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## Empleo

Facultad Ingeniería  
Universidad Andrés Bello  
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## Resultado de la investigación

### **Predictive Control Based DC Microgrid Stabilization with the Dual Active Bridge Converter**

Chen, L., Gao, F., Shen, K., Wang, Z., Tarisciotti, L., Wheeler, P. & Dragicevic, T., oct 2020, En : IEEE Transactions on Industrial Electronics. 67, 10, p. 8944-8956 13 p., 8960628.

### **Finite control set model predictive control of parallel three-phase active rectifiers**

Tarisciotti, L., Burgos, C., Garcia, C. & Rodriguez, J., feb 2020, *Proceedings - 2020 IEEE International Conference on Industrial Technology, ICIT 2020*. Institute of Electrical and Electronics Engineers Inc., p. 1071-1076 6 p. 9067141. (Proceedings of the IEEE International Conference on Industrial Technology; vol. 2020-February).

### **Improved modular multilevel converter topology for low voltage variable speed drives**

Tarisciotti, L., Costabeber, A., Diaz, M. & Cardenas, R., feb 2020, *Proceedings - 2020 IEEE International Conference on Industrial Technology, ICIT 2020*. Institute of Electrical and Electronics Engineers Inc., p. 837-842 6 p. 9067144. (Proceedings of the IEEE International Conference on Industrial Technology; vol. 2020-February).

### **Model Predictive Control for Dual-Active-Bridge Converters Supplying Pulsed Power Loads in Naval DC Micro-Grids**

Chen, L., Shao, S., Xiao, Q., Tarisciotti, L., Wheeler, P. W. & Dragičević, T., feb 2020, En : IEEE Transactions on Power Electronics. 35, 2, p. 1957-1966 10 p., 8717683.

### **Moving discretised control set - Model predictive control for dual-active-bridge**

Tarisciotti, L., Linglin, C., Wheeler, P. & Zanchetta, P., feb 2020, *Proceedings - 2020 IEEE International Conference on Industrial Technology, ICIT 2020*. Institute of Electrical and Electronics Engineers Inc., p. 1094-1099 6 p. 9067129. (Proceedings of the IEEE International Conference on Industrial Technology; vol. 2020-February).

### **Advanced modulations for a current-fed isolated DC-DC converter with wide voltage operating ranges**

Chen, L., Tarisciotti, L., Costabeber, A., Gao, F., Wheeler, P. & Zanchetta, P., dic 2019, En : IEEE Journal of Emerging and Selected Topics in Power Electronics. 7, 4

### **Phase-Shift Modulation for a Current-Fed Isolated DC-DC Converter in More Electric Aircrafts**

Chen, L., Tarisciotti, L., Costabeber, A., Guan, Q., Wheeler, P. & Zanchetta, P., 1 sep 2019, En : IEEE Transactions on Power Electronics. 34, 9, p. 8528-8543 16 p., 8590782.

### **A multilevel chain-link topology for low voltage, variable frequency applications**

Tarisciotti, L., Costabeber, A., Tardelli, F. & Cardenas, R., sep 2019, *2019 IEEE Energy Conversion Congress and Exposition, ECCE 2019*. Institute of Electrical and Electronics Engineers Inc., p. 5914-5921 8 p. 8912755. (2019 IEEE Energy Conversion Congress and Exposition, ECCE 2019).

### **Current-Fed Isolated DC/DC Converter for Future Aerospace Microgrids**

Tarisciotti, L., Costabeber, A., Chen, L., Walker, A. & Galea, M., 1 may 2019, En : IEEE Transactions on Industry Applications. 55, 3, p. 2823-2832 10 p., 8590688.

**Model Predictive Control for Isolated DC/DC Power Converters with Transformer Peak Current Shaving**

Chen, L., Tarisciotti, L., Costabeber, A., Wheeler, P. & Zanchetta, P., 3 dic 2018, *2018 IEEE Energy Conversion Congress and Exposition, ECCE 2018*. Institute of Electrical and Electronics Engineers Inc., p. 5954-5960 7 p. 8558301. (2018 IEEE Energy Conversion Congress and Exposition, ECCE 2018).

**Predictive control strategies operating at fixed switching frequency for input filter resonance mitigation in an indirect matrix converter**

Rivera, M., Toledo, S., Tarisciotti, L., Wheeler, P. W. & Dan, H., 1 sep 2018, En : *IEEE Latin America Transactions*. 16, 9, p. 2370-2376 7 p., 8789557.

**Advanced modulation for the Active-Bridge-Active-Clamp (ABAC) converter**

Chen, L., Tarisciotti, L., Costabeber, A., Zanchetta, P. & Wheeler, P., 6 abr 2018, *Proceedings - 2017 IEEE Southern Power Electronics Conference, SPEC 2017*. Institute of Electrical and Electronics Engineers Inc., p. 1-6 6 p. (Proceedings - 2017 IEEE Southern Power Electronics Conference, SPEC 2017; vol. 2018-January).

**Indirect model predictive control with imposed sinusoidal source currents for a Direct Matrix Converter Working at fixed switching frequency**

Rivera, M., Tarisciotti, L. & Wheeler, P., 6 abr 2018, *Proceedings - 2017 IEEE Southern Power Electronics Conference, SPEC 2017*. Institute of Electrical and Electronics Engineers Inc., p. 1-6 6 p. (Proceedings - 2017 IEEE Southern Power Electronics Conference, SPEC 2017; vol. 2018-January).

**Parameters mismatch analysis for the Active-Bridge-Active-Clamp (ABAC) converter**

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**Predictive control strategies operating at fixed switching frequency for input filter resonance mitigation in an indirect matrix converter**

Rivera, M., Amirbande, M., Vahedi, A., Tarisciotti, L. & Wheeler, P., 6 abr 2018, *Proceedings - 2017 IEEE Southern Power Electronics Conference, SPEC 2017*. Institute of Electrical and Electronics Engineers Inc., p. 1-6 6 p. (Proceedings - 2017 IEEE Southern Power Electronics Conference, SPEC 2017; vol. 2018-January).

**Fixed frequency model predictive control with active damping for an indirect matrix converter**

Rivera, M., Amirbande, M., Vahedi, A., Tarisciotti, L. & Wheeler, P., 19 dic 2017, *2017 CHILEAN Conference on Electrical, Electronics Engineering, Information and Communication Technologies, CHILECON 2017 - Proceedings*. Institute of Electrical and Electronics Engineers Inc., p. 1-6 6 p. (2017 CHILEAN Conference on Electrical, Electronics Engineering, Information and Communication Technologies, CHILECON 2017 - Proceedings; vol. 2017-January).

**Indirect model predictive control strategy with active damping implementation for a direct matrix converter operating at fixed switching frequency**

Rivera, M., Dan, H., Tarisciotti, L. & Wheeler, P., 19 dic 2017, *2017 CHILEAN Conference on Electrical, Electronics Engineering, Information and Communication Technologies, CHILECON 2017 - Proceedings*. Institute of Electrical and Electronics Engineers Inc., p. 1-6 6 p. (2017 CHILEAN Conference on Electrical, Electronics Engineering, Information and Communication Technologies, CHILECON 2017 - Proceedings; vol. 2017-January).

**Predictive control strategies for an indirect matrix converter operating at fixed switching frequency**

Rivera, M., Nasir, U., Tarisciotti, L., Wheeler, P., Dragicevic, T. & Blaabjerg, F., 19 dic 2017, *2017 CHILEAN Conference on Electrical, Electronics Engineering, Information and Communication Technologies, CHILECON 2017 - Proceedings*. Institute of Electrical and Electronics Engineers Inc., p. 1-6 6 p. (2017 CHILEAN Conference on Electrical, Electronics Engineering, Information and Communication Technologies, CHILECON 2017 - Proceedings; vol. 2017-January).

**Indirect predictive control strategy with fixed switching frequency for a direct matrix converter**

Rivera, M., Tarisciotti, L., Wheeler, P. & Bayhan, S., 15 dic 2017, *Proceedings IECON 2017 - 43rd Annual Conference of the IEEE Industrial Electronics Society*. Institute of Electrical and Electronics Engineers Inc., p. 7332-7337 6 p. (Proceedings IECON 2017 - 43rd Annual Conference of the IEEE Industrial Electronics Society; vol. 2017-January).

**Modulated model predictive current control of an indirect matrix converter with active damping**

Di, Z., Rivera, M., Dan, H., Tarisciotti, L., Zhang, K., Xu, D. & Wheeler, P., 15 dic 2017, *Proceedings IECON 2017 - 43rd Annual Conference of the IEEE Industrial Electronics Society*. Institute of Electrical and Electronics Engineers Inc., p. 1313-1318 6 p. (Proceedings IECON 2017 - 43rd Annual Conference of the IEEE Industrial Electronics Society; vol. 2017-January).

**Indirect model predictive control strategies with input filter resonance mitigation for a matrix converter operating at fixed switching frequency**

Rivera, M., Nikolic, A., Tarisciotti, L. & Wheeler, P., 8 dic 2017, *19th International Symposium on Power Electronics, Ee 2017*. Institute of Electrical and Electronics Engineers Inc., p. 1-6 6 p. (19th International Symposium on Power Electronics, Ee 2017; vol. 2017-December).

**Indirect model predictive current control techniques for a direct matrix converter**

Rivera, M., Nasir, U., Tarisciotti, L. & Wheeler, P., 8 dic 2017, *2017 IEEE URUCON, URUCON 2017*. Institute of Electrical and Electronics Engineers Inc., p. 1-4 4 p. (2017 IEEE URUCON, URUCON 2017; vol. 2017-December).

**Permanent-Magnet Machine-Based Starter-Generator System with Modulated Model Predictive Control**

Yeoh, S. S., Yang, T., Tarisciotti, L., Hill, C. I., Bozhko, S. & Zanchetta, P., 1 dic 2017, *IEEE Transactions on Transportation Electrification*. 3, 4, p. 878-890 13 p., 7990264.

**Evaluation of isolated DC/DC converter topolog for future HVDC aerospace microgrids**

Tarisciotti, L., Costabeber, A., Linglin, C., Walker, A. & Galea, M., 3 nov 2017, *2017 IEEE Energy Conversion Congress and Exposition, ECCE 2017*. Institute of Electrical and Electronics Engineers Inc., p. 2238-2245 8 p. 8096437. (2017 IEEE Energy Conversion Congress and Exposition, ECCE 2017; vol. 2017-January).

**Modulated model predictive control for active split DC-bus 4-leg power supply**

Bifaretti, S., Pipolo, S., Lidozzi, A., Solero, L., Tarisciotti, L. & Zanchetta, P., 3 nov 2017, *2017 IEEE Energy Conversion Congress and Exposition, ECCE 2017*. Institute of Electrical and Electronics Engineers Inc., p. 4622-4627 6 p. 8096790. (2017 IEEE Energy Conversion Congress and Exposition, ECCE 2017; vol. 2017-January).

**Indirect predictive control techniques for a matrix converter operating at fixed switching frequency**

Rivera, M., Toledo, S., Baier, C., Tarisciotti, L., Wheeler, P. & Verne, S., 18 oct 2017, *Proceedings - 2017 IEEE International Symposium on Predictive Control of Electrical Drives and Power Electronics, PRECEDE 2017*. Institute of Electrical and Electronics Engineers Inc., p. 13-18 6 p. 8071101. (Proceedings - 2017 IEEE International Symposium on Predictive Control of Electrical Drives and Power Electronics, PRECEDE 2017).

**Modulated Predictive Control for Indirect Matrix Converter**

Tarisciotti, L., Lei, J., Formentini, A., Trentin, A., Zanchetta, P., Wheeler, P. & Rivera, M., 1 sep 2017, *IEEE Transactions on Industry Applications*. 53, 5, p. 4644-4654 11 p., 7914624.

**Control of a Direct Matrix Converter With Modulated Model-Predictive Control**

Vijayagopal, M., Zanchetta, P., Empringham, L., De Lillo, L., Tarisciotti, L. & Wheeler, P., 1 may 2017, *IEEE Transactions on Industry Applications*. 53, 3, p. 2342-2349 8 p., 7862752.

**More electric aircraft starter-generator system with utilization of hybrid modulated model predictive control**

Yeoh, S. S., Yang, T., Tarisciotti, L., Hill, C. I., Bozhko, S. & Zanchetta, P., 2 feb 2017, *2016 International Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles and International Transportation Electrification Conference, ESARS-ITEC 2016*. Institute of Electrical and Electronics Engineers Inc., 7841399. (2016 International Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles and International Transportation Electrification Conference, ESARS-ITEC 2016).

**Model Predictive Control for Shunt Active Filters with Fixed Switching Frequency**

Tarisciotti, L., Formentini, A., Gaeta, A., Degano, M., Zanchetta, P., Rabbeni, R. & Pucci, M., 1 ene 2017, *IEEE Transactions on Industry Applications*. 53, 1, p. 296-304 9 p.

#### **Active Magnetic Bearing system design featuring a predictive current control**

Papini, L., Tarisciotti, L., Costabeber, A., Gerada, C. & Wheeler, P., 21 dic 2016, *Proceedings of the IECON 2016 - 42nd Annual Conference of the Industrial Electronics Society*. IEEE Computer Society, p. 3217-3222 6 p. 7793444. (IECON Proceedings (Industrial Electronics Conference)).

#### **Reactive power control strategies for UNIFLEX-PM Converter**

Pipolo, S., Bifaretti, S., Bonaiuto, V., Tarisciotti, L. & Zanchetta, P., 21 dic 2016, *Proceedings of the IECON 2016 - 42nd Annual Conference of the Industrial Electronics Society*. IEEE Computer Society, p. 3570-3575 6 p. 7793903. (IECON Proceedings (Industrial Electronics Conference)).

#### **Analysis of conducted emissions from an electric nacelle anti-ice power control system**

Nothofer, A., Tarisciotti, L., Zhou, Q., Benson, T., Greedy, S. & Christopoulos, C., 8 nov 2016, *2016 International Symposium on Electromagnetic Compatibility, EMC EUROPE - Proceedings*. Institute of Electrical and Electronics Engineers Inc., p. 434-439 6 p. 7739261. (IEEE International Symposium on Electromagnetic Compatibility; vol. 2016-November).

#### **A distributed model predictive control strategy for back-to-back converters**

Tarisciotti, L., Lo Calzo, G., Gaeta, A., Zanchetta, P., Valencia, F. & Saez, D., 1 sep 2016, *En : IEEE Transactions on Industrial Electronics*. 63, 9, p. 5867-5878 12 p., 7403993.

#### **Conducted emission evaluation for direct matrix converters**

Nothofer, A., Tarisciotti, L., Greedy, S., Empringham, L., De Lillo, L. & Degano, M., 5 jul 2016, *Proceedings of 2016 ESA Workshop on Aerospace EMC, Aerospace EMC 2016*. Ouwehand, L. (ed.). Institute of Electrical and Electronics Engineers Inc., 7504552. (Proceedings of 2016 ESA Workshop on Aerospace EMC, Aerospace EMC 2016).

#### **Current control and reactive power minimization of a direct matrix converter induction motor drive with Modulated Model Predictive Control**

Vijayagopal, M., Empringham, L., De Lillo, L., Tarisciotti, L., Zanchetta, P. & Wheeler, P., 29 ene 2016, *Proceedings - 2015 IEEE International Symposium on Predictive Control of Electrical Drives and Power Electronics, PRECEDE 2015*. Institute of Electrical and Electronics Engineers Inc., p. 103-108 6 p. 7395591. (Proceedings - 2015 IEEE International Symposium on Predictive Control of Electrical Drives and Power Electronics, PRECEDE 2015).

#### **Predictive control of an indirect matrix converter operating at fixed switching frequency and unbalanced AC-supply**

Rivera, M., Uribe, C., Tarisciotti, L., Wheeler, P. & Zanchetta, P., 29 ene 2016, *Proceedings - 2015 IEEE International Symposium on Predictive Control of Electrical Drives and Power Electronics, PRECEDE 2015*. Institute of Electrical and Electronics Engineers Inc., p. 38-43 6 p. 7395580. (Proceedings - 2015 IEEE International Symposium on Predictive Control of Electrical Drives and Power Electronics, PRECEDE 2015).

#### **Fixed frequency finite-state model predictive control for indirect matrix converters with optimal switching pattern**

Lei, J., Tarisciotti, L., Trentin, A., Zanchetta, P., Wheeler, P. & Formentini, A., 1 ene 2016, *ECCE 2016 - IEEE Energy Conversion Congress and Exposition, Proceedings*. Institute of Electrical and Electronics Engineers Inc., 7855118. (ECCE 2016 - IEEE Energy Conversion Congress and Exposition, Proceedings).

#### **Predictive control for active split DC-bus 4-leg inverters**

Bifaretti, S., Pipolo, S., Lidozzi, A., Solero, L., Tarisciotti, L. & Zanchetta, P., 1 ene 2016, *ECCE 2016 - IEEE Energy Conversion Congress and Exposition, Proceedings*. Institute of Electrical and Electronics Engineers Inc., 7855272. (ECCE 2016 - IEEE Energy Conversion Congress and Exposition, Proceedings).

#### **Grid Parameter Estimation Using Model Predictive Direct Power Control**

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#### **Control of a direct matrix converter induction motor drive with modulated model predictive control**

Vijayagopal, M., Empringham, L., De Lillo, L., Tarisciotti, L., Zanchetta, P. & Wheeler, P., 27 oct 2015, *2015 IEEE Energy Conversion Congress and Exposition, ECCE 2015*. Institute of Electrical and Electronics Engineers Inc., p. 4315-4321 7 p. 7310270. (2015 IEEE Energy Conversion Congress and Exposition, ECCE 2015).

#### **Finite states modulated model predictive control for active power filtering systems**

Rabbeni, R., Tarisciotti, L., Gaeta, A., Formentini, A., Zanchetta, P., Pucci, M., Degano, M. & Rivera, M., 27 oct 2015, *2015 IEEE Energy Conversion Congress and Exposition, ECCE 2015*. Institute of Electrical and Electronics Engineers Inc., p. 1556-1562 7 p. 7309879. (2015 IEEE Energy Conversion Congress and Exposition, ECCE 2015).

#### **Modulated model predictive current control for direct matrix converter with fixed switching frequency**

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#### **Online predictive model fitting algorithm for supply inductance estimation**

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#### **Predictive control of an indirect matrix converter operating at fixed switching frequency and without weighting factors**

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#### **Predictive Current Control with fixed switching frequency for an NPC converter**

Rivera, M., Perez, M., Baier, C., Munoz, J., Yaramasu, V., Wu, B., Tarisciotti, L., Zanchetta, P. & Wheeler, P., 28 sep 2015, *Proceedings - 2015 IEEE 24th International Symposium on Industrial Electronics, ISIE 2015*. Institute of Electrical and Electronics Engineers Inc., p. 1034-1039 6 p. 7281614. (IEEE International Symposium on Industrial Electronics; vol. 2015-September).

#### **Modulated model predictive control (M<sup>2</sup>PC) with fixed switching frequency for an NPC converter**

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#### **Multiobjective Modulated Model Predictive Control for a Multilevel Solid-State Transformer**

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#### **A modulated model predictive control scheme for a two-level voltage source inverter**

Rivera, M., Morales, F., Baier, C., Muñoz, J., Tarisciotti, L., Zanchetta, P. & Wheeler, P., 16 jun 2015, p. 2224-2229. 6 p.

#### **Hybrid modulated model predictive control for the more electric aircraft generator system**

Yeoh, S. S., Yang, T., Tarisciotti, L., Bozhko, S. & Zanchetta, P., 4 may 2015, *2015 International Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles, ESARS 2015*. IEEE Computer Society, 7101477. (Electrical Systems for Aircraft, Railway and Ship Propulsion, ESARS; vol. 2015-May).

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**Modular photovoltaic inverter with high-frequency DC/DC stage based on low-voltage FETs**

Giuliani, F., Barater, D., Concari, C., Cova, P., Delmonte, N., Menozzi, R., Buticchi, G. & Tarisciotti, L., 11 nov 2014, *2014 IEEE Energy Conversion Congress and Exposition, ECCE 2014*. Institute of Electrical and Electronics Engineers Inc., p. 39-46 8 p. 6953373. (2014 IEEE Energy Conversion Congress and Exposition, ECCE 2014).

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**A comparison between dead-beat and predictive control for a 7-level back-to-back Cascaded H-Bridge under fault conditions**

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**A simple deadbeat current control for single-phase transformerless inverters with LCL filter**

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**Modulated model predictive control (M<sup>2</sup>PC) for a 3-phase active front-end**

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Bifaretti, S., Zanchetta, P., Watson, A., Tarisciotti, L. & Clare, J. C., 1 jun 2011, *En : IEEE Transactions on Smart Grid*. 2, 2, p. 231-243 13 p., 5739137.

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**Predictive control for universal and flexible power management**

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