

LIST
of scientific works in the field of disciplines of the teaching position

1. Doctoral thesis

SPECIFIC DYNAMIC REGIME OF THE ASYNCHRONOUS RAILWAY TRACTION MOTOR

2. Books and book chapters

- CIRCUITE INTEGRATE DIGITALE, Editura SITECH, ISBN 978-606-11-4826-4, CIP 2015-15774, Craiova, 2015, Răzvan Gabriel Prejbeanu
- *DIGITAL ELECTRONICS – LAB BASED ACTIVITY* –, Editura Universitaria, ISBN 978-606-14-1936-4, Craiova, 2023, CIP 2023-00462, Răzvan Gabriel Prejbeanu

3. Published ISI/BDI indexed papers

C 1. Articles in cited journals and in volumes of ISI Proceedings indexed scientific events

1. S. Enache, **R. Prejbeanu**, A. Campeanu, I. Vlad. Aspects regarding simulation of the saturated induction motors control by the voltage inverter commanded in current, *Proc. IEEE EUROCON 2007: The Int. Conference on Computer as a Tool*, pp. 613-616, 2007, Warsaw, Poland, ISBN 978-1-4244-0812-2. WOS:000257261900102 [ISI Proc.]
2. I.M. Popescu, B. Popa, **R. Prejbeanu**, C. Ionete. Evaluation of Parallel and Real-Time Processing Performance for Some Vibration Signals Using FPGA Technology. *Proc. 19th Int. Carpathian Control Conference (ICCC)*, 2018, ISBN: 978-1-5386-4762-2. WOS:000439260500069 [ISI Proc.]
3. L. Mandache, S. Ivanov, **R. Prejbeanu**, M. Roman, I.G. Sirbu, V. Ivanov, A. Radu. Reliable Time-Domain Analysis of Nonlinear Lumped Circuits with Topology Issues, Suitable for Transients of AC Drives, *Proc. Int. Conference on Electromechanical and Energy Systems (SIELMEN)*, art. 273, 2019, ISBN978-1-7281-4011-7. WOS:000630287500046 [ISI Proc.]
4. S. Ivanov, L. Mandache, V. Ivanov, A. Radu, M. Roman, **R. Prejbeanu**. Comparison of PWM Strategies for Three Level Inverters, *Proc. Int. Conference on Electromechanical and Energy Systems (SIELMEN)*, art. 239, 2019, ISBN978-1-7281-4011-7. WOS:000630287500001 [ISI Proc.]
5. **R. Prejbeanu**, I.M. Popescu. Modelling and Simulation of Autonomous Systems with Voltage Inverters, Output Filters and Asynchronous Motors, *Proc. 20th International Carpathian Control Conference (ICCC)*, Krakow-Wieliczka, Poland, 2019, DOI: 10.1109/CarpathianCC.2019.8766062, ISBN:978-1-7281-0701-1. WOS:000490570500005 [ISI Proc.]
6. **R. Prejbeanu**, I.M. Popescu. Intelligent and Suitable Transportation System with Asynchronous Motor and Li-Ion Battery. *Proc. 19th International Carpathian Control Conference (ICCC)*, 2018, ISBN: 978-1-5386-4762-2. WOS:000439260500114 [ISI Proc.]
7. **R. Prejbeanu**. Power Supply Control and Adaptation System for Plasma Discharge Equipment. *Proc. 23th International Carpathian Control Conference (ICCC)*, 2022. ISBN:978-1-6654-6636-3, DOI: 10.1109/ICCC54292.2022.9805928. WOS:000925203600048

8. D. Selișteanu, M. Roman, L. Mandache, **R. Prejbeanu**, S. Ivanov, A. Radu. Three-Level Inverter Control Techniques: Design, Analysis, and Comparisons, *Elektronika Ir Elektrotehnika*, Vol. 27, Issue 3, pp. 26-37, 2021, DOI: 10.5755/j02.eie.29015, ISSN 1392-1215. WOS:000668351900003
9. **R. Prejbeanu**. A Sensor-Based System for Fault Detection and Prediction for EV Multi-Level Converters, *Sensors*, 2023, 23(9), 4205; <https://doi.org/10.3390/s23094205>. WOS:000987894900001

C 2. Articles in journals and volumes of scientific events indexed in other international databases (BDI)

1. A. Câmpeanu, M. Rădulescu, **R. Prejbeanu**, I. Cauți, T. Câmpeanu. Predetermination of Dynamical Stresses of Asynchronous Traction Motors, *Proc. ICEM, XIX International Conference on Electrical Machines*, September 6-8, 2010, Rome, Italy, DOI 10.1109/ICELMACH.2010.5608238.
2. **R. Prejbeanu**, A. Marinescu, D.O. Neagu, A. Radu, Optimizing parallel connection of Medium Frequency inverters for EV Wireless Charging, *Proc. 2019 Electric Vehicles International Conference (EV)*, pp. 1-6, DOI 10.1109/EV.2019.8892976
3. D. Selișteanu, E. Petre, **R. Prejbeanu**, I.M. Popescu, S. Mehedințeanu, Software solutions for simulation, monitoring and data acquisition in wastewater treatment plants, *Proc. of 21st International Carpathian Control Conference ICCC'2020*, Oct. 27-29, 2020, Slovak Republic, ISBN: 978-1-7281-1951-9, doi: 10.1109/ICCC49264.2020.9257268.
4. **R. Prejbeanu**, M. Roman, V. Ivanov, A. Radu. Simulation and fault detection techniques for multilevel inverters used in smart grids, *Proc. of 21st International Carpathian Control Conference ICCC'2020*, Oct. 27-29, 2020, Slovak Republic, ISBN: 978-1-7281-1951-9.
5. I.M. Popescu, D. Popescu, I. Voinea, B. Popa, **R. Prejbeanu**. A DFT Computation Method for the Real-Time Processing of Vibration Signals at FPGA Circuit Level, *Proc. of 21st International Carpathian Control Conference ICCC'2020*, Oct. 27-29, 2020, Slovak Republic, ISBN: 978-1-7281-1951-9, DOI: 10.1109/ICCC49264.2020.9257281.
6. E. Tudor, A. Marinescu, **R. Prejbeanu**, A. Vintila, T. Tudorache, D.G. Marinescu, D.O. Neagu, I. Vasile, I.C. Sburlan. Electric bus platform for urban mobility, *IOP Conference Series: Earth and Environmental Science* 960 (1), 012022, DOI 10.1088/1755-1315/960/1/012022.
7. **R. Prejbeanu**. Self-Scanning System and Evaluation of Dynamic Electrical Performance of Electric Vehicles Using Different Control Systems, *Proc. of 24th International Carpathian Control Conference ICCC'2023*, Jun. 12-14, 2023, Hungary, acceptată.

C3. Papers published in refereed journals and conference proceedings (non-indexed)

1. **R. Prejbeanu**, M. Rădulescu, C. Pătrașcu, J. Stăncioi. Electric locomotive tap-changer drive system using an ac motor, *International Conference on Automation, Quality and Testing, Robotics*, May 13-15, 2004, Cluj-Napoca;
2. F. Burdubuş, M. Rădulescu **R. Prejbeanu** Three-phase driving systems for tramways, *International Conference on Automation, Quality and Testing, Robotics*, May 13-15, 2004, Cluj-Napoca;
3. M. Rădulescu, **R. Prejbeanu**, V. Tulbure, M. Dobrin. Treatment of sliding phenomenon at the roumanian electric locomotives le 5100 Kw, *International Conference on Automation, Quality and Testing, Robotics*, May 13-15, 2004, Cluj-Napoca;
4. **R. Prejbeanu**, M. Rădulescu, A. Câmpeanu, C. Pătrașcu Optimal adaptable control system of traction asynchronous motors, *International Conference of Ship Propulsion and Railway Traction System*, 2005, Bologna, Italia;
5. A. Câmpeanu, M. Rădulescu, M. Bădică, **R. Prejbeanu**. Connection to weak electrical supply network of two synchronous machines operating in recovery regim, *XVII International Conference on Electrical Machines 2006*, Chania, Crete Island, ICEM 2006, Greece;

6. **R. Prejbeanu**, C. Pătrașcu, M. Rădulescu. HVAC - new equipment for railway coaches supplied from the main traction generator of the Diesel-electric locomotive, *International Conference on Power Electronics and Intelligent Control for Energy Conservation PELINCEC 2005*, Varșovia, Proceedings paper 145, indexată în baza de date European Power Electronics and Drives (<http://www.epe-association.org>);
7. C. Pătrașcu, **R. Prejbeanu**, M. Rădulescu. A digital signal processor controlled equipment, for traction motors voltage control, on some electric locomotives, *International Conference on Power Electronics and Intelligent Control for Energy Conservation PELINCEC 2005*, Varșovia, Proceedings paper 144, indexată în baza de date European Power Electronics and Drives (<http://www.epe-association.org>);
8. D. Chintescu, F. Panea, **R. Prejbeanu**, M. Rădulescu. Specific dynamic asynchronous motor fed by power converters, *Annals of the „Constantin Brâncuși” University of Târgu Jiu, Engineering Series*, Issue 3/2010,
9. **R. Prejbeanu**. Traction asynchronous motor fed by power converter controlled by direct torque control method, *Annals of the University of CRAIOVA, Series: AUTOMATION, COMPUTERS, ELECTRONICS and MECHATRONICS*, Issue 1/2014,
10. **R. Prejbeanu**. Method to reduce the harmonics generated in asynchronous motor fed by power converter, *Annals of the University of CRAIOVA, Series: AUTOMATION, COMPUTERS, ELECTRONICS and MECHATRONICS*, Issue 2/2014.

D. Patents obtained throughout the activity

1. Patent no. 119011 (2005) SISTEM CU OSII MOTOARE, INDEPENDENTE ELECTRIC, PENTRU ACȚIONAREA UNOR LOCOMOTIVE ELECTRICE, Rădulescu Mihail, Prejbeanu Răzvan, Rădulescu Costin, Mondea Cornel, Matusa Tudor, Țapu Dumitru
2. Patent no. 120830 (2007) INSTALAȚIE PENTRU ALIMENTAREA SISTEMULUI DE ÎNCĂLZIRE ELECTRICĂ ȘI CLIMATIZARE AL VAGOANELOR DE PASAGERI, DE LA GENERATORUL DE TRACȚIUNE AL UNEI LOCOMOTIVE DIESEL ELECTRICE, Popescu Constantin, Prejbeanu Răzvan Gabriel, Rădulescu Mihail, Stănculescu Adrian,
3. Patent no. 130928 (2019) SISTEM INTEGRAT DE ALIMENTARE CU COMBUSTIBIL PENTRU LOCOMOTIVA DIESEL ELECTRICĂ LDE 2100CP CE FUNCȚIONEAZĂ CU BIODIESEL PUR B100 [OSIM], Călin Grațian, Bonci Liviu, Prejbeanu Răzvan, Sanda Florin

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