

Lista lucrări dr.ing. Radu Donca

1. Lucrări indexate ISI

A1: Balan, Radu; Cooper, Joshua; Chao, Kuo-Ming; **Donca Radu**, et al., Parameter identification and model based predictive control of temperature inside a house, ENERGY AND BUILDINGS Volume: 43 Issue: 2-3 Pages: 748-758, Published: FEB-MAR 2011, 47 citări ISI, 81 citări google scholar;

A2: Balan, Radu; Hancu, Olimpiu; Stan, Sergiu; **Radu Donca**, et al., Application of a Model Based Predictive Control Algorithm for Building Temperature Control, Conference: 3rd WSEAS International Conference on Energy Planning, Energy Saving, Environmental Education/3rd WSEAS RES 2009/3rd WSEAS WWAI 2009 Location: Tenerife, SPAIN Date: JUL 01-03, 2009, ENERGY PROBLEMS AND ENVIRONMENTAL ENGINEERING Book Series: Energy and Environmental Engineering Series Pages: 97-+ Published: 2009, 3 citări ISI; 9 citări google scholar

A3: Besoiu, Sorin; Maties, Vistrian; **Donca, Radu**, Mechatronic design of a planar parallel robot actuated by pneumatic artificial muscles, Edited by: Brisan, C; Maties, V; Stan, SD; et al. Conference: 5th International Conference on Robotics and Automation Systems Location: Cluj Napoca, ROMANIA Date: SEP 23-25, 2010 ROBOTICS AND AUTOMATION SYSTEMS Book Series: Solid State Phenomena Volume: 166-167 Pages: 57-62 Published: 2010;

A4: **Donca, Radu C.**; Balan, Horia; Besoiu, Sorin; et al., Implementation of a load control method for the improvement of the efficiency of a fuel cell, based on the hardware-in-the loop technique, Edited by: Miclea, L; Stoian, I, Conference: IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR 2008) Location: Cluj Napoca, ROMANIA Date: MAY 22-25, Pages: 111-114 Published: 2008;

2. Lucrări indexate Google Scholar

B1: M Coman, R Balan, **R Donca**, D Verde, Optimization of the control for the RV-2AJ Serial Robot, Rom. Rev. Precis. Mech. Opt. Mechatronics 39, 149-152, 2011, 4 citări Google Scholar;

B2: R Balan, S Stan, V Maties, **R Donca**, M Vlad, Advanced Control Algorithms For Energy Efficiency And Confort Inside A House, 13th World Congress in Mechanism and Machine Science, Guanajuato, Mexico, 19-25, 2011, 0 citare Google Scholar;

B3: R Balan, **R Donca**, A Balan, A Pleșa, L Pacurar, V Muresan, Thermal Modelling and Temperature Control of a House, The Romanian Review Precision Mechanics, Optics and Mechatronics, 39, 59-62, 2010, 0 citare Google Scholar;

B4: **RC Donca**, DC Popa, R Balan, V Iancu, M Manic, Design and control of a novel type of actuator for the Isoglide T3R1 Parallel Robot, Resilient Control Systems (ISRCS), 2010 3rd International Symposium on, 91-94, 2010, 0 citare Google Scholar;

- B5: A Bălan, MP Draghici, **R Donca**, A Pleșa, V Mătieș, A Method for Experimental Identification of Nonlinear Mechanical Systems, The 11th IFToMM International Symposium on Science of Mechanisms and and Machines. Mechanisms and Machine Science, vol 18, 2014 Springer, Cham;
- B6: A BĂLAN, A PLEȘA, **R DONCA**, M DRĂGHICI, V MĂTIEȘ, STABILISATION OF THE INVERSE PENDULUM ON A CART BASED ON A SEARCH METHOD, ACTA TECHNICA NAPOCENSIS-Series: APPLIED MATHEMATICS and MECHANICS, No. 56, Vol IV, pag. 591-597, 2013;
- B7: A BĂLAN, A PLEȘA, **R DONCA**, M DRĂGHICI, V MĂTIEȘ, A METHOD FOR SWING-UP OF THE INVERSE PENDULUM ON A CART, ACTA TECHNICA NAPOCENSIS-Series: APPLIED MATHEMATICS and MECHANICS, No. 56, Vol IV, pag. 597-601, 2013;
- B8: A BĂLAN, C LĂPUȘAN, **R DONCA**, M DRĂGHICI, V MĂTIEȘ, PREFILTERS IN THE CONTROL OF MECHATRONICS SYSTEMS, ACTA TECHNICA NAPOCENSIS-Series: APPLIED MATHEMATICS and MECHANICS, Vol. 55, Issue III, pag. 571-574, 2012
- B9: A BĂLAN, C LĂPUȘAN, **R DONCA**, M DRĂGHICI, V MĂTIEȘ, IDENTIFICATION FOR CONTROL OF MECHATRONIC SYSTEMS USING MATLAB/SIMULINK AND DSPACE PLATFORM, ACTA TECHNICA NAPOCENSIS-Series: APPLIED MATHEMATICS and MECHANICS, Vol. 55, Issue III, pag. 659-664, 2012
- B10: V Muresan, R Balan, N Matis, **R Donca**, INDOOR THERMAL COMFORT AND ENERGY CONSUMPTION IN A ROMANIAN APARTAMENT, The International Conference Interdisciplinarity in Engineering INTER-ENG, 2012;
- B11: **RC Donca**, MP Draghici, COMMAND AND CONTROL OF SHAPE MEMORY ALLOYS USED IN RETROFITTED BUILDINGS, Mathematical Modeling in Civil Engineering, 2011, pag. 76-82;
- B12: R Bălan, V Mureșan, **R Donca**, A Bălan, S Stan, Human behavior changing based on the simulation of the temperature control of a house, ICREPQ'11 Conference, 2011
- B13: Dan VERDES, Mircea COMAN, **Radu DONCA**, Radu BĂLAN, DESIGN, SIMULATION AND CONTROL OF ISOGLIDE T3R1 PARALLEL ROBOT, U.P.B. Sci. Bull., Series D, Vol. 73, Iss. 2, pag. 27-34, 2011
- B14: R Balan, O Hancu, C Lapusan, SD Stan, **RC Donca**, V Muresan, Modelling, identification and temperature control of a house, Annals of DAAAM & Proceedings, 2010, 591-593
- B15: S Besoiu, V MATIES, **R Donca**, Z Rokk, Design of mechatronic actuation systems based on fluidic artificial muscles, pag. 61-66, 2009, Transilvania University Press of Brașov



B16: S Besoiu, V Maties, C Rusu, **R Donca**, The Integrated Design and Optimization of a Kinematic Axis in Mechatronics, 2006, Mecatronica

B17: **Radu Donca**, Radu Balan, Vistrian Maties, Olimpiu Hancu, Control Method for the Improvement of the Efficiency of a Fuel Cell, ICREPQ 2006

B18: Laura Pacurar, **Radu Donca**, Alin Pleșa, Vlad Muresan, Radu Balan, Rapid Prototyping on an Omnidirectional Platform using Lego Education Components, The Romanian Review Precision Mechanics, Optics & Mechatronics, 2011, No. 39, pag 145-148.

B19: V Muresan, **R Donca**, A Balan, A Pleșa, L Pacurar, R Balan, Influence of Heat Capacity and Thermal Inertia on Heating Control for Reducing Energy Consumption, The Romanian Review Precision Mechanics, Optics & Mechatronics, 2011, No. 39, pag. 63-66

B20: Alin Plesa, **Radu Donca**, Vlad Muresan, Laura Pacurar, Radu Balan, Study of a Robot-Vision Solution for Tracking Objects, The Romanian Review Precision Mechanics, Optics & Mechatronics, 2011, No. 39, pag. 124-127

B21: A. Ceclan, D. D. Micu, E. Simion, **R. Donca**, Public lighting systems an energy saving technique and product, Clean Electrical Power, 2007. ICCEP '07. International Conference on

3. Lucrări publicate la alte conferințe naționale și internaționale

C1: Adina Balan, Radu Donca, Ciprian Lapusan, Mihai Draghici, Radu Balan, Smart Metering and Control for Home Energy Efficiency, Congresul Mondial Clima 2013, Praga

C2: Sorin Besoiu , Vistrian Mățieș, Sergiu-Dan Stan, Radu Donca, Cercetări aplicative privind sistemele mecatronice de acționare cu mușchi artificiali pneumatici, Conferința CNETTE 2009, <http://cnette.utcluj.ro/>

C3: Adina Balan, Vlad Muresan, Radu Donca, Vistrian Maties, Radu Balan, Use of model predictive control in energy efficiency buildings, First International Conference for PhD students in Civil Engineering CE-PhD 2012, 4-7 November 2012, Cluj-Napoca, Romania, www.sens-group.ro/ce2012



Lista proiecte de cercetare dr. ing. Radu Donca

1. Director proiect CNCSIS de tip Bursă Doctorală - BD Nr. 331/2008 (2008-2010)
2. FP7-DEHEMS-"Digital Environment Home Energy Management Systems" – membru echipa UTCN, <http://www.dehems.eu/>
3. Dezvoltarea unei platforme mobile multifunctionale pentru inspectie in conductele de apa, Program Inovare, 2012-2013, membru.
4. „Platformă de simulare, control si testare cu aplicații în mecatronică”- CONMEC, Contract CEEEX 2006, 2006-2008, membru, <http://www.conmec.utcluj.ro>
5. „Cercetari privind controlul avansat cu aplicatii in mecatronica” Contract IDEI-CNCSIS (2007-2010), membru, http://zeus.east.utcluj.ro/mec/mmfm/Proiecte/ID_1072/index.html
6. „Implementarea efectului de memorie a formei in sisteme mecatronice inteligente utilizand aliaje avansate obtinute prin metalurgia pulberilor-AFMF”, PN2-Parteneriate 2008-2011, membru
7. „Sistem informatic suport pentru proiectarea, implementarea și controlul fermelor energetice hibride”- E-FARM, PN2-Parteneriate, 2008-2011, membru

Lista proiecte instituționale dr. ing. Radu Donca

1. Joint MSc in Electrical Engineering (JMEE) – Tempus (2013-2016), membru echipa UTCN, <http://blogs.salford.ac.uk/jmee/>
2. Proiectul POSDRU 87/1.3/S/64069, FLEXFORM (www.flexform.ro) - expert pe termen lung și trainer;

