

THE PUBLICATIONS' LIST

1. Representative papers (maximum 10)

1. I. Boldea, **L. N. Tutelea**, L. Parsa, D. Dorrell, *Automotive Electric Propulsion Systems with Reduced or no Permanent Magnets: An Overview*, IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS Vol. 61, No. 10, 2014, pp. 5696-5711.
2. M. C. Ancuti, **L. Tutelea**, G. D. Andreescu, F. Blaabjerg, C. Lascu, I. Boldea, *Practical Wide-speed-range Sensorless Control System for Permanent Magnet Reluctance Synchronous Motor Drives via Active Flux Model*, ELECTRIC POWER COMPONENTS AND SYSTEMS, Vol. 42, No.1, 2014, pp. 91-102.
3. F.J.H. Kalluf, **L. N. Tutelea**, I. Boldea, A. Espindola, *2/4-POLE Split-Phase Capacitor Motor for Small Compressors: A Comprehensive Motor Characterization*, IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS Vol. 50, No.1, 2014, pp. 356-363.
4. S.C. Agarlita, **L. N. Tutelea**, I. Boldea, *Modelling and control of a spring less resonant linear permanent magnet oscillomotor*, IET ELECTRIC POWER APPLICATIONS, 2013, pp. 150-158
5. **L. N. Tutelea**, M.C. Kim, M. Topor, J. Lee, I. Boldea, *Linear permanent magnet oscillatory machine: Comprehensive modelling for transients with validation by experiments*, IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, 2008, pp. 492-500.
6. I. Boldea, C.I. Pitic, C. Lascu, G.D. Andreescu, **L. Tutelea**, F. Blaabjerg, P. Sandholdt, *DTFC-SVM motion-sensorless control of a PM-assisted reluctance synchronous machine as starter-alternator for hybrid electric vehicles*, IEEE TRANSACTIONS ON POWER ELECTRONICS, 2006, pp. 711-719
7. **L. Tutelea**, M.C. Kim, Y.D. Chun, T.H. Kim, S.B. Lim, J.S. Ahn, J. Lee, I. Boldea, *A set of experiments to more fully characterize linear PM oscillatory machines*, IEEE TRANSACTIONS ON MAGNETICS, 2005, pp. 4009-4011.
8. S. Scridon, I. Boldea, **L. Tutelea**, F. Blaabjerg, A.E. Ritchie, *BEGA-A biaxial excitation generator for automobiles: Comprehensive characterization and test results*, IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, 2005, pp. 935-944.
9. I. Boldea, **L. Tutelea**, C.I. Pitic, *PM-assisted reluctance synchronous motor/generator (PM-RSM) for mild hybrid vehicles: Electromagnetic design*, IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, 2004, pp. 492-498.
10. **L. Tutelea**, I. Boldea, *Surface Permanent Magnet Synchronous Motor Optimization Design: Hooke Jeeves Method Versus Genetic Algorithms*, IEEE International Symposium on Industrial Electronics (ISIE 2010), pp. 1504-1509.

2. PhD Thesis

1. **Tutelea Lucian Nicolae**, Polygonal flux control in ac drives, University "Politehnica" Timișoara, Electrical Engineering Faculty, 1997, (in Romanian)

3. Inventions Brevets

1. I. Boldea, S. Deaconu, F. Marignetti, **L. Tutelea**, *Brushless electrical actuator with two independent rotors for hybrid electrical propulsion*, Patent Number: IT1409332-B, 2014, Derwent Primary Accession Number: 2014-Q06615 [65]
2. I. Boldea **L. Tutelea**, B. Sander, A. Binder, *Linear motor for e.g. drilling hammer, has rotor comprising two magnets and movably supported between two cores and two air gaps in filled manner, where two air gaps comprise plane that comprises rotor movement axis*, Patent Number: DE102011077241-A1 2012, Derwent Primary Accession Number: 2012-R13188 [01]
3. S. C. Agarlita, I.G. Boldea, **L.N. Tutelea**, *Electromagnetic device for actuation of valves of heat engine comprises pre-polarized electromagnet, fixed magnetic cores, internal core and external core*, Patent Number: RO125407-A2, 2010, Derwent Primary Accession Number: 2010-K26930 [54]

4. Books and chapter in specialty books

1. I. Boldea, **L. Tutelea**, *Electric Machines - steady State, Transients and design with Matlab*, CRC Press Taylor & Francis Group, London, UK, ISBN 978-1-4200-5572-6, 2010, pp. 775.
2. **L.N. Tutelea**, S.I. Deaconu, *Dual rotor single stator permanent magnet motors (for hybrid electrical vehicles)*, Editura Politehnica Timișoara, ISBN 978-606-554-861-9, 2014, pp. 104.
3. **L.N. Tutelea**, M.C. Ancuti, M. Svoboda, *Tehnici de programare în C – Aplicații*, Editura Politehnica Timisoara, 2014, pp. 152.
4. **Lucian Tutelea**, *Metode de modulare în lățime de puls pentru invertoare de tensiune*, Editura Politehnica Timisoara, ISBN 973-625-126-8, 2004, pp. 262.
5. S. I. Deaconu, **L. N Tutelea**, A. Iagăr, *Mașini electrice. Aplicații*, Editura DESTIN, ISBN 973-9105-34-3, 2000, pp. 169.
6. E.A. Ritchie, **L. Tutelea**, P.O. Rasmussen, M.M. Zamastil, F. Lungeanu, *Survey of Wheel Drive Candidates for Battery Electric City Car: final summary report, includes wheel motors and power electronics controller*, Aalborg Universitetsforlag, I14 02 S 0108, 2002.
7. E.A. Ritchie, **L.N. Tutelea**, P.O. Rasmussen, M.M. Zamastil, *Survey of Wheel Motor Candidates for Battery Electric City Car: Summary Report of Phase 1-Motor Design*, Aalborg Universitetsforlag, I14 00 S 0103, 2000, pp. 16.
8. **L.N. Tutelea**, E.A. Ritchie, *Consys A/S Electric Vehicle Project: Preliminary Study of Wheel Motor Units Using Permanent Magnet Machine*, Aalborg Universitetsforlag, I14 00 S 0100, 2000, pp. 34.
9. **L.N. Tutelea**, E.A. Ritchie, *State-of-The-Art Study on In-Wheel Drive Systems*, Aalborg Universitetsforlag, I14 00 S 0098, 2000, pp. 41.
10. P.O. Rasmussen, **L.N. Tutelea**, E.A. Ritchie, *Consys A/S Electric Vehicle Project: Preliminary Study of Wheel Motor Units Using Switched Reluctance Machine*, Aalborg Universitetsforlag, I14 00 S 0101, 2000.
11. **L.N. Tutelea**, E.A. Ritchie, *Consys A/S Electric Vehicle Project: Preliminary Study of Wheel Motor Units Using Induction Machine*, Aalborg Universitetsforlag, I14 00 S 0099, 2000, pp. 97.
12. **L.N. Tutelea**, E.A. Ritchie, *Electric Drive Systems for Uninterruptible Power Supply, using Flywheel Energy Store: Feasibility Study and Preliminary Design Exercise*, Aalborg Universitetsforlag, I14 98 S 0095, 1999.
13. S. I. Deaconu, **L. N. Tutelea**, A. Iagăr, *Acțiunări cu Mașini de Curent Alternativ. Probleme*, Litografia UPT, 1999, 54 pag.
14. S. I. Deaconu, **L. N. Tutelea**, A. Iagăr, *Elemente Generale ale Acțiunărilor Electrice. Acțiunări cu Mașini de Curent Continuu. Probleme*, Litografia UPT, 1999, 67 pag.
15. S.I. Deaconu, **L. N. Tutelea**, *Mașini electrice. Regimuri simetrice și nesimetrice de funcționare. Îndrumar de laborator*, Litografia UPT, 1999, 132 pag.
16. S. I. Deaconu, **L. N. Tutelea**, A. Iagăr, *Mașini Electrice. Probleme. Vol. II*, Litografia UPT, 1999, 82 pag.
17. S. I. Deaconu, **L. N. Tutelea**, A. Iagăr, *Mașini Electrice. Probleme. Vol. I*, Litografia UPT, 1998, 99 pag.

5. Papers in extensor in Journals indexed ISI Thomson-Reuters

1. I. Boldea, **L. N. Tutelea**, L. Parsa, D. Dorrell, *Automotive Electric Propulsion Systems With Reduced or No Permanent Magnets: An Overview*, IEEE Transactions on Industrial Electronics, Vol. 61, No. 10, 2014, ISSN 0278-0046; 1557-9948, pp. 5696-5711.
2. M. C. Ancuti, **L. Tutelea**, G. D. Andreescu, F. Blaabjerg, C. Lascu, I. Boldea, *Practical Wide-speed-range Sensorless Control System for Permanent Magnet Reluctance Synchronous Motor Drives via Active Flux Model*, *Electric Power Components and systems*, Vol. 42, No.1, 2014, ISSN 1532-5008; 1532-5016, pp. 91-102.
3. F.J.H. Kalluf, **L.N. Tutelea**, I. Boldea, A. Espindola, *2/4-POLE Split-Phase Capacitor Motor for Small Compressors: A Comprehensive Motor Characterization*, IEEE Transactions on Industry Applications, Vol. 50, No.1, 2014, ISSN 0093-9994; 1939-9367, pp. 356-363.
4. S.C. Agarlita, **L.N. Tutelea**, I. Boldea, *Modelling and control of a spring less resonant linear permanent magnet oscillomotor*, IET Electric Power Applications, Vol 7, No 2, 2013, ISSN 1751-8660, pp. 150-158.

5. **L.N. Tutelea**, M.C. Kim, M. Topor, J. Lee, I. Boldea, *Linear permanent magnet oscillatory machine: Comprehensive modeling for transients with validation by experiments*, IEEE Transactions on Industrial Electronics, Vol. 55, No. 2, 2008, ISSN 0278-0046, pp. 492-500.
6. I. Boldea, C.I. Pitic, C. Lascu, G.D. Andreescu, **L. Tutelea**, F. Blaabjerg, P. Sandholdt, *DTFC-SVM motion-sensorless control of a PM-assisted reluctance synchronous machine as starter-alternator for hybrid electric vehicles*, IEEE Transactions on Powers Electronics, Vol. 21, No. 3, 2006, ISSN 0885-8993, pp. 711-719.
7. **L. Tutelea**, M.C. Kim, Y.D. Chun, T.H. Kim, S.B. Lim, J.S. Ahn, J. Lee, I. Boldea, *A set of experiments to more fully characterize linear PM oscillatory machines* IEEE Transactions on Magnetics, Vol. 41, No 10, 2005, ISSN 0018-9464, pp. 4009-4011.
8. S. Scridon, I. Boldea, **L. Tutelea**, F. Blaabjerg, A.E. Ritchie, *BEGA-A biaxial excitation generator for automobiles: Comprehensive characterization and test results*, IEEE Transactions on Industry Applications, Vol. 41, No 4, 2005, ISSN 0093-9994, pp. 935-944.
9. I. Boldea, **L. Tutelea**, C.I. Pitic, *PM-assisted reluctance synchronous motor/generator (PM-RSM) for mild hybrid vehicles: Electromagnetic design*, IEEE Transactions on Industry Applications, Vol. 40, No 2, 2004, ISSN 0093-9994, pp. 492-498.

6. Papers in Conferences Proceedings indexed ISI Thomson-Reuters

1. **L. N. Tutelea**, S. I. Deaconu, I. Boldea, G. N. Popa, *Dual rotor single - stator axial air gap PMSM motor/generator drive for high torque vehicles*, International Conference on Applied Sciences (ICAS2013), Book Series: IOP Conference Series-Materials Science and Engineering, Vol. 57, Article No. 012009, 2014, ISSN 1757-8981, pp. 1-7
2. **L.N. Tutelea**, S.I. Deaconu, I. Boldea, N. Budisan, *Design, Control and 2D-FEM Validation for an Double Stator Winding Induction Generator*, 39th Annual Conference of the IEEE Industrial-Electronics-Society (IECON), 2013, ISSN / ISBN 1553-572X / 978-1-4799-0224-8, pp. 2732-2737
3. A.S. Isfanuti, M. Baba, **L. Tutelea**, A. Moldovan, I. Boldea, *Surface NdFeB versus Ferrite IPM motor drive for low power (100W to 2000W) applications: FEM embedded optimal design with full step torque response validation in sensorless vector control*, 39th Annual Conference of the IEEE Industrial-Electronics-Society (IECON), 2013, ISSN / ISBN 1553-572X / 978-1-4799-0224-8, pp. 3177-3182
4. F. Kalluf, A. Espindola, **L. Tutelea**, I. Boldea, *2/4 POLES split phase capacitor motor for small compressors: a comprehensive characterization*, IEEE Energy Conversion Congress and Exposition (ECCE), 2012, ISBN 978-1-4673-0801-4, pp. 158-165
5. I. Boldea, **L.N. Tutelea**, D. Ursu, *BLDC Multiphase Reluctance Machines for Wide Range Applications: a revival attempt*, 15th International Power Electronics and Motion Control Conference (EPE/PEMC), 2012, ISBN 978-1-4673-1972-0, LS1b.1-1 - LS1b., pp. 1-6
6. **L.N. Tutelea**, I. Boldea, S.I. Deaconu, *The Single Stator Dual Rotor PMSM for HEV: Two Windings and 4 Leg Inverter Control*, 15th International Power Electronics and Motion Control Conference (EPE/PEMC), 2012, ISBN 978-1-4673-1972-0, DS3a.1-1- DS3a., pp. 1-6
7. I. Boldea, **L.N. Tutelea**, S.C. Agarlita, C. Pompermaier, I.H. Setter, *25 W linear PM oscillo-motor (PM-LOM): general and optimal design, with FEM validation and controlled dynamics*, XXth International Conference on Electrical Machines (ICEM), 2012, ISBN 978-1-4673-0142-8, pp. 2726-2732
8. **L.N. Tutelea**, S.I. Deaconu, I. Boldea, F. Marignetti, G.N. Popa, *Design and Control of a Single Stator Dual PM Rotors Axial Synchronous Machine for Hybrid Electric Vehicles*, Proc. of the 14th European Conference on Power Electronics and Applications (EPE 2011), 2011, ISBN 978-90-75815-15-3, pp. 1-10
9. S.I. Deaconu, **L.N. Tutelea**, G.N. Popa, T. Latinovici, *Mathematical models and the control of homopolar and homo-heteropolar reactive synchronous machines with stator excitation*, Advances in Communications, Computers, Systems, Circuits and Devices, 2010, ISSN / ISBN 1792-6637 / 978-960-474-250-9, pp. 78-83
10. **L. Tutelea**, I. Boldea, *Surface Permanent Magnet Synchronous Motor Optimization Design: Hooke Jeeves Method Versus Genetic Algorithms*, IEEE International Symposium on Industrial Electronics (ISIE 2010), 2010, ISBN 978-1-4244-6391-6, pp. 1504-1509

11. S.C. Agarlita, M. Fatu, **L.N. Tutelea**, F. Blaabjerg, I. Boldea, *I-f Starting and Active Flux Based Sensorless Vector Control of Reluctance Synchronous Motors, with Experiments*, Proc. of 12th OPTIM 2010, PTS I-IV, Brasov, Romania, 2010, ISSN 1842-0133, pp. 337-342
12. I. Boldea, M. Topor, F. Marignetti, S.I. Deaconu, **L.N. Tutelea**, *A Novel, Single Stator Dual PM Rotor, Synchronous Machine: topology, circuit model, controlled dynamics simulation and 3D FEM Analysis of Torque Production*, Proc. of 12th OPTIM 2010, PTS I-IV, Brasov, Romania, 2010, ISSN 1842-0133, pp. 343-351
13. V. Gradinaru, **L. Tutelea**, I. Boldea, *BLDC-SPM Motor Drive with DC-DC Converter in the DC Link: Hall Sensor versus Sensorless Speed Control*, Proc. of 12th OPTIM 2010, PTS I-IV, Brasov, Romania, 2010, ISSN 1842-0133, pp. 422-429
14. I. Boldea, A. Moldovan, V. Coroban Schramel, G.D. Andreescu, **L. Tutelea**, *A Class of Fast Dynamics V/f Sensorless AC General Drives with PM-RSM as a Case Study*, Proc. of 12th OPTIM 2010, PTS I-IV, Brasov, Romania, 2010, ISSN 1842-0133, pp. 453-459
15. M.C. Paicu, **L. Tutelea**, I. Boldea, G.D. Andreescu, R. Ancuti, *PM-RSM Sensorless Vector Control: Zero q-Axis Flux versus Approximate Maximum Torque per Current, with Experiments*, Proc. of 12th OPTIM 2010, PTS I-IV, Brasov, Romania, 2010, ISSN 1842-0133, pp. 460-468
16. **L. Tutelea**, I. Boldea, *Induction Motor Electromagnetic Design Optimization: Hooke Jeeves Method Versus Genetic Algorithms*, Proc. of 12th OPTIM 2010, PTS I-IV, Brasov, Romania, 2010, ISSN 1842-0133, pp. 485-492
17. S.C. Agarlita, I. Boldea, F. Marignetti, **L.N. Tutelea**, *Position Sensor less Control of a Linear Interior Permanent Magnet Oscillatory Machine, with Experiments*, Proc. of 12th OPTIM 2010, PTS I-IV, Braşov, Romania, 2010, ISSN 1842-0133, pp. 689-695
18. S.C. Agarlita, I. Boldea, F. Marignetti, **L. Tutelea**, *Linear Permanent-Magnet Valve Actuator - The Dynamic Model: Digital Simulations, Open-Loop U/f and I/f Operation and Position Estimation Performance, with Experiments*, 8th International Symposium on Advanced Electromechanical motion systems (ELECTROMOTION 2009), 2009, ISBN 978-1-4244-5150-0, pp. 320-324
19. M.C. Paicu, **L. Tutelea**, G.D. Andreescu, F. Blaabjerg, C. Lascu, I. Boldea, *Wide Speed Range Sensorless Control of PM-RSM Via "Active Flux Model"*, IEEE Energy Conversion Congress and Exposition (ECCE 2009), 2009, ISBN 978-1-4244-2892-2, pp. 3695-3702
20. S.I. Deaconu, M. Topor, **L. Tutelea**, G.N. Popa, C. Abrudean, *Mathematical Model of a Reactive Homopolar Synchronous Machine with Stator Excitation*, 13th European Conference on Power Electronics and Applications, 2009, ISBN 978-1-4244-4432-8, pp. 2269-2277
21. S.I. Deaconu, M. Topor, **L. Tutelea**, G.N. Popa, C. Abrudean, *Modeling and Experimental Investigations of a Reactive Homo-Heteropolar Brushless Synchronous Machine*, 35th Annual Conference of the IEEE Industrial Electronics, (IECON), 2009, ISBN 978-1-4244-4648-3, pp. 1126-1133
22. S.I. Deaconu, **L. Tutelea**, G.N. Popa, I. Popa, C. Abrudean, *Optimizing the Designing of a Reactive Homopolar Synchronous Machine with Stator Excitation*, 34th Annual Conference of the IEEE Industrial Electronics, (IECON), 2008, ISSN / ISBN 1553-572X / 978-1-4799-0224-8, pp. 1258-1265
23. A. Stirban, **L. Tutelea**, D. Iles-Klumpner, I. Boldea, *FEM analysis of concentrated coils no-uniform slot (6+6/8) IPMSM fed with trapezoidal current*, Proc. of 11th OPTIM 2008, Vol. I, Brasov, Romania, 2008, ISBN 978-1-4244-1544-1, pp. 45-52
24. L.I. Iepture, **L. Tutelea**, I. Boldea, *FEM analysis and control of a tapered airgap single phase PMSM*, Proc. of 11th OPTIM 2008, Vol. I, Brasov, Romania, 2008, ISBN 978-1-4244-1544-1, pp. 241-248
25. I. Boldea, S.C. Agarlita, F. Marignetti, **L. Tutelea**, *Electromagnetic, thermal and mechanical design of a linear PM valve actuator laboratory model*, Proc. of 11th OPTIM 2008, Vol. II, Brasov, Romania, 2008, ISBN 978-1-4244-1544-1, pp. 259-264
26. V. Grădinaru, **L. Tutelea**, I. Boldea, *25 kW, 15 krpm, 6/4 PMSM: Optimal Design and Torque Pulsation Reduction via FEM*, Proc. of 11th OPTIM 2008, Vol. I, Brasov, Romania, 2008, ISBN 978-1-4244-1544-1, pp. 249- 256
27. M. Fatu, **L. Tutelea**, I. Boldea, R. Teodorescu, *Novel motion sensorless control of standalone Permanent Magnet Synchronous Generator (PMSG): harmonics and negative sequence voltage compensation under nonlinear load*, European Conference on Power Electronics and Applications, 2007, ISBN 978-90-75815-11-5, pp. 4421-4430
28. M. Fatu, **L. Tutelea**, R. Teodorescu, F. Blaabjerg, I. Boldea, *Motion sensorless bidirectional PWM converter control with seamless switching from power grid to stand alone and back*, IEEE Power

- Electronics Specialists Conference, Vols. 1-6, 2007, ISSN / ISBN 0275-9306 / 978-1-4244-0654-8, pp. 1239-1244
29. N. Muntean, **L. Tutelea**, I. Boldea, *A modified carrier-based PWM modulation technique in Z-source inverters*, Proc. of International AEGEAN Conference on Electrical Machines and Power Electronics & ELECTROMOTION, 2007, ISBN 978-1-4244-0890-0, pp. 174-180
 30. **L. Tutelea**, I. Boldea, *Optimal design of residential brushless d.c. permanent magnet motors with FEM validation*, Proc. of International AEGEAN Conference on Electrical Machines and Power Electronics & ELECTROMOTION, 2007, ISBN 978-1-4244-0890-0, pp. 435-439
 31. I. Serban, G. D. Andreescu, **L. Tutelea**, F. Blaabjerg, C. Lascu, I. Boldea, *New state observers and sensorless control of wound rotor induction generator (WRIG) at power grid with experimental characterization*, 32nd Annual Conference on IEEE Industrial Electronics (IECON 2006), Paris, 2006, ISSN / ISBN 1553-572X / 978-1-4244-0135-2
 32. G. Iliescu, **L. Tutelea**, I. Boldea, *Performance of a single-phase self-starting PM brushless motor fed by a chopper-controlled current-source thyristor inverter*, Proc. of 10th OPTIM 2006, Vol. II, Brasov, Romania, 2006, ISBN 978-973-635-704-6, pp. 85-90
 33. M. Fatu, I. Boldea, C. Lascu, **L. Tutelea**, G.D. Andreescu, *Motion sensorless variable speed PMSG control at power grid*, Proc. of 10th OPTIM 2006, Vol. III, Brasov, Romania, 2006, ISBN 978-973-635-705-3, pp. 9-16
 34. S. Scridon, I. Boldea, **L. Tutelea**, F. Blaabjerg, E. Ritchie, *BEGA - A biaxial excitation generator for automobiles: Comprehensive characterization and test results*, Record of the 2004 IEEE Industry Applications Conference (IAS), VOLS 1-4, 2004, ISSN / ISBN 0197-2618 / 0-7803-8486-5, pp. 1682-1690
 35. I. Boldea, T. Marcel, J. Lee, **L. Tutelea**, *Linear flux reversal PM oscillo-machine with effective flux concentration*, Proc. of 9th OPTIM 2004, Vol. II, Brasov, Romania, 2004, ISBN 978-973-635-287-4, pp. 59-64
 36. C.I. Pitic, **L. Tutelea**, I. Boldea, F. Blaabjerg, *The PM - assisted reluctance synchronous Starter/Generator (PM - RSM): Generator experimental characterization*, Proc. of 9th OPTIM 2004, Vol. II, Brasov, Romania, 2004, ISBN 978-973-635-287-4, pp. 275-282
 37. **L. Tutelea**, E. Ritchie, I. Boldea, *Permanent magnet in-wheel synchronous motor for electric vehicle*, Proc. of 5th ICEMS'2001: Vols I-II, 2001, ISBN 7-5062-5115-9, pp. 831-834
 38. S. Munk-Nielsen, **L.N. Tutelea**, U. Jaeger, *Simulation with ideal switch models combined with measured loss data provides a good estimate of power loss*, Record of IAS 2000, VOLS 1-5, 2000, ISSN / ISBN 0197-2618 / 0-7803-6401-5, pp. 2915-2922

7. Papers in journals and conferences Proceedings BDI indexed

1. **L. Tutelea**, A. Popa Moldovan; I. Boldea, *50/100 kW, 1350–7000 rpm (600 Nm peak torque, 40 kg) PM assisted Reluctance synchronous machine: Optimal design with FEM validation and vector control*, Optimization of Electrical and Electronic Equipment (OPTIM), 2014, International Conference on 2014, 10.1109/OPTIM.2014.6850884, pp. 276-283 (**IEEE Xplore**)
2. **L.N. Tutelea**, I. Boldea, S. I. Deaconu, *Parameter optimal identification of dual three phase stator winding induction machine*, Optimization of Electrical and Electronic Equipment (OPTIM), 2014, International Conference on 2014, 10.1109/OPTIM.2014.6851016, pp. 231-238 (**IEEE Xplore**)
3. A.S. Isfanuti, **L.N. Tutelea**, F.J.H. Kalluf, I. Boldea, *A novel design of stator Ferrite PM single phase doubly salient small motor: FEM characterization and controlled dynamics*, Optimization of Electrical and Electronic Equipment (OPTIM), 2014 International Conference on 2014, 10.1109/OPTIM.2014.6850893, pp. 284-290 (**IEEE Xplore**)
4. M. Topor, S.I. Deaconu, **L.N. Tutelea**, *Homo-heteropolar synchronous machine for low power variable speed wind or hydro applications: Design, 3D FEM validation and control*, 16th EPE'14-ECCE Europe, 2014, 10.1109/EPE.2014.6910885, pp. 1-10 (**IEEE Xplore**)
5. S.I. Deaconu, **L.N. Tutelea**, G. N., Popa, M. Nasaudean, C. Motorga, *Calculul cu Elemente Finite a Parametrilor si Caracteristicilor Generatorului Electric Asincron cu Doua Infasurari Statorice*, A XIV-a Conferință națională multidisciplinară – cu participare internațională – “Profesorul Dorin Pavel – fondatorul hidroenergeticii românești” Sebeș, 2014 ISSN 2067-7138, pp. 337-246 (**Google Scholar**)

6. S. Agarlita, D. Ursu, **L. Tutelea**, I. Boldea, B. Fahimi, *BLDC multiphase reluctance machines: A revival attempt with 2D FEM investigation and standstill tests*, Energy Conversion Congress and Exposition (ECCE), 2013 IEEE, 2013, 10.1109/ECCE.2013.6646933, pp. 1850-1857 (**IEEE Xplore**)
7. **L.N. Tutelea**, S.I. Deaconu, N. Budisan, I. Boldea, *Double stator winding induction generator for wind and hydro applications: 2D-FEM analysis and optimal design*, Power Electronics and Applications (EPE), 2013, 15th European Conference on 2013, 10.1109/EPE.2013.6634443, pp. 1-10 (**IEEE Xplore**)
8. D. Ursu, **L. Tutelea**, I. Boldea, *Proposal with 2D FEM analysis of a six phase, 12 poles, 3kW, 200 rpm BLDC multiphase reluctance machine wind generator*, Power Electronics and Applications (EPE), 2013, 15th European Conference on 2013, 10.1109/EPE.2013.6631885, pp. 1-9 (**IEEE Xplore**)
9. A. Isfanuti, **L. Tutelea**, S. Agarlita, I. Boldea, *NdFeB Versus Ferite IPM Motor For Automotive A.C. Compressor Electric Driving: Modeling and FEM-Embedded Optimal Design*, Journal of electrical engineering, vol. 13, no. 3 / 2013, 2013, 1582-4594, pp. 263-270 (**SCOPUS**)
10. S. I. Deaconu, **L.N. Tutelea**, G. Popa, M. Nasaudean, C. Motorga, *Generatorul Electric Asincron cu Doua Infasurari Statorice pentru Sisteme Eoliene de Putere si Turatie Redusa*, A XIII-a Conferință națională multidisciplinară—cu participare internațională – “Profesorul Dorin Pavel – fondatorul hidroenergeticii românești”, Sebeș, 7 – 8 iunie 2013, 2013, ISSN 2067-7138, pp. 313-322 (**Google Scholar**)
11. **L.N. Tutelea**, I. Boldea, S.I. Deaconu, *Optimal design of dual rotor single stator PMSM drive for automobiles*, Electric Vehicle Conference (IEVC), 2012, IEEE International 2012, 10.1109/IEVC.2012.6183224, pp. 1-8 (**IEEE Xplore**)
12. I. Boldea, **L.N. Tutelea**, S.I. Deaconu, F. Marignetti, *Dual rotor single-stator axial air gap PMSM motor/generator drive for HEVs: A review of comprehensive modeling and performance characterization* Electrical Systems for Aircraft, Railway and Ship Propulsion, (ESARS), 2012, 2012 10.1109/ESARS.2012.6387498, pp. 1-8 (**IEEE Xplore**)
13. **L.N. Tutelea**, S.I. Deaconu, I. Boldea, *Design and FEM validation for an axial Single Stator Dual Rotor PMSM*, IECON 2012-38th Annual Conference on IEEE Industrial Electronics Society, 2012 10.1109/IECON.2012.6389430, pp. 2929 - 2935 (**IEEE Xplore**)
14. I. Boldea, **L. Tutelea**, M. Topor, *Theoretical characterization of three phase flux reversal machine with rotor-PM flux concentration*, Optimization of Electrical and Electronic Equipment (OPTIM), 2012, 13th International Conference on 2012, 10.1109/OPTIM.2012.6231876, pp. 472 - 476 (**IEEE Xplore**)
15. **Tutelea, L.**, Ursu, D., Boldea, I., Agarlita, S., *IPM claw-pole alternator system for more vehicle braking energy recuperation*, Journal of electrical engineering, vol. 12, no. 3/ 2012, 2012 15824594, pp. 211-220, (**SCOPUS**)
16. A. Munteanu, I. Boldea, **L. Tutelea**, *Novel hybrid design methodology for a surface permanent magnet synchronous motor*, Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM), 2012 International Symposium on 2012, 10.1109/SPEEDAM.2012.6264452, pp. 603 – 608 (**IEEE Xplore**)
17. **L.N. Tutelea**, S.I. Deaconu, G. Oprisa, *Sistem de control al masinii asincrone cu rotor bobinat in aplicatii eoliene*, A XI-a Conferință națională multidisciplinară – cu participare internațională – “Profesorul Dorin Pavel – fondatorul hidroenergeticii românești” Sebeș, 2011, ISSN 2067-7128, pp. 423-428 (**Google Scholar**)
18. N. Muntean, **L. Tutelea**, D. Petrila, O. Pelan, *Hardware in the loop wind turbine emulator*, Electrical Machines and Power Electronics and 2011 Electromotion Joint Conference (ACEMP), 2011 International Aegean Conference on 2011, 10.1109/ACEMP.2011.6490568, pp. 53 – 58 (**IEEE Xplore**)
19. V. Gradinaru, **L. Tutelea**, I. Boldea, *Hybrid analytical/FEM optimization design of SPMSM for refrigerator compressor loads*, Electrical Machines and Power Electronics and 2011 Electromotion Joint Conference (ACEMP), 2011 International Aegean Conference on 2011, 10.1109/ACEMP.2011.6490677, pp. 657 – 662 (**IEEE Xplore**)
20. L. Strete, **L. Tutelea**, I. Boldea, C. Martis, I. Viorel, *Optimal design of a rotating transverse flux motor (TFM) with permanent magnets in rotor*, Electrical Machines (ICEM), 2010, XIX International Conference on, Roma, 2010, ISBN 978-1-4244-4174-7, pp. 1-6 (**IEEE Xplore**)
21. S.I. Deaconu, **L.N. Tutelea**, G.N. Popa, T. Latinović, *Artificial loading for rotating electric machines*, International symposium on advanced engineering & applied management, 40th Anniversary in higher education (1970-2010), 2010, ISBN 978-973-0-09340-7, pp. 219-224 (**Google Scholar**)
22. M.C. Paicu, **L. Tutelea**, G. D. Andreescu, I. Boldea, *Active flux sensorless vector control of IPMSM for wide speed range*, Journal of electrical engineering, vol. 8, no. 4/ 2008, 2008, ISSN 1582-4594, pp.1-9 (**SCOPUS, INSPEC**)

23. I. Boldea, S. Agarlita, **L. Tutelea**, F. Marignetti, *Novel linear PM valve actuator: FE design and dynamic model*, Record of LDIA 2007, Lille, France, 2007, ISBN 978-2-915913-21-7, pp. 10 (**.pdfinspec**)
24. I. Boldea, **L. Tutelea**, C. Pitic, *The PM Assisted Reluctance Synchronous Starter/Generator*, Journal of electrical engineering, vol 5., nr 1., 2005, ISSN 1582-4594, (**INSPEC**)
25. **L. Tutelea**, M.C. Kim, T.H. Kim, J. Lee, I. Boldea, *A set of experiments and test rig to fully characterize linear PM oscillatory machines*, Magnetics Conference, 2005, INTERMAG Asia 2005, Digests of the IEEE International 2005, 10.1109/INTMAG.2005.1464141, pp. 1423 – 1424 (**IEEE_Xplore**)
26. C.I. Pitic, **L. Tutelea**, I. Boldea, F. Blaabjerg, *The PM-assisted reluctance synchronous starter/generator (PM-RSM): Generator experimental characterization*, The 9 th International Conference on Optimization of Electrical and Electronic Equipments 2004, ISBN 973-635-288-9, pp. 275-282 (**Google Scholar**)
27. E. Ritchie, **L. Tutelea**, *An overview of electric vehicle in-wheel drive systems*, 39th International Symposium on Electrical Machines SME'2003, 9 – 11 June 2003, Gdańsk – Jurata, Poland, 2003, pp.1-21, (**Google Scholar**)
28. I. Boldea, E.A. Ritchie, F. Blaabjerg, S. Scridon, **L. Tutelea**, *Characterization of biaxial excitation generator for automobiles*, International Conference on Optimization of Electrical and Electronic Equipments, 2002, vol II. OPTIM, May 20-21, 2002, ISBN 973-635-004-5, pp. 371-376 (**Google Scholar**)
29. I. Boldea, I. Serban, **L. Tutelea**, *Variable speed electric generators and their control: an emerging technology*, Journal of Electrical Engineering, vol. 2, no. 1, 2002, ISSN 1582-4594, pp. 40-47 (**INSPEC**)
30. **L. Tutelea**, E.A. Ritchie, I. Boldea, *Comparative Performance of Induction and Synchronous Permanent Magnet Machine for Electric Vehicle Drives*, Proc. of 8th International Conference on OPTIM 2002, vol II, Brasov, May 20-21 2002, vol. 2, 2002, ISBN 973-635-004-5, pp. 401-406 (**Google Scholar**)
31. I. Boldea, **L. Tutelea**, C.I. Pitic, *PM – assisted Reluctance Synchronous Motor / Generator*, Proc. of 8th International Conference on OPTIM 2002, vol II, Brasov May 20-21 2002, vol. 2, ISBN 973-635-004-5, pp. 383-388 (**INSPEC**)
32. I. Boldea, S. Scridon, **L. Tutelea**, *(PM - RSM) for Mild Hybrid Vehicles*, Journal of electrical engineering vol. 1 no. 1/ 2001, paper 8, 2001, ISSN 1582-4594, pp. 50-57 (**INSPEC**)
33. **L.N. Tutelea**, E.A. Ritchie, I. Boldea, *Induction machine design with and without mechanical transmission for electrical vehicle drives*, 4th ELECTROMOTION'01, Bologna 2001, pp. 275-280 (**Google Scholar**)
34. **L.N. Tutelea**, E.A. Ritchie, *Modelling and Simulation of Four Wheel Drive System for Electric Vehicle using Induction Machine*, European Conference on Power Electronics and Applications, August 2001, Graz, Austria 2001, CD-ROM 9789075815061, pp. 1-10, (**Google Scholar**)
35. I. Boldea, **L. Tutelea**, C. Klumpner, *Artificial loading of induction machines: A review Workshop on Electrical Machine's Parameters*, Technical University of Cluj-Napoca, 26th of May, 2001, pp. 9-14 (**Google Scholar**)
36. I. Boldea, S. Scridon, **L. Tutelea**, C. Lascu, N. Muntean, *The Flux Reversal Machine (FRM) as an Automotive Alternator with 42/14V D.C. Dual Output*, Proc. of 7th OPTIM 2000, Brasov, Romania 2000, ISBN 973-9474-62-4, pp. 337-344 (**INSPEC**)
37. Boldea, I; S. Scridon, **Tutelea, L.**, *BEGA-A biaxial excitation generator for automobiles*, Proc. of 7th OPTIM 2000, Brasov, Romania 2000, ISBN 973-9474-62-4, pp. 345-352, (**INSPEC Google Scholar**)
38. E.A. Ritchie, **L. Tutelea**, Lucian, I. Boldea, *Design of Induction Machine with External Rotor for Flywheel*, Proceedings of NORPIE, 13-16 June 2000, Aalborg, Denmark 2000, ISBN 87-89179-29-3, pp. 251-256 (**Google Scholar**)
39. **L. Tutelea**, I. Boldea, *Polygonal Flux modulation (PFM) in ac drives*, Proc. of 6th OPTIM'98, Brasov, Romania, 1998, 10.1109/OPTIM.1998.707963, pp. 389 – 394 (**IEEE_Xplore**)
40. **L. Tutelea**, I. Boldea, E.A. Ritchie, P. Sandholdt, F. Blaabjerg, *Thermal testing for inverter-fed induction machines using mixed frequency method*, Proceedings of ICEM'98 Istanbul, Turkey, 1998, pp. 248-253 (**Google Scholar**)

7. National and International Research Contracts/grants

7.1. National Grants win by competition

7.1 A. DIRECTOR

1. Acționări electrice noi pentru refrigerare – creșterea eficienței energetice cu cost redus, CNCSIS, 76GR/23.05.2007, tema 37, 2007
2. Acționări electrice noi pentru refrigerare – creșterea eficienței energetice cu cost redus, CNCSIS, 58GR/19.05.2006, tema 18, 2739/19.05.2006

7.1 B. Team member

1. Microgrid integrated small power renewable energy hybrid systems, UEFISCDI, PCCA 36/2012, PN-II-PT-PCCA-2011-3.2-1519, 2012-2014
2. Tehnologii noi de actuatoare electrice pentru automobile, CEEX X2C33, 2006-2008
3. Noi mașini și acționări electrice de turație variabilă foarte joasă cu densitate de cuplu, randament și factor de putere ridicate, CNCSIS, 40535/2003 cod 512, 2003
4. Generatoare electrice la turație variabilă pentru sisteme de putere distribuite flexibile, ANSTI, 7069 GR 2001, tema 812, 2001
5. Sistem electric performant de putere pentru vehicule hibride, CNCSIS 34977/2001, tema 7, cod 838, 2001
6. Acționari electrice cu frecvența variabilă utilizând procesoarele de semnal (DSP), CNCSIS, 39401/115, 1998
7. Generatoare auto noi cu reglaj electronic de puterepe 42/14V (GAN 42/14V), CNCSU, 36/1998, tema 42/268, 1998
8. Acționări electrice universale, CNCSU, 7004/1997, tema 19/834, 1997
9. Sistem de acționare electrică universală, CNCSU, 5004/1996, tema 317, 1996
10. Contribuții la Reglajul Inteligent al mișcării (RIM), CNCSU, 4004/1995 tema 28B, 1995

7.2. International Research Grant and contracts

Team member

1. Energy efficient vehicles for road transport (EE-VERT), FP7, 218598, 2009-2012
2. Feasibility Study for electric drive System for Four Wheel Drive, in Wheel Mounting on Small, Battery Electric, Road Passenger Vehicle, "Consys/Denmark Prin Aalborg University Denmark" Institute of Energy Technology, AAU, Denmark, 2000
3. High speed fly-wheel energy storage, Riso, DEMEX A/S, NESA A/S, Terma industries, Institute of Energy Technology, AAU, Denmark, Institute of Energy Technology, AAU, Denmark, 1999