE June 2019 385-394
- Optimal Pole Number for Magnetic Noise Reduction in Variable-Speed Permanent Magnet Synchronous Machines With Fractional-Slot Concentrated Windings. *Asef. P.*, +, *TTE March 2019 126-134*
- Optimization of Air-Gap Profile in Interior Permanent-Magnet Synchronous Motors for Torque Ripple Mitigation. *Liang, J.*, +, *TTE March 2019 118-125*

Finite state machines

A State Machine Control Based on Equivalent Consumption Minimization for Fuel Cell/ Supercapacitor Hybrid Tramway. *Li*, *Q*., +, *TTE June 2019* 552-564

Flyback transformers

A Three-Phase Single-Stage Isolated Flyback-Based PFC Converter With Leakage Energy Recovery Clamping Circuit. *Gangavarapu, S.*, +, *TTE Dec.* 2019 1155-1168

Flywheels

Development of a Kinetic Energy Recovery System Using an Active Electromagnetic Slip Coupling. *Ershad*, *N.F.*, +, *TTE June 2019 456-464*

Force

- Function Development With an Electric-Machine-in-the-Loop Setup: A Case Study. *Etzold*, *K.*, +, *TTE Dec.* 2019 1419-1429
- Investigation on Magnetic Force of a Flux-Modulated Double-Rotor Permanent Magnet Synchronous Machine for Hybrid Electric Vehicle. Song, Z., +, TTE Dec. 2019 1383-1394

Frequency control

- Coordinated Control of a Hybrid-Electric-Ferry Shipboard Microgrid. Zhaoxia, X., +, TTE Sept. 2019 828-839
- Performance Comparison of Active Rectifier Control Schemes in More Electric Aircraft Applications. *Benzaquen, J.*, +, *TTE Dec. 2019 1470-1479*

Robust Mixed μ -Synthesis Frequency Regulation in AC Mobile Power Grids. *Torabi-Farsani, K.*, +, *TTE Dec.* 2019 1182-1189

Frequency modulation

Protection and Fault Management Strategy Maps for Future Electrical Propulsion Aircraft. Flynn, M., +, TTE Dec. 2019 1458-1469

Fuel cell vehicles

A State Machine Control Based on Equivalent Consumption Minimization for Fuel Cell/ Supercapacitor Hybrid Tramway. *Li*, *Q*., +, *TTE June 2019* 552-564

Fuel cells

- An Advanced Robust Noise Suppression Control of Bidirectional DC–DC Converter for Fuel Cell Electric Vehicle. *Huangfu, Y.*, +, *TTE Dec. 2019* 1268-1278
- Model Predictive Control for Electrochemical Impedance Spectroscopy Measurement of Fuel Cells Based on Neural Network Optimization. *Zhang, L.*, +, *TTE June 2019 524-534*
- PEMFC Residual Life Prediction Using Sparse Autoencoder-Based Deep Neural Network. *Liu, J.*, +, *TTE Dec. 2019 1279-1293*

Real-Time Energy Management Strategy for Fuel Cell Range Extender Vehicles Based on Nonlinear Control. *Zhang, Y.*, +, *TTE Dec. 2019 1294-1305* **Fuel economy**

- A Fast Plant-Controller Optimization Process for Mild Hybrid Vehicles. Leahey, N., +, TTE June 2019 444-455
- Improved Fuel-Use Efficiency in Diesel–Electric Tugboats With an Asynchronous Power Generating Unit. *Kumar, B.A., +, TTE June 2019 565-578* Fuels

Review, Challenges, and Future Developments of Electric Taxiing Systems. Lukic, M., +, TTE Dec. 2019 1441-1457

Fuzzy logic

Real-Time Energy Management Strategy for Fuel Cell Range Extender Vehicles Based on Nonlinear Control. *Zhang, Y., +, TTE Dec. 2019 1294-1305*

G

Gallium compounds

Design and Experimental Verification of a High-Voltage Series-Stacked GaN eHEMT Module for Electric Vehicle Applications. *Shojaie, M.*, +, *TTE March 2019 31-47*

Generators

Robust Mixed μ -Synthesis Frequency Regulation in AC Mobile Power Grids. Torabi-Farsani, K., +, TTE Dec. 2019 1182-1189

Genetic algorithms

Asymmetrical Magnet Shape Optimization Based on S-C Mapping for Torque Profile Mitigation in Unidirectional Application of SPMS Machine. *Mirahki*, H., +, *TTE Sept. 2019 630-637*

Optimization of Air-Gap Profile in Interior Permanent-Magnet Synchronous Motors for Torque Ripple Mitigation. *Liang, J.*, +, *TTE March 2019 118-125*

Geometry

A Novel Methodology for Macroscale, Thermal Characterization of Carbon Fiber-Reinforced Polymer for Integrated Aircraft Electrical Power Systems. *Jones, C.E.*, +, *TTE June 2019 479-489*

Hexagonal Geometry Coil for a WPT High-Power Fast Charging Application. Castillo-Zamora, I.U., +, TTE Dec. 2019 946-956

Ground penetrating radar

Modified Gaussian Process Regression Models for Cyclic Capacity Prediction of Lithium-Ion Batteries. *Liu, K.*, +, *TTE Dec. 2019 1225-1236*

Н

Hardware-in-the loop simulation

Distributed Electric Powertrain Test Bench With Dynamic Load Controlled by Neuron PI Speed-Tracking Method. *Zhao, W.*, +, *TTE June 2019 433-443*

Harmonic analysis

- Investigation of Slot–Pole Combination of Dual-Permanent-Magnet-Excited Vernier Machines by Using Air-Gap Field Modulation Theory. *Xu*, *L*., +, *TTE Dec.* 2019 1360-1369
- Investigation on Magnetic Force of a Flux-Modulated Double-Rotor Permanent Magnet Synchronous Machine for Hybrid Electric Vehicle. Song, Z., +, TTE Dec. 2019 1383-1394
- Optimal Pole Number for Magnetic Noise Reduction in Variable-Speed Permanent Magnet Synchronous Machines With Fractional-Slot Concentrated Windings. Asef, P., +, TTE March 2019 126-134
- Performance Comparison of Active Rectifier Control Schemes in More Electric Aircraft Applications. *Benzaquen*, J., +, *TTE Dec.* 2019 1470-1479

Harmonic distortion

A Simple High-Performance Current Control Strategy for V2G Three-Phase Four-Leg Inverter With *LCL* Filter. *Tan, C., +, TTE Sept. 2019 695-701*

Investigation on the Selection and Design of Step-Up/Down 18-Pulse ATRUs for More Electric Aircrafts. *Chen, J.*, +, *TTE Sept. 2019 795-811* Harmonics

Harmonics

Imbalanced Load Regulation Based on Virtual Resistance of A Three-Phase Four-Wire Inverter for EV Vehicle-to-Home Applications. *Fu*, *Y*, +, *TTE March* 2019 162-173

Heat transfer

A Novel Methodology for Macroscale, Thermal Characterization of Carbon Fiber-Reinforced Polymer for Integrated Aircraft Electrical Power Systems. *Jones, C.E.*, +, *TTE June 2019 479-489*

Heating systems

- A Comparative Study of Control-Oriented Thermal Models for Cylindrical Li-Ion Batteries. *Hu, X., +, TTE Dec. 2019 1237-1253*
- FBG Thermal Sensing Ring Scheme for Stator Winding Condition Monitoring in PMSMs. *Mohammed*, A., +, *TTE Dec.* 2019 1370-1382
- Integration of Magnified Alternating Current in Battery Fast Chargers Based on DC–DC Converters Using Transformerless Resonant Filter Design. *Soares, R.*, +, *TTE Dec. 2019 925-933*

Thermal Modeling and Analysis of an Alternating Short-Segmented Conductive ERS. *Abrahamsson, P., +, TTE Dec. 2019 1078-1086*

Helicopters

Conceptual All-Electric Retrofit of Helicopters: Review, Technological Outlook, and a Sample Design. Serafini, J., +, TTE Sept. 2019 782-794

High electron mobility transistors

Design and Experimental Verification of a High-Voltage Series-Stacked GaN eHEMT Module for Electric Vehicle Applications. *Shojaie, M.*, +, *TTE March 2019 31-47*

Hybrid electric vehicles

- A Fast Plant-Controller Optimization Process for Mild Hybrid Vehicles. Leahey, N., +, TTE June 2019 444-455
- A Fault Management-Oriented Early-Design Framework for Electrical Propulsion Aircraft. Flynn, M., +, TTE June 2019 465-478
- A State Machine Control Based on Equivalent Consumption Minimization for Fuel Cell/ Supercapacitor Hybrid Tramway. *Li*, *Q*., +, *TTE June 2019* 552-564

An Integrated Design and Control Optimization Framework for Hybrid Military Vehicle Using Lithium-Ion Battery and Supercapacitor as Energy Storage Devices. *Mamun, A.*, +, *TTE March 2019 239-251*

- Design of Power Hardware-in-the-Loop Simulations for Integrated Starter– Generator Systems. Zhu, L., +, TTE March 2019 80-92
- Distributed Electric Powertrain Test Bench With Dynamic Load Controlled by Neuron PI Speed-Tracking Method. Zhao, W., +, TTE June 2019 433-443
- Grid Loading Due to EV Charging Profiles Based on Pseudo-Real Driving Pattern and User Behavior. *Calearo*, L., +, *TTE Sept. 2019 683-694*
- Maximizing Regenerative Braking Energy Recovery of Electric Vehicles Through Dynamic Low-Speed Cutoff Point Detection. *Heydari, S., +, TTE March 2019 262-270*
- Motor/Generator Applications in Electrified Vehicle Chassis—A Survey. Wang, W., +, TTE Sept. 2019 584-601
- On the Optimal Design of Hybrid-Electric Power Systems for Offshore Vessels. Valera-Garcia, J.J., +, TTE March 2019 324-334

Hybrid power systems

Real-Time Energy Management Strategy for Fuel Cell Range Extender Vehicles Based on Nonlinear Control. Zhang, Y., +, TTE Dec. 2019 1294-1305 Hydrogen economy

Technoeconomic Models for the Optimal Inclusion of Hydrogen Trains in

Electricity Markets. Sabillon, C., +, TTE Sept. 2019 758-768

Hydrogen production

Technoeconomic Models for the Optimal Inclusion of Hydrogen Trains in Electricity Markets. *Sabillon, C.*, +, *TTE Sept. 2019 758-768*

I

Ice

Vehicle-Directed Smart Charging Strategies to Mitigate the Effect of Long-Range EV Charging on Distribution Transformer Aging. *Mobarak*, *M.H.*, +, *TTE Dec.* 2019 1097-1111

Impedance

Integration of Magnified Alternating Current in Battery Fast Chargers Based on DC–DC Converters Using Transformerless Resonant Filter Design. *Soares, R.*, +, *TTE Dec. 2019 925-933*

Indexes

Optimal Hierarchical Management of Shipboard Multibattery Energy Storage System Using a Data-Driven Degradation Model. *Fang, S.*, +, *TTE Dec.* 2019 1306-1318

Inductance

- A Three-Phase Single-Stage Isolated Flyback-Based PFC Converter With Leakage Energy Recovery Clamping Circuit. *Gangavarapu, S.*, +, *TTE Dec.* 2019 1155-1168
- Design and Interoperability Analysis of Quadruple Pad Structure for Electric Vehicle Wireless Charging Application. *Ahmad, A.*, +, *TTE Dec. 2019* 934-945
- Hexagonal Geometry Coil for a WPT High-Power Fast Charging Application. Castillo-Zamora, I.U., +, TTE Dec. 2019 946-956

Induction motors

A Drivetrain Integrated DC Fast Charger With Buck and Boost Functionality and Simultaneous Drive/Charge Capability. *Viana, C.*, +, *TTE Dec. 2019* 903-911

Inductive charging

- A Coil Detection System for Dynamic Wireless Charging of Electric Vehicle. Patil, D., +, TTE Dec. 2019 988-1003
- Design and Interoperability Analysis of Quadruple Pad Structure for Electric Vehicle Wireless Charging Application. *Ahmad, A., +, TTE Dec. 2019* 934-945
- Loss Minimization Design of Ferrite Core in a DD-Coil-Based High-Power Wireless Charging System for Electrical Vehicle Application. *Mohammad*, *M.*, +, *TTE Dec*. 2019 957-967

Inductive power transmission

Analysis, Optimization, and Demonstration of a Vehicular Detection System Intended for Dynamic Wireless Charging Applications. *Azad, A.N., +, TTE March 2019 147-161*

Economic Viability and Environmental Impact of In-Motion Wireless Power Transfer. Limb, B.J., +, TTE March 2019 135-146

Inductors

- A Modified Luo Converter-Based Electric Vehicle Battery Charger With Power Quality Improvement. *Kushwaha, R., +, TTE Dec. 2019 1087-1096*
- A New Wireless EV Charging System With Integrated DC–DC Magnetic Element. *Ramezani*, A., +, *TTE Dec. 2019 1112-1123*
- Bidirectional Three-Level Cascaded Converter With Deadbeat Control for HESS in Solar-Assisted Electric Vehicles. Wang, B., +, TTE Dec. 2019 1190-1201
- Modeling, Design, Analysis, and Control of a Nonisolated Universal On-Board Battery Charger for Electric Transportation. *Praneeth, A.V.J.S.*, +, *TTE Dec. 2019 912-924*

Insulated gate bipolar transistors

The Potential of SiC Cascode JFETs in Electric Vehicle Traction Inverters. Wu, R., +, TTE Dec. 2019 1349-1359

Insulation

Integer programming

A Cost-Efficient Approach to EV Charging Station Integrated Community Microgrid: A Case Study of Indian Power Market. *Ahmad, F., +, TTE March 2019 200-214*

Integrated circuit modeling

Analysis and Design of Soft-Switching Active-Clamping Half-Bridge Boost Inverter for Inductive Wireless Charging Applications. *Huynh, P.S., +, TTE Dec. 2019 1027-1039*

Unified Load-Independent ZPA Analysis and Design in CC and CV Modes of Higher Order Resonant Circuits for WPT Systems. Lu, J., +, TTE Dec. 2019 977-987

Internal combustion engines

Control Strategy for a Multiphase Lundell-Alternator/Active-Rectifier System in 14 V Automotive Power Systems. *Sarafianos, D.*, +, *TTE June 2019* 347-355

Inverters

- A Drivetrain Integrated DC Fast Charger With Buck and Boost Functionality and Simultaneous Drive/Charge Capability. *Viana, C.*, +, *TTE Dec. 2019* 903-911
- A New Design Approach to Mitigating the Effect of Parasitics in Capacitive Wireless Power Transfer Systems for Electric Vehicle Charging. *Sinha, S.*, +, *TTE Dec. 2019 1040-1059*

- A Simple High-Performance Current Control Strategy for V2G Three-Phase Four-Leg Inverter With *LCL* Filter. *Tan, C.*, +, *TTE Sept. 2019 695-701*
- Analysis and Design of Soft-Switching Active-Clamping Half-Bridge Boost Inverter for Inductive Wireless Charging Applications. *Huynh, P.S.*, +, *TTE Dec.* 2019 1027-1039
- Battery Loss and Stress Mitigation in a Cascaded H-Bridge Multilevel Inverter for Vehicle Traction Applications by Filter Capacitors. *Kersten*, *A.*, +, *TTE Sept.* 2019 659-671
- Comments on "Analysis, Design, and Optimization of *LC* /S Compensation Topology With Excellent Load-Independent Voltage Output for Inductive Power Transfer". *Kuperman, A., TTE Dec. 2019* 1480-1483
- Current Injection-Based Multi-parameter Estimation for Dual Three-Phase IPMSM Considering VSI Nonlinearity. *Li*, *Z*., +, *TTE June 2019 405-415* Design Methodology of a Three-Phase Four-Wire EV Charger Operated at

the Autonomous Mode. Fu, Y., +, TTE Dec. 2019 1169-1181

Investments

Modeling and Analysis of a Fast Charging Station and Evaluation of Service Quality for Electric Vehicles. *Ucer, E., +, TTE March 2019 215-225*

Iron

Robust Mixed μ-Synthesis Frequency Regulation in AC Mobile Power Grids. *Torabi-Farsani*, K., +, *TTE Dec.* 2019 1182-1189

Iron compounds

Back EMF, Torque–Angle, and Core Loss Characterization of a Variable-Flux Permanent-Magnet Machine. *Desai, C., +, TTE June 2019 371-384*

Iterative methods

J

Real-Time Optimal Energy Management Controller for Electric Vehicle Integration in Workplace Microgrid. *Lakshminarayanan, V.*, +, *TTE March* 2019 174-185

JFETs

Java

The Potential of SiC Cascode JFETs in Electric Vehicle Traction Inverters. *Wu*, *R.*, +, *TTE Dec. 2019 1349-1359*

L

Laminations

Back EMF, Torque–Angle, and Core Loss Characterization of a Variable-Flux Permanent-Magnet Machine. *Desai*, C., +, *TTE June 2019 371-384*

Learning (artificial intelligence)

A Fast Fault Diagnosis Method of the PEMFC System Based on Extreme Learning Machine and Dempster–Shafer Evidence Theory. *Liu*, *J.*, +, *TTE March* 2019 271-284

Legged locomotion

- Design Methodology of a Three-Phase Four-Wire EV Charger Operated at the Autonomous Mode. *Fu*, *Y*, +, *TTE Dec. 2019 1169-1181*
- Double-Vector Model Predictive Control for Single-Phase Five-Level Actively Clamped Converters. Yang, Y., +, TTE Dec. 2019 1202-1213

Linear induction motors

Design and Analysis of a High-Speed Dual Stator Slotted Solid-Rotor Axial-Flux Induction Motor. *Hong, C.,* +, *TTE March 2019 71-79*

Linear machines

Influence of Armature Windings Pole Numbers on Performances of Linear Permanent-Magnet Vernier Machines. *Ma*, *A*., +, *TTE June 2019 385-394* **Linear programming**

Technoeconomic Models for the Optimal Inclusion of Hydrogen Trains in Electricity Markets. Sabillon, C., +, TTE Sept. 2019 758-768

Linear quadratic control

Supercapacitor Integrated Railway Static Power Conditioner for Regenerative Braking Energy Recycling and Power Quality Improvement of High-Speed Railway System. *Cui*, *G.*, +, *TTE Sept. 2019 702-714*

Lithium batteries

Uniform State-of-Charge Control Strategy for Plug-and-Play Electric Vehicle in Super-UPS. Xu, D., +, TTE Dec. 2019 1145-1154

FBG Thermal Sensing Ring Scheme for Stator Winding Condition Monitoring in PMSMs. *Mohammed*, A., +, *TTE Dec.* 2019 1370-1382

A Fast Plant-Controller Optimization Process for Mild Hybrid Vehicles. Leahey, N., +, TTE June 2019 444-455

Lithium compounds

- An Integrated Design and Control Optimization Framework for Hybrid Military Vehicle Using Lithium-Ion Battery and Supercapacitor as Energy Storage Devices. *Mamun, A.*, +, *TTE March 2019 239-251*
- An Optimized Mesh-Structured Switched-Capacitor Equalizer for Lithium-Ion Battery Strings. *Shang, Y., +, TTE March 2019 252-261*

Lithium-ion batteries

A Comparative Study of Control-Oriented Thermal Models for Cylindrical Li-Ion Batteries. *Hu, X., +, TTE Dec. 2019 1237-1253*

Real-Time Energy Management Strategy for Fuel Cell Range Extender Vehicles Based on Nonlinear Control. *Zhang, Y., +, TTE Dec. 2019 1294-1305*

Load flow

 A Bidirectional Soft-Switched DAB-Based Single-Stage Three-Phase AC– DC Converter for V2G Application. *Das, D., +, TTE March 2019 186-199* Optimal Control of Reversible Substations and Wayside Storage Devices for Voltage Stabilization and Energy Savings in Metro Railway Networks.

Kleftakis, V.A., +, TTE June 2019 515-523

Load flow control

- Coordinated Control of a Hybrid-Electric-Ferry Shipboard Microgrid. Zhaoxia, X., +, TTE Sept. 2019 828-839
- Stability Analysis of PV Plant-Tied MVdc Railway Electrification System. Zhu, X., +, TTE March 2019 311-323

Load managemet

Comments on "Analysis, Design, and Optimization of *LC* /S Compensation Topology With Excellent Load-Independent Voltage Output for Inductive Power Transfer". *Kuperman, A., TTE Dec. 2019* 1480-1483

Load modeling

- Online Prediction for Transmission Cascading Outages Induced by Ultrafast PEV Charging. *Mao, D., +, TTE Dec. 2019 1124-1133*
- PEMFC Residual Life Prediction Using Sparse Autoencoder-Based Deep Neural Network. *Liu, J., +, TTE Dec. 2019 1279-1293*

Load regulation

- Distributed Electric Powertrain Test Bench With Dynamic Load Controlled by Neuron PI Speed-Tracking Method. *Zhao, W.,* +, *TTE June 2019 433-443*
- Imbalanced Load Regulation Based on Virtual Resistance of A Three-Phase Four-Wire Inverter for EV Vehicle-to-Home Applications. *Fu*, *Y*, +, *TTE March* 2019 162-173

Logic design

A Network Analysis Modeling Method of the Power Electronic Converter for Hardware-in-the-Loop Application. *Liu, C., +, TTE Sept. 2019 650-658*

Μ

Machine bearings

Wide Bandgap Devices in AC Electric Drives: Opportunities and Challenges. *Morya*, A.K., +, *TTE March 2019 3-20*

Machine control

- Distributed Electric Powertrain Test Bench With Dynamic Load Controlled by Neuron PI Speed-Tracking Method. *Zhao, W., +, TTE June 2019 433-443*
- Online Stator Inductance Estimation for Permanent Magnet Motors Using PWM Excitation. *Raja*, *R.*, +, *TTE March 2019 107-117*

Machine theory

- Advanced Severity Monitoring of Interturn Short Circuit Faults in PMSMs. *Qi*, *Y*., +, *TTE June 2019 395-404*
- Influence of Armature Windings Pole Numbers on Performances of Linear Permanent-Magnet Vernier Machines. *Ma*, *A.*, +, *TTE June 2019 385-394* Vachine windings

Machine windings

- Current Injection-Based Multi-parameter Estimation for Dual Three-Phase IPMSM Considering VSI Nonlinearity. *Li*, *Z.*, +, *TTE June 2019 405-415* Development of a Kinetic Energy Recovery System Using an Active Electro-
- magnetic Slip Coupling. Ershad, N.F., +, TTE June 2019 456-464
- Optimal Pole Number for Magnetic Noise Reduction in Variable-Speed Permanent Magnet Synchronous Machines With Fractional-Slot Concentrated Windings. *Asef, P.*, +, *TTE March 2019 126-134*

Magnetic cores

Back EMF, Torque–Angle, and Core Loss Characterization of a Variable-Flux Permanent-Magnet Machine. *Desai, C.*, +, *TTE June 2019 371-384*

Hexagonal Geometry Coil for a WPT High-Power Fast Charging Application. Castillo-Zamora, I.U., +, TTE Dec. 2019 946-956 Optimal Design of a DC–DC Boost Converter in Load Transient Conditions, Including Control Strategy and Stability Constraint. *Dell'Isola*, *D.*, +, *TTE Dec.* 2019 1214-1224

Magnetic flux

- A New Wireless EV Charging System With Integrated DC–DC Magnetic Element. *Ramezani*, *A.*, +, *TTE Dec.* 2019 1112-1123
- Back EMF, Torque–Angle, and Core Loss Characterization of a Variable-Flux Permanent-Magnet Machine. *Desai, C.*, +, *TTE June 2019 371-384*
- Design and Interoperability Analysis of Quadruple Pad Structure for Electric Vehicle Wireless Charging Application. *Ahmad, A., +, TTE Dec. 2019* 934-945
- Field-Oriented Control of a Three-Phase Wireless Power Transfer System Transmitter. *Pathmanathan*, M., +, *TTE Dec.* 2019 1015-1026
- Hexagonal Geometry Coil for a WPT High-Power Fast Charging Application. Castillo-Zamora, I.U., +, TTE Dec. 2019 946-956
- Null-Coupled Magnetic Integration for EV Wireless Power Transfer System. *Zhang, Y.*, +, *TTE Dec.* 2019 968-976

Magnetic forces

Investigation on Magnetic Force of a Flux-Modulated Double-Rotor Permanent Magnet Synchronous Machine for Hybrid Electric Vehicle. Song, Z., +, TTE Dec. 2019 1383-1394

Magnetic noise

- Field-Oriented Control of a Three-Phase Wireless Power Transfer System Transmitter. *Pathmanathan, M.*, +, *TTE Dec. 2019 1015-1026*
- Optimal Pole Number for Magnetic Noise Reduction in Variable-Speed Permanent Magnet Synchronous Machines With Fractional-Slot Concentrated Windings. *Asef, P.*, +, *TTE March 2019 126-134*

Magnetic permeability

Design and Analysis of a High-Speed Dual Stator Slotted Solid-Rotor Axial-Flux Induction Motor. *Hong, C.*, +, *TTE March 2019 71-79*

Magnetic resonance

A New Wireless EV Charging System With Integrated DC–DC Magnetic Element. *Ramezani*, A., +, *TTE Dec.* 2019 1112-1123

An Approach for Selecting Compensation Capacitances in Resonance-Based EV Wireless Power Transfer Systems With Switched Capacitors. *Cota*, *K.A.*, +, *TTE Dec.* 2019 1004-1014

Null-Coupled Magnetic Integration for EV Wireless Power Transfer System. *Zhang, Y.*, +, *TTE Dec. 2019 968-976*

Magnetic shielding

Field-Oriented Control of a Three-Phase Wireless Power Transfer System Transmitter. *Pathmanathan, M.*, +, *TTE Dec. 2019 1015-1026*

Magnetic switching

A Three-Phase Single-Stage Isolated Flyback-Based PFC Converter With Leakage Energy Recovery Clamping Circuit. *Gangavarapu, S.*, +, *TTE Dec.* 2019 1155-1168

Maintenance engineering

Conceptual All-Electric Retrofit of Helicopters: Review, Technological Outlook, and a Sample Design. *Serafini*, *J.*, +, *TTE Sept. 2019* 782-794

Marine power systems

On the Optimal Design of Hybrid-Electric Power Systems for Offshore Vessels. Valera-Garcia, J.J., +, TTE March 2019 324-334

Marine propulsion

- Coordinated Control of a Hybrid-Electric-Ferry Shipboard Microgrid. Zhaoxia, X., +, TTE Sept. 2019 828-839
- Improved Fuel-Use Efficiency in Diesel–Electric Tugboats With an Asynchronous Power Generating Unit. *Kumar, B.A., +, TTE June 2019 565-578*

Marine vehicles

- Optimal Hierarchical Management of Shipboard Multibattery Energy Storage System Using a Data-Driven Degradation Model. *Fang, S.*, +, *TTE Dec. 2019 1306-1318*
- Robust Mixed μ-Synthesis Frequency Regulation in AC Mobile Power Grids. *Torabi-Farsani*, K., +, *TTE Dec.* 2019 1182-1189

Mathematical analysis

Development of a Kinetic Energy Recovery System Using an Active Electromagnetic Slip Coupling. *Ershad*, *N.F.*, +, *TTE June 2019 456-464*

Mathematical model

A Comparative Study of Control-Oriented Thermal Models for Cylindrical Li-Ion Batteries. *Hu, X., +, TTE Dec. 2019 1237-1253*

- A Method for Hot-Spot Temperature Prediction and Thermal Capacity Estimation for Traction Transformers in High-Speed Railway Based on Genetic Programming. *Zhou*, L., +, *TTE Dec.* 2019 1319-1328
- Hierarchical Bayesian Model for Probabilistic Analysis of Electric Vehicle Battery Degradation. *Jafari, M.*, +, *TTE Dec.* 2019 1254-1267
- Machine Parameter-Independent Maximum Torque Per Ampere Control for Dual Three-Phase PMSMs. *Li*, *Z*., +, *TTE Dec. 2019 1430-1440*
- Modified Gaussian Process Regression Models for Cyclic Capacity Prediction of Lithium-Ion Batteries. *Liu, K.*, +, *TTE Dec. 2019 1225-1236*
- Rating a Stationary Energy Storage System Within a Fast Electric Vehicle Charging Station Considering User Waiting Times. *Bryden, T.S.*, +, *TTE Dec.* 2019 879-889

Mechanical power transmission

Function Development With an Electric-Machine-in-the-Loop Setup: A Case Study. *Etzold*, *K.*, +, *TTE Dec.* 2019 1419-1429

Microgrids

- Robust Mixed μ-Synthesis Frequency Regulation in AC Mobile Power Grids. *Torabi-Farsani*, K., +, *TTE Dec.* 2019 1182-1189
- Uniform State-of-Charge Control Strategy for Plug-and-Play Electric Vehicle in Super-UPS. Xu, D., +, TTE Dec. 2019 1145-1154

Military vehicles

An Integrated Design and Control Optimization Framework for Hybrid Military Vehicle Using Lithium-Ion Battery and Supercapacitor as Energy Storage Devices. *Mamun*, A., +, *TTE March 2019 239-251*

Modulation

- A Review on Multiphase Drives for Automotive Traction Applications. Salem, A., +, TTE Dec. 2019 1329-1348
- Investigation of Slot–Pole Combination of Dual-Permanent-Magnet-Excited Vernier Machines by Using Air-Gap Field Modulation Theory. *Xu*, *L*, +, *TTE Dec.* 2019 1360-1369
- Investigation on Magnetic Force of a Flux-Modulated Double-Rotor Permanent Magnet Synchronous Machine for Hybrid Electric Vehicle. Song, Z., +, TTE Dec. 2019 1383-1394

Monitoring

FBG Thermal Sensing Ring Scheme for Stator Winding Condition Monitoring in PMSMs. *Mohammed*, A., +, TTE Dec. 2019 1370-1382

Monte Carlo methods

Modeling and Analysis of a Fast Charging Station and Evaluation of Service Quality for Electric Vehicles. *Ucer, E., +, TTE March 2019 215-225*

MOSFET

- Control Strategy for a Multiphase Lundell-Alternator/Active-Rectifier System in 14 V Automotive Power Systems. *Sarafianos, D.*, +, *TTE June 2019* 347-355
- Design and Experimental Verification of a High-Voltage Series-Stacked GaN eHEMT Module for Electric Vehicle Applications. *Shojaie, M.*, +, *TTE March 2019 31-47*
- The Potential of SiC Cascode JFETs in Electric Vehicle Traction Inverters. Wu, R., +, TTE Dec. 2019 1349-1359

Motor drives

Design of Power Hardware-in-the-Loop Simulations for Integrated Starter-Generator Systems. Zhu, L., +, TTE March 2019 80-92

Ν

Neural networks

PEMFC Residual Life Prediction Using Sparse Autoencoder-Based Deep Neural Network. *Liu, J., +, TTE Dec. 2019 1279-1293*

Neurocontrollers

- Distributed Electric Powertrain Test Bench With Dynamic Load Controlled by Neuron PI Speed-Tracking Method. *Zhao, W.*, +, *TTE June 2019 433-443*
- Model Predictive Control for Electrochemical Impedance Spectroscopy Measurement of Fuel Cells Based on Neural Network Optimization. *Zhang, L.*, +, *TTE June 2019 524-534*

Noise abatement

Radial Force Density Analysis of Switched Reluctance Machines: The Source of Acoustic Noise. Dorneles Callegaro, A., +, TTE March 2019 93-106

Nonlinear control systems

Supercapacitor Integrated Railway Static Power Conditioner for Regenerative Braking Energy Recycling and Power Quality Improvement of High-Speed Railway System. *Cui, G.*, +, *TTE Sept. 2019 702-714*

Notch filters

Observers

Imbalanced Load Regulation Based on Virtual Resistance of A Three-Phase Four-Wire Inverter for EV Vehicle-to-Home Applications. *Fu*, *Y*, +, *TTE March 2019 162-173*

0

- Online Stator Inductance Estimation for Permanent Magnet Motors Using PWM Excitation. *Raja*, *R.*, +, *TTE March* 2019 107-117
- Robust Open-Circuit Fault Diagnosis of Multi-Phase Floating Interleaved DC–DC Boost Converter Based on Sliding Mode Observer. *Zhuo, S., +, TTE Sept. 2019 638-649*

Optimal control

Optimal Control of Reversible Substations and Wayside Storage Devices for Voltage Stabilization and Energy Savings in Metro Railway Networks. *Kleftakis, V.A., +, TTE June 2019 515-523*

Optimization

- A Coordinated Dynamic Pricing Model for Electric Vehicle Charging Stations. *Moghaddam*, Z., +, *TTE March 2019 226-238*
- A Fast Plant-Controller Optimization Process for Mild Hybrid Vehicles. Leahey, N., +, TTE June 2019 444-455
- Analysis, Optimization, and Demonstration of a Vehicular Detection System Intended for Dynamic Wireless Charging Applications. *Azad, A.N.*, +, *TTE March* 2019 147-161
- Improved Fuel-Use Efficiency in Diesel–Electric Tugboats With an Asynchronous Power Generating Unit. *Kumar, B.A., +, TTE June 2019 565-578*
- Joint Optimization of Vehicle Battery Pack Capacity and Charging Infrastructure for Electrified Public Bus Systems. *Teichert, O.*, +, *TTE Sept.* 2019 672-682
- Optimal Control of Reversible Substations and Wayside Storage Devices for Voltage Stabilization and Energy Savings in Metro Railway Networks. *Kleftakis, V.A.*, +, *TTE June 2019 515-523*
- Optimal Design of a DC–DC Boost Converter in Load Transient Conditions, Including Control Strategy and Stability Constraint. *Dell'Isola*, D., +, *TTE Dec.* 2019 1214-1224
- Optimal Design of the Propulsion System of a Hyperloop Capsule. *Tudor*, D., +, *TTE Dec.* 2019 1406-1418
- Real-Time Optimal Energy Management Controller for Electric Vehicle Integration in Workplace Microgrid. *Lakshminarayanan, V.*, +, *TTE March* 2019 174-185

Р

Parameter estimation

Current Injection-Based Multi-parameter Estimation for Dual Three-Phase IPMSM Considering VSI Nonlinearity. *Li*, *Z*., +, *TTE June 2019 405-415* **Pareto optimization**

On the Optimal Design of Hybrid-Electric Power Systems for Offshore Vessels. Valera-Garcia, J.J., +, TTE March 2019 324-334

Particle swarm optimization

A Traction Network Chain-Circuit Model With Detailed Consideration of Integrated Grounding System in Tunnel Path. *Huang, K.*, +, *TTE June 2019* 535-551

An Integrated Design and Control Optimization Framework for Hybrid Military Vehicle Using Lithium-Ion Battery and Supercapacitor as Energy Storage Devices. *Mamun, A.*, +, *TTE March 2019 239-251*

Performance evaluation

Guest Editorial Special Issue on High-Power Fast Chargers and Wireless Charging. Lukic, S., +, TTE Dec. 2019 858-860

Permanent magnet generators

Optimal Pole Number for Magnetic Noise Reduction in Variable-Speed Permanent Magnet Synchronous Machines With Fractional-Slot Concentrated Windings. Asef, P., +, TTE March 2019 126-134

Permanent magnet machines

- A Generic Multi-Criteria Design Approach Toward High Power Density and Fault-Tolerant Low-Speed PMSM for Pod Applications. *Chasiotis, I.D.*, +, *TTE June 2019 356-370*
- Advanced Severity Monitoring of Interturn Short Circuit Faults in PMSMs. *Qi*, *Y*, +, *TTE June 2019 395-404*
- Asymmetrical Magnet Shape Optimization Based on S-C Mapping for Torque Profile Mitigation in Unidirectional Application of SPMS Machine. *Mirahki, H., +, TTE Sept. 2019 630-637*
- Influence of Armature Windings Pole Numbers on Performances of Linear Permanent-Magnet Vernier Machines. *Ma*, *A*., +, *TTE June 2019 385-394*

Permanent magnet motors

- A Generic Multi-Criteria Design Approach Toward High Power Density and Fault-Tolerant Low-Speed PMSM for Pod Applications. *Chasiotis, I.D.*, +, *TTE June 2019 356-370*
- Back EMF, Torque–Angle, and Core Loss Characterization of a Variable-Flux Permanent-Magnet Machine. *Desai, C.*, +, *TTE June 2019 371-384*
- Current Injection-Based Multi-parameter Estimation for Dual Three-Phase IPMSM Considering VSI Nonlinearity. Li, Z., +, TTE June 2019 405-415
- Electromagnetic Vibration and Noise of the Permanent-Magnet Synchronous Motors for Electric Vehicles: An Overview. *Deng, W.*, +, *TTE March* 2019 59-70
- Online Stator Inductance Estimation for Permanent Magnet Motors Using PWM Excitation. *Raja*, *R.*, +, *TTE March* 2019 107-117
- Optimization of Air-Gap Profile in Interior Permanent-Magnet Synchronous Motors for Torque Ripple Mitigation. *Liang*, J., +, *TTE March 2019 118-125*

Permanent magnets

Back EMF, Torque–Angle, and Core Loss Characterization of a Variable-Flux Permanent-Magnet Machine. *Desai*, *C.*, +, *TTE June 2019 371-384*

Petroleum

- Extreme Fast Charging of Electric Vehicles: A Technology Overview. *Tu*, *H*., +, *TTE Dec.* 2019 861-878
- Rating a Stationary Energy Storage System Within a Fast Electric Vehicle Charging Station Considering User Waiting Times. *Bryden, T.S.*, +, *TTE Dec.* 2019 879-889

Phase control

A Simple Power Estimation With Triple Phase-Shift Control for the Output Parallel DAB DC–DC Converters in Power Electronic Traction Transformer for Railway Locomotive Application. *An, F.,* +, *TTE March 2019* 299-310

Photovoltaic power systems

Stability Analysis of PV Plant-Tied MVdc Railway Electrification System. *Zhu*, *X*., +, *TTE March 2019 311-323*

PI control

Distributed Electric Powertrain Test Bench With Dynamic Load Controlled by Neuron PI Speed-Tracking Method. *Zhao, W.,* +, *TTE June 2019 433-443*

Pipes

Computationally Efficient Modeling of Electrical Machines With Cooling Jacket. *Acquaviva, A.*, +, *TTE Sept. 2019 618-629*

Planning

Yen's Algorithm-Based Charging Facility Planning Considering Congestion in Coupled Transportation and Power Systems. *Zhang, X.*, +, *TTE Dec.* 2019 1134-1144

Pneumatic systems

Conceptual All-Electric Retrofit of Helicopters: Review, Technological Outlook, and a Sample Design. *Serafini, J.*, +, *TTE Sept. 2019 782-794*

Power bipolar transistors

Improved Proportional Base Driver for SiC BJTs. Pozo, A., +, TTE March 2019 21-30

Power capacitors

- A Simplified Space Vector Pulse Width Modulation Implementation in Modular Multilevel Converters for Electric Ship Propulsion Systems. *Ronanki*, *D.*, +, *TTE March 2019 335-342*
- Imbalanced Load Regulation Based on Virtual Resistance of A Three-Phase Four-Wire Inverter for EV Vehicle-to-Home Applications. *Fu*, *Y*, +, *TTE March* 2019 162-173

Investigation of Slot–Pole Combination of Dual-Permanent-Magnet-Excited Vernier Machines by Using Air-Gap Field Modulation Theory. *Xu*, *L*., +, *TTE Dec.* 2019 1360-1369

Power converters

- A Bidirectional Soft-Switched DAB-Based Single-Stage Three-Phase AC– DC Converter for V2G Application. *Das, D., +, TTE March 2019 186-199* Analysis and Adaptive Mitigation Scheme of Low-Frequency Oscillations in
- AC Railway Traction Power Systems. *Jiang, X.*, +, *TTE Sept. 2019 715-726* Development of a Kinetic Energy Recovery System Using an Active Electro-
- magnetic Slip Coupling. Ershad, N.F., +, TTE June 2019 456-464
- Eigenvalue-Based Harmonic Instability Analysis of Electrical Railway Vehicle-Network System. *Lv*, *X.*, +, *TTE Sept. 2019* 727-744
- On the Optimal Design of Hybrid-Electric Power Systems for Offshore Vessels. Valera-Garcia, J.J., +, TTE March 2019 324-334
- Stability Analysis of Low-Frequency Oscillation in Train-Network System Using RLC Circuit Model. *Hong, Y.*, +, *TTE June 2019 502-514*

Power demand

- Extreme Fast Charging of Electric Vehicles: A Technology Overview. *Tu*, *H*., +, *TTE Dec.* 2019 861-878
- Power distribution control
 - Stability Analysis of PV Plant-Tied MVdc Railway Electrification System. *Zhu, X., +, TTE March 2019 311-323*

Power electronics

- A Network Analysis Modeling Method of the Power Electronic Converter for Hardware-in-the-Loop Application. *Liu, C.*, +, *TTE Sept. 2019 650-658*
- A Simple Power Estimation With Triple Phase-Shift Control for the Output Parallel DAB DC–DC Converters in Power Electronic Traction Transformer for Railway Locomotive Application. *An, F.*, +, *TTE March 2019* 299-310
- Development of a Kinetic Energy Recovery System Using an Active Electromagnetic Slip Coupling. Ershad, N.F., +, TTE June 2019 456-464
- Protection and Fault Management Strategy Maps for Future Electrical Propulsion Aircraft. Flynn, M., +, TTE Dec. 2019 1458-1469
- Wide Bandgap Devices in AC Electric Drives: Opportunities and Challenges. *Morya, A.K., +, TTE March 2019 3-20*

Power engineering computing

A Traction Network Chain-Circuit Model With Detailed Consideration of Integrated Grounding System in Tunnel Path. *Huang, K., +, TTE June 2019* 535-551

Power factor correction

A Bidirectional Soft-Switched DAB-Based Single-Stage Three-Phase AC– DC Converter for V2G Application. *Das*, *D.*, +, *TTE March 2019 186-199*

Power filters

Coordinated Control of a Hybrid-Electric-Ferry Shipboard Microgrid. Zhaoxia, X., +, TTE Sept. 2019 828-839

Power generation control

Coordinated Control of a Hybrid-Electric-Ferry Shipboard Microgrid. Zhaoxia, X., +, TTE Sept. 2019 828-839

Stability Analysis of PV Plant-Tied MVdc Railway Electrification System. *Zhu*, *X.*, +, *TTE March 2019 311-323*

Power generation economics

A Cost-Efficient Approach to EV Charging Station Integrated Community Microgrid: A Case Study of Indian Power Market. *Ahmad, F., +, TTE March 2019 200-214*

Power generation scheduling

Real-Time Optimal Energy Management Controller for Electric Vehicle Integration in Workplace Microgrid. *Lakshminarayanan, V.*, +, *TTE March* 2019 174-185

Technoeconomic Models for the Optimal Inclusion of Hydrogen Trains in Electricity Markets. *Sabillon, C.*, +, *TTE Sept. 2019 758-768*

Power grids

Eigenvalue-Based Harmonic Instability Analysis of Electrical Railway Vehicle-Network System. Lv, X., +, TTE Sept. 2019 727-744

- Grid Loading Due to EV Charging Profiles Based on Pseudo-Real Driving Pattern and User Behavior. *Calearo, L.*, +, *TTE Sept. 2019 683-694*
- Imbalanced Load Regulation Based on Virtual Resistance of A Three-Phase Four-Wire Inverter for EV Vehicle-to-Home Applications. *Fu*, *Y*, +, *TTE March* 2019 162-173

- Optimization of Air-Gap Profile in Interior Permanent-Magnet Synchronous Motors for Torque Ripple Mitigation. *Liang*, J., +, *TTE March 2019 118-125*
- Rating a Stationary Energy Storage System Within a Fast Electric Vehicle Charging Station Considering User Waiting Times. *Bryden, T.S., +, TTE Dec. 2019 879-889*

Power harmonic filters

Design Methodology of a Three-Phase Four-Wire EV Charger Operated at the Autonomous Mode. *Fu*, *Y*, +, *TTE Dec. 2019 1169-1181*

Power markets

- A Cost-Efficient Approach to EV Charging Station Integrated Community Microgrid: A Case Study of Indian Power Market. *Ahmad, F., +, TTE March* 2019 200-214
- Technoeconomic Models for the Optimal Inclusion of Hydrogen Trains in Electricity Markets. Sabillon, C., +, TTE Sept. 2019 758-768

Power quality

Modeling, Design, Analysis, and Control of a Nonisolated Universal On-Board Battery Charger for Electric Transportation. *Praneeth, A.V.J.S.*, +, *TTE Dec. 2019 912-924*

Power supplies

Uniform State-of-Charge Control Strategy for Plug-and-Play Electric Vehicle in Super-UPS. Xu, D., +, TTE Dec. 2019 1145-1154

Power supply quality

- Stability Analysis of PV Plant-Tied MVdc Railway Electrification System. *Zhu*, *X.*, +, *TTE March 2019 311-323*
- Supercapacitor Integrated Railway Static Power Conditioner for Regenerative Braking Energy Recycling and Power Quality Improvement of High-Speed Railway System. *Cui*, *G.*, +, *TTE Sept. 2019 702-714*

Power system economics

Joint Optimization of Vehicle Battery Pack Capacity and Charging Infrastructure for Electrified Public Bus Systems. *Teichert, O.*, +, *TTE Sept.* 2019 672-682

Power system faults

Online Prediction for Transmission Cascading Outages Induced by Ultrafast PEV Charging. *Mao*, *D.*, +, *TTE Dec.* 2019 1124-1133

Power system protection

Online Prediction for Transmission Cascading Outages Induced by Ultrafast PEV Charging. *Mao, D.*, +, *TTE Dec. 2019 1124-1133*

Power system reliability

Reliability Evaluation for Traction Power Supply System of High-Speed Railway Considering Relay Protection. *Feng, D.*, +, *TTE March 2019 285-298* **Power system stability**

Eigenvalue-Based Harmonic Instability Analysis of Electrical Railway Vehicle-Network System. Lv, X., +, TTE Sept. 2019 727-744

Supercapacitor Integrated Railway Static Power Conditioner for Regenerative Braking Energy Recycling and Power Quality Improvement of High-Speed Railway System. *Cui*, *G.*, +, *TTE Sept. 2019 702-714*

Power systems

Yen's Algorithm-Based Charging Facility Planning Considering Congestion in Coupled Transportation and Power Systems. *Zhang, X.*, +, *TTE Dec.* 2019 1134-1144

Power transformers

A Method for Hot-Spot Temperature Prediction and Thermal Capacity Estimation for Traction Transformers in High-Speed Railway Based on Genetic Programming. *Zhou*, *L.*, +, *TTE Dec.* 2019 1319-1328

A Simple Power Estimation With Triple Phase-Shift Control for the Output Parallel DAB DC–DC Converters in Power Electronic Traction Transformer for Railway Locomotive Application. *An, F.*, +, *TTE March 2019* 299-310

Vehicle-Directed Smart Charging Strategies to Mitigate the Effect of Long-Range EV Charging on Distribution Transformer Aging. *Mobarak*, *M.H.*, +, *TTE Dec.* 2019 1097-1111

Power transmission (mechanical)

A Fast Plant-Controller Optimization Process for Mild Hybrid Vehicles. Leahey, N., +, TTE June 2019 444-455

Distributed Electric Powertrain Test Bench With Dynamic Load Controlled by Neuron PI Speed-Tracking Method. *Zhao, W., +, TTE June 2019 433-443*

- Modeling and Analysis of Electric Motors: State-of-the-Art Review. *Bilgin, B., +, TTE Sept. 2019 602-617*
- Motor/Generator Applications in Electrified Vehicle Chassis—A Survey. Wang, W., +, TTE Sept. 2019 584-601

Radial Force Density Analysis of Switched Reluctance Machines: The Source of Acoustic Noise. Dorneles Callegaro, A., +, TTE March 2019 93-106

Prediction algorithms

PEMFC Residual Life Prediction Using Sparse Autoencoder-Based Deep Neural Network. *Liu, J., +, TTE Dec. 2019 1279-1293*

Predictive control

- Double-Vector Model Predictive Control for Single-Phase Five-Level Actively Clamped Converters. Yang, Y., +, TTE Dec. 2019 1202-1213
- Model Predictive Control for Electrochemical Impedance Spectroscopy Measurement of Fuel Cells Based on Neural Network Optimization. *Zhang, L.*, +, *TTE June 2019 524-534*

Predictive models

- A Method for Hot-Spot Temperature Prediction and Thermal Capacity Estimation for Traction Transformers in High-Speed Railway Based on Genetic Programming. *Zhou*, *L.*, +, *TTE Dec.* 2019 1319-1328
- Modified Gaussian Process Regression Models for Cyclic Capacity Prediction of Lithium-Ion Batteries. *Liu, K.*, +, *TTE Dec. 2019 1225-1236*
- PEMFC Residual Life Prediction Using Sparse Autoencoder-Based Deep Neural Network. *Liu, J., +, TTE Dec. 2019 1279-1293*

Pricing

A Coordinated Dynamic Pricing Model for Electric Vehicle Charging Stations. Moghaddam, Z., +, TTE March 2019 226-238

Probabilistic logic

Hierarchical Bayesian Model for Probabilistic Analysis of Electric Vehicle Battery Degradation. *Jafari, M.*, +, *TTE Dec. 2019 1254-1267*

Probability

A Fast Fault Diagnosis Method of the PEMFC System Based on Extreme Learning Machine and Dempster–Shafer Evidence Theory. *Liu*, *J.*, +, *TTE March* 2019 271-284

Profitability

Analytical Size Estimation Methodologies for Electrified Transportation Fueling Infrastructures Using Public–Domain Market Data. *El-Taweel, N.A.*, +, *TTE Sept. 2019 840-851*

Propulsion

A Generic Multi-Criteria Design Approach Toward High Power Density and Fault-Tolerant Low-Speed PMSM for Pod Applications. *Chasiotis, I.D.*, +, *TTE June 2019 356-370*

Optimal Design of the Propulsion System of a Hyperloop Capsule. *Tudor, D.*, +, *TTE Dec.* 2019 1406-1418

Proton exchange membrane fuel cells

A Fast Fault Diagnosis Method of the PEMFC System Based on Extreme Learning Machine and Dempster–Shafer Evidence Theory. *Liu*, *J.*, +, *TTE March* 2019 271-284

Public domain software

Analytical Size Estimation Methodologies for Electrified Transportation Fueling Infrastructures Using Public–Domain Market Data. *El-Taweel, N.A.*, +, *TTE Sept. 2019 840-851*

PWM inverters

Fault Detection and Localization for Limp Home Functionality of Three-Level NPC Inverters With Connected Neutral Point for Electric Vehicles. *Kersten, A., +, TTE June 2019 416-432*

Imbalanced Load Regulation Based on Virtual Resistance of A Three-Phase Four-Wire Inverter for EV Vehicle-to-Home Applications. *Fu*, *Y*, +, *TTE March* 2019 162-173

PWM power converters

A Simplified Space Vector Pulse Width Modulation Implementation in Modular Multilevel Converters for Electric Ship Propulsion Systems. *Ronanki*, D., +, *TTE March 2019 335-342*

Q

Q factor

Hexagonal Geometry Coil for a WPT High-Power Fast Charging Application. Castillo-Zamora, I.U., +, TTE Dec. 2019 946-956

Quadratic programming

Model Predictive Control for Electrochemical Impedance Spectroscopy Measurement of Fuel Cells Based on Neural Network Optimization. *Zhang, L.*, +, *TTE June 2019 524-534*

Queueing theory

A Coordinated Dynamic Pricing Model for Electric Vehicle Charging Stations. *Moghaddam*, Z., +, *TTE March 2019 226-238*

R

Radiofrequency power transmission

Analysis, Optimization, and Demonstration of a Vehicular Detection System Intended for Dynamic Wireless Charging Applications. *Azad, A.N.*, +, *TTE March* 2019 147-161

Rail transportation

A Method for Hot-Spot Temperature Prediction and Thermal Capacity Estimation for Traction Transformers in High-Speed Railway Based on Genetic Programming. *Zhou*, L., +, *TTE Dec. 2019* 1319-1328

Railway electrification

- A Simple Power Estimation With Triple Phase-Shift Control for the Output Parallel DAB DC–DC Converters in Power Electronic Traction Transformer for Railway Locomotive Application. *An, F.*, +, *TTE March 2019* 299-310
- A Traction Network Chain-Circuit Model With Detailed Consideration of Integrated Grounding System in Tunnel Path. *Huang, K.*, +, *TTE June 2019* 535-551
- Analysis and Adaptive Mitigation Scheme of Low-Frequency Oscillations in AC Railway Traction Power Systems. *Jiang, X., +, TTE Sept. 2019 715-726*
- Eigenvalue-Based Harmonic Instability Analysis of Electrical Railway Vehicle-Network System. Lv, X., +, TTE Sept. 2019 727-744
- Optimal Control of Reversible Substations and Wayside Storage Devices for Voltage Stabilization and Energy Savings in Metro Railway Networks. *Kleftakis, V.A., +, TTE June 2019 515-523*
- Stability Analysis of PV Plant-Tied MVdc Railway Electrification System. Zhu, X., +, TTE March 2019 311-323
- Supercapacitor Integrated Railway Static Power Conditioner for Regenerative Braking Energy Recycling and Power Quality Improvement of High-Speed Railway System. *Cui*, *G.*, +, *TTE Sept. 2019 702-714*
- System-Level Dynamic Energy Consumption Evaluation for High-Speed Railway. *Wang, K.*, +, *TTE Sept. 2019 745-757*

Railway rolling stock

A State Machine Control Based on Equivalent Consumption Minimization for Fuel Cell/ Supercapacitor Hybrid Tramway. *Li*, *Q*., +, *TTE June 2019* 552-564

Railways

- Analysis and Adaptive Mitigation Scheme of Low-Frequency Oscillations in AC Railway Traction Power Systems. *Jiang, X., +, TTE Sept. 2019 715-726* Effect of Crossing Power Restraint on Reflux Safety Parameters in Multitrain Subway Systems. *Du, G., +, TTE June 2019 490-501*
- Optimal Control of Reversible Substations and Wayside Storage Devices for Voltage Stabilization and Energy Savings in Metro Railway Networks. *Kleftakis, V.A.*, +, *TTE June 2019 515-523*
- Reliability Evaluation for Traction Power Supply System of High-Speed Railway Considering Relay Protection. *Feng, D.*, +, *TTE March 2019 285-298*
- Stability Analysis of Low-Frequency Oscillation in Train-Network System Using RLC Circuit Model. *Hong, Y.*, +, *TTE June 2019 502-514*
- Technoeconomic Models for the Optimal Inclusion of Hydrogen Trains in Electricity Markets. Sabillon, C., +, TTE Sept. 2019 758-768

Reactive power

Performance Comparison of Active Rectifier Control Schemes in More Electric Aircraft Applications. *Benzaquen, J.*, +, *TTE Dec. 2019 1470-1479* Real-time systems

Function Development With an Electric-Machine-in-the-Loop Setup: A Case Study. *Etzold*, K., +, *TTE Dec. 2019 1419-1429*

Uniform State-of-Charge Control Strategy for Plug-and-Play Electric Vehicle in Super-UPS. Xu, D., +, TTE Dec. 2019 1145-1154

Receivers

- An Approach for Selecting Compensation Capacitances in Resonance-Based EV Wireless Power Transfer Systems With Switched Capacitors. *Cota, K.A.*, +, *TTE Dec.* 2019 1004-1014
- Design and Interoperability Analysis of Quadruple Pad Structure for Electric Vehicle Wireless Charging Application. *Ahmad, A.*, +, *TTE Dec. 2019* 934-945
- Field-Oriented Control of a Three-Phase Wireless Power Transfer System Transmitter. *Pathmanathan, M.*, +, *TTE Dec. 2019 1015-1026*
- Loss Minimization Design of Ferrite Core in a DD-Coil-Based High-Power Wireless Charging System for Electrical Vehicle Application. *Mohammad*, *M.*, +, *TTE Dec.* 2019 957-967

Rectifiers

- A New Design Approach to Mitigating the Effect of Parasitics in Capacitive Wireless Power Transfer Systems for Electric Vehicle Charging. *Sinha*, *S*., +, *TTE Dec.* 2019 1040-1059
- Analysis and Design of Soft-Switching Active-Clamping Half-Bridge Boost Inverter for Inductive Wireless Charging Applications. *Huynh, P.S.*, +, *TTE Dec.* 2019 1027-1039
- Control Strategy for a Multiphase Lundell-Alternator/Active-Rectifier System in 14 V Automotive Power Systems. *Sarafianos, D., +, TTE June 2019* 347-355
- Modeling and Control of Three-Level Boost Rectifier Based Medium-Voltage Solid-State Transformer for DC Fast Charger Application. *Lee*, *M.*, +, *TTE Dec.* 2019 890-902

Rectifying circuits

- Control Strategy for a Multiphase Lundell-Alternator/Active-Rectifier System in 14 V Automotive Power Systems. *Sarafianos, D.*, +, *TTE June 2019* 347-355
- Investigation on the Selection and Design of Step-Up/Down 18-Pulse ATRUs for More Electric Aircrafts. *Chen, J.*, +, *TTE Sept. 2019 795-811*

Recurrent neural networks

Model Predictive Control for Electrochemical Impedance Spectroscopy Measurement of Fuel Cells Based on Neural Network Optimization. *Zhang, L.*, +, *TTE June 2019 524-534*

Regenerative braking

- Maximizing Regenerative Braking Energy Recovery of Electric Vehicles Through Dynamic Low-Speed Cutoff Point Detection. *Heydari, S., +, TTE March 2019 262-270*
- Optimal Control of Reversible Substations and Wayside Storage Devices for Voltage Stabilization and Energy Savings in Metro Railway Networks. *Kleftakis, V.A.*, +, *TTE June 2019 515-523*

Supercapacitor Integrated Railway Static Power Conditioner for Regenerative Braking Energy Recycling and Power Quality Improvement of High-Speed Railway System. *Cui*, *G.*, +, *TTE Sept. 2019 702-714*

Relay protection

Reliability Evaluation for Traction Power Supply System of High-Speed Railway Considering Relay Protection. *Feng, D.*, +, *TTE March 2019 285-298* **Reliability**

Kenability

Guest Editorial Special Issue on High-Power Fast Chargers and Wireless Charging. *Lukic, S.*, +, *TTE Dec. 2019 858-860*

Reluctance machines

Radial Force Density Analysis of Switched Reluctance Machines: The Source of Acoustic Noise. Dorneles Callegaro, A., +, TTE March 2019 93-106

Research and development

Motor/Generator Applications in Electrified Vehicle Chassis—A Survey. Wang, W., +, TTE Sept. 2019 584-601

Reservoirs

Optimal Design of the Propulsion System of a Hyperloop Capsule. *Tudor,* D., +, *TTE Dec. 2019 1406-1418*

Resins

A Novel Methodology for Macroscale, Thermal Characterization of Carbon Fiber-Reinforced Polymer for Integrated Aircraft Electrical Power Systems. *Jones, C.E.,* +, *TTE June 2019 479-489*

Resistance

- Loss Minimization Design of Ferrite Core in a DD-Coil-Based High-Power Wireless Charging System for Electrical Vehicle Application. Mohammad, M., +, TTE Dec. 2019 957-967
- Optimal Design of a DC-DC Boost Converter in Load Transient Conditions, Including Control Strategy and Stability Constraint. Dell'Isola, D., +, TTE Dec. 2019 1214-1224

Resistors

- Imbalanced Load Regulation Based on Virtual Resistance of A Three-Phase Four-Wire Inverter for EV Vehicle-to-Home Applications. Fu, Y., +, TTE March 2019 162-173
- Stability Analysis of Low-Frequency Oscillation in Train-Network System Using RLC Circuit Model. Hong, Y., +, TTE June 2019 502-514

Resonant frequency

Integration of Magnified Alternating Current in Battery Fast Chargers Based on DC-DC Converters Using Transformerless Resonant Filter Design. Soares, R., +, TTE Dec. 2019 925-933

Unified Load-Independent ZPA Analysis and Design in CC and CV Modes of Higher Order Resonant Circuits for WPT Systems. Lu, J., +, TTE Dec. 2019 977-987

RLC circuits

Stability Analysis of Low-Frequency Oscillation in Train-Network System Using RLC Circuit Model. Hong, Y., +, TTE June 2019 502-514

Unified Load-Independent ZPA Analysis and Design in CC and CV Modes of Higher Order Resonant Circuits for WPT Systems. Lu, J., +, TTE Dec. 2019 977-987

Road vehicles

- A Cognitive Advanced Driver Assistance Systems Architecture for Autonomous-Capable Electrified Vehicles. Divakarla, K.P., +, TTE March 2019 48-58
- A Cost-Efficient Approach to EV Charging Station Integrated Community Microgrid: A Case Study of Indian Power Market. Ahmad, F., +, TTE March 2019 200-214

Analysis, Optimization, and Demonstration of a Vehicular Detection System Intended for Dynamic Wireless Charging Applications. Azad, A.N., +, TTE March 2019 147-161

- Distributed Electric Powertrain Test Bench With Dynamic Load Controlled by Neuron PI Speed-Tracking Method. Zhao, W., +, TTE June 2019 433-443
- Economic Viability and Environmental Impact of In-Motion Wireless Power Transfer. Limb, B.J., +, TTE March 2019 135-146
- Maximizing Regenerative Braking Energy Recovery of Electric Vehicles Through Dynamic Low-Speed Cutoff Point Detection. Heydari, S., +, TTE March 2019 262-270
- Motor/Generator Applications in Electrified Vehicle Chassis-A Survey. Wang, W., +, TTE Sept. 2019 584-601

Roads

- A Coil Detection System for Dynamic Wireless Charging of Electric Vehicle. Patil, D., +, TTE Dec. 2019 988-1003
- Thermal Modeling and Analysis of an Alternating Short-Segmented Conductive ERS. Abrahamsson, P., +, TTE Dec. 2019 1078-1086

Rotors

- Back EMF, Torque-Angle, and Core Loss Characterization of a Variable-Flux Permanent-Magnet Machine. Desai, C., +, TTE June 2019 371-384
- Current Injection-Based Multi-parameter Estimation for Dual Three-Phase IPMSM Considering VSI Nonlinearity. Li, Z., +, TTE June 2019 405-415
- Design and Analysis of a High-Speed Dual Stator Slotted Solid-Rotor Axial-Flux Induction Motor. Hong, C., +, TTE March 2019 71-79
- Investigation of Slot-Pole Combination of Dual-Permanent-Magnet-Excited Vernier Machines by Using Air-Gap Field Modulation Theory. Xu, L., +, TTE Dec. 2019 1360-1369

Optimization of Air-Gap Profile in Interior Permanent-Magnet Synchronous Motors for Torque Ripple Mitigation. Liang, J., +, TTE March 2019 118-125

S

Safety Protection and Fault Management Strategy Maps for Future Electrical Propulsion Aircraft. Flynn, M., +, TTE Dec. 2019 1458-1469

Saturation magnetization

Machine Parameter-Independent Maximum Torque Per Ampere Control for Dual Three-Phase PMSMs. Li, Z., +, TTE Dec. 2019 1430-1440 Secondary cells

An Integrated Design and Control Optimization Framework for Hybrid Military Vehicle Using Lithium-Ion Battery and Supercapacitor as Energy Storage Devices. Mamun, A., +, TTE March 2019 239-251

An Optimized Mesh-Structured Switched-Capacitor Equalizer for Lithium-Ion Battery Strings. Shang, Y., +, TTE March 2019 252-261

Semiconductor device breakdown

Design and Experimental Verification of a High-Voltage Series-Stacked GaN eHEMT Module for Electric Vehicle Applications. Shojaie, M., +, TTE March 2019 31-47

Semiconductor device models

Design and Experimental Verification of a High-Voltage Series-Stacked GaN eHEMT Module for Electric Vehicle Applications. Shojaie, M., +, TTE March 2019 31-47

Semiconductor diodes

Control Strategy for a Multiphase Lundell-Alternator/Active-Rectifier System in 14 V Automotive Power Systems. Sarafianos, D., +, TTE June 2019 347-355

Sensitivity analysis

A Cognitive Advanced Driver Assistance Systems Architecture for Autonomous-Capable Electrified Vehicles. Divakarla, K.P., +, TTE March 2019 48-58

Sensor fusion

A Fast Fault Diagnosis Method of the PEMFC System Based on Extreme Learning Machine and Dempster-Shafer Evidence Theory. Liu, J., +, TTE March 2019 271-284

Sensorless machine control

Current Injection-Based Multi-parameter Estimation for Dual Three-Phase IPMSM Considering VSI Nonlinearity. Li, Z., +, TTE June 2019 405-415 Sensors

- A Coil Detection System for Dynamic Wireless Charging of Electric Vehicle. Patil, D., +, TTE Dec. 2019 988-1003
- FBG Thermal Sensing Ring Scheme for Stator Winding Condition Monitoring in PMSMs. Mohammed, A., +, TTE Dec. 2019 1370-1382

Shafts

Development of a Kinetic Energy Recovery System Using an Active Electromagnetic Slip Coupling. Ershad, N.F., +, TTE June 2019 456-464

Ships

- A Simplified Space Vector Pulse Width Modulation Implementation in Modular Multilevel Converters for Electric Ship Propulsion Systems. Ronanki, D., +, TTE March 2019 335-342
- All-Electric Ship-Integrated Power Systems: Dependable Design Based on Fault Tree Analysis and Dynamic Modeling. Vicenzutti, A., +, TTE Sept. 2019 812-827
- Coordinated Control of a Hybrid-Electric-Ferry Shipboard Microgrid. Zhaoxia, X., +, TTE Sept. 2019 828-839
- On the Optimal Design of Hybrid-Electric Power Systems for Offshore Vessels. Valera-Garcia, J.J., +, TTE March 2019 324-334

Short-circuit currents

Advanced Severity Monitoring of Interturn Short Circuit Faults in PMSMs. Qi, Y., +, TTE June 2019 395-404

Silicon

The Potential of SiC Cascode JFETs in Electric Vehicle Traction Inverters. Wu, R., +, TTE Dec. 2019 1349-1359

Silicon carbide

- Modeling and Control of Three-Level Boost Rectifier Based Medium-Voltage Solid-State Transformer for DC Fast Charger Application. Lee, M., +, TTE Dec. 2019 890-902
- The Potential of SiC Cascode JFETs in Electric Vehicle Traction Inverters. Wu, R., +, TTE Dec. 2019 1349-1359

Silicon compounds

- Design and Experimental Verification of a High-Voltage Series-Stacked GaN eHEMT Module for Electric Vehicle Applications. *Shojaie, M.*, +, *TTE March 2019 31-47*
- Improved Proportional Base Driver for SiC BJTs. Pozo, A., +, TTE March 2019 21-30

Sliding mode control

An Advanced Robust Noise Suppression Control of Bidirectional DC–DC Converter for Fuel Cell Electric Vehicle. *Huangfu, Y.*, +, *TTE Dec. 2019* 1268-1278

Slip (asynchronous machines)

Development of a Kinetic Energy Recovery System Using an Active Electromagnetic Slip Coupling. Ershad, N.F., +, TTE June 2019 456-464

Smart power grids

A Simple High-Performance Current Control Strategy for V2G Three-Phase Four-Leg Inverter With LCL Filter. Tan, C., +, TTE Sept. 2019 695-701

Sociology

A Method for Hot-Spot Temperature Prediction and Thermal Capacity Estimation for Traction Transformers in High-Speed Railway Based on Genetic Programming. *Zhou*, L., +, *TTE Dec.* 2019 1319-1328

Special issues and sections

Guest Editorial Special Issue on High-Power Fast Chargers and Wireless Charging. Lukic, S., +, TTE Dec. 2019 858-860

Stability

- Real-Time Energy Management Strategy for Fuel Cell Range Extender Vehicles Based on Nonlinear Control. *Zhang, Y., +, TTE Dec. 2019 1294-130*Stability Analysis of Low-Frequency Oscillation in Train-Network System Using RLC Circuit Model. *Hong, Y., +, TTE June 2019 502-514*
- Stability Analysis of PV Plant-Tied MVdc Railway Electrification System. Zhu, X., +, TTE March 2019 311-3235

Standards

- A Novel Methodology for Macroscale, Thermal Characterization of Carbon Fiber-Reinforced Polymer for Integrated Aircraft Electrical Power Systems. *Jones, C.E.*, +, *TTE June 2019 479-489*
- Extreme Fast Charging of Electric Vehicles: A Technology Overview. *Tu*, *H*., +, *TTE Dec.* 2019 861-878

Starting

Design of Power Hardware-in-the-Loop Simulations for Integrated Starter– Generator Systems. Zhu, L., +, TTE March 2019 80-92

State of charge

- Online Prediction for Transmission Cascading Outages Induced by Ultrafast PEV Charging. *Mao, D.*, +, *TTE Dec. 2019 1124-1133*
- Optimal Hierarchical Management of Shipboard Multibattery Energy Storage System Using a Data-Driven Degradation Model. *Fang, S.*, +, *TTE Dec.* 2019 1306-1318

Real-Time Energy Management Strategy for Fuel Cell Range Extender Vehicles Based on Nonlinear Control. *Zhang, Y.*, +, *TTE Dec. 2019 1294-1305* State-space methods

State-space methods

Eigenvalue-Based Harmonic Instability Analysis of Electrical Railway Vehicle-Network System. Lv, X., +, TTE Sept. 2019 727-744

Statistics

A Method for Hot-Spot Temperature Prediction and Thermal Capacity Estimation for Traction Transformers in High-Speed Railway Based on Genetic Programming. *Zhou, L.*, +, *TTE Dec. 2019 1319-1328*

Stator windings

FBG Thermal Sensing Ring Scheme for Stator Winding Condition Monitoring in PMSMs. *Mohammed*, A., +, *TTE Dec.* 2019 1370-1382

Investigation on Magnetic Force of a Flux-Modulated Double-Rotor Permanent Magnet Synchronous Machine for Hybrid Electric Vehicle. Song, Z., +, TTE Dec. 2019 1383-1394

Stators

- Computationally Efficient Modeling of Electrical Machines With Cooling Jacket. Acquaviva, A., +, TTE Sept. 2019 618-629
- Control Strategy for a Multiphase Lundell-Alternator/Active-Rectifier System in 14 V Automotive Power Systems. *Sarafianos, D.*, +, *TTE June 2019* 347-355

- Design and Analysis of a High-Speed Dual Stator Slotted Solid-Rotor Axial-Flux Induction Motor. *Hong, C.,* +, *TTE March 2019 71-79*
- Influence of Armature Windings Pole Numbers on Performances of Linear Permanent-Magnet Vernier Machines. *Ma*, *A.*, +, *TTE June 2019 385-394*
- Investigation of Slot–Pole Combination of Dual-Permanent-Magnet-Excited Vernier Machines by Using Air-Gap Field Modulation Theory. *Xu*, *L*., +, *TTE Dec.* 2019 1360-1369

Online Stator Inductance Estimation for Permanent Magnet Motors Using PWM Excitation. *Raja*, *R.*, +, *TTE March* 2019 107-117

Steady-state

- Analysis and Design of Soft-Switching Active-Clamping Half-Bridge Boost Inverter for Inductive Wireless Charging Applications. *Huynh, P.S.*, +, *TTE Dec.* 2019 1027-1039
- Optimal Design of a DC–DC Boost Converter in Load Transient Conditions, Including Control Strategy and Stability Constraint. *Dell'Isola*, D., +, *TTE Dec.* 2019 1214-1224

Steering systems

- Motor/Generator Applications in Electrified Vehicle Chassis—A Survey. Wang, W., +, TTE Sept. 2019 584-601
- Online Stator Inductance Estimation for Permanent Magnet Motors Using PWM Excitation. *Raja*, *R.*, +, *TTE March* 2019 107-117

Stochastic processes

Online Prediction for Transmission Cascading Outages Induced by Ultrafast PEV Charging. *Mao, D., +, TTE Dec. 2019 1124-1133*

Stoichiometry

A Fast Fault Diagnosis Method of the PEMFC System Based on Extreme Learning Machine and Dempster–Shafer Evidence Theory. *Liu*, *J.*, +, *TTE March* 2019 271-284

Stress

A Modified Luo Converter-Based Electric Vehicle Battery Charger With Power Quality Improvement. *Kushwaha*, *R.*, +, *TTE Dec. 2019 1087-1096* Bidirectional Three-Level Cascaded Converter With Deadbeat Control for HESS in Solar-Assisted Electric Vehicles. *Wang*, *B.*, +, *TTE Dec. 2019 1190-1201*

Substation protection

Reliability Evaluation for Traction Power Supply System of High-Speed Railway Considering Relay Protection. *Feng, D.*, +, *TTE March 2019 285-*298

Substations

- Effect of Crossing Power Restraint on Reflux Safety Parameters in Multitrain Subway Systems. Du, G., +, TTE June 2019 490-501
- Optimal Control of Reversible Substations and Wayside Storage Devices for Voltage Stabilization and Energy Savings in Metro Railway Networks. *Kleftakis, V.A., +, TTE June 2019 515-523*
- Reliability Evaluation for Traction Power Supply System of High-Speed Railway Considering Relay Protection. *Feng, D., +, TTE March 2019 285-298*
- Stability Analysis of PV Plant-Tied MVdc Railway Electrification System. Zhu, X., +, TTE March 2019 311-323

Supercapacitors

- A State Machine Control Based on Equivalent Consumption Minimization for Fuel Cell/ Supercapacitor Hybrid Tramway. *Li*, *Q*., +, *TTE June 2019* 552-564
- An Integrated Design and Control Optimization Framework for Hybrid Military Vehicle Using Lithium-Ion Battery and Supercapacitor as Energy Storage Devices. *Mamun, A.*, +, *TTE March 2019 239-251*
- Bidirectional Three-Level Cascaded Converter With Deadbeat Control for HESS in Solar-Assisted Electric Vehicles. Wang, B., +, TTE Dec. 2019 1190-1201
- Supercapacitor Integrated Railway Static Power Conditioner for Regenerative Braking Energy Recycling and Power Quality Improvement of High-Speed Railway System. *Cui*, G., +, *TTE Sept. 2019* 702-714

Surface impedance

Design and Analysis of a High-Speed Dual Stator Slotted Solid-Rotor Axial-Flux Induction Motor. *Hong, C.*, +, *TTE March 2019 71-79*

Suspensions (mechanical components)

Motor/Generator Applications in Electrified Vehicle Chassis—A Survey. Wang, W., +, TTE Sept. 2019 584-601

Switched capacitor networks

- An Optimized Mesh-Structured Switched-Capacitor Equalizer for Lithium-Ion Battery Strings. *Shang*, *Y*., +, *TTE March 2019 252-261*
- Switches
 - A Modified Luo Converter-Based Electric Vehicle Battery Charger With Power Quality Improvement. *Kushwaha*, R., +, *TTE Dec. 2019 1087-1096*
 - A Three-Phase Single-Stage Isolated Flyback-Based PFC Converter With Leakage Energy Recovery Clamping Circuit. *Gangavarapu, S.*, +, *TTE Dec.* 2019 1155-1168
 - An Advanced Robust Noise Suppression Control of Bidirectional DC–DC Converter for Fuel Cell Electric Vehicle. *Huangfu, Y.*, +, *TTE Dec. 2019* 1268-1278
 - An Approach for Selecting Compensation Capacitances in Resonance-Based EV Wireless Power Transfer Systems With Switched Capacitors. *Cota, K.A.*, +, *TTE Dec.* 2019 1004-1014
 - Analysis and Design of Soft-Switching Active-Clamping Half-Bridge Boost Inverter for Inductive Wireless Charging Applications. *Huynh, P.S.*, +, *TTE Dec.* 2019 1027-1039
 - Bidirectional Three-Level Cascaded Converter With Deadbeat Control for HESS in Solar-Assisted Electric Vehicles. Wang, B., +, TTE Dec. 2019 1190-1201
 - Double-Vector Model Predictive Control for Single-Phase Five-Level Actively Clamped Converters. Yang, Y., +, TTE Dec. 2019 1202-1213
 - Integration of Magnified Alternating Current in Battery Fast Chargers Based on DC–DC Converters Using Transformerless Resonant Filter Design. *Soares, R.*, +, *TTE Dec. 2019 925-933*
 - Modeling, Design, Analysis, and Control of a Nonisolated Universal On-Board Battery Charger for Electric Transportation. *Praneeth, A.V.J.S.*, +, *TTE Dec. 2019 912-924*
 - The Potential of SiC Cascode JFETs in Electric Vehicle Traction Inverters. *Wu*, *R.*, +, *TTE Dec. 2019 1349-1359*

Switching converters

- A Bidirectional Soft-Switched DAB-Based Single-Stage Three-Phase AC– DC Converter for V2G Application. *Das, D., +, TTE March 2019 186-199*
- A Simplified Space Vector Pulse Width Modulation Implementation in Modular Multilevel Converters for Electric Ship Propulsion Systems. *Ronanki*, *D.*, +, *TTE March 2019 335-342*
- Design and Experimental Verification of a High-Voltage Series-Stacked GaN eHEMT Module for Electric Vehicle Applications. *Shojaie, M.*, +, *TTE March 2019 31-47*
- Fault Detection and Localization for Limp Home Functionality of Three-Level NPC Inverters With Connected Neutral Point for Electric Vehicles. *Kersten, A., +, TTE June 2019 416-432*
- Improved Proportional Base Driver for SiC BJTs. Pozo, A., +, TTE March 2019 21-30
- Robust Open-Circuit Fault Diagnosis of Multi-Phase Floating Interleaved DC–DC Boost Converter Based on Sliding Mode Observer. *Zhuo, S.*, +, *TTE Sept. 2019 638-649*
- Wide Bandgap Devices in AC Electric Drives: Opportunities and Challenges. Morya, A.K., +, TTE March 2019 3-20

Switching frequency

- Double-Vector Model Predictive Control for Single-Phase Five-Level Actively Clamped Converters. *Yang, Y., +, TTE Dec. 2019 1202-1213*
- Optimal Design of a DC–DC Boost Converter in Load Transient Conditions, Including Control Strategy and Stability Constraint. *Dell'Isola*, *D.*, +, *TTE Dec.* 2019 1214-1224

Synchronous generators

- Improved Fuel-Use Efficiency in Diesel–Electric Tugboats With an Asynchronous Power Generating Unit. *Kumar, B.A., +, TTE June 2019 565-578*
- Optimal Pole Number for Magnetic Noise Reduction in Variable-Speed Permanent Magnet Synchronous Machines With Fractional-Slot Concentrated Windings. *Asef, P.*, +, *TTE March 2019 126-134*

Synchronous machines

- Advanced Severity Monitoring of Interturn Short Circuit Faults in PMSMs. *Qi*, *Y*, +, *TTE June 2019 395-404*
- Asymmetrical Magnet Shape Optimization Based on S-C Mapping for Torque Profile Mitigation in Unidirectional Application of SPMS Machine. *Mirahki, H., +, TTE Sept. 2019 630-637*

Synchronous motors

- A Drivetrain Integrated DC Fast Charger With Buck and Boost Functionality and Simultaneous Drive/Charge Capability. *Viana, C.*, +, *TTE Dec. 2019* 903-911
- A Generic Multi-Criteria Design Approach Toward High Power Density and Fault-Tolerant Low-Speed PMSM for Pod Applications. *Chasiotis, I.D.*, +, *TTE June 2019 356-370*
- Current Injection-Based Multi-parameter Estimation for Dual Three-Phase IPMSM Considering VSI Nonlinearity. *Li*, *Z*., +, *TTE June 2019 405-415*
- Electromagnetic Vibration and Noise of the Permanent-Magnet Synchronous Motors for Electric Vehicles: An Overview. *Deng, W.*, +, *TTE March* 2019 59-70
- Optimization of Air-Gap Profile in Interior Permanent-Magnet Synchronous Motors for Torque Ripple Mitigation. *Liang, J.*, +, *TTE March 2019 118-125*

Systematics

Fundamental Evaluation of Data Clustering Approaches for Driving Cycle-Based Machine Design Optimization. *Salameh, M.*, +, *TTE Dec. 2019* 1395-1405

Т

Temperature control

Machine Parameter-Independent Maximum Torque Per Ampere Control for Dual Three-Phase PMSMs. *Li*, *Z*., +, *TTE Dec. 2019 1430-1440*

Temperature measurement

- A Method for Hot-Spot Temperature Prediction and Thermal Capacity Estimation for Traction Transformers in High-Speed Railway Based on Genetic Programming. *Zhou*, *L.*, +, *TTE Dec. 2019 1319-1328*
- Hierarchical Bayesian Model for Probabilistic Analysis of Electric Vehicle Battery Degradation. *Jafari, M.*, +, *TTE Dec. 2019 1254-1267*
- The Potential of SiC Cascode JFETs in Electric Vehicle Traction Inverters. *Wu*, *R.*, +, *TTE Dec. 2019 1349-1359*

Time-domain analysis

Eigenvalue-Based Harmonic Instability Analysis of Electrical Railway Vehicle-Network System. Lv, X., +, TTE Sept. 2019 727-744

Topology

- A Drivetrain Integrated DC Fast Charger With Buck and Boost Functionality and Simultaneous Drive/Charge Capability. *Viana, C.*, +, *TTE Dec. 2019* 903-911
- A New Wireless EV Charging System With Integrated DC–DC Magnetic Element. *Ramezani*, A., +, *TTE Dec.* 2019 1112-1123
- A Review on Multiphase Drives for Automotive Traction Applications. Salem, A., +, TTE Dec. 2019 1329-1348
- Modeling and Control of Three-Level Boost Rectifier Based Medium-Voltage Solid-State Transformer for DC Fast Charger Application. *Lee, M.*, +, *TTE Dec. 2019 890-902*
- Modeling, Design, Analysis, and Control of a Nonisolated Universal On-Board Battery Charger for Electric Transportation. *Praneeth, A.V.J.S.*, +, *TTE Dec. 2019 912-924*
- Performance Comparison of Active Rectifier Control Schemes in More Electric Aircraft Applications. *Benzaquen, J.*, +, *TTE Dec. 2019* 1470-1479
- Unified Load-Independent ZPA Analysis and Design in CC and CV Modes of Higher Order Resonant Circuits for WPT Systems. *Lu*, *J.*, +, *TTE Dec*. 2019 977-987

Torque

- A Review on Multiphase Drives for Automotive Traction Applications. Salem, A., +, TTE Dec. 2019 1329-1348
- Asymmetrical Magnet Shape Optimization Based on S-C Mapping for Torque Profile Mitigation in Unidirectional Application of SPMS Machine. *Mirahki, H., +, TTE Sept. 2019 630-637*
- Development of a Kinetic Energy Recovery System Using an Active Electromagnetic Slip Coupling. Ershad, N.F., +, TTE June 2019 456-464
- Electromagnetic Vibration and Noise of the Permanent-Magnet Synchronous Motors for Electric Vehicles: An Overview. *Deng, W.*, +, *TTE March* 2019 59-70
- Fundamental Evaluation of Data Clustering Approaches for Driving Cycle-Based Machine Design Optimization. *Salameh, M.*, +, *TTE Dec. 2019* 1395-1405

1507

- Investigation of Slot–Pole Combination of Dual-Permanent-Magnet-Excited Vernier Machines by Using Air-Gap Field Modulation Theory. Xu, L., +, TTE Dec. 2019 1360-1369
- Machine Parameter-Independent Maximum Torque Per Ampere Control for Dual Three-Phase PMSMs. *Li*, *Z.*, +, *TTE Dec. 2019 1430-1440*
- Optimal Pole Number for Magnetic Noise Reduction in Variable-Speed Permanent Magnet Synchronous Machines With Fractional-Slot Concentrated Windings. Asef, P., +, TTE March 2019 126-134
- Optimization of Air-Gap Profile in Interior Permanent-Magnet Synchronous Motors for Torque Ripple Mitigation. *Liang*, J., +, *TTE March 2019 118-125*

Torque measurement

Back EMF, Torque–Angle, and Core Loss Characterization of a Variable-Flux Permanent-Magnet Machine. *Desai, C.*, +, *TTE June 2019 371-384*

Traction

- A Simple Power Estimation With Triple Phase-Shift Control for the Output Parallel DAB DC–DC Converters in Power Electronic Traction Transformer for Railway Locomotive Application. *An, F.*, +, *TTE March 2019* 299-310
- Analysis and Adaptive Mitigation Scheme of Low-Frequency Oscillations in AC Railway Traction Power Systems. Jiang, X., +, TTE Sept. 2019 715-726
- Battery Loss and Stress Mitigation in a Cascaded H-Bridge Multilevel Inverter for Vehicle Traction Applications by Filter Capacitors. *Kersten*, *A.*, +, *TTE Sept. 2019 659-671*
- Effect of Crossing Power Restraint on Reflux Safety Parameters in Multitrain Subway Systems. Du, G., +, TTE June 2019 490-501
- Reliability Evaluation for Traction Power Supply System of High-Speed Railway Considering Relay Protection. *Feng, D.*, +, *TTE March 2019 285-298*

Traction motor drives

System-Level Dynamic Energy Consumption Evaluation for High-Speed Railway. *Wang, K.*, +, *TTE Sept. 2019* 745-757

Traction motors

A Drivetrain Integrated DC Fast Charger With Buck and Boost Functionality and Simultaneous Drive/Charge Capability. *Viana, C.*, +, *TTE Dec. 2019* 903-911

Traction power supplies

- A Traction Network Chain-Circuit Model With Detailed Consideration of Integrated Grounding System in Tunnel Path. *Huang, K.*, +, *TTE June 2019* 535-551
- Analysis and Adaptive Mitigation Scheme of Low-Frequency Oscillations in AC Railway Traction Power Systems. Jiang, X., +, TTE Sept. 2019 715-726
- Reliability Evaluation for Traction Power Supply System of High-Speed Railway Considering Relay Protection. Feng, D., +, TTE March 2019 285-298
- Stability Analysis of PV Plant-Tied MVdc Railway Electrification System. Zhu, X., +, TTE March 2019 311-323
- Supercapacitor Integrated Railway Static Power Conditioner for Regenerative Braking Energy Recycling and Power Quality Improvement of High-Speed Railway System. *Cui*, *G.*, +, *TTE Sept. 2019 702-714*
- System-Level Dynamic Energy Consumption Evaluation for High-Speed Railway. *Wang, K.*, +, *TTE Sept. 2019* 745-757

Trajectory

Optimal Design of the Propulsion System of a Hyperloop Capsule. *Tudor*, D., +, *TTE Dec. 2019 1406-1418*

Transient analysis

Optimal Design of a DC–DC Boost Converter in Load Transient Conditions, Including Control Strategy and Stability Constraint. *Dell'Isola*, *D.*, +, *TTE Dec.* 2019 1214-1224

Transmitters

- A Coil Detection System for Dynamic Wireless Charging of Electric Vehicle. Patil, D., +, TTE Dec. 2019 988-1003
- Field-Oriented Control of a Three-Phase Wireless Power Transfer System Transmitter. *Pathmanathan, M.*, +, *TTE Dec. 2019 1015-1026*
- Loss Minimization Design of Ferrite Core in a DD-Coil-Based High-Power Wireless Charging System for Electrical Vehicle Application. *Mohammad*, *M.*, +, *TTE Dec.* 2019 957-967

Transportation

- An Advanced Robust Noise Suppression Control of Bidirectional DC–DC Converter for Fuel Cell Electric Vehicle. *Huangfu, Y.*, +, *TTE Dec. 2019* 1268-1278
- Design and Interoperability Analysis of Quadruple Pad Structure for Electric Vehicle Wireless Charging Application. *Ahmad, A.*, +, *TTE Dec. 2019* 934-945
- Double-Vector Model Predictive Control for Single-Phase Five-Level Actively Clamped Converters. Yang, Y., +, TTE Dec. 2019 1202-1213
- Evolution of Hybrid Inductive and Capacitive AC Links for Wireless EV Charging—A Comparative Overview. *Vincent, D.*, +, *TTE Dec. 2019 1060-1077*
- Hexagonal Geometry Coil for a WPT High-Power Fast Charging Application. Castillo-Zamora, I.U., +, TTE Dec. 2019 946-956
- Modeling and Control of Three-Level Boost Rectifier Based Medium-Voltage Solid-State Transformer for DC Fast Charger Application. *Lee*, *M.*, +, *TTE Dec.* 2019 890-902
- Modeling, Design, Analysis, and Control of a Nonisolated Universal On-Board Battery Charger for Electric Transportation. *Praneeth, A.V.J.S.*, +, *TTE Dec.* 2019 912-924
- Null-Coupled Magnetic Integration for EV Wireless Power Transfer System. Zhang, Y., +, TTE Dec. 2019 968-976
- Optimal Design of the Propulsion System of a Hyperloop Capsule. *Tudor*, *D.*, +, *TTE Dec. 2019 1406-1418*
- Uniform State-of-Charge Control Strategy for Plug-and-Play Electric Vehicle in Super-UPS. Xu, D., +, TTE Dec. 2019 1145-1154

Tunnels

Effect of Crossing Power Restraint on Reflux Safety Parameters in Multitrain Subway Systems. *Du, G.*, +, *TTE June 2019 490-501*

U

Uncertainty

Robust Mixed μ -Synthesis Frequency Regulation in AC Mobile Power Grids. *Torabi-Farsani, K.*, +, *TTE Dec.* 2019 1182-1189

Uncertainty handling

A Fast Fault Diagnosis Method of the PEMFC System Based on Extreme Learning Machine and Dempster–Shafer Evidence Theory. *Liu*, *J.*, +, *TTE March* 2019 271-284

Uninterruptible power systems

Uniform State-of-Charge Control Strategy for Plug-and-Play Electric Vehicle in Super-UPS. *Xu*, *D.*, +, *TTE Dec.* 2019 1145-1154

US Department of Defense

Modified Gaussian Process Regression Models for Cyclic Capacity Prediction of Lithium-Ion Batteries. *Liu, K.*, +, *TTE Dec. 2019 1225-1236*

Optimal Hierarchical Management of Shipboard Multibattery Energy Storage System Using a Data-Driven Degradation Model. *Fang, S.*, +, *TTE Dec. 2019 1306-1318*

V

Variable structure systems

Robust Open-Circuit Fault Diagnosis of Multi-Phase Floating Interleaved DC–DC Boost Converter Based on Sliding Mode Observer. *Zhuo, S.*, +, *TTE Sept. 2019 638-649*

Vehicle dynamics

- A Cognitive Advanced Driver Assistance Systems Architecture for Autonomous-Capable Electrified Vehicles. *Divakarla, K.P.*, +, *TTE March 2019* 48-58
- A Coil Detection System for Dynamic Wireless Charging of Electric Vehicle. Patil, D., +, TTE Dec. 2019 988-1003
- Distributed Electric Powertrain Test Bench With Dynamic Load Controlled by Neuron PI Speed-Tracking Method. *Zhao, W., +, TTE June 2019 433-443*
- Function Development With an Electric-Machine-in-the-Loop Setup: A Case Study. *Etzold*, *K.*, +, *TTE Dec.* 2019 1419-1429
- Maximizing Regenerative Braking Energy Recovery of Electric Vehicles Through Dynamic Low-Speed Cutoff Point Detection. *Heydari, S., +, TTE March 2019 262-270*

- Modeling and Analysis of Electric Motors: State-of-the-Art Review. *Bilgin*, *B.*, +, *TTE Sept. 2019 602-617*
- Motor/Generator Applications in Electrified Vehicle Chassis—A Survey. Wang, W., +, TTE Sept. 2019 584-601
- Thermal Modeling and Analysis of an Alternating Short-Segmented Conductive ERS. *Abrahamsson, P., +, TTE Dec. 2019 1078-1086*

Vehicle-to-grid

Real-Time Optimal Energy Management Controller for Electric Vehicle Integration in Workplace Microgrid. *Lakshminarayanan, V.*, +, *TTE March* 2019 174-185

Vehicles

- Function Development With an Electric-Machine-in-the-Loop Setup: A Case Study. *Etzold, K.*, +, *TTE Dec. 2019* 1419-1429
- Yen's Algorithm-Based Charging Facility Planning Considering Congestion in Coupled Transportation and Power Systems. *Zhang, X.*, +, *TTE Dec.* 2019 1134-1144

Velocity control

Distributed Electric Powertrain Test Bench With Dynamic Load Controlled by Neuron PI Speed-Tracking Method. *Zhao, W., +, TTE June 2019 433-443*

Vibrations

- Electromagnetic Vibration and Noise of the Permanent-Magnet Synchronous Motors for Electric Vehicles: An Overview. *Deng, W.*, +, *TTE March* 2019 59-70
- Modeling and Analysis of Electric Motors: State-of-the-Art Review. *Bilgin, B., +, TTE Sept. 2019 602-617*
- Optimal Pole Number for Magnetic Noise Reduction in Variable-Speed Permanent Magnet Synchronous Machines With Fractional-Slot Concentrated Windings. Asef, P., +, TTE March 2019 126-134
- Optimization of Air-Gap Profile in Interior Permanent-Magnet Synchronous Motors for Torque Ripple Mitigation. *Liang*, J., +, *TTE March* 2019 118-125
- Radial Force Density Analysis of Switched Reluctance Machines: The Source of Acoustic Noise. Dorneles Callegaro, A., +, TTE March 2019 93-106

Voltage control

- A Modified Luo Converter-Based Electric Vehicle Battery Charger With Power Quality Improvement. *Kushwaha*, R., +, *TTE Dec.* 2019 1087-1096
- A Simplified Space Vector Pulse Width Modulation Implementation in Modular Multilevel Converters for Electric Ship Propulsion Systems. *Ronanki*, *D.*, +, *TTE March 2019 335-342*
- Comments on "Analysis, Design, and Optimization of *LC* /S Compensation Topology With Excellent Load-Independent Voltage Output for Inductive Power Transfer". *Kuperman, A., TTE Dec. 2019* 1480-1483
- Coordinated Control of a Hybrid-Electric-Ferry Shipboard Microgrid. Zhaoxia, X., +, TTE Sept. 2019 828-839
- Design Methodology of a Three-Phase Four-Wire EV Charger Operated at the Autonomous Mode. *Fu*, *Y*., +, *TTE Dec.* 2019 1169-1181
- Double-Vector Model Predictive Control for Single-Phase Five-Level Actively Clamped Converters. Yang, Y., +, TTE Dec. 2019 1202-1213
- Imbalanced Load Regulation Based on Virtual Resistance of A Three-Phase Four-Wire Inverter for EV Vehicle-to-Home Applications. *Fu*, *Y*, +, *TTE March* 2019 162-173
- Machine Parameter-Independent Maximum Torque Per Ampere Control for Dual Three-Phase PMSMs. *Li*, *Z*., +, *TTE Dec. 2019 1430-1440*
- Modeling and Control of Three-Level Boost Rectifier Based Medium-Voltage Solid-State Transformer for DC Fast Charger Application. *Lee*, *M.*, +, *TTE Dec.* 2019 890-902
- Performance Comparison of Active Rectifier Control Schemes in More Electric Aircraft Applications. *Benzaquen, J.*, +, *TTE Dec. 2019 1470-1479*
- Stability Analysis of Low-Frequency Oscillation in Train-Network System Using RLC Circuit Model. *Hong*, Y., +, *TTE June 2019 502-514*
- Uniform State-of-Charge Control Strategy for Plug-and-Play Electric Vehicle in Super-UPS. Xu, D., +, TTE Dec. 2019 1145-1154

Voltage-source converters

A Simplified Space Vector Pulse Width Modulation Implementation in Modular Multilevel Converters for Electric Ship Propulsion Systems. *Ronanki*, *D.*, +, *TTE March 2019 335-342*

W

Wheels

Function Development With an Electric-Machine-in-the-Loop Setup: A Case Study. *Etzold*, K., +, TTE Dec. 2019 1419-1429

Wide band gap semiconductors

- Design and Experimental Verification of a High-Voltage Series-Stacked GaN eHEMT Module for Electric Vehicle Applications. *Shojaie*, *M.*, +, *TTE March 2019 31-47*
- Improved Proportional Base Driver for SiC BJTs. Pozo, A., +, TTE March 2019 21-30
- Wide Bandgap Devices in AC Electric Drives: Opportunities and Challenges. *Morya, A.K.*, +, *TTE March 2019 3-20*

Wind turbines

Optimal Pole Number for Magnetic Noise Reduction in Variable-Speed Permanent Magnet Synchronous Machines With Fractional-Slot Concentrated Windings. Asef, P., +, TTE March 2019 126-134

Windings

- A Review on Multiphase Drives for Automotive Traction Applications. Salem, A., +, TTE Dec. 2019 1329-1348
- A Three-Phase Single-Stage Isolated Flyback-Based PFC Converter With Leakage Energy Recovery Clamping Circuit. *Gangavarapu, S.*, +, *TTE Dec.* 2019 1155-1168
- FBG Thermal Sensing Ring Scheme for Stator Winding Condition Monitoring in PMSMs. *Mohammed*, A., +, *TTE Dec.* 2019 1370-1382

Wireless communication

A New Wireless EV Charging System With Integrated DC–DC Magnetic Element. *Ramezani*, A., +, *TTE Dec.* 2019 1112-1123

Wireless power transfer

- A Coil Detection System for Dynamic Wireless Charging of Electric Vehicle. *Patil*, D., +, *TTE Dec.* 2019 988-1003
- Comments on "Analysis, Design, and Optimization of *LC* /S Compensation Topology With Excellent Load-Independent Voltage Output for Inductive Power Transfer". *Kuperman, A., TTE Dec. 2019* 1480-1483
- Design and Interoperability Analysis of Quadruple Pad Structure for Electric Vehicle Wireless Charging Application. *Ahmad, A.*, +, *TTE Dec. 2019* 934-945
- Field-Oriented Control of a Three-Phase Wireless Power Transfer System Transmitter. *Pathmanathan*, M., +, *TTE Dec.* 2019 1015-1026

Z

Zero current switching

A Bidirectional Soft-Switched DAB-Based Single-Stage Three-Phase AC– DC Converter for V2G Application. *Das*, *D.*, +, *TTE March 2019 186-199*

Zero voltage switching

- Analysis and Design of Soft-Switching Active-Clamping Half-Bridge Boost Inverter for Inductive Wireless Charging Applications. *Huynh, P.S., +, TTE Dec. 2019 1027-1039*
- Comments on "Analysis, Design, and Optimization of *LC* /S Compensation Topology With Excellent Load-Independent Voltage Output for Inductive Power Transfer". *Kuperman, A., TTE Dec. 2019* 1480-1483