

## Departamentul de electrotehnica – ELTH

### Proiecte de cercetare

Nr. crt.	Centru	Denumire	Site web	Responsabil / Director de proiect	Program de cercetare/Beneficiar	Durata	Parteneri in cadrul contractului
1	-	Imbunatatirea diagnosticarii defectelor partial conductoare in evaluarea nedistructiva prin curenti turbionari	-	Rebican Mihai Iulian	CAPACITATI, Modulul III - Cooperari Bilaterale/ UEFISCDI	mai 2013 - noiembrie 2014	University of Zilina, Slovacia
2	MAGNAT	Generator termoelectric cu eficienta ridicata, cu operare nestationara-STAR (Ctr. 26/19.11.2012)	-	Prof.dr.ing. Ioan Florea HANTILA	PNCDI-Tehnologie Spatiala si Cercetare Avansata-STAR/Agentia Spatiala Romana	24 luni (12.2012-11.2014)	ICPE ICPE-Inginerie Electrica
3	MAGNAT	Metode electromagnetice pentru imbunatatirea procedeelor vinicole-WINETECH (Ctr. 170/01.07.2014)	-	Conf.dr.ing. Mihai MARICARU	PN II Parteneriate in domenii prioritare	24 luni (07.2014-06.2016)	Universitatea din Oradea ICPE
4	CIEAC	Intrumente Software Avansate pentru Modelare Electromagnetica si Optimizare (ASTEMO)	-	Prof.dr.ing. Gabriela Ciuprina	CAPACITĂȚI/MODUL III	01.2013 – 12.2014	Universitatea Ankara - Turcia
5	CIEAC	Instrumente si metodologii avansate pentru modelarea multifizica si simularea micro comutatoarelor de radio frecventa - ToMeMs	<a href="http://mems.lmn.pub.ro/">http://mems.lmn.pub.ro/</a>	Prof.dr.ing. Gabriela Ciuprina	PN-II-PT-PCCA-2011-3 Contract nr 5/2012	07.2012-07.2016	IMT Bucuresti

## Publicatii

Nr. crt.	Centru	Denumire	Autori	Revista
1	CIEAC	Elaborarea, participarea și prezentarea lucrării MULTIPHYSIC MODEL OF THE TRANSIENT HEATING OF THE SQUIRREL-CAGE ROTOR OF INDUCTION MOTORS la conferința OPTIM2014 (IEEE), 22-24 mai, Brașov-Cheile Grădiștei, Romania	Prof.dr.ing. Virgiliu FIREȚEANU	OPTIM2014 (IEEE), 22-24 mai, Brașov-Cheile Grădiștei, Romania
2	CIEAC	Elaborarea, participarea și prezentarea lucrării STATOR SHORT-CIRCUIT FAULTS DETECTION BASED ON HARMONICS OF THE MAGNETIC FIELD IN THE INDUCTION MOTORS NEIGHBORING la conferința SPEEDAM2014 (IEEE), 18-20 iunie, Napoli-Ischia, Italia	Prof.dr.ing. Virgiliu FIREȚEANU	SPEEDAM2014 (IEEE), 18-20 iunie, Napoli-Ischia, Italia
3	CIEAC	Elaborarea lucrării DETECTION OF A SHORT-CIRCUIT FAULT IN THE STATOR WINDING OF INDUCTION MOTORS THROUGH NEIGHBORING MAGNETIC FIELD HARMONICS prezentată la conferința ICEM2014 (IEEE), 2-5 sept, Berlin, Germania	Prof.dr.ing. Virgiliu FIREȚEANU	ICEM2014 (IEEE), 2-5 sept, Berlin, Germania
4	CIEAC	Elaborarea lucrării EXPERIMENTAL AND FINITE ELEMENT INVESTIGATIONS OF THE STATOR WINDING SHORT-CIRCUIT FAULT BASED ON HARMONICS OF THE MAGNETIC FIELD IN THE INDUCTION MOTOR NEIGHBORING pentru Modern Diagnostics Techniques for Electrical Machines, Power Electronics & Drives –postpublicație SDEMPED2013, Transaction on Industrial Electronics 2014	Prof.dr.ing. Virgiliu FIREȚEANU	Modern Diagnostics Techniques for Electrical Machines, Power Electronics & Drives – postpublicație SDEMPED2013, Transaction on Industrial Electronics 2014
5	CIEAC	Raport AREVA : FEASIBILITY STUDY CONCERNING THE ELECTROMAGNETIC STIRRING OF THE MOLTEN GLASS BATH IN A COLD CRUCIBLE FURNACE, Part1 ELECTROMAGNETIC 2D FINITE ELEMENT MODELS, raport 1, september 2014	Prof.dr.ing. Virgiliu FIREȚEANU	Raport AREVA, Part 1
6	CIEAC	Raport AREVA : FEASIBILITY STUDY CONCERNING THE ELECTROMAGNETIC STIRRING OF THE MOLTEN GLASS BATH IN A COLD CRUCIBLE FURNACE, Part2 ELECTROMAGNETIC 3D FINITE ELEMENT MODELS, raport 2, october 2014	Prof.dr.ing. Virgiliu FIREȚEANU	Raport AREVA , Part 2

7	CIEAC	Raport AREVA : FEASIBILITY STUDY CONCERNING THE ELECTROMAGNETIC STIRRING OF THE MOLTEN GLASS BATH IN A COLD CRUCIBLE FURNACE, Part3 FLUID DYNAMICS and ELECTROMAGNETIC MODELS with COMSOL Fluid Flow and COMSOL Multiphysics, raport 3, november 2014	Prof.dr.ing. Virgiliu FIREȚEANU	Raport AREVA, Part 3
8		PSO based techniques for NDT-ECT inverse problems	Anton Duca, Mihai Rebican, Ladislav Janousek, Milan Smetana, Tatiana Strapacova	Studies in Applied Electromagnetics and Mechanics, Vol. 39, IOS Pres, pp. 323-330, 2014, ISBN 978-161499406-0, Scopus, DOI: 10.3233/978-1-61499-407-7-323.ISSN:1383-7281
9		Three-dimensional reconstruction of partially conductive cracks from ECT response signals	Ladislav Janousek, Mihai Rebican, Milan Smetana, Tatiana Strapacova, Anton Duca	Studies in Applied Electromagnetics and Mechanics, Vol. 39, IOS Pres, pp. 323-330, 2014, ISBN 978-161499406-0, Scopus, DOI: 10.3233/978-1-61499-407-7-323. ISSN: 1383-7281
10		Enhancement of Particle Swarm Optimization algorithms for the 3D crack reconstruction from ECT signals	Anton Duca, Mihai Rebican. Ladislav Janousek, Asim Egemen Yilmaz	8th International Symposium on Advanced Topics in Electrical Engineering, ATEE 2013, pp. 1-4, Bucharest, Romania, May 2013, ISBN 978-1-4673-5979-5, ISI Web on Science, WOS: 000332928500110, IEEEExplore (INSPEC Accession Number: 13778535), Scopus (Article number 6563456, Category number CFP1314P-ART, Code 99883), DOI: 10.1109/ATEE.2013.6563456

11		Advanced procedure for non-destructive diagnosis of real cracks from eddy current testing signals	Ladislav Janousek, Milan Smetana, Tatiana Strapacova, Mihai Rebican, Anton Duca	10th International Conference ELEKTRO 2014, Rajecke Teplice, Slovakia, May 19-20, pp. 567-570, ISBN 978-1-4799-3720-2, IEEEExplore (INSPEC Accession Number: 14431364), Scopus (Article number 6848961, Category number CFP1448S-ART, Code 106459), DOI: 10.1109/ELEKTRO.2014.6848961.
12	MAGNAT	“Analysis of the motion of conducting sheets in magnetic fields”	M. Maricaru, H. Gavrilă, G.M. Vasilescu, I. F. Hantila,	IEEE Transactions on Magnetics, ISSN: 0018-9464
13	MAGNAT	“A new method for solving the periodic steady state of nonlinear circuits”	G.M. Vasilescu, I. F. Hăntilă, M. Maricaru, I. Bârsan, V. Stanciu	Rev. Roum. Sci. Techn, serie Electrotechn. et Energ., ISSN: 0035-4066
14	MAGNAT	“Eddy-Current Levitation in Ferromagnetic Structures”	G.M. Vasilescu, M. Maricaru, I. F. Hantila, G. Preda	IEEE Transactions on Magnetics. ISSN:0018-9464
15	MAGNAT	“Eddy-Current Levitation in Ferromagnetic Structures”	Mihai Maricaru, George-Marian Vasilescu, Florea I. Hantila, Ioan R. Ciric	The Sixteenth Biennial IEEE Conference on Electromagnetic Field Computation (CEFC2014), ( <a href="http://cefc2014.org">http://cefc2014.org</a> ), Annecy, France, 25 mai – 28 mai 2014
16	MAGNAT	"Steady State Analysis of a Switch Operated Thermoelectric Generator"	George-Marian Vasilescu, Viorel Stanciu, Mihai Maricaru, Ioan Barsan, Ioan Florea Hantila	International Symposium on Fundamentals of Electrical Engineering, Bucharest, Romania, 28-29 nov. 2014
17	MAGNAT	Inverter-inductor circuit for eddy current treatment of ferromagnetic pieces	Teodor Leuca, Adrian Traian Burca, Mihai Maricaru, Nistor Daniel Trip, Ioan Florea Hăntilă	Rev. Roum. Sci. Techn, serie Electrotechn. et Energ. , ISSN: 0035-4066

18	MAGNAT	FEM Analysis of the Magnetic Field for B-H Relationship Evaluation	Paul Cristian Andrei, Ion Caciula, Marilena Stanculescu, George-Marian Vasilescu	International Symposium on Fundamentals of Electrical Engineering, Bucharest, Romania, 28-29 nov. 2014
19	MAGNAT	Studii și analize privind tratarea și modelarea matematică a mustuelii/boștina prin electroplasmoliză. Soluție tehnică		UEFISCDI
20	CIEAC	PSO Algorithms and GPGPU Techniques for Electromagnetic Problems,	Anton Duca, Laurentiu Duca, Gabriela Ciuprina, Asim Egemen Yilmaz and Tolga Altinoz	13th International Workshop on Optimization and Inverse Problems in Electromagnetism September 10 – 12, 2014, Delft, The Netherlands,
21	CIEAC	Particle Swarm Optimization with Social Exclusion and its Application in Electromagnetics,	O. Tolga Altinoz, A. Egemen Yilmaz, Anton Duca and Gabriela Ciuprina	Proceedings of the 14th International Conference on Optimization of Electrical and Electronic Equipment, May 22-24, 2014, Brasov, Romania, 6 pages.
22	CIEAC	Intelligent Particle Swarm Optimization of Superconducting Magnetic Energy Storage Devices	Ruxandra Barbulescu, Aurel-Sorin Lup, Gabriela Ciuprina, Daniel Ioan, A. Egemen Yilmaz	International Symposium on Fundamentals of Electrical Engineering, 28-29 November 2014, Bucharest, Romania
23	CIEAC	Advanced PSO Algorithms and Local Search Strategies for NDT-ECT Inverse Problems,	Anton Duca, Mihai Rebican, Laurentiu Duca, L. Janousek and Tolga Altinoz	International Symposium on Fundamentals of Electrical Engineering, 28-29 November 2014, Bucharest, Romania
24	CIEAC	Parasitic Inductive Coupling of Integrated Circuits with their Environment	Daniel Ioan, Gabriela Ciuprina, W.H.A. Schilders,	Proceedings of the 2014 International Symposium on Electromagnetic Compatibility (EMC'14/Tokyo), 12-16 May, 2014, Tokyo, Japonia HitotsubashiHall, pages 565-568

25	CIEAC	Mixed-domain Macro-Models for RF MEMS Capacitive Switches,	Gabriela Ciuprina, Daniel Ioan, Dragos Isvoranu, Stefan Sorohan, Sorin Lup, and Sebastian Kula	Conference on Scientific Computing in Electrical Engineering SCEE 2014, 22-25 iulie, Wuppertal, Germania
26	CIEAC	Aerodynamic behavior of the bridge of a capacitive RF MEMS switch,	Dragos ISVORANU, Stefan Sorohan, Gabriela CIUPRINA	4th Micro and Nano Flows Conference, UCL, London, UK, 7-10 September 2014, 8 pages
27	CIEAC	Parametric Multiphysics Static Models for a Bridge Type MEMS Capacitive Switch,	Aurel-Sorin LUP, Gabriela CIUPRINA and Stefan SOROHAN	Proceedings of the 49th IEEE International Universities Power Engineering Conference, 2-5 sept 2014, Cluj-Napoca, Romania, ISBN 978-1-4799-6556-4, 5 pages,
28	CIEAC	PSO Algorithms and GPGPU Techniques for Electromagnetic Problems,	Anton Duca, Laurentiu Duca, Gabriela Ciuprina, Asim Egemen Yilmaz and Tolga Altinoz	13th International Workshop on Optimization and Inverse Problems in Electromagnetism September 10-12, 2014, Delft, The Netherlands,
29	CIEAC	Extraction of effective elastic coefficient from a coupled structural electrostatic simulation of a MEMS switch,	Aurel-Sorin Lup, Gabriela Ciuprina, Alexandra Stefanescu	International Symposium on Fundamentals of Electrical Engineering, 28-29 November 2014, Bucharest, Romania