

List of publications – Mircea RUBA

List of 10 publications considered by the author relevant for highlighting his professional achievements:

1. Raul Nemeş, Mircea Ruba, Raluca Raia, Tudor Moldovan, Claudia Marţiş, "Validation of EMR simulation platform of a permanent magnet synchronous machine used for electric propulsion" , IEEE Vehicular Power and Propulsion 2021 (IEEE VPPC 2021) , - in print
2. Raul Nemeş, Mircea Ruba, Claudia Marţiş, " HiL testing of Li-Ion battery pack based on real-time virtual vehicle model ", IEEE Vehicular Power and Propulsion 2021 (IEEE VPPC 2021) , - in print
3. R. Nemeş, S. Ciornei, M. Ruba, C. Marţiş and H. Hedeşiu, "Urban light electric vehicle real-time model architecture using VeriStand Software," 2021 IEEE 19th International Power Electronics and Motion Control Conference (PEMC), 2021, pp. 292-297, doi: 10.1109/PEMC48073.2021.9432634.
4. M. Ruba, R. Nemeş, S. Ciornei, C. Marţiş and H. Hedeşiu, "A review on analytical methods for multilevel simulation of urban light electric vehicles," 2021 IEEE 19th International Power Electronics and Motion Control Conference (PEMC), 2021, pp. 377-382, doi: 10.1109/PEMC48073.2021.9432513.
5. M. R. Raia, M. Ruba, R. A. Inte, C. Martis, G. M. Sirbu and C. Husar, "Modelling and Virtual Testing of a Wound Rotor Synchronous Machine for Electrical Vehicles Propulsion System," 2021 International Aegean Conference on Electrical Machines and Power Electronics (ACEMP) & 2021 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM), 2021, pp. 129-134, doi: 10.1109/OPTIM-ACEMP50812.2021.9590075.
6. R. Nemes et al., "Hardware in the Loop Testing of an Urban Electric Vehicle Model Supplied with Supercapacitors," 2021 International Aegean Conference on Electrical Machines and Power Electronics (ACEMP) & 2021 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM), 2021, pp. 123-128, doi: 10.1109/OPTIM-ACEMP50812.2021.9590059.
7. H. Hedeşiu, M. Ruba, C. Martis, H. Grebla, C. Kilyen and H. F. Moldovan, "PV Monitoring System using Industrial Internet of Things Technologies based on Graphical Programming," 2021 International Conference on Applied and Theoretical Electricity (ICATE), 2021, pp. 1-4, doi: 10.1109/ICATE49685.2021.9465023.
8. M. R. Raia, M. Ruba, C. Martis, C. Husar and G. M. Sirbu, "Battery electric vehicle (BEV) powertrain modelling and testing for real-time control prototyping platform integration,"

2021 23rd European Conference on Power Electronics and Applications (EPE'21 ECCE Europe), 2021, pp. P.1-P.10.

9. Raul Nemeş , Mircea Ruba, Claudia Martis, Radu A. Munteanu, "Sensorless Field-Oriented Control MRAS Based of Interior Permanent Magnet Synchronous Motor with MTPA ", Acta Electrotehnica . 2020, Vol. 61 Issue 4, p297-300 4p.

10. Ciornei, Sorina; Nemes, Raul; Ciceo, Sebastian; Ruba, Mircea; Munteanu, Radu A.; Martis, Claudia Steluta, " Parameters Identification using Experimental Measurements for Equivalent Circuit Ultracapacitor Model ", Acta Electrotehnica . 2020, Vol. 61 Issue 4, p294-297. 4p.

The PhD. Thesis:

Proiectarea și studierea unei mașini cu reluctanță variabilă autocomutată de construcție modulară

Coordonator: Prof.Dr.Ing. Szabo Lorand

Patents:

1. M. Ruba, L. Szabo, "Mașina cu reluctanta comutată tolerantă la defecte de construcție modulară", OSIM, No. A /00504c/2010

2. M.Ruba, D. Fodorean, "Mașină cu reluctanță comutată cu autoventilație la rotor", OSIM No.A/2012/00884,

3. F. Jurca, M. Ruba, " Sistem janta cu motor electric încorporat pentru vehicule electrice", OSIM No. A 00665 2015

4. M. Ruba, "Procedură programabilă de detecție a defectelor la senzorii de curent a unui convertor electronic trifazat", OSIM No. A/00156/04.07.2018

5. R.Nemeş, M. Ruba, "Sistem de echilibrare activ a celulelor unei baterii fără pierderi, sincron cu procesul de încărcare", OSIM No.A/00390/12.08.2019 – în așteptare

6. L.Szabo, M. Ruba, "Motor rotativ-liniar pentru acționarea integrată a propulsiei și a direcției asistate a autovehiculelor electrice", OSIM No. A/00446/22.07.2019 – în așteptare

Books:

1. Daniel Fodorean, Florin Nicolae Jurca, Mircea Ruba, Dan-Cristian Popa:

"MOTORIZATION VARIANTS FOR LIGHT ELECTRIC VEHICLES - Design, Magnetic, Mechanical and Thermal Aspects", Editura Alma Mater, 2013, ISBN: 978-606-504-160-8

2. Claudia Martis, Horia Hedesiu, Florin Jurca, Claudiu Oprea, Mircea Ruba:

"INTRODUCERE ÎN SISTEME ELECTROMECHANICE", Editura Alma Mater, Cluj-Napoca, 2012, ISBN: 978-606-504-136-3

3. Mircea Ruba, Raul-Octavian Nemeş, Eduard-Edis Răclau, Călin-Ioan Husar

ANALIZA PRIN MODELARE ÎN MEDIUL SIMCENTER AMESIM SISTEMELOR ELECTROMECHANICE

ÎNDRUMAR DE LABORATOR, UTPRESS Cluj-Napoca, 2021 ISBN 978-606-737-513-8

4. Raul-Octavian Nemeş, Mircea Ruba, Călin-Ioan Husar

REPREZENTAREA MACROSCOPIC - ENERGETICĂ A SISTEMELOR INTEGRATE - APLICAȚIILE PRACTICE, UTPRESS Cluj-Napoca, 2021 ISBN 978-606-737-514-5

Chapters in international published books:

1. APPLIED ELECTROMECHANICAL DEVICES AND MACHINES FOR ELECTRIC MOBILITY SOLUTIONS

Book edited by: Dr. Adel El-Shahat & Dr. Mircea Ruba, ISBN 978-1-78985-728-3

Chapter 3- Parameter Identification, Modeling and Testing of Li-Ion Batteries Used in Electric Vehicles

Mircea Ruba, Raul Nemeş, Sorina Ciornei and Claudia Martis

2. NEW PERSPECTIVES ON ELECTRIC VEHICLES

Chapter - Powerful Multilevel Simulation Tool for HiL Analysis of Urban Electric vehicle's Propulsion Systems

Raul Octavian Nemeş, Mircea Ruba, Sorina Maria Ciornei and Raluca Maria Raia

Publisher InTech, Published: June 24th 2021, DOI: 10.5772/intechopen.98532

3. Hybrid Electric Vehicles

Edited by Teresa Donato, ISBN 978-953-51-3298-1, Print ISBN 978-953-51-3297-4, 158 pages,

Publisher: InTech, Chapters published June 21, 2017 under CC BY 3.0 license, DOI: 10.5772/66000

Chapter 5 - Performance Analysis of an Integrated Starter-Alternator- Booster for Hybrid Electric Vehicles

Florin-Nicolae Jurca and Mircea Ruba

4. Switched Reluctance Motor - Concept, Control and Applications

Edited by Ahmed Tahour and Abdel Ghani Aissaoui, ISBN 978-953-51-3268-4, Print ISBN 978-953-51-3267-7, 122 pages, Publisher: InTech, Chapters published June 21, 2017 under CC BY 3.0 license, DOI: 10.5772/66849 Edited Volume

Chapter 4 - Design, Power Electronics and Torque Control of Switched Reluctance Machines
Mircea Ruba and Petre Dorel Teodosescu

5. Fault Diagnosis and Detection

Edited by Mustafa Demetgul and Muhammet Unal, ISBN 978-953-51-3204-2, Print ISBN 978-953-51-3203-5, 334 pages, Publisher: InTech, Chapters published May 31, 2017 under CC BY 3.0 license, DOI: 10.5772/63169

Chapter 8 - Fault-Tolerant Electrical Machines and Drives
Mircea Ruba

Publications in ISI journals:

1. D. Fodorean, D.C.Popa, M.Ruba : On the Fault Tolerance of Permanent Magnet Synchronous Machines and Drives Used in Hybrid Vehicle Applications, Journal of International Review of Electrical Engineering (IREE), Vol.7 N.2, Pp.3795-3803, ISSN:1827-6660, March-April 2012.

2. M.Ruba D.Fodorean : Analysis of Fault-Tolerant Multiphase Power Converter for a Nine-Phase Permanent Magnet, IEEE Trans. On Industrial Applications, Vol. 48, no. 6, pp. 2092-2101, ISSN: 0093-9994, 2012

3. Szabo L., M.Ruba : Segmental Stator Switched Reluctance Machine for Safety-Critical Applications, IEEE Trans. On Industrial Applications, Vol. 48, no. 6, pp. 2223-2229, ISSN: 0093-9994, 2012

4. Ruba M. – Viorel I.A. – Szabó L.: Modular stator switched reluctance motor for fault tolerant drive systems, IET Electric Power Applications, vol. 7, no. 3 (March 2013), pp. 159-169, 2013, ISSN: 1751-8660).

5. Szabó L. – Ruba M. – Szász Cs. – Chindris V. – Husi G.: Fault Tolerant Bio-Inspired System Controlled Modular Switched Reluctance Machine, Automatika – Journal for Control, Measurement, Electronics, Computing and Communications, vol. 55, no. 1, pp. 53-63, 2014. ISSN: 1848-3380 (ISI).

6. Mircea Ruba ; Florin Jurca ; Levente Czumbil ; Dan D. Micu ; Claudia Martis ; Alexis Polycarpou ; Renato Rizzo, "Synchronous reluctance machine geometry optimisation through a genetic algorithm based technique", IET Electric Power Applications, Vol.: 12, Issue: 3, 22 March 2018, DOI: 10.1049/iet-epa.2017.0455
7. Raul-Octavian Nemeş, Sorina-Maria Ciornei, Mircea Ruba, Claudia Martiş "Real-time simulation of scaled propulsion unit for light electric vehicles", Electrical Engineering, Springer Link, 25 April 2019, ISSN: 0948-7921,
8. M. Ruba, R. O. Nemeş, S. M. Ciornei and C. Martiş, "Simple and Robust Current Sensor Fault Detection and Compensation Method for 3-Phase Inverters," in IEEE Access, vol. 8, pp. 34820-34832, 2020, doi: 10.1109/ACCESS.2020.2974769.
9. M. Raia, M. Ruba, et al., "Artificial Neural Network and Data Dimensionality Reduction Based on Machine Learning Methods for PMSM Model Order Reduction," IEEE Access, vol. 9, pp. 102345-102354, 2021, doi: 10.1109/ACCESS.2021.3095668.

Publications in international and national conferences in the field of specialty:

99. C. HUSAR et al., "Multi-level simulation of a BEV using EMR methodology," 2020 IEEE Vehicle Power and Propulsion Conference (VPPC), Gijon, Spain, 2020, pp. 1-6, doi: 10.1109/VPPC49601.2020.9330943.
98. A. -M. Nicorici, M. Ruba, C. S. Martiş, L. Szabó and Z. Máthé, "Comparative Analysis of Permanent Magnet Synchronous Machines Designed for Electric Power Steering Applications," 2020 XI International Conference on Electrical Power Drive Systems (ICEPDS), St. Petersburg, Russia, 2020, pp. 1-6, doi: 10.1109/ICEPDS47235.2020.9249074.
97. S. M. Ciornei, M. Ruba, R. O. Nemeş and C. Martiş, "Multi-level models for a light electric vehicle propulsion system using EMR organisation," 2020 International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM), Sorrento, Italy, 2020, pp. 357-362, doi: 10.1109/SPEEDAM48782.2020.9161855.
96. S. Ciornei, R. Nemeş, M. Ruba, C. Martiş and H. Hedeşiu, "Performance analysis of urban light electric vehicle propulsion system's multi-level modelling," 2020 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR), Cluj-Napoca, Romania, 2020, pp. 1-6, doi: 10.1109/AQTR49680.2020.9129938.
95. C. Antonya, C. Irimia, M. Grovu, C. Husar and M. Ruba, "Co-Simulation Environment for the Analysis of the Driving Simulator's Actuation," 2019 7th International Conference on Control, Mechatronics and Automation (ICCMA), Delft, Netherlands, 2019, pp. 315-321, doi: 10.1109/ICCMA46720.2019.8988628.

94. A. Desreuveaux, M. Ruba, A. Bouscayrol, G. M. Sirbu and C. Martis, "Comparisons of Models of Electric Drives for Electric Vehicles," 2019 IEEE Vehicle Power and Propulsion Conference (VPPC), Hanoi, Vietnam, 2019, pp. 1-5, doi: 10.1109/VPPC46532.2019.8952540.
93. M. Ruba, R. O. Nemes, S. M. Ciornei, C. Martis, A. Bouscayrol and H. Hedesiu, "Digital Twin Real-Time FPGA Implementation for Light Electric Vehicle Propulsion System Using EMR Organization," 2019 IEEE Vehicle Power and Propulsion Conference (VPPC), Hanoi, Vietnam, 2019, pp. 1-6, doi: 10.1109/VPPC46532.2019.8952428.
92. Sorina Maria Ciornei, Mircea Ruba, Raul Octavian Nemes, "Modeling, control and simulation of a light electric vehicle propulsion system based on EMR", 2019 International Annual Conferente, Firenze, Italy, 18-20 September 2019.
91. Ruba, M., Ciornei, S., Nemeş, R., Martis, C., "Detailed Design of Second Order Model of Lithium-Ion Battery Simulator Based on Experimental Measurements", 11th International Symposium on Advanced Topics in Electrical Engineering, ATEE 2019; Bucharest; Romania; 28 March 2019 through 30 March 2019; DOI: 10.1109/ATEE.2019.8724878
90. Nemes, R.O., Maria Ciornei, S., Ruba, M., Martis, C., "Parameters identification using experimental measurements for equivalent circuit Lithium-Ion cell models", 11th International Symposium on Advanced Topics in Electrical Engineering, ATEE 2019; Bucharest; Romania; 28 March 2019 through 30 March 2019; DOI: 10.1109/ATEE.2019.8724878
89. Blidar, O.C., Munteanu, R.A., Iudean, D., Ruba, M., Nistor, G. "Simulation of a Boost Converter for the Automotive Industry", 8th International Conference on Modern Power Systems, MPS 2019; Technical University of Cluj-Napoca Cluj-Napoca; Romania; 21 May 2019 through 23 May 201, DOI: 10.1109/MPS.2019.8759769
88. Nemes, R., Ciornei, S., Ruba, M., Hedesiu, H., Martis, C., "Modeling and simulation of first-order Li-Ion battery cell with experimental validation", 8th International Conference on Modern Power Systems, MPS 2019; Technical University of Cluj-Napoca Cluj-Napoca; Romania; 21 May 2019 through 23 May 201, DOI: 10.1109/MPS.2019.8759769
87. Pop Piglesan Florin ; Ruba Mircea ; Pop Adrian-Cornel ; Radu Martis ; Claudia Martis, "Comparative Analysis for an Electric Power Steering System" , 2018 XIII International Conference on Electrical Machines (ICEM), 3-6 Sept. 2018, DOI: 10.1109/ICELMACH.2018.8507038
86. Sorina-Maria Ciornei ; Raul-Octavian Nemes ; Mircea Ruba ; Calin Husar ; Horia Hedesiu ; Claudia Martis, "Real-Time Simulation of a Complete Electric Vehicle Based on NI VeriStand Integration Platform", 2018 International Conference and Exposition on Electrical And Power Engineering (EPE), 18-19 Oct. 2018, DOI: 10.1109/ICEPE.2018.8559877
85. Raul-Octavian Nemes ; Mircea Ruba ; Sorina Ciornei ; Horia Hedesiu ; Claudia Martis ; Calin Husar, "Real-Time Co-simulation of Electric Power Steering System", 2018 International Conference and Exposition on Electrical And Power Engineering (EPE), 18-19 Oct. 2018, DOI: 10.1109/ICEPE.2018.8559877

84. Raul-Octavian Nemes ; Mircea Ruba ; Claudia Martis, "Integration of Real-Time Electric Power Steering System Matlab/Simulink Model into National Instruments VeriStand Environment", 2018 IEEE 18th International Power Electronics and Motion Control Conference (PEMC), 26-30 Aug. 2018, Budapest, Hungary, DOI: 10.1109/EPEPEMC.2018.8521888

83. Pop Piglesan Florin ; Ruba Mircea ; Nemes Raul ; Claudia Martis ; Pop Adrian-Cornel, "Real-time Model in the Loop analysis of PMSM for electric power steering system based on FPGA implementation", 2018 International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM), 20-22 June 2018, Amalfi, Italy, DOI: 10.1109/SPEEDAM.2018.8445395

82. Radu Martis ; Florin Pop Pîglesan ; Claudia Martis ; Lor Szabo ; Mircea Ruba, "Design and Optimization Platform for Synchronous Motors", 2018 International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM), 20-22 June 2018, Amalfi, Italy, DOI: 10.1109/SPEEDAM.2018.8445210

81. Mircea Ruba ; Florin Pop Piglesan ; Raul Nemes ; Horia Hedeşiu ; Claudia Martis, "Comparison of electric power steering assistant motor structures using real-time model in the loop analysis", 2018 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR), 24-26 May 2018, Cluj-Napoca, Romania, DOI: 10.1109/AQTR.2018.8402756

80. Mircea Ruba ; Raul Nemes ; Florin Pop Piglesan ; Horia Hedeşiu ; Claudia Martis, "Complete electric power steering system real-time model in the loop simulator", 2018 ELEKTRO, 21-23 May 2018, Mikulov, Czech Republic, DOI: 10.1109/ELEKTRO.2018.8398345

79. Raul-Octavian Nemes ; Sorina-Maria Ciornei ; Mircea Ruba ; Claudia Martis, "Real-time simulation of scaled propulsion unit for light electric vehicles", 2018 ELEKTRO, 21-23 May 2018, Mikulov, Czech Republic, DOI: 10.1109/ELEKTRO.2018.8398345

78. Mircea Ruba, Raul Nemes, Claudia Martis, "FPGA based real-time electric power assisted steering motor-drive simulator designed for HiL testing in the automotive industry", 2017 IEEE Vehicle Power and Propulsion Conference (VPPC), 11-14 December 2017, pp. xx-xx, DOI: 10.1109/VPPC.2017.8331024

77. Sorina-Maria Ciornei; Raul-Octavian Nemes; Mircea Ruba; Horia Hedeşiu; Claudia Martiş, "Real-time FPGA simulator for electric vehicle power supply systems", Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), 2017 International Conference on, 25-27 May 2017, pp. 983 - 988, DOI: 10.1109/OPTIM.2017.7975098.

76. Mircea Ruba; Sorina Ciornei; Horia Hedeşiu; Claudia Martis, "Complete FPGA based real-time motor drive simulator with bidirectional battery and ultracapacitor power supply" , 2017 10th International Symposium on Advanced Topics in Electrical Engineering (ATEE), Bucharest Romania, 23-25 March 2017, pp.: 186 - 191, DOI: 10.1109/ATEE.2017.7905078.

75. M. Ruba; D. Fodorean, "Development of a complete motor-drive solution for light EV based on a SRM", 2016 International Conference and Exposition on Electrical and Power Engineering (EPE), Iasi, Romania, Pages: 197 - 204, DOI: 10.1109/ICEPE.2016.7781332
74. M. Ruba, H.Nagy, H.Hedesiu, Claudia Martis , "FPGA based processor in the loop analysis of variable reluctance machine with speed control", 2016 IEEE International Conference on Automation, Quality and Testing, Robotics, AQTR 2016, 19th -21st May, Cluj Napoca, Romania, ISBN: 978-1-4673-8691-3.
73. H. Nagy; M. Ruba; H. Hedeshiu; C. Martis, FPGA based real-time simulation of a Switched Reluctance machine drive unit, 2016 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR), pp.1-5, 19-21 May 2016, DOI: 10.1109/AQTR.2016.7501373
72. M.Ruba, Nagy H., H. Hedeshiu, C. Martis, Real-Time FPGA Model in the Loop Analysis of Permanent Magnet Synchronous Machine for LEV, 2016 International Conference and Exposition on Electrical and Power Engineering (EPE), pp.219 - 224, 20-22 October 2016, DOI: 10.1109/ICEPE.2016.7781336
71. Jurca F. N., Ruba M., Martis C., "Design and Control of Synchronous Reluctances Motors for Electric Traction Vehicle", International Symposium on Power Electronics, Electrical Drives, Automation and Motion, SPEEDAM2016, pp.1147-1150, ISBN:978-1-5090-2067-6
70. Ruba M., Jurca F. N., Martis C. "Analysis of synchronous reluctance machine for light electric vehicle applications", International Symposium on Power Electronics, Electrical Drives, Automation and Motion, SPEEDAM2016, pp.1140-1145, ISBN:978-1-5090-2067-6
69. H.Nagy, M. Ruba, H.Hedesiu, Claudia Martis , "FPGA Based Real-Time Simulation of a Switched Reluctance Machine Drive Unit ", 2016 IEEE International Conference on Automation, Quality and Testing, Robotics, AQTR 2016, 19th -21st May, Cluj Napoca, Romania, ISBN: 978-1-4673-8691-3.
68. M. Ruba, H.Nagy, H.Hedesiu, Claudia Martis , "FPGA based processor in the loop analysis of variable reluctance machine with speed control", 2016 IEEE International Conference on Automation, Quality and Testing, Robotics, AQTR 2016, 19th -21st May, Cluj Napoca, Romania, ISBN: 978-1-4673-8691-3.
67. M. Ruba, D. Fodorean, "Motor-drive solution for light electric vehicles based on a switched reluctance machine", 2016 IEEE International Conference on Automation, Quality and Testing, Robotics, AQTR 2016, 19th -21st May, Cluj Napoca, Romania, ISBN: 978-1-4673-8691-3.
65. Ruba M., F. Jurca,L. Szabo: Efficiency Improvement of Switched Reluctance Motors by Means of Using Higher Quality Laminations, Acta Electrotehnica, 2015, MEDIAMIRA SCIENCE PUBLISHER ACADEMY OF TECHNICAL SCIENCES OF ROMANIA TECHNICAL UNIVERSITY OF CLUJ-NAPOCA, ROMANIA, Vol.56, no.4, 10/2/2015, ISBN 2344-5637, pp.148-151.

64. Ruba M., F. Jurca, L. Szabo: Comparative study of switched and synchronous reluctance machines for electric propulsion, 'ELECTROMOTION' Quarterly No. 1-2, Vol. 22 (2015), pp. 15-18, ISSN 1223-057X.
63. M. Ruba and D. Fodorean, - Investigation of Switched Reluctance Machine for EV Propulsion Unit with Torque Smoothing Strategy - Progress In Electromagnetics Research Symposium Proceedings, PIERS Proceedings, Prague, Czech Republic, July 6-9, 2015, pp.463-468
62. Mircea Ruba, Claudia Martis, Lorand Szabo, Florin Jurca, - Analysis of a Switched Reluctance Machine for EV Application with Torque Smoothing Strategy - 2015 International Conference on Electrical Drives and Power Electronics (EDPE) The High Tatras, 21 – 23 September 2015, ISBN 978-1-4673-9661-5, pp.266-271.
61. Florin Nicolae Jurca, Mircea Ruba, Claudia Martis - Analysis of Permanent Magnet Synchronous Machine for Integrated Starter-Alternator-Booster Applications - 2015 International Conference on Electrical Drives and Power Electronics (EDPE) The High Tatras, 21 – 23 September 2015, ISBN 978-1-4673-9661-5, pp.272-276.
60. Ruba M., F. Jurca, L. Szabo: Comparative study of switched and synchronous reluctance machines for electric propulsion, 'ELECTROMOTION' Quarterly No. 1-2, Vol. 22 (2015), pp. 15-18, ISSN 1223-057X.
59. M Ruba, MM Radulescu, -Analysis of a grid-connected wind energy conversion system based on complex simulation program- Ecological Vehicles and Renewable Energies (EVER), 2015 Tenth International Conference on-, March 31 2015-April 2 2015 pp.1-6, 978-1-4673-6784-4 .
58. Ruba M., F. Jurca, L. Szabo: Comparative study of switched and synchronous reluctance machines for electric propulsion, 'ELECTROMOTION' Quarterly No. 1-2, Vol. 22 (2015), pp. 15-18, ISSN 1223-057X.
57. Szabo, L. - Ruba, M. - Fodorean, D. - Rafajdus, P., - Dubravka, P.:Torque smoothing of a fault tolerant segmental stator switched reluctance motor, *Komunikacie Journal*, Volume 17, Issue 1A, 2015, Pages 95-101, ISSN: 13354205
56. Ruba M. – Szabó L.: Study of Light Electric Vehicles Propulsion Solutions by Means of Finite Element Method Based Co-Simulations, *Proceedings of the 15th IEEE International Symposium on Computational Intelligence and Informatics (CINTI '2014)*, Budapest (Ungaria), pp. 415-420, 2014. ISBN: 978-1-4799-5338-7.
55. M. Ruba - F. Jurca - C. Martis - R. Martis - P.F. Piglesan: Analysis of Maximum Torque per Ampere Control Strategy for Variable Reluctance Synchronous Machines for Traction Applications, 2014 International Conference and Exposition on Electrical and Power Engineering 16-18 October 2014, Iasi, Romania IEEE Catalog Number CFP1447S-USB
54. Dubravka P. – Rafajdus P. – Makyš P. – Peniak A. – Hrabovcová V. – Szabó L. – Ruba M: Design of Fault Tolerant Control Technique for SRM Drive, *Proceedings of the 16th European*

Conference on Power Electronics and Applications (EPE '14-ECCE Europe), Lappeenranta (Finland), pe CD: 0388-epe2014-full-20453300.pdf. ISBN: ISBN: 978-1-4799-3014-2 and 978-9-0758-1520-7.

53. Szabó L. – Terec R. – Ruba M. – Rafajdus P.: Detecting and Tolerating Faults in Switched Reluctance Motors, *Universal Journal of Electrical and Electronic Engineering*, vol. 1, no. 2, pp. 16 25, 2013. ISSN: 2332-3280 (print), 2332-3299 (online).

52. Szabó L. – Ruba M. – Fodorean D. – Rafajdus P. – Dubravka P.: Direct Instantaneous Torque Controlled Modular Switched Reluctance Motor Designed for Automotive Applications, *Proceedings of the 10th International Conference ELEKTRO 2014, Rajecské Teplice (Slovakia), 2014*, pp. 239-244, ISBN: 978-1-4799-3720-2.

51. Diko M. – Rafajdus P. – Makyš P. – Dubravka P. – Szabó L. – Ruba M.: A Novel Design Conception of Switched Reluctance Motor for Electrical Vehicles, *Proceedings of the 10th International Conference ELEKTRO 2014, Rajecské Teplice (Slovakia), 2014*, pp. 273-278, ISBN: 978-1-4799-3720-2.

50. M.Ruba, M.Babescu "Simulation analysis of a grid connected wind energy conversion system", *Proceedings of 10th Jubilee International Symposium on Advanced Electromechanical Motion Systems - ELECTROMOTION 2013, Vol.20, Nr.1-4, Cluj Napoca, Romania, October 21-22, 2013*, pp. 193-198, ISSN 1223 - 057X

49. M. Ruba, D. Fodorean, : Design, analysis and torque control of low voltage high current SRM for small automotive applications, *Proceedings of EuroCon 2013, 1-4 July 2013 • Zagreb, Croatia*, pp.1499-1503, ISBN:978-1-4673-2232-4/13.

48. Szabó L. – Terec R. – Ruba M. – Rafajdus P.: Reconfigurable Fault Tolerant Control System for Switched Reluctance Motors, *Electrical and Power Engineering Frontier*, vol. 1, no. 1 (December 2012), pp. 1 7, 2012.

47. Bentia Ioana – Szabó L. – Ruba M.: A Rotary-Linear Switched Reluctance Motor for Automotive Applications, *Proceedings of the 20th International Conference on Electrical Machines (ICEM '2012), Marseille (Franta), pe CD: 2613-ff-007889.pdf, 2012*, ISBN: 978-1-4673-0141-1.

46. Bentia Ioana – Szabó L. – Ruba M.: A Novel Rotary-Linear Switched Reluctance Motor, *Journal of Computer Science and Control Systems*, vol. 5, no. 1, 2012, pp. 13 16. ISSN: 1844 6043.

45. Szabo, L.; Bentia, I.; Popa, D.-C.; Ruba, M.: "Contributions to the two degrees of freedom modular variable reluctance motors used in advanced manufacturing systems" *Automation Quality and Testing Robotics (AQTR), 2012 IEEE International Conference on Digital Object Identifier:10.1109/AQTR.2012.6237765 Publication Year: 2012 , Page(s): 514 - 518*

44. Ruba, M.; Szabo, L.; Fodorean, D.: "Design and analysis of low voltage high current SRM for small automotive applications" *Power Electronics, Electrical Drives, Automation and*

Motion (SPEEDAM), 2012 International Symposium on Digital Object Identifier: 10.1109/SPEEDAM.2012.6264443 Publication Year: 2012 , Page(s): 341 - 346

43. Bentia, I.; Szabo, L.; Ruba, M.: "On a rotary-linear switched reluctance motor" Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM), 2012 International Symposium on Digital Object Identifier: 10.1109/SPEEDAM.2012.6264442 Publication Year: 2012 , Page(s): 507 - 510

42. Szabó L. – Bentia Ioana – Ruba M.: Dual Motion Switched Reluctance Motor for Advanced Industrial Applications, Proceedings of the 13th International Conference on Optimization of Electrical and Electronic Equipment (OPTIM '2012), Brasov, 2012, pp. 544-549, ISBN: 978-1-4673-1653-8.

41. Chindris V. – Terec R. – Ruba M. – Szabó L.: Software environment for online simulation of switched reluctance machines, Advances in Intelligent Modelling and Simulation (eds.: Byrski, A.; Oplatková, Z.; Carvalho, M.; Kisiel-Dorohinicki, M.), Simulation Tools and Applications Series: Studies in Computational Intelligence, vol. 416, pp. 85-109, Springer (Berlin), 2012. ISBN: 978-3-642-28887-6.

40. D. Fodorean, D.C. Popa, F. Jurca, M. Ruba: "Optimizing the Design of Radial/Axial PMSM and SRM used for Powered Wheel-Chairs", Proceedings of the International Conference on Electrical, Computer, Electronics and Communication Engineering, Paris, France, 14-16 November 2011, pp.120-125.

39. Terec R. – Bentia Ioana – Ruba M. – Szabó L. – Rafajdus P.: On the Usefulness of Numeric Field Computations in the Study of the Switched Reluctance Motor's Winding Faults, Proceedings of the 5th International Symposium on Computational Intelligence and Intelligent Informatics (ISCIII '2011), Floriana (Malta), 2011, pp. 117-120. ISBN: 978 1 4577 1859 5.

38. Bentia I. – Ruba M. – Szabó L.: On the Control of a Rotary-Linear Switched Reluctance Motor, Proceedings of the 5th International Symposium on Computational Intelligence and Intelligent Informatics (ISCIII '2011), Floriana (Malta), 2011, pp. 41-46. ISBN: 978 1 4577 1859 5.

37. Terec R. – Bentia Ioana – Ruba M. – Szabó L. – Rafajdus P.: Effects of Winding Faults on the Switched Reluctance Machine's Working Performances, Proceedings of the 3rd IEEE International Symposium on Logistics and Industrial Informatics (LINDI '2011), Budapest (Ungaria), 2011, pp. 143-148. ISBN: 978-1-4577-1840-3.

36. Chindris V. – Terec R. – Ruba M. – Szabó L. – Rafajdus, P.: Useful Software Tool for Simulating Switched Reluctance Motors, Proceedings of the 25th European Conference on Modelling and Simulation (ECMS '2011), Krakow (Polonia), 2011, pp. 216-221. ISBN: 978 0 9564944 2 9.

35. Ruba M. – Surdu Felicia – Szabó L.: Study of a Nine-Phase Fault Tolerant Permanent Magnet Starter-Alternator, Journal of Computer Science and Control Systems, vol. 4, no. 1, 2011, pp. 149-154. ISSN: 1844-6043.

34. Bentia Ioana – Ruba M. – Szabó L.: A Rotary-Linear Switched Reluctance Motor for Advanced Industrial Applications, Proceedings of the International Conference on Power Electronics, Intelligent Motion and Power Quality (PCIM '2011), Nürnberg (Germania), 2011, pp. 947-952, ISBN: 978-3-8007-3344-6.
33. Terec R. – Ruba M. – Szabó L. – Kovács E.: Fault Detection in Switched Reluctance Machines, Journal of Computer Science and Control Systems, vol. 3, no. 1, 2010, pp. 231-236. ISSN: 1844-6043.
32. Ruba M. – Bentia I. – Szabó L.: Novel Modular Switched Reluctance Machine for Safety-Critical Applications, Proceedings of the 19th International Conference on Electrical Machines (ICEM '2010), Roma (Italia), pe CD:RF-011029.pdf. ISBN: 978 1 4244 4175 4.
31. Fodorean D. – Ruba M. – Popa D.C. – Miraoui A.: Fault tolerant permanent magnet machines used in automobile applications, Proceedings of the International Conferences on Electrical Machines (ICEM), Roma, Italia, 2010, pp. 1 – 6, ISBN: 978-1-4244-4174-7; Date:6-8 Sept. 2010
30. Ruba M. – Bentia I. – Szabó L.: Novel Modular Fault Tolerant Switched Reluctance Machine for Reliable Factory Automation Systems, Proceedings of the 2010 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR '2010) THETA 17, Cluj, 2010, Tome III, pp. 47-52, ISBN:978-1-4244-6722-8.
29. Ruba M. – Bentia I. – Szabó L.: Modular Fault Tolerant Switched Reluctance Machine – Design and Dynamic Simulations, Proceedings of the 12th International Conference on Optimization of Electrical and Electronic Equipment (OPTIM '2010), Moieciu, 2010, pp. 441-446, ISBN: 978-973-131-7018-1.
28. Szabó L. – Ruba M. – Terec, R. – Bentia I. Study of Fault Tolerant Modular Variable Reluctance Linear Machine, Proceedings of the International Scientific Conference MicroCAD '2010, Miskolc (Ungaria), Section K (Electrotehnics and Electronics), 2010, pp. 145-150, ISBN: 978-963-661-915-2.
27. Somesan, L. – Padurariu, E. – Szabó L. – Ruba M. –Viorel I.A.: Comments on Switched Reluctance Machine Mathematical Model, Proceedings of the International Scientific Conference MicroCAD '2010, Miskolc (Ungaria), Section K (Electrotehnics and Electronics), 2010, pp. 97-102, ISBN:978-963-661-915-2.
26. Bentia I. – Ruba M. – Szabó L. – Ruba M.: Modular Electrical Machines – A Survey, Proceedings of the International Scientific Conference MicroCAD '2010, Miskolc (Ungaria), Section K (Electrotehnics and Electronics), 2010, pp. 87-92, ISBN: 978-963-661-915-2.
25. Szabó L. – Ruba M. – Terec R. – Bentia Ioana – Kovacs E.: Studiul tolerantei la defecte a masinilor liniare modulare (în limba maghiara), Conferinta internationala de energetica electrotehnica si informatica X. ENELKO – XIX. SzamOkt 2009, Targu-Mures (Romania), 2009, pp. 140-145. ISSN: 1842-4546.

24. Ruba M. – Szabó L.: Fault Tolerance Study of Switched Reluctance Machines by Means of Advanced Simulation Techniques, *Pollack Periodica* (Academic Publisher, Budapest), vol. 4, no. 2 (August 2009), pp. 107-116. ISSN:1788-1994.
23. Szabó L. – Ruba M.: Fault Tolerant Switched Reluctance Motor for Safety-Critical Automotive Applications, *International Journal of Electrical Engineering and Transportation* (IJEET), vol. 5, no 1, pp.23-27, ISSN: 1773-9357.
22. Ruba M. - Szabo L.: Fault Tolerant Switched Reluctance Machine's Comparative Study, *Proceedings of 3rd International Symposium on Electrical Engineering and Energy Converters*, (ELS 2009), Suceava (Romania), September 2009, pp.:75-80, ISSN: 2066-835X.
21. Szabó L. – Ruba M. – Kovács E. – Füvesi V.: Fault Tolerant Modular Linear Motor for Safe-Critical Automated Industrial Applications, *Journal of Computer Science and Control Systems*, vol. 2, no. 1, 2009, pp. 128-131. ISSN: 1844 6043.
20. Szabó L. – Ruba M.: On Fault Tolerance Increase of Switched Reluctance Machines, *Proceedings of the IEEE Region 8 EUROCON Conference (EUROCON '2009)*, St. Petersburg (Russia), 2009, pp. 734 739. ISBN:978-1-4244-3860-0.
19. Ruba M. – Oprea C. – Szabó L.: Comparative Study on Switched Reluctance Machine Based Fault-Tolerant Electrical Drive Systems, *Proceedings of the IEEE International Conference on Electrical Machines and Drives (IEMDC '2009)*, Miami (USA), 2009, pp. 1199-1204, on CD: IEMDC2009 11129.pdf, ISBN: 978-1-4244-4252-2.
18. Szabó L. – Ruba M. – Jurca F.: Fault Tolerant Switched Reluctance Machine for Wind Turbine Blade Pitch Control, *Proceedings of the International Conference on Clean Electrical Power (ICCEP '2009)*, Capri (Italia), 2009, pp. 721 726, on CD: SP212.pdf, ISBN-.
17. Szabó L. – Ruba M.: Using Co Simulations In Fault Tolerant Machine's Study, *Proceedings of the 23rd European Conference on Modelling and Simulation*, Madrid (Spain), pp. 756-762, ISBN: 978-0-9553018-8-9.
16. Ruba M. - Szabó L. - Hopper E.: FEM Based Studies on Fault Tolerant Modular Linear Motors, *Proceedings of the International Conference on Power Electronics, Intelligent Motion and Power Quality (PCIM '2009)*, Nürnberg (Germany), pp.639-644, ISBN: 978-3-8007-3158-9.
15. Ruba M. - Szabó L. - Füvesi V. - Kovács E.: Diagnosis of Advanced Fault Tolerant Switched Reluctance Machines Used In Safety Automated Industrial Systems, *Proceedings of the International Scientific Conference MicroCAD '2009*, Miskolc (Ungaria), Section J (Electrotehnics and Electronics), 2009, pp. 87 92. ISBN: 978 963 661 875 9.
14. Kovács E. - Füvesi V. - Szabó L. - Ruba M.: Model Based Dynamic Analysis of a Robot Actuator with BLDC Drive, *Proceedings of the International Scientific Conference MicroCAD*

'2009, Miskolc (Ungaria), Section J (Electrotehnics and Electronics), 2009, pp. 45-50. ISBN: 978-963-661-875-9.

13. Ruba M. - Szabó L. - Bíró K.Á. - Kovács E.: Studiu comparativ al masinilor electrice tolerante la defecte utilizate în automatizari industriale (în limba maghiara), Conferinta internationala de energetica electrotehnica si informatica IX. ENELKO- XVIII. SzámOkt 2008, Sumuleu-Ciuc (Romania), 2008, pp. 58-63. ISSN: 1842-4546 .

12. Ruba M.- Szabó L.- Strete Larisa- Viorel I.A.: Study on Fault Tolerant Switched Reluctance Machines , Proceedings of the 18 th International Conference on Electrical Machines (ICEM '2008), Vilamoura (Portugalia), pe CD: Fullpaper_comm_id01200.pdf. ISBN: 978-1-4244-1736-0.

11. Fodorean D.- Ruba M.- Szabó L.- Miraoui A.: Comparison of the Main Types of Fault-Tolerant Electrical Drives used in Automobile Applications , Proceedings of the 19 th International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM '2008), Ischia (Italia), 2008, pp. 895-900, on CD: TD_282.pdf. ISBN: 978-1-4244-1664-6.

10. Ruba M. - Anders M.: Fault Tolerant Switched Reluctance Machine Study , Proceedings of the International Conference on Power Electronics, Intelligent Motion and Power Quality (PCIM '2008), Nürnberg (Germany).

9. Szabó L.- Ruba M.- Fodorean D.: Study on a Simplified Converter Topology for Fault Tolerant Motor Drives , Proceedings of the 11 th International Conference on Optimization of Electrical and Electronic Equipment (OPTIM '2008), Brasov, 2008, pp. 197-202. ISBN: 1-4244-1545-4.

8. Szabó L.- Ruba M.- Fodorean D.: Simple Converter Structure for Fault Tolerant Motors , Proceedings of the 2008 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR '2008) THETA 16, Cluj, 2008, pp. 244-249, ISBN: 978-1-4244-2576-1.

7. Ruba M.- Szabó L. : Fault Tolerant Electrical Machines. State of the Art and Future Directions , Journal of Computer Science and Control Systems, Oradea , 2008, pp. 202-207. ISSN: 1844-6043.

6. Ruba M.- Szabó L.- Fodorean D.: On the Fault Tolerant Switched Reluctance Machines , Proceedings of the International Scientific Conference MicroCAD '2008, Miskolc (Ungaria), Section J (Electrotehnics and Electronics), 2008, pp. 73-78. ISBN: 978-963-661-821-6.

5. Szabó L. - Bíró K.Á. - Fodor D. - Ruba M. : Fault tolerant electrical drives (in Hungarian) , International Conference on Computer Sciences, Power Systems and Electrical Engineering SzámOkt - ENELKO '2007, Oradea (Romania), 2007, pp. 157-160. ISSN: 1842-4546.

4. Szabó L.- Viorel I.A. - Ruba M. - Popa D.C.: Comparative Study on Different Variable Reluctance Linear Machine Structures (With/Without Permanent Magnets) , Proceedings of the Sixth International Symposium on Linear Drives for Industrial Applications (LDIA '2007), Lille (France), on CD: 173.pdf. ISBN: 978-2-915913-20-0.

3. Iancu V. - Popa D.C. - Szabó L. - Ruba M. . - Trifu M.: Comparative Study on Linear Transverse Flux Reluctance Machines , Oradea University Annals, Electrotechnical Fascicle, Electrical Engineering Session, 2006, pp. 136-139. ISSN: 1841-7221. (download)
2. Micu D.D. - Ceclan A. - Ruba M. - Simion E. - Micu D. - Cont I.: Numerical Algorithm for Electric Circuit Solver , Oradea University Annals, Electrotechnical Fascicle, Electrical engineering Section, 2006, pp. 54-57. ISSN: 1841-7221.
1. Micu D.D - Ceclan A. - Simion E. - Cret L. - Duma D. - Ruba M. : Numerical methods applied in electrotechnical applications , Oradea University Annals, Electrotechnical Fascicle, 2005, pp. 43-47. ISSN: 1223-2106.