

LISTA DE LUCRĂRI – Sef Lucrari Doctor Inginer Anton DUCA

A – teza de doctorat

Metode nedeterministe si deterministe de rezolvare a problemelor electromagnetice inverse, conducator Prof.Dr.Ing. FMG Tomescu, 2006.

B – Carti si capitole in carti

A. Duca, *Sisteme Neurale și Tehnici Stocastice pentru Probleme Electromagnetice Inverse*, editura Andvertising, București, 2006. ISBN 978-973-86927-3-2.

C – Lucrari indexate ISI/BDI

A. Duca, M. Rebican, L. Janousek, A.E. Yilmaz, *Enhancement of Particle Swarm Optimization algorithms for the 3D crack reconstruction from ECT signals*, 8th International Symposium on Advanced Topics in Electrical Engineering (ATEE), Bucharest, 2013. (<http://ieeexplore.ieee.org>)

D. Ioan, M. Rebican, **A. Duca**, *Use of Evolutionary Agents to Solve ENDE Inverse Problems*, in *Electromagnetic Nondestructive Evaluation (V)*, vol. 21, pp. 59 – 66. J. Pavo, G. Vertesy, T. Takagi and S. S. Udpa (Eds.), IOS Press, Amsterdam, 2001. (<http://scholar.google.com>)

A. Duca, D. Ioan, *A Hybrid Transform–Neural Network Approach for the Inverse Problem in NDET*, in *Non–Linear Electromagnetic Systems*, vol. 18, pp. 269 – 272. P. Di Barba and A. Savini (Eds.), IOS Press, Amsterdam, 2000. (<http://scholar.google.com>)

D. Ioan, **A. Duca**, *Use of MTANN Systems to Solve Inverse ENDE Problems*, in *Electromagnetic Nondestructive Evaluation (IV)*, vol. 17, pp. 159 – 166. S. S. Udpa, T. Takagi, J. Pavo and R. Albanese (Eds.), IOS Press, Amsterdam, 2000. (<http://scholar.google.com>)

D – Lucrari publicate in reviste si volume de conferinte cu referenti (neindexate)

L. Janousek, M. Rebican, M. Smetana, T. Strapacova, **A. Duca**, *Non-destructive assessment of three-dimensional profile of real cracks from eddy current testing signals*, in *conference Computational Problems of Electrical Engineering and Advanced Methods of the Theory of Electrical Engineering (CPEE / AMTEE)*. Roztoky u Křivoklátu (Czech Republic), 2013.

M. Rebican, L. Janousek, M. Smetana, T. Strapacova, **A. Duca**, *Diagnosis of Real Cracks from Eddy Current Testing Signals using Parallel Computation*, in the *19th Compumag Conference*. Budapest, 2013.

L. Janousek, M. Rebican, M. Smetana, T. Strapacova, **A. Duca**, *Three-Dimensional Reconstruction of Partially Conductive Cracks from ECT Response Signals*, in the *18th International Workshop on Electromagnetic NonDestructive Evaluation*. Bratislava, 2013.

A. Duca, M. Rebican, L. Janousek, M. Smetana, T. Strapacova, *PSO Based Techniques for NDT-ECT Inverse Problems*, in the *18th International Workshop on Electromagnetic NonDestructive Evaluation*. Bratislava, 2013.

M. Rebican, L. Janousek, M. Smetana, T. Strapacova, **A. Duca** and G. Preda, *Diagnosis of real cracks from the three spatial components of the eddy current testing signal*, the *15th International IGTE Symposium on Numerical Field Calculation in Electrical Engineering*, Graz (Austria), September, 2012.

D. Badea, **A. Duca**, *T100 – A Content Management System for PHP Web Applications Development*, in *International Conference on Computer Science and Control Systems (CSCS)*, pp. 767 – 772. Bucuresti, 2011.

R. Stanescu, **A. Duca**, M. Rebican, *Neural Network Cracks Classifier for NDET Inverse Problems*. SNET 2009, Bucuresti, Romania.

A. Duca, FMG Tomescu, *Parameter tuning in a distributed optimization algorithm for NDET inverse problem*. SNET 2007 (ISBN 978-973-718-899-1), Bucuresti, Romania.

A. Duca, FMG Tomescu, *A Distributed Hybrid Optimization System for NDET Inverse Problems*, in *The Proceedings of the International Symposium of Nonlinear Theory and its Applications (NOLTA)*, pp. 1059 – 1062. Bologna, Italy, 2006.

A. Duca, FMG Tomescu, *A Hybrid Method for the Inverse Problem in Nondestructive Electromagnetic Testing*, in *Advanced Topics in Electrical Engineering*. București, 2006.

D. Ioan, **A. Duca**, M. Rebican, *Teams of Autonomous Software Agents (TASA) to Solve Inverse ENDE Problems*, in *Progress In Electromagnetics Research Symposium (PIERS)*. Osaka, Japan, 2001.

A. Duca, *New Artificial Neural Network Architectures for ENDE Inverse Problems*, in *International Seminar on Electromagnetic Nondestructive Evaluation of Welded Ferromagnetic Parts*, pp. 43 – 47. București, 2000.

D. Ioan, M. Rebican, **A. Duca**, *Use of Genetic Agents to Solve ENDE Inverse Problems*, in *The Proceedings of the 6th International Workshop on Electromagnetic Nondestructive Evaluation (ENDE 2000)*, pp. 17 – 19. Budapest, Hungary, 2000.

D. Ioan, **A. Duca**, *Use of Multi-Transform ANN to Solve Inverse ENDE Problems*, in *The Proceedings of the 5th International Workshop on Electromagnetic Nondestructive Evaluation (ENDE 99)*, pp. 72 – 73. Iowa, USA, 1999.

A. Duca, D. Ioan, *A Hybrid Transform–Neural Network Approach for the Inverse Problem in Nondestructive Electromagnetic Testing*, in *International Symposium on Non-Linear Electromagnetic Systems (ISEM 99)*, pp. 101. Pavia, Italy, 1999.

A. Duca, D. Ioan, *Neural Network Applied to Solve the Inverse Problem in Nondestructive Electromagnetic Testing*, in *Advanced Topics in Electrical Engineering*, pp. 196 – 202. București, 1998.

E – Brevete

F – Contracte

Funcția de membru în următoarele contracte:

Daniel Ioan, **A. Duca** și alții, *Tehnici de testare nedistructivă, Faza 2: Studiu privind utilizarea agentilor software în defectoscopia nedistructivă*, Numerical Methods Laboratory (LMN) Report 4/00 OTH-CC-ALL, "Politehnica" University of Bucharest, Bucuresti, 2000. Contract O 2000, Beneficiar: ANSTI.

Daniel Ioan, **A. Duca** și alții, *O nouă tehnică de testare nedistructivă a materialelor având la bază un nou principiu de măsurare a câmpului magnetic*, Numerical Methods Laboratory (LMN) Report 8/00 OTH-CC-ALL, "Politehnica" University of Bucharest, Bucuresti, 2000. Contract INCO-COPERNICUS MANODET Nr. ERBIC15CT969703, Beneficiar: European Commission.

Daniel Ioan, **A. Duca** și alții, *Circuite neurale artificiale pentru rezolvarea problemei inverse de defectoscopie electromagnetica nedistructivă*. Contract de cercetare, "Politehnica" University, Bucuresti, 1999. Contract 836/A9, Beneficiar: ANSTI.

Daniel Ioan, **A. Duca** și alții, *Studiu privind rezolvarea problemei inverse de defectoscopie electromagnetica*. Contract de cercetare, "Politehnica" University, Bucuresti, 1999. Contract 836/A61, Beneficiar: ANSTI.

Daniel Ioan, **A. Duca** și alții, *Technical Report of the 6th MANODET Meeting*. P. Novotny (Ed.). Prague, Cz, nov. 1999.

Daniel Ioan, **A. Duca** și alții, *Technical Report of the 5th MANODET Meeting*. D. Rodger (Ed.). Bath University, Bath, UK, may 1999.

FMG Tomescu, Daniel Ioan, **A. Duca** și alții, *Efecte de câmp electromagnetic în circuite electrice cu parametri distribuiți - Studiu privind modelarea interconexiunilor în circuitele integrate*. Raport LMN 7/98 - CMP - CC - ALL,

contract 32/tema 597/73/M.E.N./C.N.C.S.U, 1998. Coordonator: Prof.dr.ing. Daniel IOAN.