

CURRICULUM VITAE

Jose Rodriguez Perez

ABSTRACT

Jose Rodriguez (M'81-SM'94-F'10) received the Engineer degree in electrical engineering from the Universidad Tecnica Federico Santa Maria, in Valparaiso, Chile, in 1977 and the Dr.-Ing.degree in electrical engineering from the University of Erlangen, Erlangen, Germany, in 1985. He has been with the Department of Electronics Engineering, Universidad Tecnica Federico Santa Maria, since 1977, where he was full Professor and President. Since 2015 he is the President of Universidad Andres Bello in Santiago, Chile. He has coauthored two books, several book chapters and more than 400 journal and conference papers. His main research interests include multilevel inverters, new converter topologies, control of power converters, and adjustable-speed drives. According to ISI Web of Knowledge, he has a Hirsch factor of $H=58$ and 17.000 citations.

Dr. Rodriguez has a large experience as consultant for the mining industry, the most important economic area of Chile. One of his works for the industry, the regenerative conveyor belts of Los Pelambres mining company generates more than 10 Megawatts of power using modern converter technology. This project was recognized in 2013 by the Academy of Sciences of Chile as one of the 12 most outstanding innovation projects with high scientific value in all areas of the economic activity in Chile in the last 40 years.

He has supervised 110 students in Electrical and Electronic Engineering, 25 Master and 9 PhD.

During his career he has organized a high number seminars, workshops and conferences dedicated to the application of Power Electronics in industry. He has organized more than 10 Special Sections of IEEE journals in different topics of Power Electronics.

In 2014 he was ranked N°1 in the world by Microsoft Academic in all areas of engineering as the most cited author of the world, considering the publications of the last 5 years. In 2014 he was the only Chilean included in the list of The World's Most Influential Scientific Minds published by Thomson Reuters, considering the impact of his publications in the scientific community. In 2015 he was included again in this list.

He has received a number of best paper awards from journals of the IEEE. Dr. Rodriguez is member of the Chilean Academy of Engineering. In 2014 he received the National Award of Applied Sciences and Technology from the government of Chile. In 2015 he received the Eugene Mittelmann Award from the Industrial Electronics Society of the IEEE.

He played a key role in the development of the PhD program in Electronics at Universidad Santa María. This was the first Chilean PhD program to receive in 2016 the Quality Award given the Asociacion Universitaria Iberoamericana de Postgrado. Dr. Rodriguez was the direct supervisor of more than 40% of the graduates from this program.

CURRICULUM VITAE

Jose Rodriguez Perez

PERSONAL INFORMATION

- Name: Jose Ramon Rodriguez Perez
- Date of birth: 24 Octubre, 1953
- Nationality: Chilean
- Address: Coraceros 50, Edificio Meseta Atlantico, Depto 604, Viña del Mar, Chile
- Phone: Work: +56 2 26618003, Home: +56 32 3174465
- E-mail: jose.rodriguez@unab.cl
- Present position: Rector (President) Universidad Andres Bello (Since March 2015)
- Previous position: Rector (President) Universidad Tecnica Federico Santa Maria (2006-2014)
- Academic positions USM: Assistant Professor (1977-1982)
Associated Professor (1982-1987)
Full Professor (1987-2015)

ACADEMIC PROFILE

- Number of ISI Journal Papers >160 *
- Number of citations > 17 000 *
- Mean citations per paper > 50 *
- H-index: 58 *

He is ranked n°1 over 867.195 investigators worldwide in all áreas of Engineering, considering the Hirsch factor in year 2013.

**Source: Thomson Reuters Web of Knowledge
Research ID: A-2534-2013*

ACADEMIC DEGREES

- Doktor Ingenieur in Elektrotechnik, University of Erlangen, Nürnberg, Germany. 1985
- Master in Electrical Engineering, Universidad Tecnica Federico Santa Maria (UTFSM), Valparaiso, Chile 1977
- Electrical Engineering, UTFSM, Valparaiso, Chile. 1977
- Technician in Electronics, Technical School Jose Miguel Carrera, Viña del Mar, Chile. 1977

ACADEMIC POSITIONS

- President University Andres Bello, Santiago, Chile. 2015-----
- President Universidad Tecnica Federico Santa Maria, Valparaiso, Chile. 2006-2014
- Vice Rector Academic Affairs, UTFSM, Chile. 2004-2005
- Head Department of Electronics, UTFSM, Valparaiso, Chile. 2001-2004
- Head Department of Electrical Engineering, UTFSM, Valparaiso, Chile. 1988-1989
- Professor UTFSM, Valparaiso, Chile. 1977-2015

TEACHING UNDERGRADUATE

- 2000-2006: ELO 384: Industrial Application of Static Converters.
- 2004-2005: ELO 200: Research Workshop I.
- 2000-2003: ELO 281: Electromechanical Systems.
- 2000-2002: ELO 381: Power Electronics.
- Laboratory of Electromechanical Energy Conversion.
- Electrical measurements.
- Network Theory.

TEACHING GRADUATE

- 2008-2009: IPD 501: Thesis Seminar I.
- 2006-2009: IPD 502: Thesis Seminar II.
- 2001-2009: IPD 413: Advanced Seminar of Power Electronics.

OTHER POSITIONS

- 1996-1997: Head of the Mining Group at Siemens Corporation in Chile.
- 1982-1985: Research Associate in Electrical Drives, University of Erlangen, Nürnberg, Alemania.

MEMBERSHIPS

- Member IEEE, The Institute of Electrical and Electronics Engineers (IEEE), from 1981.
- Member IEEE Industrial Electronics Society.
- Member IEEE Power Electronics Society.
- Member IEEE Industry Applications Society.
- Member of the Academy of Engineering Chile.

AWARDS AND RECOGNITIONS

1. Honorary Professor at the Universidad Peruana de Ciencias Aplicadas “in recognition to his outstanding professional and academic merits in the field of engineering and scientific research”, Lima Peru, April 2017.
2. Distinguished as the “Jaixi Lu Overseas Guest Professor in Haixi Institutes, Chinese Academy of Sciences”, China, February 2017.
3. Humboldt Research Award given by Alexander von Humboldt Society, Germany 2016.
4. Dr. Eugene Mittelman Achievement Award given by the Industrial Electronics Society of the IEEE, 2015.
5. National Award of Applied Sciences and Technology of Chile 2014.
6. Fellow IEEE, for: “The development of new topologies and control methods for power electronic converters and drives”, March 2011.
7. Founding member of the Chilean Academy of Engineering in 2009 and Secretary in 2010.
8. President of the Rectors Council of Valparaiso, Chile 2008.
9. Member of the Council for Superior Education, appointed by the President of the Republic of Chile 2007-2008.
10. Guest Associated Editor de la IEEE Transactions on Industrial Electronics several times [Special Sections on Matrix Converters (2002), Multilevel Inverters (2002), Modern Rectifiers (2005), High Power Drives (2007), Predictive Control of Power Converters and Drives (2008), y Multilevel Inverters (2009)].
11. Associated Editor IEEE Transactions on Power Electronics since 2002.
12. Associated Editor IEEE Transactions on Industrial Electronics since 2002.

13. Associated Editor IEEE Transactions on Industrial since 2013.
14. Senior Member of IEEE.
15. Member of Study Group at the Chilean Research Commission CONICYT, 2002-2005.

BEST PAPER AWARDS IN JOURNALS

1. 2016 Second Best Paper Award of the IEEE Transactions on Power Electronics. M. Perez, S. Bernet, **J. Rodriguez**, S. Kouro, R. Lizana. "Circuit Topologies, Modeling, Control Schemes, and Applications of Modular Multilevel Converters". Vol. 30, N°1, pp. 4-17, January 2015.
2. 2015 Best Paper Award for the IEEE Industrial Electronics Magazine. S. Vazquez, J. Leon, L. Franquelo, **J. Rodriguez**, H. Young, A. Marquez, P. Zanchetta. For paper "Model Predictive Control: A review of its Applications in Power Electronics". Vol. 8, No. 1, pp. 16-31, March 2014.
3. First Prize Article Award for the article entitled "Powering the Future of Industry: High Power Adjustable Speed Drive Topologies" as published in the IEEE Industry Applications Magazine. June 2012.
4. Best Paper of IEEE Transactions on Industrial Electronics 2011. J. León, S. Kouro, S. Vazquez, R. Portillo, L. Franquelo, J. Carrasco, **J. Rodriguez**. Multidimensional Modulation Technique for Cascaded Multilevel Converters. Vol. 58, No. 2, pp: 412-420. February 2011.
5. Best Paper of IEEE Transactions on Power Electronics 2010. R. Vargas, U. Ammann, B. Hudoffsky, **J. Rodriguez**, P. Wheeler. Predictive Torque Control of an Induction Machine Fed by a Matrix Converter with Reactive Input Power Control. Vol. 25, No. 6, June 2010.
6. Best Paper del IEEE Industrial Electronics Magazine en 2008. L. Franquelo, **J. Rodriguez**, J. Leon, S. Kouro, R. Portillo, M. Prats. The age of multilevel converters arrives. Vol. 2, No. 2, pp: 28-39. June 2008.
7. Best Paper del IEEE Transactions on Industrial Electronics en 2007. **J. Rodriguez**, J. Pontt, C. Silva, P. Correa, P. Lezana, P. Cortes, U. Ammann. Predictive current control of a voltage source inverter. Vol. 54, No. 1, pp: 495-503. February 2007.

PUBLICATIONS

BOOKS AND BOOKS CHAPTERS

1. T. Orlowska, F. Blaabjerg, **J. Rodriguez**. "Advanced and Intelligent Control in Power Electronics and Drives" Springer. ISBN: 978-3-319-03400-3. 2014
2. **J. Rodriguez**, P. Cortes. "Predictive Control of Power Converters and Electrical Drives" Wiley-IEEE press. ISBN: 978-1-1199-6398-1. May 2012.
3. S. Kouro, J. Leon, L. Franquelo, **J. Rodriguez**, B. Wu, The Industrial Electronics Handbook, Chapter 14: DC-AC Converters. CRC press, United States. ISBN-978-1-4398-0285-4. March 2011.
4. **J. Rodriguez**, P. Lezana, S. Kouro, A. Weinstein, Power electronics handbook. Chapter 11: Single-phase controlled rectifiers, Academic Press, 2nd Edition, ISBN-0120884798, November 8, 2006.
5. J. Pontt, **J. Rodriguez**, G. Sepulveda, Gearless drives for high-power grinding mills (Accionamientos gearless para molinos de alta potencia), ISBN 956-291-966-8, November 2003.
6. **J. Rodriguez**, A. Weinstein, A. Single-phase controlled rectifiers. Chapter 11: Power electronics handbook, ISBN 0-12-581650-2, Academic Press, August 2001.

PUBLICATIONS IN JOURNALS (ISI)

1. M. Siami, D. Khaburi, **J. Rodriguez**. Simplified Finite Control Set-Model Predictive Control for Matrix Converters-Fed PMSM Drives. In IEEE Transactions on Power Electronics.
2. M. Siami, D. Khaburi, M. Rivera, **J. Rodriguez**. An Experimental Evaluation of Predictive Current Control and Predictive Torque Control for a PMSM Fed by a Matrix Converter. In IEEE Transactions on Industrial Electronics. Vol. 64, No. 11, pp: 8459-8471, November 2017.
3. A. Pirooz, R. Noroozian, **J. Rodriguez**. Investigation of model predictive control for converter-based stand-alone DC distribution networks fed by PV units. In International Transactions on Electrical Energy Systems, Vol. 27, pp: e2396. No. 11, DOI: 10.1002/etep.2396, November 2017.
4. J. Wang, F. Wang, Z. Zhang, S. Li, **J. Rodriguez**. Design and Implementation of Disturbance Compensation-Based Enhanced Robust Finite Control Set Predictive Torque Control for Induction Motor Systems. In IEEE Transactions on Industrial Informatics. Vol. 13, No. 5, pp: 2645-2656, October, 2017.
5. M. Siami, D. Khaburi, M. Rivera, **J. Rodriguez**. A Computationally Efficient Lookup Table Based FCS-MPC for PMSM Drives Fed by Matrix Converters. In IEEE Transactions on Industrial Electronics. Vol. 64, pp: 7645-7654, No. 10, October 2017.
6. M. Siami, D. Khaburi, **J. Rodriguez**. Torque Ripple Reduction of Predictive Torque Control for PMSM Drives with Parameter Mismatch. In IEEE Transactions on Power Electronics. Vol. 32, pp: 7160-7168, No.9, September 2017.
7. A. Abbaszadeh, D. Khaburi, H. Mahmoudi, **J. Rodriguez**. Simplified model predictive control with variable weighting factor for current ripple reduction. In IET Power Electronics. Vol. 10, No. 10, pp: 1165-1174, August 2017.
8. Z. Zhang, H. Fang, F. Hui, **J. Rodriguez**. Multiple-Vector Model Predictive Power Control for Grid-Tied Wind Turbine System with Enhanced Steady-State Control Performance. In IEEE Transaction on Industrial Electronics. Vol. 64, No. 8, pp: 6287-6298, August 2017.
9. C. Rojas, **J. Rodriguez**, S. Kouro, F. Villarroel. Multiobjective Fuzzy-Decision-Making Predictive Torque Control for an Induction Motor Drive. In IEEE Transactions on Power Electronics. Vol. 32, pp: 6245-6260, No. 8, August 2017.
10. Z. Zhang, F. Wang, J. Wang, **J. Rodriguez**, R. Kennel. Nonlinear Direct Control for Three-Level NPC Back-to-Back Converter PMSG Wind Turbine Systems: Experimental Assessment with FPGA. In IEEE Transactions on Industrial Informatics. Vol. 13, pp: 1172-1183, No. 3, June 2017.
11. F. Barrero, M. Arahal, **J. Rodriguez**, M. Rivera. Guest Editorial: Advances in Predictive Control of Variable-Speed Electric Drives. In IET Electric Power Applications. Vol. 11, pp: 675-676, No. 5, May 2017.
12. K. Gnanasambandam, A. Rathore, A. Edpuganti, D. Srinivasan, **J. Rodriguez**. Current-fed Multilevel Converters: An Overview of Circuit Topologies, Modulation Techniques, and Applications. In IEEE Transactions on Industrial Electronics. Vol. 32, pp: 3382-3401, No. 5, May 2017.
13. F. Wang, Z. Zhenbin, W. Junxiao, **J. Rodriguez**. Sensorless model-based PCC for induction machine. In IET Electronics Power Applications. Vol. 11, No. 5, pp: 885-892, May 2017.
14. D. Arab Khaburi, A. Davari, **J. Rodriguez**. "Predictive Control of Permanent Magnet Synchronous Motor with, non-sinusoidal Flux Distribution for Torque Ripple Minimization Using the Recursive Least Square Identification Method". In IET Electric Power Applications. Vol.11, No. 5, pp: 847-856, May 2017.
15. A. Abbaszadeh, D. Khaburi, R. Kennel, **J. Rodriguez**. "Hybrid exploration state for the simplified finite control set-model predictive control with a deadbeat solution for reducing the current ripple in permanent magnet synchronous motor". IET Electric Power Applications. Vol. 11, No.5, pp:823-835, May 2017.
16. S. Ouni, Z. Mohammad, K. Masih, **J. Rodriguez**. Improvement of Post-Fault Performance of a Cascaded H-bridge Multilevel Inverter. In IEEE Transactions on Industrial Electronics. Vol. 64, No. 4, pp: 2779-2788, April 2017.

17. F. Wang, S. Davari, Z. Chen, Z. Zhang, D. Arab Khaburi, **J. Rodriguez**, R. Kennel. Finite Control Set Model Predictive Torque Control of Induction Machine with a Robust Adaptive Observer. In IEEE Transactions on Industrial Electronics, Vol. 64, pp: 2631-2641, No. 4, April 2017.
18. S. Vazquez, **J. Rodriguez**, M. Rivera, L. Franquelo, M. Norambuena. Model Predictive Control for Power Converters and Drives: Advances and Trends – 2016. In IEEE Transactions on Industrial Electronics. Vol. 64, pp: 935-947, No. 2, February 2017.
19. C. Garcia, M. Rivera, **J. Rodriguez**, P. Wheeler, R. Peña. Predictive Current Control with Instantaneous Reactive Power Minimization for a Four-Leg Indirect Matrix Converter. In IEEE Transactions on Industrial Electronics, Vol. 64, pp: 922-929, No. 2, February 2017.
20. S. Ouni, M. Zolghadri, **J. Rodriguez**, M. Shahbazi, H. Oraee, P. Lezana, A. Ulloa. Quick Diagnosis of Circuit Faults in Cascaded H-Bridge Multilevel Inverters using FPGA. In Journal of Power Electronics, Vol. 17, No. 1, pp: 56-66, January 2017.
21. J. Zhang, T. Sun, F. Wang, **J. Rodriguez**, R. Kennel. A Computationally-Efficient Quasi-Centralized DMPC for Back-to-Back Converter PMSG Wind Turbine System without DC-LINK Tracking Errors. In IEEE Transaction on Industrial Electronics, Vol. 63, No. 10, pp: 6160-6171, October 2016.
22. C. Garcia, **J. Rodriguez**, C. Silva, C. Rojas, P. Zanchetta and H. Abu-Rub. Full Predictive Cascaded Speed and Current Control of an Induction Machine. In IEEE Transaction on Energy Conversion. Vol. 31, No. 3, pp: 1059-1067, September 2016.
23. M. Rivera, **J. Rodriguez**, S. Vazquez. Predictive control in power converters and electrical drives- part IV. In IEEE Transaction on Industrial Electronics. Vol. 63, No. 9, pp: 5804-5806, September 2016.
24. M. Rivera, **J. Rodriguez**, S. Vazquez. Predictive control in power converters and electrical drives- part III. In IEEE Transaction on Industrial Electronics. Vol. 63, No. 8, pp: 5130-5132, August 2016.
25. M. Rivera, **J. Rodriguez**, S. Vazquez. Predictive control in power converters and electrical drives- part II. In IEEE Transaction on Industrial Electronics. Vol. 63, No. 7, pp: 4472-4474, July 2016.
26. A. Calle- Prado, S. Alepuz, J. Bordonau, P. Cortes, **J. Rodriguez**. Predictive Control of a Back-to-Back NPC Converter-Based Wind Power System. In IEEE Transactions on Industrial Electronics, Vol.63, No.7, pp: 4615-4627, July 2016.
27. S. Sadr, D. Arab Khaburi, **J. Rodriguez**. Predictive Slip Control for Electrical Trains. In IEEE Transactions on Industrial Electronics, Vol. 63, No. 6, pp: 3446-3457, June 2016.
28. M. Siami, D. Arab Khaburi, A. Abbaszadeh, **J. Rodriguez**. Robustness Improvement of Predictive Current Control Using Prediction Error Correction for Permanent-Magnet Synchronous Machines. In IEEE Transactions on Industrial Electronics, Vol. 63, No. 6, pp: 3458-3466, June 2016.
29. M. Rivera, **J. Rodriguez**, S. Vazquez. Predictive Control in Power Converters and Electrical Drives-Part 1. In IEEE Transactions on Industrial Electronics, Vol. 63, No. 6, pp: 3834-3836, June 2016.
30. J. Leon, S. Kouro, L. Franquelo, **J. Rodriguez**, B. Wu. The Essential Role and the Continuous Evolution of Modulation Techniques for Voltage-Source Inverters in the Past, Present, and Future Power Electronics. In IEEE Transactions on Industrial Electronics, Vol.63, No. 5, pp: 2688-2701, May 2016.
31. H. Young, M. Perez, **J. Rodriguez**. Analysis of Finite-Control-Set Model Predictive Current Control with Model Parameter Mismatch in a Three-Phase Inverter. In IEEE Transactions on Industrial Electronics. Vol.63, No. 5, pp: 3100-3107, May 2016.
32. R. Lizana, M. Perez, S. Bernet, J. Espinoza, **J. Rodriguez**. Control of Arm Capacitor Voltages in Modular Multilevel Converters. In IEEE Transaction on Power Electronic, Vol. 31, No. 2, pp: 1774-1784, February 2016.
33. Z. Zhang, F. Wang, T. Sun, **J. Rodriguez**. FPGA-Based Experimental Investigation of a Quasi-Centralized Model Predictive Control for Back-to-Back Converters. In IEEE Transaction on Power Electronics, Vol. 31, No. 1, pp: 662-674, January 2016.
34. S. Kouro, M. Perez, **J. Rodriguez**, A. Llor, H. Young. Model Predictive Control: MPC'S Role in the Evolution of Power Electronics. In IEEE Industrial Electronics Magazine, Vol. 9, No. 4, pp: 8-21, December 2015.

35. R. Lizana, M. Perez, D. Arancibia, **J. Rodriguez**. Decoupled Current Model and Control of Modular Multilevel Converters. *IEEE Transactions on Industrial Electronics*, Vol. 62, No. 9, pp: 5382-5392, September 2015.
36. V. Yaramasu, B. Wu, M. Rivera, **J. Rodriguez**. Generalised approach for predictive control with common-mode voltage mitigation in multilevel diode-clamped converters. *IET Power Electronics*, Vol. 8, No. 8, pp: 1440-1450, August 2015.
37. L. Wang, **J. Rodriguez**. Optimisation and control of electrical systems. *International Journal of Control*, Vol. 88, No. 7, pp: 1325-1325, July 2015.
38. F. Wang, Z. Zhang, R. Kennel, **J. Rodriguez**. Model predictive torque control with an extended prediction horizon for electrical drive system. *International Journal of Control*, Vol. 88, No. 7, pp: 1379-1388, July 2015.
39. F. Wang, S. Li, X. Mei, **J. Rodriguez**. Model-Based Predictive Direct Control Strategies for Electrical Drives: An Experimental Evaluation of PTC and PCC Methods. *IEEE Transactions on Industrial Informatics*, Vol. 11, No. 3, pp: 671-681, June 2015.
40. V. Yaramasu, M. Rivera, M. Narimani, **J. Rodriguez**. High performance operation for a four-leg NPC inverter with two-sample-ahead predictive control strategy. *Electric Power System Research*, Vol. 123, pp: 31-39, June 2015.
41. M. Lopez, **J. Rodriguez**, C. Silva. Predictive Torque Control of a Multidrive System Fed by a Dual Indirect Matrix Converter. *IEEE Transactions on Industrial Electronics*, Vol. 62, No. 5, pp: 2731-2741, May 2015.
42. C. Garcia, M. Rivera, M. Lopez, **J. Rodriguez**. A simple Current Control Strategy for a Four-Leg Indirect Matrix Converter. *IEEE Transaction on Power Electronics*, Vol. 30, No. 4, pp: 2275-2287, April 2015.
43. A. Calle-Prado, S. Alepuz, J. Bordonau, **J. Rodriguez**. Model predictive Current Control of Grid-Connected Neutral-Point-Clamped Converters to Meet Low-Voltage Ride-Through Requirements. *IEEE Transactions on Industrial Electronics*, Vol.62, No. 3, pp: 1503-1514, March 2015.
44. Wang, P. Stolze, M. Trincado, Z. Chen, R. Kennel, **J. Rodriguez**. A Comprehensive Study of Direct Torque Control (DTC) and Predictive Torque Control (PTC) for High Performance Electrical Drives. In *ResearchGate*, DOI: 10.1080/09398368.2015.11782457, March 2015.
45. M. Uddin, S. Mekhilef, M. Rivera, **J. Rodriguez**. Imposed Weighting Factor Optimization Method for Torque Ripple Reduction of IM Fed by Indirect Matrix Converter with Predictive Control Algorithm. *Journal of Electrical Engineering & Technology*, Vol. 10, No. 1, pp: 227-242, January 2015.
46. M. Perez, S. Bernet, **J. Rodriguez**. Special Issue on Modular Multilevel Converters, 2015. *IEEE Transactions on Power Electronics*, Vol. 30, No. 1, pp: 1-3, January 2015.
47. M. Perez, S. Kouro, S. Bernet, **J. Rodriguez**. Circuit Topologies, Modeling, Control Schemes and Applications of Modular Multilevel Converters. *IEEE Transaction on Power Electronics*. Vol. 30, No.1, pp: 4-17, January 2015.
48. J. Elizondo, A. Olloqui, M. Rivera, **J. Rodriguez**. Model-Based Predictive Rotor Current Control for Grid Synchronization of a DFIG Driven by an Indirect Matrix Converter. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, Vol. 2, No. 4, pp: 715-726, December 2014.
49. F. Wang, Z. Zhang, S. Alireza Davari, R. Fotouhi, D. Arab Khaburi, **J. Rodriguez**, R. Kennel. An Encoderless Predictive Torque Control for an Induction Machine with a Revised Prediction Model and EFOSMO. *IEEE Transactions on Industrial Electronics*. Vol. 61, No. 12, pp: 6635-6644, December 2014.
50. V. Yaramasu, M. Rivera, M. Narimani, **J. Rodriguez**. Finite State Model-based Predictive Current Control with Two-Step Horizon for Four-leg NPC Converters. *Journal of Power Electronics*, Vol. 14, No. 6, pp: 1178-1188, November 2014.
51. F. Wang, Z. Zhang, A. Davari, **J. Rodriguez**. An experimental assessment of finite-states Predictive Torque Control for electrical drives by considering different online-optimization methods. *Control Engineering Practice*, Vol. 31, pp: 1-8, October 2014.

52. S. Rivera, S. Kouro, M. Malinowski, B. Wu, S. Alepuz, P. Cortés, **J. Rodriguez**. Multilevel Direct Power Control - A Generalized Approach for Grid-Tied Multilevel Converter Applications. *IEEE Transactions on Power Electronics*. Vol. 29, No.10, pp: 5592-5604, October 2014.
53. V. Yaramasu; M. Rivera; M. Narimani; B. Wu; **J. Rodriguez**. Model Predictive Approach for a Simple and Effective Load Voltage Control of Four-Leg Inverter with an Output LC Filter. *IEEE Transactions on Industrial Electronics*. Vol.61, No.10, pp: 5259-5270, October 2014.
54. R.Vargas, **J. Rodriguez**, C. Rojas, M. Rivera. Predictive Control of an Induction Machine fed by a Matrix Converter with Increased Efficiency and Reduced Common-Mode Voltage. *IEEE Transactions on Energy Conversion*. Vol. 29, No. 2, pp: 473-485, June 2014.
55. S. Muslem, M. Saad, M. Rivera, **J. Rodriguez**. Model Predictive Torque Ripple Reduction with Weighting Factor Optimization Fed by an Indirect Matrix Converter. *Electric Power Components & Systems Journal*. Vol.42, No. 10, pp: 1059-1069, June 2014.
56. F. Wang, P. Stolze, J. Stumper, **J. Rodriguez**, R. Kennel, Z. Chen. Encoderless Finite-State Predictive Torque Control for Induction Machine with a Compensated MRAS. *IEEE Transactions on Industrial Informatics*. Vol.61, No.2, pp: 1097-1106, May 2014.
57. H. Abu-Rub, M. Malinowski, K. Haddad, **J. Rodriguez**, M. Perez, H. Young. Model Predictive Speed Control of Electrical Machines. *Power Electronics for Renewable Energy Systems, Transportation and Industrial Applications*. (capítulo del libro), published 30 May 2014, DOI: 10.1002/9781118755525.ch19.
58. E. Fuentes, D. Kalise, **J. Rodriguez**, R. Kennel. Cascade-Free Predictive Speed Control for Electrical Drives. *IEEE Transactions on Industrial Electronics*. Vol.61, No.5, pp: 2176-2184, May 2014.
59. M. Rivera, C. Rojas, A. Wilson, **J. Rodriguez**, J. Espinoza, C. Baier, J. Muñoz. Review of predictive control methods to improve the input current of an indirect matrix converter. *IET Power Electronics*. Vol.7, No. 4, pp: 886-894, April 2014.
60. S. Vasquez, J. Leon, L. Franquelo, **J. Rodriguez**. Model Predictive Control A Review of Its Applications in Power Electronics. *IEEE Industrial Electronics Magazine*, Vol. 8, No. 1, pp: 16-31, March 2014.
61. H. Young, M. Perez, **J. Rodriguez**. Assessing Finite-Control-Set Model Predictive Control A Comparison with a Linear Current Controller in Two-Level Voltage Source Inverters. *IEEE Industrial Electronics Magazine*, Vol.8, No. 1, pp: 44-52, March 2014.
62. V. Yaramasu, B. Wu, M. Rivera, **J. Rodriguez**. A New Power Conversion System for Megawatt PMSG Wind Turbines using Four-Level Converters and a Simple Control Scheme Based on Two-Step Model Predictive Strategy - Part I: Modeling and Theoretical Analysis. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, Vol.2, No.1, pp: 3-13, March 2014.
63. C. Rojas, J. Yuz, C. Silva, **J. Rodriguez**. Comments on 'Predictive Torque Control of Induction Machines Based on State-Space Models'. *IEEE Transactions on Industrial Electronics*, Vol. 61, No, 3, pp: 1635-1638, March 2014.
64. V. Yaramasu; B. Wu; M. Rivera; **J. Rodriguez**. A New Power Conversion System for Megawatt PMSG Wind Turbines using Four-Level Converters and a Simple Control Scheme Based on Two-Step Model Predictive Strategy -- Part II: Simulation and Experimental Analysis. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, Vol. 2, No.1, pp: 14-25, March 2014.
65. P. Acuña, L. Moran, M. Rivera, J. Dixon, **J. Rodriguez**. Improved Active Power Filter Performance for Renewable Power Generation Systems. *IEEE Transactions on Power Electronics*, Vol. 29, No.2, pp: 687-694, February 2014.
66. D. Andler, R. Alvarez, S. Bernet, **J. Rodriguez**. Switching Loss Analysis of 4.5-kV–5.5-kA IGCTs Within a 3L-ANPC Phase Leg Prototype. *IEEE Transactions on Industry Applications*, Vol. 50, No. 1, pp: 584-592, January 2014.
67. D. Andler, R. Alvarez, S. Bernet, **J. Rodriguez**. Experimental Investigation of the Commutations of a 3L-ANPC Phase Leg Using 4.5 kV - 5.5 kA IGCTs. *IEEE Transactions on Industrial Electronics*, Vol. 60, No. 11, pp: 4820-4830, November 2013.

68. M. Rivera, V. Yaramasu, A. Llor, **J. Rodriguez**, Bin Wu, M. Fadel. Digital Predictive Current Control of a Three-Phase Four-Leg Inverter. *IEEE Transactions on Industrial Electronics*, Vol. 60, No.11, pp: 4903-4912, November 2013.
69. L. Empringham, J. Kolar, **J. Rodriguez**, P. Wheeler, J. Clare. Technological Issues and Industrial Application of Matrix Converters: A Review. *IEEE Transactions on Industrial Electronics*, Vol. 60, No. 10, pp: 4260-4271, October 2013.
70. V. Yaramasu, M. Rivera, B. Wu, **J. Rodriguez**. Model Predictive Current Control of Two-Level Four-Leg Inverters—Part I: Concept, Algorithm, and Simulation Analysis. *IEEE Transactions on Power Electronics*, Vol. 28, No.7, pp: 3459-3468, July 2013.
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35. J. Pontt, J. Vasquez, N. Aros, **J. Rodriguez**, A. Muñoz, A. Garcia. Control vectorial de accionamientos de maquinas de corriente alterna empleados en la industria minera. VIII Seminario de la asociacion chilena de control automatico, ACCA, I Seminario IEEE: Control de Procesos Industriales (1989, Chile) Santiago, Agosto 1989, pp. 136-148.
36. **J. Rodriguez**. Convertidores estaticos de baja contaminacion. Anales del Seminario de la asociacion chilena de control automatico, ACCA, sobre: Convertidores estáticos de potencia, estado de la Tecnologia e Interaccion Red-Equipo-Carga (1988, Chile) Concepcion, Junio 1988.
37. **J. Rodriguez**, J. Pontt. Un oscilador trifasico digital simple. Anales del VII Congreso Chileno de Ingenieria Electrica (1987, Chile) Santiago, Octubre 1987.
38. **J. Rodriguez**. Una contribucion al control de la maquina de induccion alimentada por un inversor trifasico. Anales del VII Congreso Chileno de Ingenieria Electrica (1987, Chile) Santiago, Octubre 1987.
39. **J. Rodriguez**. Tecnicas de control de convertidores directos. Anales del I Seminario de Electronica de Potencia (1986, Chile) Concepcion.
40. **J. Rodriguez**. Interruptores bidireccionales con capacidad de corte: una nueva posibilidad en la electronica de potencia. Anales del IV Congreso Chileno de Ingenieria Electrica (1985, Chile) Santiago.
41. **J. Rodriguez**, J. Cortinez. Simulacion analogica del control de velocidad de un motor de corriente continua accionado por un amplificador de conmutacion. IV Congreso Chileno de Ingenieria Electrica (1981, Chile) Santiago.
42. M. Carreño, J. Pontt, **J. Rodriguez**. Control de tension de un inversor monofasico con modulacion sinusoidal del ancho de las pulsaciones. III Congreso de la asociacion chilena de control automatico, ACCA (1978, Chile) Concepcion.

PLENARY AND INVITED PRESENTATIONS AND TUTORIALS

1. **J. Rodriguez.** “Model Predictive Control: A Simple and Powerful Method to Control Power Converters”. Joint International Conference OPTIM-ACEMP, May 2017, Brasov, Romania.
2. **J. Rodriguez.** “Key Practices for Effective Scientific Research (Claves para Hacer Buena Investigación Científica)”. Invited Talk. Universidad Peruana de Ciencias Aplicadas (UPC), Lima, Abril 2017.
3. **J. Rodriguez,** “The Control and Transformation of Electrical Energy Using Power Semiconductors: Applications and Future Developments”. 4th Symposium for Research Award Winners of the Alexander von Humboldt Foundation, March 2017, Bamberg, Germany.
4. **J. Rodriguez,** “Predictive Control: A New and Powerful Alternative for Power Electronics and Drives”. Invited talk College of Electrical Engineering and Automation of the Fuzhou University in Fuzhou, China. February 2017.
5. **J. Rodriguez,** “Predictive Control: A New and Powerful Alternative for Power Electronics and Drives”. Invited talk Institute of Equipment Manufacturing of The Chinese Academy of Sciences in Quanzhou. China. February 2017.
6. **J. Rodriguez,** “Predictive Control: A New and Powerful Alternative for Power Electronics and Drives”. Invited talk Beijing Research Center for Power Electronics and Motor Drive Technology of The North China University of Technology, Beijing, China. February 2017.
7. **J. Rodriguez,** “Predictive Control: A New and Powerful Alternative for Power Electronics and Drives”. Invited talk Institute of Electrical Engineering Chinese Academy of Sciences, Beijing, China. February 2017.
8. **J. Rodriguez,** “Predictive Control: A New and Powerful Alternative for Power Electronics and Drives”. Invited talk Department of Electrical Engineering Tsinghua University, Beijing, China. February 2017.
9. **J. Rodriguez.** “Key Practices for Effective Scientific Research (Claves para Hacer Buena Investigación Científica)”. Invited Talk. Seminario de Investigación Facultad de Biología, Universidad de Concepción, Chile, Enero 2017.
10. **J. Rodriguez.** “Key Practices for Effective Scientific Research”. Invited distinguished lecture. University of Texas A and M at Qatar. Doha, Qatar, November 2016.
11. **J. Rodriguez,** R. Kennel, M. Kazmierkowski. “Predictive Control: A simple and Powerful Method to Control Power Converters and Drives”. Tutorial at the IEEE Energy Conversion Congress and Exposition (ECCE) 2016. Milwaukee, USA, 18-22 September 2016.
12. **J. Rodriguez.** “The Future of Power Electronics from the Perspective of the Applications”. Invited keynote presentation. 7th Power Electronics and Drives Systems and Technologies Conference. PEDSTC, Teheran, Iran, 16-18 February 2016.
13. **J. Rodriguez.** “Predictive Control: A New and Powerful Alternative for Power Electronics and Drives”. Invited plenary lecture. First Southern Power Electronics Conference, COBEP 2015-SPEC IEEE, Brazil, 29 November- 02 December 2015.
14. **J. Rodriguez.** “Predictive Control: A New and Powerful Alternative for Power Electronics and Drives”. Invited plenary lecture. Power Electronics and Power Quality Applications Conference (PEPQA), Bogota, Colombia, 2-4 June 2015.
15. **J. Rodriguez.** “Predictive Control in Power Electronics and Drives”. Invited keynote presentation. 6th Power Electronics and Drives Systems and Technologies. PEDSTC, Teheran, Iran, 3-4 February 2015.
16. **J. Rodriguez,** R. Kennel, M. Kazmierkowski. Predictive Control - A Simple and Powerful Method to Control Power Converters and Drives. Conferencia ECCE EPE PEMC’12 4-6 September 2012.
17. **J. Rodriguez,** R. Kennel, P. Cortes, M. Kazmierkowski. Predictive Control - A Simple and Powerful Method to Control Power Converters and Drives. IPEMC-ECCE Asia, 2-5 June 2012.
18. R. Kennel, M. Kazmierkowski, **J. Rodriguez,** P. Cortés. Predictive control in power electronics and drives. The 13th European Conference on Power Electronics and Applications, EPE (2009, España) Barcelona, 8-10 September 2009.

19. L. Franquelo, **J. Rodriguez**, J. Leon, S. Kouro, M. Perez, P. Lezana. Tutorial on multilevel converters: Current developments and future trends. IEEE International Conference on Industrial Technology, ICIT (2009, Australia) Gippsland, 10-13 February 2009.
20. R. Kennel, M. Kazmierkowski, **J. Rodriguez**, P. Cortes. Predictive control in power electronics and drives. IEEE International Symposium on Industrial Electronics, ISIE (2008, UK) Cambridge, June 30-July 2, 2008.
21. R. Kennel, M. Kazmierkowski, **J. Rodriguez**, P. Cortes. Predictive control in power electronics and drives. IEEE 39th Annual Power Electronics Specialists Conference, PESC (2008, Grecia) Rhodes, 15-19 June 2008.
22. R. Kennel, M. Kazmierkowski, **J. Rodriguez**, P. Cortes. Predictive control in power electronics and drives. Canadian Conference on Electrical and Computer Engineering, CCECE (2008, Canada) Ontario, 2-5 May 2008.
23. L. Franquelo, **J. Rodriguez**, J. Leon, S. Kouro, P. Lezana. Tutorial on recent advances on multilevel converters. 33rd Annual Conference of the IEEE Industrial Electronics Society, IECON (2007, Taiwan) Taipei, 5-8 November 2007.
24. **J. Rodriguez**, J. Leon, S. Kouro, P. Lezana. Tutorial on multilevel converters. IEEE International Symposium on Industrial Electronics, ISIE (2007, España) Vigo, 4-7 June 2007.
25. L. Franquelo, J. Leon, **J. Rodriguez**, S. Kouro, P. Lezana. Tutorial on multilevel converters. 12th International Power Electronics and Motion Control Conference, EPE-PEMC (2006, Eslovenia) Portoroz, August 30-September 1, 2006.
26. **J. Rodriguez**, J. Pontt, P. Lezana, S. Kouro. Tutorial on multilevel converters. International Conference on Power Electronics and Intelligent Control for Energy Conservation, PELINCEC (2005, Polonia) Varsovia, 16-19 October 2005.

RESEARCH

RESEARCH PROJECTS AS PRINCIPAL INVESTIGATOR

1. Predictive control of high power inverters, FONDECYT Proyecto regular N°1150829, 2015-2016
2. Director proyecto financiamiento Basal, Conicyt, "Centro Avanzado de Ingenieria Electrica y Electronica, AC3E", FB0008.
3. High performance control of electrical machines. FONDECYT Proyecto Regular N°1100404, 2010-2012
4. Control of indirect matrix converters. FONDECYT Proyecto Regular N°1080059, 2008-2009.
5. Robustecimiento de la investigacion y postgrado en ingenieria electronica. Proyecto Fundación Andes 2 N°14055(26), 2006-2007.
6. Confiabilidad de sistemas industriales con el control y mitigacion del nivel de interferencias conducidas EMI/EMC. Proyecto FONDEF N°D04I1392, 2006.
7. Desarrollo de un metodo de control para convertidores matriciales. Proyecto FONDECYT N°1060424, 2006.
8. Metodos de control para inversores multinivel. Proyecto UTFSM N°23.06.11, 2006.
9. Control predictivo de un inversor de tres niveles. Proyecto UTFSM N°23.05.11, 2005.
10. Control de inversores y convertidores multinivel. Proyecto UTFSM N°23.04.24, 2004.
11. Mejoramamiento de las características de operacion de inversores de media tension. Proyecto FONDECYT N°1030368, 2003-2005.
12. Fortalecimiento de la investigacion y postgrado en ingenieria electronica de la UTFSM. Proyecto Fundación Andes N°13755, 2002-2005.

13. Monitoreo para optimizacion de procesos y calidad de servicio electrico de sistemas industriales con convertidoresde potencia. Proyecto FONDEF N°D01I108, 2002-2004.
14. Control de convertidores estaticos modernos. Proyecto UTFSM N°23.02.22, 2002-2003.
15. Desarrollo de tecnicas de compensacion para mejorar la operacion en accionamientos electricos. ProyectoFONDECYT N°1010096, 2001-2003.
16. Desarrollo de tecnicas de compensacion para mejorar la operacion en accionamiento electrico. Proyecto FONDECYT N°7010096, 2001- 2002.
17. Control de convertidores regenerativos de alta potencia. Proyecto UTFSM DGIP, 2001.
18. Control vectorial de inversores con alto numero de niveles. Proyecto UTFSM DGIP, 2000.
19. Desarrollo de un inversor multiceldas regenerativo. Proyecto FONDECYT N°1990837, 1999-2001.
20. Aplicacion industrial de convertidores de alta potencia. Proyecto UTFSM DGIP, 1999.
21. Caracteristicas de funcionamiento de inversores. Proyecto UTFSM DGIP, 1998.
22. Control por microprocesadores de convertidores estaticos moderno. Proyecto UTFSM DGIP, 1995-1996.
23. Convertidores estaticos de baja contaminacion. Proyecto FONDECYT N°1941039, 1994-1996.
24. Desarrollo de convertidores estaticos modernos. Proyecto UTFSM DGIP, 1993-1994.
25. Desarrollo de un equipo ultrasonico para la molienda de minerales. Universidad de Santiago, Proyecto FONDEFN°D92I1021, 1992-1994.
26. Uso de tecnicas de control y de modulacion vectoriales en convertidores estaticos de potencia. ProyectoFONDECYT N°1910236, 1992-1993.
27. Desarrollo de experiencias para laboratorio de electronica industrial. Proyecto UTFSM DGIP, 1992.
28. Evaluacion de la contaminación armonica producida por convertidores estaticos en redes electricas. ProyectoUTFSM DGIP, 1991.
29. Criterios para la especificacion y evaluacion de convertidores de frecuencia. Proyecto FONDECYT N°1890246,1990-1991.
30. Control vectorial de maquinas y prediccion de fraccion de fractura en aceros estructurales de alta potencia empleadas en molinos SAG. Proyecto UTFSM DGIP Project, 1989.
31. Estudio de convertidores modulados orientados a minimizar la inyección de armonicas y potencia reactiva a los sistemas electricos. Proyecto FONDECYT N°1880597, 1988-1989.

RESEARCH PROJECTS AS CO-INVESTIGATOR

1. Multilevel multi-string topologies for large scale grid connected photovoltaic energy conversion systems.FONDECYT Regular Project N°1110783, 2011-2013.
2. Instituto de estudios avanzados en ciencias e ingenieria. Programa anillos de investigacion, Proyecto CONICYT, 2010-2012.
3. Predictive control of power converters for renewable energy conversion systems and applications. ProyectoFONDECYT Regular N°1101011, 2010-2011.
4. Centro cientifico-tecnologico de Valparaiso, CCTVal. Programa de financiamiento basal, Proyecto CONICYT, 2009-2014.
5. Finite-states model predictive control of multi-phase and multilevel converters. Proyecto FONDECYT RegularN°1080443, 2008-2009.
6. Operacion de inversores multinivel en cascada en condiciones de falla interna. Proyecto FONDECYT N°1060415,2006.
7. Control predictivo de convertidores estaticos de potencia. Proyecto FONDECYT N°1050549, 2006.
8. Scientific Millennium Nucleus on Industrial Electronics and Mechatronics (NEIM), Project N°P04-048-F, dela iniciativa Millennium (ICM-Mideplan), 2005-2008.

9. Conexion multicircuital de celdas y rectificador modulado de altas corrientes para procesos electrometalurgicos. Universidad de Concepcion, Proyecto FONDECYT N°1010885, 2001-2004.
10. Generalizacion electronica de corrientes sinusoidales en sistemas de potencia industriales con multiples convertidores estaticos. Universidad de Concepcion, Proyecto FONDECYT N°1980463, 1998-2001.
11. Nueva instrumentacion para plantas de molienda semiautogenas de minerales. Proyecto FONDEF N°D98I1087, 1998-2000.
12. Laboratorio de investigacion en confiabilidad y calidad de servicio. Proyecto FONDEF N°D97F1047, 1997-1999.
13. Control de convertidores tres niveles. Proyecto UTFSM DGIP, 1997.
14. Centro de transferencia tecnologica en molienda SAG y eficiencia de sistemas. Proyecto FONDEF N°D96T1033, 1996-1997.
15. Nuevas Estructuras de distribucion, conexion y configuracion de convertidores estaticos en sistemas de potenciaindustriales. Universidad de Concepcion, Proyecto FONDECYT N°1950785, 1995-1997.
16. Control por vectores espaciales de convertidores de frecuencia directos: Algoritmos de control y evaluacion. Universidad de Concepcion, Proyecto FONDECYT N°1930459, 1993-1995.
17. Diagnostico de fallas en cicloconvertidores estaticos de potencia. Universidad de Concepcion, Proyecto FONDECYT N°1910339, 1992-1993.
18. Mejoramiento de productividad y costos de producción en molinos semiautogenos de velocidad variable concontrol vectorial. Proyecto UTFSM DGIP, 1992.
19. Control por computador de procesos y sistemas industriales. Proyecto UTFSM DGIP, 1992.
20. Centro de transferencia tecnologica en accionamiento, automatizacion e informatica industrial. Proyecto FONDEF N°D91I1130, 1991-1993.
21. Control vectorial de accionamiento de alta potencial empleados en molinos SAG y correas transportadoras: interaccion red-convertidor-maquina. Proyecto UTFSM DGIP, 1991.
22. Cicloconvertidores estaticos de potencia; proyecciones tecnologicas, interaccion red-equipo-carga y factores criticos de operacion. Universidad de Concepcion, Proyecto FONDECYT N°1890670, 1990-1991.
23. Tecnicas de modulacion PWM y sus efectos asociados en la utilizacion de convertidores estaticos. Universidad de Concepcion, Proyecto FONDECYT N°1870070, 1987-1988.

UNDERGRADUATE STUDENTS SUPERVISED

1. Petrowitsch Crignola, Pablo Alberto: Electronic Engineer (11-10-2013).
2. Zavala Hidalgo Patricio: Electronic Engineer (16-01-2013).
3. Cuevas Cortes, Cristian Miguel: Electronic Engineer (17-05-2011).
4. Caimanque Vega, Cristian Mauricio: Electronic Engineer (22-03-2011).
5. Germán Andres Ibañez Perez: Electronic Engineer (30-11-2010).
6. Trincado Zapata, Mauricio: Electronic Engineer (22-12-2009).
7. Becker Dörner, Ronald Heriberto: Electronic Engineer (16-10-2009).
8. Gonzalez Rojo, Violeta Tatiana: Electronic Engineer (01-12-2008).
9. Halat Pardo, Ivan Antonio: Electronic Engineer (12-08-2008).
10. Guarello Mundt, Diego: Electronic Engineer (10-04-2008).
11. Arroyo Klein, Sebastian: Electrical engineer (31-07-2007).
12. Muratt Rodriguez, Jorge Antonio: Electronic Engineer (27-02-2007).
13. Garcia Orellana, Francisco Jose: Electronic Engineer (21-11-2006).
14. Marin Carcey, Loreto Elisa: Electronic Engineer (31-05-2006).
15. Ulloa Guzman, David Antonio: Electronic Engineer (21-04-2006).
16. Perez Ludueña, Jesús: Ing. Civil Electricista (23-09-2005).

17. Bernal Torres, Rafael Ernesto: Electronic Engineer (21-01-2005).
18. Chaparro Vejar, Felipe Eduardo: Electronic Engineer (11-01-2005).
19. Miranda Delpino, Hernan Andres: Electronic Engineer (26-11-2004).
20. Chavez Garcia, Pablo Antonio: Electronic Engineer (19-07-2004).
21. Gonzalez Chamorro, Carolina: Electronic Engineer (11-06-2004).
22. Liendo Rojas, Alvaro: Electronic Engineer (03-05-2004).
23. Rodriguez Kong, Sergio Enrique: Electronic Engineer (28-04-2004).
24. Vargas Villalobos, Luis Alejandro: Electronic Engineer (21-01-2004).
25. Schiappacasse Poyanco, Renato Arturo: Electronic Engineer (25-11-2003).
26. Chesta Robles, Jose Luis: Electronic Engineer (25-11-2003).
27. Monzon Peñailillo, Jorge: Electronic Engineer (25-11-2003).
28. Gardiazabal Schilling, Jose Francisco: Electronic Engineer (21-11-2003).
29. Bugueño Gonzalez, Julio Alejandro: Electronic Engineer (21-11-2003).
30. Hurtado Luco, Juan Carlos: Electronic Engineer (06-11-2003).
31. Muñoz Bustos, Ruben Eduardo: Electronic Engineer (06-11-2003).
32. Torres Fernandez, Alvaro Eduardo: Electronic Engineer (28-10-2003).
33. Puga Slight, Bernard: Electronic Engineer (16-09-2003).
34. Ramirez Villarroel, Cristian Orlando: Electronic Engineer (12-09-2003).
35. Martinez Rodriguez, Juan Francisco: Electronic Engineer (22-08-2003).
36. Jaramillo Vergara, Alberto: Electrical engineer (04-08-2003).
37. Montes Dessy, Claudio Igor: Electronic Engineer (25-07-2003).
38. Ochoa Mancilla, Jose Luis: Electronic Engineer (04-07-2003).
39. Molina Molina, Alejandro Enrique: Electronic Engineer (14-03-2003).
40. Cortes Estay, Patricio Marcelo: Electronic Engineer (10-03-2003).
41. Silva Lütty, Leopoldo: Electronic Engineer (21-11-2002).
42. Fernandez Briones, Alejandro Andres: Electronic Engineer (28-06-2002).
43. San Martin Muñoz, Rodrigo Antonio: Electronic Engineer (24-05-2002).
44. Huerta Cortes, Rodrigo Alfonso: Electronic Engineer (10-05-2002).
45. Gonzalez Sandoval, Mauricio: Electrical engineer (17-01-2002).
46. Ternicier Montenegro, Luis: Electrical engineer (09-07-2001).
47. Gonzalez Maldonado, Danilo: Electrical engineer (17-01-2001).
48. Benavides Oswald, Rodrigo Andres: Electronic Engineer (15-01-2001).
49. Otelu Benavente, Juan Francisco: Electronic Engineer (11-01-2001).
50. Kusch Sinning, Martin: Electronic Engineer (27-11-2000).
51. Fuenzalida Tapia, Francisco Javier: Electronic Engineer (22-11-2000).
52. Correa Vasquez, Pablo: Electronic Engineer (27-10-2000).
53. Weinstein Oppenheimer, Alejandro: Electronic Engineer (27-10-2000).
54. Arrieta Gallardo, Claudia Alejandra: Electronic Engineer (25-10-2000).
55. Cuadra Toro, Rodrigo Alejandro: Electronic Engineer (19-01-2000).
56. Díaz Avila, Cristian: Electronic Engineer (29-11-1999).
57. Rubilar Puroja, Sergio Antonio: Electronic Engineer (18-11-1998).
58. Gonzalez Nova, Antonio Andres: Electronic Engineer (17-11-1998).
59. Osorio Pizarro, Ruben: Electronic Engineer (17-11-1998).
60. Silva Jimenez, Cesar Armando: Electronic Engineer (09-09-1998).
61. Rumie Carmi, Omar Alejandro: Electronic Engineer (10-12-1997).
62. Molina Venegas, Leonardo Javier: Electronic Engineer (07-09-1996).
63. Bahamondes Becerra, Claudio Guillermo: Electronic Engineer (29-01-1996).
64. Rolle Jimenez, Marcelo Ivan: Electronic Engineer (15-01-1996).
65. Liebe Masferrer, Fernando: Electronic Engineer (04-01-1996).

66. Riquelme Gálvez, Bernardo Felix: Electronic Engineer (13-09-1995).
67. Porflit Vargas, Kurt Edgardo: Electronic Engineer (19-01-1995).
68. De La Paz Rojas, Alejandro Andres: Electronic Engineer (19-01-1995).
69. Sepulveda Pervis, Mario: Electronic Engineer (10-03-1994).
70. Yañez Arredondo, Patricio Eugenio Electronic Engineer (10-03-1994).
71. Galleguillos Guggiana, Jorge: Electronic Engineer (20-01-1994).
72. Carvajal Yunis, Carlos Salech: Electronic Engineer (20-12-1993).
73. Andrade Uribe, Hector Alejandro: Electronic Engineer electrónico (09-11-1993).
74. Pizarro Ramirez, Víctor: Electronic Engineer (20-04-1993).
75. Jamett Lazcano, Jorge Raul: Electronic Engineer (31-03-1993).
76. Barria Diaz, Arturo Ramon: Electronic Engineer (30-01-1993).
77. Barraza Salazar, Jairo: Ing. Ejecución Electricista (20-01-1993).
78. Riquelme Gálvez, Bernardo Felix: Electronic Engineer (18-01-1993).
79. Vallejos Lobos, Gerardo: Electrical engineer (23-11-1992).
80. Castillo Fuentes, Cristian: Electrical engineer (21-01-1992).
81. Galleguillos G., Jorge: Electrical engineer (24-10-1990).
82. Narvaez Muñoz, Hernan: Electrical engineer (05-10-1990).
83. Garcia Casanova, Andy: Electrical engineer (23-04-1990).
84. Zamorano Consigliers, Jose Luis Electrical engineer (12-01-1990).
85. Molina Aguirre, Claudio: Electrical engineer (04-12-1989).
86. Caballero Barria, Elizabeth: Electrical engineer (13-04-1989).
87. Barriga Jaque, Gabriel: Electrical engineer (21-12-1988).
88. Pavez Fernandez, Patricio: Electrical engineer (19-12-1988).
89. Diaz Valenzuela, Mauricio: Electrical engineer (06-12-1988).
90. Sottolichio Leyton, Carlos: Electrical engineer (21-11-1988).
91. Solar Mardones, Rodrigo: Electrical engineer (21-12-1987).
92. Gallardo Salce, Marcos: Electrical engineer (11-12-1987).
93. Illesca Barichivich, Jose Manuel: Electrical engineer (03-12-1986).
94. Aros Oñate, Nelson: Electrical engineer (21-10-1986).
95. Vera Muñoz, Ivan Electrical engineer (20-01-1982).
96. Meza Duran, Raimundo: Electrical engineer (14-08-1981).
97. Harris Bucher, Alejandro: Electrical engineer (29-07-1981).
98. Rivera Banderas, Raul: Electrical engineer (03-04-1981).
99. Morales Sanchez, Rafael: Electrical engineer (12-12-1980).
100. Covarrubias Guzman, Jose Ignacio: Electrical engineer (05-12-1980).
101. Gómez Leighton, Juan Carlos: Electrical engineer (07-04-1980).
102. Lepe Contreras, Gerardo: Electrical engineer (02-04-1980).
103. Miranda Puebla, Ricardo: Electrical engineer (28-03-1980).
104. Sandoval Carrasco Guillermo: Electrical engineer (26-03-1980).
105. Vargas Saavedra, Jose: Electrical engineer (14-03-1980).
106. Torres Miranda, Juan Antonio: Electrical engineer (03-04-1979).
107. Fernandez Fernandez, Alvaro: Electrical engineer (30-03-1979).
108. Toro Vargas, Jaime: Electrical engineer (30-03-1979).
109. Cortinez Cortez, Jaime: Electrical engineer (23-02-1979).
110. Valladares Barrios, Jose Pablo: Electrical engineer (13-09-1978).
111. Sanhueza Maturana, Gerardo: Electrical engineer (31-03-1978).

MASTER STUDENTS SUPERVISED

1. Garcia, Cristian: Implementacion experimental de tecnicas de control predictivo en un convertidor matricial indirecto de cuatro piernas (07-06-2013).
2. Contreras, Ivan: Control Predictivo en un Convertidor Matricial Indirecto de Cuatro Piernas (07-09-2011).
3. Trincado, Mauricio: Comparacion entre el Control por Campo Orientado, Control Directo de Torque y Control Predictivo de Torque en Maquinas de Induccion (15-09-2011).
4. Rivera, Sebastian: Control Directo de Potencia para Conexion a Red de Convertidores Multinivel (29-07-2011).
5. Cuevas, Cristian: Control Predictivo de un Inversor de 4 Piernas (07-05-2011).
6. Rojas, Sebastian: Control predictivo de las pulsaciones de torque en un motor sincrónico de imanes permanentes (26-11-2010).
7. Moya, Alvaro: Conexion a red de sistemas fotovoltaicos mediante convertidores multinivel (26-02-2010).
8. Vattuone, Luna: Control predictivo de corriente en inversores fuente de voltaje de 5 fases (14-08-2009).
9. Lizama, Ignacio: Control predictivo para rectificadores fuente de corriente de alta potencia (14-08-2009).
10. Robles, Hernan: Evaluación de eficiencia de métodos de modulación en inversores multinivel puente H en cascada (03-07-2009).
11. La Rocca, Bruno: Aplicacion del control predictivo para disminuir las pérdidas por conmutación en convertidores multinivel (01-06-2009).
12. Andler, Daniel: Analisis de eficiencia de los métodos de modulación aplicados a convertidores multinivel NPC (04-05-2009).
13. Ortiz, Gabriel: Reconfiguracion de convertidores multicelda en cascada bajo operacion en falla (15-12-2008).
14. Villanueva, Elena: Diseño de un sistema de generacion electrica con paneles fotovoltaicos basado en una topologia multinivel puente-H (10-10-2008).
15. Miranda, Hernan: Control directo de torque en maquinas de induccion (12.10.2007).
16. San Martin, Juan: Monitoreo inteligente del desempeño de protecciones contra sobrevoltajes en un sistema industrial (29-06-2007).
17. Aguilera, Ricardo: Deteccion y manejo de fallas en inversores multicelda (22-06-2007).
18. Bernal, Rafael: Adaptacion de control directo de torque para aplicaciones en accionamientos con inversores multinivel (24-10-2006).
19. Rebolledo, Jaime: Modulacion de inversores multinivel asimetricos (20-01-2006).
20. Alvarez, Rodrigo: Development and investigation of an advance gate unif for hv-igbt's (22-11-2005).
21. Vargas, Rene: Control predictivo de 3 niveles (22-11-2005).
22. Perez, Jesus: Control predictivo de torque en un motor de induccion alimentado por un inversor de 3 niveles (23-09-05).
23. Lezana, Pablo: Convertidores multiceldas regenerativos (05-01-2005).
24. Kouro, Samir: Control directo de torque (DTC) de maquinas de induccion alimentadas por inversores multinivel (06-01-2004).
25. Correa, Pablo: Estudio de tecnicas de mitigacion de tensiones de modo comun en inversores multicelda (16-11-2001).

PHD STUDENTS SUPERVISED

1. Norambuena, Margarita (*in process*).
2. Garcia, Cristian (*in process*).
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