

**CATEDRA DE MASINI ELECTRICE,  
MARKETING SI MANAGEMENT**

**DEPARTMENT OF ELECTRIC MACHINES,  
MARKETING AND MANAGEMENT**

**2001**

**CATEDRA DE MASINI ELECTRICE, MARKETING SI MANAGEMENT  
DEPARTMENT OF ELECTRIC MACHINES, MARKETING AND MANAGEMENT**

**SEF DE CATEDRA / HEAD OF DEPARTMENT**

Prof.Dr.Ing. **BIRO Karoly**

**1. PERSONAL ACADEMIC SI DE CERCETARE / ACADEMIC AND RESEARCH STAFF**

**1.1. PERSONAL ACADEMIC / ACADEMIC STAFF**

**PROFESORI / FULL PROFESSORS**

1. Prof.Dr.Ing. **Karoly BIRO**
2. Prof.Dr.Ing. **Ioan-Adrian VIOREL**
3. Prof.Dr.Ing. **Vasile IANCU**
4. Prof.Dr.Ing. **Mircea M. RADULESCU**
5. Prof.Dr.Ec. **Gh. Alexandru CATANA**
6. Prof.Dr.Ec. **Doina CATANA**

**CONFERENTIARI / READERS (ASSOCIATE PROFESSORS)**

Conf.Dr.Ing. **Liviu MANDUC**

**SEFI DE LUCRARI (LECTORI) / SENIOR LECTURERS (ASSISTANT PROFESSORS)**

1. Sef Lucr.Dr.Ing. **Radu CIORBA**
2. Sef Lucr.Dr.Ing. **Horia HEDESIU**
3. Sef Lucr.Dr.Ing. **Lorand SZABO**

**ASISTENTI / ASSISTANTS**

1. Asist.Ing. **Claudia MARTIS**
2. Asist.Ing. **Mihaela RADU**
3. Asist.Ing. **Zoltan BIRO**
4. Asist.Ec. **Adina NEGRUSA**

**PREPARATORI / JUNIOR ASSISTANTS**

1. Ec. **Victor NASTASE**

## **1.2. PERSONAL DE CERCETARE / RESEARCH STAFF**

1. Ing. **Ioana CHISU**, doctorand cu frecventa sub conducerea stiintifica a / Full-time Ph.D. E.E. student, under the supervision of Prof. Ioan-Adrian VIOREL.
2. Ing. **Gabriel MOISA**, doctorand cu frecventa sub conducerea stiintifica / Full-time Ph.D. E.E. student, under the supervision of Prof. Karoly Agoston BIRO.
3. Drd.Ing. **Florin LAZA** doctorand cu frecventa, din noiembrie 2000, sub conducerea stiintifica a / Full-time Ph.D. student, from November 2000, under the supervision of Prof. Mircea M. RADULESCU
4. Drd.Ing. **Calin-Mihai POP** doctorand cu frecventa, din noiembrie 2000, sub conducerea stiintifica a / Full-time Ph.D. student, from November 2000, under the supervision of Prof. Mircea M. RADULESCU
5. Ing. **Alin POPAN**, doctorand cu frecventa sub conducerea stiintifica a / Full-time Ph.D. E.E. student, under the supervision of Prof. Ioan-Adrian VIOREL.
6. Ing. **Vasile BARZ**, doctorand cu frecventa sub conducerea stiintifica / Full-time Ph.D. E.E. student, under the supervision of Prof. Karoly Agoston BIRO.
7. Drd.Ing. **Gabriel CIMUCA** doctorand cu frecventa, din noiembrie 2001, sub conducerea stiintifica a / Full-time Ph.D. student, from November 2001, under the supervision of Prof. Mircea M. RADULESCU
8. Drd.Ing. **Adina MUNTEAN** doctorand cu frecventa, din noiembrie 2001, sub conducerea stiintifica a / Full-time Ph.D. student, from November 2001, under the supervision of Prof. Mircea M. RADULESCU
9. Ing. **Daniel FODOREAN**, doctorand cu frecventa sub conducerea stiintifica a / Full-time Ph.D. E.E. student, under the supervision of Prof. Ioan-Adrian VIOREL.
10. Ing. **Cristian STET**, doctorand cu frecventa sub conducerea stiintifica a / Full-time Ph.D. E.E. student, under the supervision of Prof. Ioan-Adrian VIOREL.
11. Ing. **Jeno Barna DOBAI**, doctorand cu frecventa sub conducerea stiintifica / Full-time Ph.D. E.E. student, under the supervision of Prof. Karoly Agoston BIRO.
12. Ing. **Sandor KISS**, doctorand cu frecventa sub conducerea stiintifica a / Full-time Ph.D. E.E. student, under the supervision of Prof. Vasile IANCU

## **1.3. CADRE DIDACTICE ASOCIATE / ASSOCIATE TEACHING STAFF**

1. Dr.Ing. **Zoltan KOVACS**, cercetator principal I / senior scientific researcher

## **2. PRINCIPALELE DOTARI ALE CATEDREI / MAIN EQUIPMENTS OF THE DEPARTMENT**

1. Standuri de incercari industriale ale masinilor electrice / Benches for industrial testing of electric machines.
2. Sisteme de achizitii de date electrice, magnetice si mecanice cu calculator PC / PC-based data acquisition systems for electrical, magnetic and mechanical quantities
3. Aparatura de masurare, inregistrare a marimilor electrice si mecanice / Equipment for measuring of electrical and mechanical quantities.
4. Standuri experimentale pentru micromotoare electrice si masini electrice speciale / Experimental set-ups for small electric motors and special electric machines
5. Grupuri inverter de tensiune - motor de c.a. si variator de tensiune de c.c. – motor de c.c.

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- cu colector / Inverter-fed AC motors and chopper-fed DC commutation motors
6. Retea de calculatoare cu 10+1 posturi/ Computer network with 10+1 sites.
  7. Retea de calculatoare cu 7+1 posturi/ Computer network with 7+1 sites.
  8. Retea locala de calculatoare cu 6 posturi / Local computer network with 6 sites.
  9. Aparatura pentru editare si multiplicare / Editing and Copying equipment

**3. PARTICIPARI LA SCHIMBURI ACADEMICE INTERNATIONALE / INTERNATIONAL  
ACADEMIC EXCHANGES**

**3.1. PERSONALUL CATEDREI / DEPARTMENT STAFF**

**3.1.1. STAGII DE PROFESOR INVITAT / INVITED PROFESSOR MOBILITIES**

1. Prof. **Ioan-Adrian VIOREL**, profesor invitat trei saptamani la Universitatea din Akron / three weeks visiting professor at the University of Akron, Akron, Ohio, USA in July 2001.
2. Prof. **Ioan-Adrian VIOREL**, profesor invitat pentru o scurtă vizita de trei zile la Departamentul de Inginerie Electrică de Aachen / short visit (three days) at the RWTH Aachen, Germany, July 2001.
3. Prof. **Ioan-Adrian VIOREL**, profesor invitat pentru o saptamana la EPF Lausanne / one week visit to EPF Lausanne, Swiss, September / October 2001.
4. Prof. **Vasile IANCU**, profesor invitat pentru o saptamana la EPF Lausanne / one week visit to EPF Lausanne, Swiss, September / October 2001.
5. Prof. **M. M. RADULESCU**, profesor invitat la Departamentul de Inginerie Electrică, Universitatea din Akron, SUA, februarie 2001 / Invited Visiting Professor at the Department of Electrical Engineering, University of Akron, USA, February 2001.

**3.1.2. STAGII DE CERCETARE / RESEARCH MOBILITIES**

1. Prof. **Alexandru CATANA**, participare la cursul de perfectionare in Managementul Resurselor Umane si Marketing, Universitatea Tehnica din Cluj-Napoca si Southern Connecticut State University, Oct. Nov. 2001/ training seminar in Human Resource Management and Marketing, Technical University of Cluj-Napoca, Southern Connecticut State University, Oct. Nov. 2001
2. Prof. **Doina CATANA**, participare la cursul de perfectionare in Managementul Resurselor Umane si Marketing, Universitatea Tehnica din Cluj-Napoca si Southern Connecticut State University, Oct. Nov. 2001/ training seminar in Human Resource Management and Marketing, Technical University of Cluj-Napoca, Southern Connecticut State University, Oct. Nov. 2001
3. **Claudia MARTIS**, stagiul post-doctoral de cercetare la Universite de Picardie 'Jules Verne', Amiens, Franta, noiembrie 2001 – aprilie 2002 / Post-Doctoral Research Assignment at the Universite de Picardie 'Jules Verne', Amiens, France, November 2001 – April 2002.
4. **Victor NASTASE**, stagiul de cercetare la Universitatea de Tehnologie din Chemnitz, martie-mai, 2001; participare la cursul de perfectionare in Managementul Resurselor Umane si Marketing, Universitatea Tehnica din Cluj-Napoca si Southern Connecticut State University, Oct. Nov. 2001/ / research mobility, Chemnitz University of Technology, Faculty of Economics and Business Administration, march – may, 2001; training seminar

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in Human Resource Management and Marketing, Technical University of Cluj-Napoca, Southern Connecticut State University, Oct. Nov. 2001

5. **Adina NEGRUSA** , participare la cursul de perfectionare in Managementul Resurselor Umane si Marketing, Universitatea Tehnica din Cluj-Napoca si Southern Connecticut State University, Oct. Nov. 2001/ training seminar in Human Resource Management and Marketing, Technical University of Cluj-Napoca, Southern Connecticut State University, Oct. Nov. 2001
6. **Florin LAZA**, cercetator asociat invitat la Department of Electrical Engineering, University of Akron, SUA, ianuarie-martie 2001 in cadrul National Science Foundation (USA) International Research Program '*Design and development of doubly-salient permanent-magnet machines and drives*' – Grant No. ECS-9702370, 1999-2001 / Invited Research Associate at the Department of Electrical Engineering, University of Akron, USA, January-March 2001 within the framework of the International Research Program '*Design and development of doubly-salient permanent-magnet machines and drives*' – Grant No. ECS-9702370, 1999-2001.
7. **Alin POPAN**, stagiul de cercetare de doua saptamani la Departamentul de Electrical Engineering of Aachen / research mobility at RWTH Aachen, Germany, July 2001.
8. **Alin POPAN**, curs post universitar la EPF Lausanne Swiss, o saptamana, Decembrie 2001 / short term post grad course al EPF Lausanne Swiss.
9. **Vasile BARZ**, stagiul de cercetare de doua saptamani la Departamentul de Electrical Engineering of Aachen / research mobility at RWTH Aachen, Germany, July 2001.
10. **Cristian STET**, bursa de 1 luna la Universitatea din Miskolc, Ungaria, 25 Februarie – 22 Martie / research mobility of one month at the University of Miskolc, Hungary.
11. **Barna Jenő DOBAI**, bursa de 1 luna la Universitatea din Miskolc, Ungaria, 25 Februarie – 22 Martie / research mobility of one month at the University of Miskolc, Hungary.
12. **Tiberiu MOLDOVAN**, bursa de 1 luna la Universitatea din Miskolc, Ungaria, 25 Februarie – 22 Martie / research mobility of one month at the University of Miskolc, Hungary.
13. **Daniel FODOREAN**, stagiul de cercetare de 3 luni Decembrie 2001- Martie 2002, Universitatea din Belfort, Franta / three months research assistantship, University of Belfort, France, December 2001 – Mars 2002.

### **3.1.3. MOBILITATI IN CADRUL PROGRAMULUI SOCRATES-ERASMUS / SOCRATES-ERASMUS PROGRAMME MOBILITIES**

1. Prof. **M. M. RADULESCU**, mobilitate in calitate de Coordonator Institutional SOCRATES-ERASMUS invitat, in cadrul programului SOCRATES-ERASMUS 2000-2001, la Universiteit Gent, Belgia, iunie 2001 / mobility as Invited SOCRATES-ERASMUS Institutional Coordinator, in the framework of SOCRATES-ERASMUS 2000-2001, at the

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Universiteit Gent, Belgia, June 2001.

2. Prof. **M. M. RADULESCU**, mobilitate in cadrul programului SOCRATES-ERASMUS 2000-2001 la Ecole des Hautes Etudes Industrielles, Universite Catholique de Lille, Franta, aprilie 2001, unde a sustinut prelegerea '*Petits moteurs a aimants permanents et commutation electronique*' pentru studentii din anii IV si V de studiu / mobility in the framework of SOCRATES-ERASMUS 2000-2001 at the Ecole des Hautes Etudes Industrielles, Universite Catholique de Lille, Franta, April 2001, where he taught the lecture '*Petits moteurs a aimants permanents et commutation electronic*' for undergraduate students.

#### **3.1.4. PARTICIPARI LA CONFERINTE, SIMPOZIOANE ETC. INTERNATIONALE / PARTICIPATION IN INTERNATIONAL CONFERENCES, SIMPOSIA ETC.**

1. Prof. **Karoly BIRO**, participare la conferinta internationala MicroCAD '2001 Miskolc (Ungaria) / participation at the International conference MicroCAD '2001 Miskolc, Hungary, co-author of 1 presented papers.
2. Prof. **Ioan-Adrian Viorel**, participare la conferinta internationala EMES'01, Mai 2001, Oradea, Romania (EMES = Engineering of Modern Electric Systems) / participation at the International conference EMES'01, May 2001, Oradea, Romania, as section co-chairman and co-author of 2 presented papers.
3. Prof. **Ioan-Adrian Viorel**, participare la conferinta internationala EPE'01, August 2001, Graz, Austria / participation at International conference EPE'01, August 2001, Graz, Austria, co-author of 1 presented paper.
4. Prof. **M.M. RADULESCU**, participare la *4th International Symposium on Advanced Electromechanical Motion Systems – ELECTROMOTION 2001*, Bologna, Italia, 19-20 iunie 2001, ca Secretar Stiintific al Simpozionului si co-autor al 1 lucrari prezentate / participation in the *4th International Symposium on Advanced Electromechanical Motion Systems – ELECTROMOTION 2001*, Bologna, Italy, 19-20 June 2001, as Symposium Scientific Secretary and co-author of 1 presented paper.
5. Prof. **M.M. RADULESCU**, membru in International Scientific Committee of the *International Conference on Railway Traction Systems*, Capri, Italia, 15-17 mai 2001 / Member of the International Scientific Committee of the *International Conference on Railway Traction Systems*, Capri, Italy, 15-17 May 2001.
6. Prof. **Alexandru Catana**, A framework for Management Development through Market-Oriented Learning, V. Chemnitz Ostforum, Germania, Martie 2001
7. Prof. **Doina Catana**, A framework for Management Development through Market-Oriented Learning, V. Chemnitz Ostforum, Germania, Martie 2001
8. **Lorand SZABO**, participare la MicroCAD '2001 Miskolc (Ungaria) / participation to International Conference at MicroCAD '2001 Miskolc (Hungary)
9. **Lorand SZABO**, participare la Conferinta Internationala / participation to International Conference on Power Electronics, Drives and Motion (PCIM '2001), Nürnberg (Germania),
10. **Lorand SZABO**, participare la Conferința de energetică și electrotehnică ENELKO 2001, Cluj / participation to Conference on Energetics an Electrotehnics ENELKO 2001, Cluj, co-author of 3 presented paper.

#### **3.2. INVITATI / INVITED FELLOWS**

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1. Prof. **Valeria HRABOVCOVA**, profesor invitat de la Universitatea Tehnica din Zilina, Republica Slovaca la Facultate de electrotehnica a Universitatii Tehnice din Cluj-Napoca, unde a prezentat lucrarea "*Variable reluctance synchronous machines topologies, design, parameters and performance*", si a condus seminarul pentru programul de Master "Actionari cu turatie variabila" Mai / Iunie 2001 (o saptamana) / Technical University of Zilina, Slovak Republic, at the Faculty of Electrical Engineering, Technical University of Cluj-Napoca, May/ June (one week) invited visiting profesor, where he presented the lecture "*Variable reluctance synchronous machines topologies, design, parameters and performance*", and conducted seminars Program with the Master "Variable speed drives".
2. Dr. **Rainhart LANG**, Chemnitz University of Technology, persoana din strainatate invitatata de colectivul de Marketing si Management pentru cursuri, martie 2001 / invited person invited by Marketing and Management team for lecturing, Oct. 2001
3. Dr. **Ellen FRANK**, Southern Connecticut State University, School of Business, persoana din strainatate invitatata de colectivul de Marketing si Management pentru cursuri, octombrie 2001 / invited person invited by Marketing and Management team for lecturing, Oct. 2001.
4. Dr. **Mark SPENCE**, Southern Connecticut State University, School of Business, persoana din strainatate invitatata de colectivul de Marketing si Management pentru cursuri, noiembrie 2001/ invited person invited by Marketing and Management team for lecturing, Nov. 2001.
5. Prof. **Benoît ROBYNS**, Seful Departement de Genie Electrique, Ecole des Hautes Etudes Industrielles, Universite Catholique de Lille, Franta, mai 2001, mobilitate in cadrul programului SOCRATES-ERASMUS 2000-2001 la Facultatea de Electrotehnica a Universitatii Tehnice din Cluj-Napoca, unde a sustinut prelegerea '*Commande vectorielle de la machine asynchrone*' pentru studentii din anii IV de studiu / Prof. Benoît ROBYNS, Head of Departement de Genie Electrique, Ecole des Hautes Etudes Industrielles, Universite Catholique de Lille, Franta, May 2001, mobility in the framework of SOCRATES-ERASMUS 2000-2001 at the Faculty of Electrical Engineering, Technical University of Cluj-Napoca, May 2001, where he taught the lecture '*Commande vectorielle de la machine asynchrone*' for undergraduate students.
6. Assistant **Stephan RISSE**, from Institut fur Elektrische Maschinen, RWTH, Aachen, Germany – ten days in November 2001.
7. Assistant **Thomas BUSCH** from Institut fur Elektrische Maschinen, RWTH, Aachen, Germany – ten days in November 2001.
8. Assistant **Rolf BLISSENBACH** from Institut fur Elektrische Maschinen, RWTH, Aachen, Germany – ten days in November 2001.
9. Prof. **Alecsandru SIMION**, Technical University "Gheorghe Asachi" Iași, Romania, October, 2001, invited professor he taught the lecture "*On the dq0 models of electrical machines*" for Master students.

### **3.3. CONFERINTE SIMPOZIOANE, WORKSHOP-URI**

**"Workshop on Electrical Machines Parameters"** May 2001 – organizat de catedra de masini electrice, / organized by Department of Electrical Machines from Technical University of Cluj, Cluj Napoca, Romania.

#### Cuprins

1. *Influence of axially laminated rotor arrangement on the saliency ratio of the 4 - pole reluctance synchronous motor* - **Valeria Hrabovcová** – Rafajdus, P. –

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- Janoušek, L. – Hudák, L., University of Žilina, (Slovak Republic) Jozef Mihok, Technical University of Košice, (Slovak Republic)
2. *Artificial Loading of Induction Machines: a Review* **Boldea, I. – Tutelea, L. – Klumpner, C.**, University of "Politehnica" Timișoara (Romania)
  3. *Elimination of Induction Motor Parameters in Contact Energy Controlled CSI-Fed Induction Motor Drive* - **Fekete G.** – Szabó N., University of Miskolc (Hungary)
  4. *Synchronous Motor Fed By Current Inverter: Hybrid Model And Its Required Parameters* - **Soran, I.F.**, University "Politehnica" Bucharest (Romania)
  5. *On the Angular Characteristic of the Electric Transformer* - **Simion, Al.**, "Gh. Asachi" Technical University of Iași (Romania)
  6. *Testing of Electrical Machines Using a Data Acquisition and Processing System* - **Biriescu, M.** – Cretu, V., Technical University of Timișoara (Romania), Groza, V., University of Ottawa (Canada) - Moț, M. – **Madescu, Gh.**, Romanian Academy - Timișoara Branch (Romania)
  7. *On the Parameters Computation of a Single Sided Transverse Flux Motor* - Henneberger, G. – Blissenbach, R., Department of Electrical Machines, RWTH Aachen (Germany) - **Viorel, I. A. – Popan, A.D.**, Technical University of Cluj (Romania)
  8. *Computing the Force of Linear Machines Using Finite-Element Analysis* - **Tóth F.** - Szabó N., University of Miskolc (Hungary)
  9. *Parameter Identification for Large Induction Machines Using Direct On Line Startup Test* - **Babau, R.**, BEE SPEED Automatizări Ltd., Timișoara (Romania) - **Boldea, I.**, "Politehnica" University, Timișoara (Romania)
  10. *Analytical Computation of Magnetizing Inductances for the Synchronous Reluctance Motor with Axially-Laminated Rotor* - **Torac, Ileana**, Electrical Machines Research Laboratory, Romanian Academy - Timișoara Branch (Romania)
  11. *Analytical Determination of the D.C. Motor Efficiency under Actual Operating Conditions* - **Manolea, Gh.** – Bitoleanu, A., University of Craiova (Romania)
  12. *Experimental Evaluation of the Neutral Line at D.C. Machines* - **Simion, Al.** – Livadaru, L – Cojan, M. – Călugareanu S., "Gh. Asachi" Technical University of Iași (Romania)
  13. *Software Program for Computing and Drawing the Induction Motor Mechanical Characteristic* - Panu, M. – Viorel, Alina, University "L. Blaga" of Sibiu (Romania)
  14. *A Simple Approach to Induction Machine Parameter Estimation*- **Imecs Maria – Incze I.I.** Technical University of Cluj-Napoca (Romania)
  15. *Sensorless Vector-Controlled Induction Motor Drive System with Rotor Resistance Estimation Using Parallel Processing with Floating Point DSP* - **Pana, T.**, Technical University of Cluj-Napoca (Romania)
  16. *On the synchronous machine parameter identification* - **Biró K.Á. – Szabó L. – Iancu, V. – Hedesiu, H.C. – Barz, V.** Technical University of Cluj (Romania)
  17. *The Orthogonal Model of Synchronous Machine and his Parameters* - **Gozan, Gh.** – Păunescu, D. – **Babescu, M.** University of "Politehnica" Timișoara (Romania), S.C. Electromotor S.A. Timișoara (Romania)

The name of the participants to the workshop on bold characters.

#### **4. CONTRACTE DE CERCETARE STIINTIFICA / SCIENTIFIC RESEARCH CONTRACTS**



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1. *Actionari electrice automatizate cu performante energetice / Automated electric drives with high power efficiency*, Contract de tip D (cu finantare de la Banca Mondiala), Cod CNCSIS: 44064/23, 1999-2001. Director de proiect / Project manager: Prof. **Karoly BIRO**.
2. *Realizarea unui estimator in timp real de cuplu util pentru masinile de curent alternativ trifazate /Real time torque-estimator for three-phase AC machines*, Contract de tip A nr: 37118/2001, nr. tema: 28, cod CNCSIS: 576. Director de proiect / Project manager: Prof. **Karoly BIRO**.
3. *Masina electrica cu poli aparenti pe ambele armaturi si magneti permanenti in stator / Electrical machine with doubly salient poles on both armatures and permanent magnets in stator*. Contract de tip A, nr: 37118/2001, nr. Tema:16/ 663. Director de proiect / Project manager: Prof. **Ioan-Adrian VIOREL**.
4. *Serie de motoare cu reluctanta variabila, proiectare si realizare prototipuri /Variable reluctance motors series, design and prototype construction*, Contract nr. 6113/2001 (ANSTI) Tema: B5. Director de proiect / Project manager: Prof. **Ioan-Adrian VIOREL**.
5. *Sistem de Actiune Compact de Turație Variabilă cu Mașini de Curent Alternativ Alimentate prin Convertoare Statice* program national RELANSIN / *Compact drive system with variable speed of a.c. machines feed through static converters*, national program RELANSIN, Tema S2, director de proiect / project manager. Prof. **Ioan-Adrian VIOREL**.
6. *Program complex de studii aprofundate/doctorat, de invatamant integrat cu cercetarea, in domeniul actionarilor electrice cu turatie variabila / Complex program for MS/PhD of integrated education with research, in variable speed drives field*. Contract de tip D 106(cu finantare de la Banca Mondiala)2000-2002. Director de proiect / Project manager: Prof. **Ioan-Adrian VIOREL**.
7. *Design and development of doubly salient permanent-magnet machines and drives* – National Science Foundation (USA) International Research Program, Grant No. ECS-9702370, 1999-2001; Romanian Counterpart Lead Investigator: Prof. **M.M. RADULESCU**.
8. *Direct stator-flux and torque / thrust control of three-phase inverter-fed rotating / linear AC motor drives for industrial and traction applications* - Joint Research Project No. 33 / 2000 between Universita degli Studi di Cassino and Universitatea Tehnica din Cluj-Napoca within the framework of the 2001-2002 Bilateral Scientific and Technological Cooperation (BSTC) Romania – Italy; Romanian Counterpart Project manager: Prof. **M.M. RADULESCU**.
9. *Sistem de control cu procesor digital de semnal (DSP) si fara traductor de pozitie al unui micromotor cu magneti permanenti si reluctanta variabila autocomutat electronic / Position- sensorless DSP-based control system of a small electronically-commutated variable-reluctance permanent-magnet motor*, Beneficiar / Beneficiary: Ministerul Educatiei si Cercetarii, Consiliul National al Cercetarii Stiintifice in Invatamantul Superior / Ministry of Education and Research, National Council of Scientific Research in Higher Education; Grant A 39970/2001 – 20/ 267; Director de proiect / Project manager : Prof. **M.M. RADULESCU**.
10. *“GLOBE” cross cultural CEO research project on leadership styles” / proiect de cercetare transnațională asupra stilurilor de leadership*, coord. Prof. Dr. ROBERT HOUSE , Wharton USA 2001, prof. **Doina CATANA**
11. *“GLOBE” cross cultural CEO research project on leadership styles” / proiect de cercetare transnațională asupra stilurilor de leadership*, coord. Prof. Dr. ROBERT HOUSE , Wharton USA 2001, prof. **Alexandru CATANA**
12. *Proiectarea, modelarea și optimizarea unui motor cu deplasare în plan / Design, modelling and optimization of a surface motor*, Nr contract: 34970/2001, Cod CNCSIS: 231, Nr. temă: 9, Tipul proiectului: AT, Durata: 2001, Valoare totală grant: 40.000 mii lei. Director

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de program: **Loránd SZABÓ**

13. *Controlul la distanta al masinilor electrice prin instrumentatie virtuala pe suport internet / Remote control of electric machines based on INTERNET virtual instrumentation*, Contract de tip T (cu finantare de la Banca Mondiala) cod CNCSIS:82. Director de proiect / Project manager: **Horia HEDESIU**
14. „*GLOBE*” *cross cultural CEO research project on leadership styles*” / *proiect de cercetare transnațională asupra stilurilor de leadership*, coord. Prof. Dr. ROBERT HOUSE , Wharton USA 2001, **Adina NEGRUSA**
15. „*GLOBE*” *cross cultural CEO research project on leadership styles*” / *proiect de cercetare transnațională asupra stilurilor de leadership*, coord. Prof. Dr. ROBERT HOUSE , Wharton USA 2001, **Victor NASTASE**.

## **5. ALTE TIPURI DE ACTIVITATI DE CERCETARE SI SPECIALIZARE /OTHER KINDS OF RESEARCH AND SPECIALIZATION ACTIVITIES**

1. Prof. **Karoly BIRO**, referent stiintific oficial la 3 teze de doctorat la Universitatea Politehnica Timisoara si Universitatea Tehnica Cluj-Napoca / scientific referent for 3 Ph. D thesis at Technical University of Cluj-Napoca.
2. Prof. **Vasile IANCU**, referent stiintific oficial la 5 teze de doctorat la Universitatea Tehnica “Gh. Asachi” din Iasi, Universitate din Oradea si Universitatea Tehnica Cluj-Napoca/scientific referent for 5 Ph. D thesis at Tehnical University “Gh. Asachi” of Iasi, Universiti of Oradea and Technical University of Cluj-Napoca.
3. Prof. **Alexandru CATANA**, referent stiintific oficial la o teza de doctorat in economie: Universitatea de Vest, Timisoara, Facultatea de Stiinte economice / scientific referent for one Ph. D thesis in economics: West University of Timisoara, Faculty of Economic Sciences
4. Prof. **Doina CATANA**, referent stiintific oficial la 2 teze de doctorat in economie si sociologie: Universitatea de Vest Timisoara, Facultatea de Stiinte economice, Universitatea “Babes-Bolyai”, Facultatea de Stiinte Politice si Administrative / scientific referent for Ph.D. thesis in economy and sociology: West University of Timisoara, Faculty of Economic Sciences, Babes-Bolyai University, Faculty of Political Sciences and Public Administration.

## **6. LUCRARI STIINTIFICE PUBLICATE IN REVISTE DE SPECIALITATE / SCIENTIFIC PAPERS PUBLISHED IN SPECIALISED PERIODICALS**

1. Prof. **M.M. Radulescu**, PRINTED-CIRCUIT WINDING DESIGN OPTIMIZATION FOR DISC-ARMATURE DC SERVOMOTORS, M. Poloujadoff, *ELECTROMOTION*, Vol.8 (2001), No. 1, pp. 3-8.
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3. **Ioan-Adrian VIOREL**, Husain, I., **Chisu, Ioana, Radu, Mihaela** "*On the design of double-salient radial-flux machine with the permanent magnets placed on the stator poles*". Rev. Roum. Sci. Techn. -Electrotechn et Energ., 45, 1 Bucharest 2000 (Tipărit în 2001);.
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5. Prof. **Alexandru CATANA**, *Ole Norgaard, Economic institutions and Democratic Reform. A comparative analysis of Post- Communist Countries*, Rainer Hampp Verlag, Journal for East European Management Studies, vol.6 nr. 3/2001, book review.
6. **Adina NEGRUSA**, “*The business ethics in transition times*” in Revista de psihologie aplicata, editata de Universitatea de Vest Timisoara nr.4/2001

**7. LUCRARI STIINTIFICE PREZENTATE LA SIMPOZIOANE, CONFERINTE NATIONALE  
/ SCIENTIFIC PAPERS PRESENTED AT NATIONAL SYMPOSIA, CONFERENCES**

1. Prof. **Karoly BIRO – Szabó L. – Iancu V. – Hedesiú H.C. – Barz V.:** *On the Synchronous Machine Parameter Identification*, Proceedings of the Workshop on Electrical Machine’s Parameters, Cluj, 2001, pp. 87-90.
2. Prof. **Karoly BIRO – Bartos F.J. – Szabó L.:** *Maşini electrice cu eficienţa energetică / “Electrical machines with energetic efficiency”*, Conferinţa de energetică şi electrotehnică ENELKO 2001, Cluj, pp. 20-32.
3. Prof. **Ioan-Adrian VIOREL**, Novac, O., Novac, Mihaela, Viorel, Alina “*Switched reluctance motor computer design/estimation procedure*”, Oradea University Annals, vol. 5, 2001;.
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5. Prof. **Vasile IANCU**, Micu, D., Micu, D.D., *Diagrama de pornire a motorului monofazat / Starting diagram for single-phase motor*, Acta Electrotehnica, vol. 4/2, Humber L, 2001
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7. **Loránd SZABÓ**, Lelkes A.: *Micromotor sincron cu pornire electronică având eficienţă energetică mărită*, Conferinţa de energetică şi electrotehnică ENELKO 2001, Cluj, pp. 81-86. / *Synchronous micromotor with electronical start and energetics efficiency expanded*, Conference on Energetics an Electrotehnics ENELKO 2001
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9. **Adina NEGRUSA**, “*Modelarea deciziilor secventiale multicriteriale*” (colaborare cu Gh.Ionescu)- Sesiunea de comunicari stiintifice dedicata Zilei economistului, 23-24 Noiembrie 2001, Herculane, Universitatea de Vest Timisoara, Universitatea “Eftimie Murgu” Resita si AGER/ “*Modeling multicriteria sequential decisions*” West University of Timisoara, November, 2001.
10. **Adina NEGRUSA**, “*Unele aspecte privind teoriile justitiei sociale*” (colaborare cu Gh.Ionescu)- al V-lea Simpozion stiintific “*Probleme actuale macro si microeconomice in comert si turism*”, 18 Mai 2001, Universitatea Crestina “Dimitrie Cantemir”, Facultatea de

management teoretic si comercial, Timis. / " *Some aspects of social justice theories* " 18 May 2001, Timis, Romania.

11. **Adina NEGRUSA**, " *Unele aspecte privind cultura si munca* " (colaborare cu Gh.Ionescu)- al V-lea Simpozion stiintific "Probleme actuale macro si microeconomice in comert si turism", 18 Mai 2001, Universitatea Crestina "Dimitrie Cantemir", Facultatea de management teoretic si comercial, Timis / "Some aspects concerning the culture and work", 18 May 2001, Timis, Romania.

### **8. LUCRARI STIINTIFICE PUBLICATE IN VOLUMELE UNOR CONFERINTE INTERNATIONALE / SCIENTIFIC PAPERS PUBLISHED IN THE PROCEEDINGS OF INTERNATIONAL CONFERENCES**

1. **Karoly BIRO – Szabó L. – Barz V. – Hedesi H.C.**: *Parameter Estimation of a Synchronous Machine by Means of LabView Environment*, Proceedings of the International Computer Science Conference MicroCAD'2001, Miskolc, Ungaria.
2. **Ioan-Adrian VIOREL – Szabó L.**: *On a Three-Phase Modular Double Salient Linear Motor's Optimal Control*, Proceedings of the 9<sup>th</sup> European Conference on Power Electronics and Applications (EPE), Graz (Austria), 2001, pe CD-ROM: PP00237.pdf.
3. Henneberger, G., **Ioan-Adrian VIOREL**, Blissenbach, R. " *On the parameters computation of a single sided transverse flux motor* ". Proc. of Int. Workshop on Electrical Machine's Parameters, Cluj, Romania, May, 2001, pp. 35-40;.
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7. Prof. **M.M. Radulescu**, **F. Laza**, I. Husain, Mihaela Scortescu, Emilia Luchian *Design and performance of a small three-phase flux-reversal doubly-salient permanent-magnet motor. Proceedings of the 4th International Symposium on Advanced Electromechanical Motion Systems* (Bologna, 19-20 June 2001), Bologna, Italy, Vol. 2, pp. 515-518.
8. **Alexandru CATANA**, *A Framework for Management Development Through Market-Oriented Learning, în Human Resource Management in Transition*, V<sup>th</sup> Chemnitz Eastforum, March 21-23, 2001, Abstracts, Chemnitz University of Technology, Faculty of Economics and Business Administration, p. 3-5
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10. Ionescu Gh, **Alexandru CATANA** , **Doina CATANA**, *The Students Perspectives about the Place and Role of Business Ethics in the Business Schools Curricula*, în R. Lang, IV Chemnitzer Ostforum "Wirtschaftsethic in mittel-und ost Europa" Technische Universitat Chemnitz, Facultat fur Wirtschaftswissenschaften, WWDP 36/2001, p. 109-113
11. Ionescu Gh, **Alexandru CATANA** , **Doina CATANA**, *Business Ethics and Romanian Business Schools Curricula* în R. Lang, IV. Chemnitzer Ostforum "Wirtschaftsethic in mittel-und ost Europa" Technische Universitat Chemnitz, Facultat fur Wirtschaftswissenschaften, WWDP 36/2001, p. 115-120.

12. **Loránd SZABÓ – Viorel I.A.:** *An Integrated CAD Environment for Designing and Simulating Double Salient Permanent Magnet Linear Motors*, Proceedings of the International Conference on Power Electronics, Drives and Motion (PCIM), Nürnberg, 2001, vol. Intelligent Motion, pp. 417-422.

## **9. CARTI / BOOKS**

### **9.1. AUTORI / AUTHORS**

"Masini electrice cu reluctanta variabila" / "Variable reluctance electrical machines"  
Shaker Verlag, Aachen, Germania 2001; Henneberger , G., **Ioan-Adrian VIOREL** . .

### **9.2. REDACTORI / EDITORS**

1. *ELECTROMOTION – International Scientific Quarterly*, Vol. 8 (2001), Editors: Prof. M. JUFER, Prof. R. MUNTEANU and Prof. **M.M. RADULESCU**) Mediamira Science Publisher, Cluj-Napoca, 2001, ISSN 1223-057X.
2. *Proceedings of the Fourth International Symposium on Advanced Electromechanical Motion Systems – ELECTROMOTION '01*, Bologna, 2001 (Edited by Prof. D. Casadei, Prof. M. Jufer, Prof. R. Munteanu and prof. **M.M. Radulescu**).
3. Elaborare si redactare lucrare 'Programul educational European SOCRATES / ERASMUS in Universitatea Tehnica din Cluj-Napoca', U.T.Pres, Cluj-Napoca, 2001, 52 pp. (ISBN 973-8335-04-3) / Elaboration and editing of the brochure '*SOCRATES / ERASMUS European Educational Programme in the Technical University of Cluj-Napoca*', U.T.Pres, Cluj-Napoca, 2001, 52 pp. (ISBN 973-8335-04-3) - prof. **M.M. RADULESCU** et al.
4. Elaborare si redactare '*Contract Institutional SOCRATES-ERASMUS 2002-2003 al Universitatii Tehnice din Cluj-Napoca*' inregistrat la SOCRATES & YOUTH Technical Assistance Office, Bruxelles cu numarul 49969-IC-5-01-RO-ERASMUS / Elaboration and editing of the '*SOCRATES-ERASMUS Institutional Contract 2002-2003 of the Technical University of Cluj-Napoca*', which has been registered at the SOCRATES & YOUTH Technical Assistance Office, Bruxelles under the reference number 49969-IC-5-01-RO-ERASMUS, Prof. **M.M. RADULESCU**.
5. Correspondent member of Editorial Board, Journal for East European Management Studies, ISSN 0949-6181, 2001, prof. **Doina CATANA**

## **10. ACTIVITATI DIDACTICE CURSURI POSTUNIVERSITARE, APROBATE DE MINISTERUL EDUCATIEI SI CERCETARII/ POSTGRADUATE COURSES:**

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1. Din 1 octombrie inițierea unui program de Master “Actionari cu turație variabila” / Started in 1<sup>st</sup> of October the Master Program on “Variable speed drives and system integration”, prof. **Ioan-Adrian VIOREL**
2. **Colaborator sisteme actuale de marketing, sisteme actuale de management, sisteme actuale de management si marketing.** Cursurile au fost organizate în colaborare cu SOUTHERN CONNECTICUT STATE UNIVERSITY, SCHOOL OF BUSINESS, prof. **Alexandru CATANA**, responsabil curs, prof. **Doina CATANA**,

**11. TEZE DE DOCTORAT SUSTINUTE IN 2001 / DOCTORAL THESES CARRIED OUT IN 2001**

1. **Asis.ing. Claudia Steluta MARTIS:** *Contributii la studiul motoarelor cu reluctanta variabila si magneti permanenti autocomutate electronic / “Contributions on electronically autocomutated variable reluctance and permanent magnets motor’s study”*, conducator prof. **Karoly BIRO** Martie 2001, Cluj-Napoca, Romania.
2. **Sef de lucrari, ing. Fodor DENES:** *“DSP in timp real bazat pe control vectorial sensorless al motorului de inductie” / “Real time digital signal processor based vector sensorless control of induction motor”* coordinator prof. **Karoly BIRO** Nov. 2001 (department level), Cluj-Napoca, Romania.