



**Europass  
Curriculum Vitae**

**Personal information**

Numele si Prenumele

**ILIE Cristinel Ioan**

Adresa

Drumul Belsugului 70E, sector 6, Bucuresti, Romania

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Nationalitate

Romana

Data basterii

02.06.1960

Genul

Masculin

Ocupatia

Inginer

**Experienta**

Data

Mai 2022 - prezent

Funcția sau postul ocupat

Cercetător științific gradul I

Principalele activități si  
responsabilități

Șeful Departamentului de Sisteme și Tehnologii Electromecanice și al Laboratorului de macroprelucrări și prototipare rapidă

Data

Ian.2020 – mai 2022

Funcția sau postul ocupat

Inginer de dezvoltare tehnologica gradul I

Principalele activitati si  
responsabilitati

Seful Departamentului de Sisteme și Tehnologii Electromecanice și al Laboratorului de macroprelucrări și prototipare rapidă

Numele si adresa angajatorului

Institutul National pentru Inginerie Electrica, ICPE-CA, Splaiul Unirii 313, 030138, Sector 3, Bucuresti

Tipul sau sectorul de activitate

Cercetare- Dezvoltare, Prelucrari mecanice, Prototipuri

Data

Dec. 2002 – present

Funcția sau postul ocupat

Inginer de dezvoltare tehnologica gradul I

Principalele activitati si  
responsabilitati

Seful laboratorului de Microprelucrari si Rapid Prototyping

Numele si adresa angajatorului

Institutul National pentru Inginerie Electrica, ICPE-CA, Splaiul Unirii 313, 030138, Sector 3, București

Tipul sau sectorul de activitate	Cercetare- Dezvoltare, Prelucrări mecanice, Prototipuri
Data	Apr. 2001 – dec. 2002
Funcția sau postul ocupat	Cercetător principal, gradul III
Principalele activitati si responsabilitati	Cercetare- Dezvoltare, Proiectare mecanica, prelucrari mecanice, Asamblare
Numele si adresa angajatorului	Institutul National pentru Inginerie Electrica, ICPE-CA, Splaiul Unirii 313, 030138, Sector 3, Bucuresti
Tipul sau sectorul de activitate	Cercetare- Dezvoltare, Prelucrari mecanice, Prototipuri
Data	Apr. 1994 – apr. 2001
Funcția sau postul ocupat	Cercetator principal, gradul III
Principalele activitati si responsabilitati	Cercetare- Dezvoltare, Proiectare mecanica, prelucrari mecanice, Asamblare
Numele si adresa angajatorului	Institutul de Cercetare Dezvoltare pentru Electrotehnica, ICPE SA, Splaiul Unirii 313, 030138, Sector 3, Bucuresti
Tipul sau sectorul de activitate	Cercetare- Dezvoltare, Prelucrari mecanice, Prototipuri
Data	Iun. 1990 – apr. 1994
Funcția sau postul ocupat	Cercetator stiintific
Principalele activitati si responsabilitati	Cercetare- Dezvoltare, Proiectare mecanica, prelucrari mecanice, Asamblare
Numele si adresa angajatorului	Institutul de Cercetare Dezvoltare pentru Electrotehnica, ICPE SA, Splaiul Unirii 313, 030138, Sector 3, Bucuresti
Tipul sau sectorul de activitate	Cercetare- Dezvoltare, Prelucrari mecanice, Prototipuri
Data	Iul. 1986– Iun. 1990
Funcția sau postul ocupat	Inginer macanic
Principalele activitati si responsabilitati	Cercetare- Dezvoltare, Proiectare mecanica, prelucrari mecanice, Asamblare
Numele si adresa angajatorului	Institutul de Cercetare Dezvoltare pentru Electrotehnica, ICPE SA, Splaiul Unirii 313, 030138, Sector 3, Bucuresti
Tipul sau sectorul de activitate	Cercetare- Dezvoltare, Prelucrari mecanice, Prototipuri
Data	Sept. 1985– Iul. 1986
Funcția sau postul ocupat	Inginer macanic
Principalele activitati si responsabilitati	Proiectare mecanica, prelucrari mecanice, certificari
Numele si adresa angajatorului	Intreprinderea de Aparataj Electric, Titu, Romania
Tipul sau sectorul de activitate	Aparataj electric
<b>Educatie si formare</b>	
	Iun.2021
	Suștinerea tezei de abilitare și acordarea atestatului de abilitare în domeniul studii universitare de doctorat, Inginerie Mecanica, la universitatea din Valahia Târgoviște
Data	Sept. 2015- iun. 2017

	Studii de masterat <i>Inginerie de mentenanta pentru ELI-NP</i> , diploma obtinuta in anul 2017.									
Data	Sept. 2010- iun. 2014									
	Studii doctorale in inginerie mecanica la Universitatea Politehnica din Bucuresti, doctor in Inginerie Mecanica din anul 2014.									
Data	Sept.1980- iun. 1985									
Titlul de calificare acordat	Inginer									
Subiecte principale / calificări ocupaționale acoperite	Inginerie mecanica									
Numele și tipul organizației de educație și formare	Universitatea Politehnica din Bucuresti									
Nivel în clasificarea națională sau internațională	Diplomat inginer									
<b>Aptitudini și competențe personale</b>										
Limba materna	Romana									
Alte limbi straine	Engleza,									
Self-assessment	Intelegere				Vorbire				Scriere	
<i>Nivel european (*)</i>	Ascultare		Citire		Participare la conversație		Discurs oral			
engleza	B1	Utilizator independent	B1	Utilizator independent	B1	Utilizator independent	B1	Utilizator independent	B1	Utilizator independent
	<i>(*) Common European Framework of Reference for Languages</i>									
<b>Competențe și abilități sociale</b>	Comunicare, cooperare, munca în echipă, diligență, abilități de negociere, luarea deciziilor, capacitete de analiza si sinteza									
<b>Competențe și aptitudini organizatorice</b>	Sef Departament, Șef de Laborator									
	<ul style="list-style-type: none"> <li>Seful controlului tehnic de calitate (CTC) in Institut</li> </ul>									
	<ul style="list-style-type: none"> <li>Managementul activităților de cercetare și dezvoltare</li> </ul>									
	<ul style="list-style-type: none"> <li>Director/Responsabil de Proiect la peste 15 contracte de cercetare</li> </ul>									
	<ul style="list-style-type: none"> <li>Participant la mai mult de 30 de proiecte de cercetare</li> </ul>									
	<ul style="list-style-type: none"> <li>Elaborare de lucrari stiintifice cotate in baze internaționale de date (45 ISI si BDI)</li> </ul>									
	<ul style="list-style-type: none"> <li>CURS FORMATOR Bucuresti 2011 diploma sria F nr. 0117553</li> </ul>									
<b>Competențe informatice</b>	Word, Excel si Adobe Acrobat Professional, PowerPoint,									
<b>Carnet de conducere</b>	Categoría B									

<b>Alte informatii</b>	Premii profesionale: mai mult de 15 Brevete: 9 acceptate si 12 in curs de evaluare (16 pe web of science) Carti: 2 Organizatii profesionale: <ul style="list-style-type: none"><li>• Comitetul tehnic de standardizare, ASRO, CT 22, Echipamente Medicale</li><li>• Comitetul Electrotehnic Roman</li><li>• Membru British Institute of NDT Non-Destructive Testing, Certification Services Division</li></ul>
Anexe	Experienta relevanta, Lista Lucrari

Data: 02.06 2021

Dr. Ing. Cristinel Ilie



# LISTA DE LUCRĂRI

## 1<sup>o</sup> Teza de doctorat:

T1. Contribuții privind determinarea dezechilibrelor dinamice pentru sisteme mecanice de precizie cu mișcare de rotație, pe mașini de echilibrat antrenate prin câmp magnetic, Universitatea POLITEHNICA București, 2014,

## 2<sup>o</sup> Cărți publicate

**C1 Cristinel Ioan ILIE**, *Determinarea dezechilibrului dinamic pentru sisteme mecanice cu mișcare de rotație*, Editura AGIE, București 2020, ISBN 878-973-720-814-9, 127p

**C2 Cristinel Ioan ILIE**, Marius POPA, Nicolae TĂNASE, *Componente și sisteme micromecanice fabricate prin tehnologia LIGA*, București, Editura Electra, 2020, ISBN 978-606-507-127-8, 168p

## 3<sup>o</sup> Articole/studii de specialitate cotate I.S.I. (S1, S2 etc.),

**S1.** Nicolae TANASE, **Cristinel ILIE**, Ionel CHIRITA, Marius POPA, Daniel LIPCINSKI, Mihai GUTU, Romulus Marian MIHAI, High Speed Actuator for Digital Hydraulics, International Conference on Reliable Systems Engineering (ICoRSE) – 2022, ICoRSE 2022. Lecture Notes in Networks and Systems, vol 534. pp 284–297, Springer, Cham. [https://doi.org/10.1007/978-3-031-15944-2\\_26](https://doi.org/10.1007/978-3-031-15944-2_26) , 2022. Print ISBN978-3-031-15943-5.

**S2.** Emil Tudor, Dumitru Strambeanu, Daniel Lipcinski, Sergiu Nicolaie, **Cristinel Ilie**, Dragos Ovezza, Nicolae Tanase, Andreea Voina, Marius Fartan, “*Locomotive Diesel Engine Test Stand with Energy Recovery in the Electrical Network*”, 2021 International Conference on Applied and Theoretical Electricity (ICATE) may 27-29, Craiova, Romania, [https://elth.ucv.ro/icate/icate20/wp-content/uploads/sites/7/2021/05/Final-Program\\_ICATE-2021.pdf](https://elth.ucv.ro/icate/icate20/wp-content/uploads/sites/7/2021/05/Final-Program_ICATE-2021.pdf)

**S3.** Dragos OVEZEA, **Cristinel ILIE**, Nicolae TANASE, Adrian NEDELUCU, Marius POPA, Ionel CHIRITA, Mihai GUTU, “*Piezoelectric Active Tremor Compensation System for LASER Microsurgery - Constructive Solution*” The 12th International Symposium On Advanced Topics In Electrical Engineering (ATEE), March 25-27, 2021, Bucharest, Romania, DOI: 10.1109/ATEE52255.2021.9425130, <https://ieeexplore.ieee.org/document/9425130>, [https://www.researchgate.net/publication/351542128\\_Piezoelectric\\_Active\\_Tremor\\_Compensation\\_System\\_for\\_LASER\\_Microsurgery\\_-\\_Constructive\\_Solution](https://www.researchgate.net/publication/351542128_Piezoelectric_Active_Tremor_Compensation_System_for_LASER_Microsurgery_-_Constructive_Solution).

**S4. CRISTINEL ILIE**, NICOLAE TĂNASE, IONEL CHIRIȚĂ, ADRIAN NEDELUCU, MIHAI GUȚU, *Improvement of the Performances of Electric Machines With Applications in Aeronautics, Using Special Materials*, Rev. Roum. Sci. Techn.– Électrotechn. et Énerg. Vol. 65, Issue 1-2, pp. 41–46, Bucarest, 2020; Accession Number: WOS:000552052900007 <http://revue.elth.pub.ro/index.php?action=main&year=2020&issue=1-2>; [https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=1&doc=10](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=1&doc=10).

**S5.** IONEL CHIRIȚĂ, DRAGOȘ OVEZEA, NICOLAE TĂNASE, MARIUS POPA, **CRISTINEL ILIE**, *Fluidic and Thermal Characterization of a Sextupole Magnet for The Storage Ring of the FAIR Project*, Rev. Roum. Sci. Techn.– Électrotechn. et Énerg. Vol. 65, Issue 3–4, pp. 165–172, Bucarest, 2020, Accession Number: WOS:000608261900003, [http://revue.elth.pub.ro/upload/53176103\\_NTanase\\_RRST\\_3-4\\_2020\\_pp\\_165-172.pdf](http://revue.elth.pub.ro/upload/53176103_NTanase_RRST_3-4_2020_pp_165-172.pdf); [https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=1&doc=9](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=1&doc=9).

**S6.** N. Tănase, A. M. Morega, I. Chiriță and **C. Ilie**, *Passive Magnetic Bearing – Design and Numerical Simulation*, IEEE Proceedings of 2019 11th International Symposium on Advanced Topics in Electrical Engineering (ATEE), Bucharest, Romania, 2019, Accession Number: WOS:000475904500106, <https://ieeexplore.ieee.org/document/8724949>; [https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=4&doc=38](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=4&doc=38).

**S7.** N. Tănase, I. Chiriță, G. M. Mihăiescu, A. Nedelcu, **C. Ilie** and D. Lipcinski *Study of an Electromagnet for Digital Hydraulics - Numerical Simulation and Experimental Model Testing*, IEEE Proceedings of 2019 11th International Symposium on Advanced Topics in Electrical Engineering (ATEE), Bucharest, Romania, 2019, Accession Number: WOS:000475904500162, <https://ieeexplore.ieee.org/document/8725007>; [https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=4&doc=38](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=4&doc=38).

**S8.** Popescu, M; Tudor, E; Nicolaie, S; **Ilie, C.I.** ; Popovici, L; Dumitru, C, *Experimental Results Regarding Cogging Torque Reduction for the Permanent Magnet Synchronous Motors PMSM*, 2019 11TH INTERNATIONAL SYMPOSIUM ON ADVANCED TOPICS IN ELECTRICAL ENGINEERING (ATEE) Book Series: International Symposium on Advanced Topics in Electrical Engineering Published: 2019, Accession Number: WOS:000475904500169, <https://ieeexplore.ieee.org/document/8725014>; [https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=4&doc=37](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=4&doc=37).

**S9.** Nicolae TĂNASE, Alexandru M. Morega, **Cristinel ILIE**, Ionel CHIRIȚĂ, Adrian NEDELUCU, Marius POPA, *Analytical and Numerical Modeling of Passive Magnetic Bearings*, U.P.B. Sci. Bull., Series C, Vol. 81, Iss. 4, 2019, Accession Number: WOS:000502008300019, [https://www.scientificbulletin.upb.ro/rev\\_docs\\_arhiva/rezc9e\\_580939.pdf](https://www.scientificbulletin.upb.ro/rev_docs_arhiva/rezc9e_580939.pdf); [https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=4&doc=33](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=4&doc=33).

**S10.** **C. Ilie**, M. Mihaiescu, I. Chirita, M. Gutu, M. Popa and N. Tanase *Synchronous Electric Generator With Double Excitation*, IEEE Proceedings of 2019 11th International Symposium on Advanced Topics in Electrical Engineering (ATEE), Bucharest, Romania, 2019, Accession Number: WOS:000475904500024, <https://ieeexplore.ieee.org/abstract/document/8724866>; [https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=4&doc=36](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=4&doc=36)  
DOI: 10.1109/ATEE.2019.8724866

<https://www-scopus-com.am.e-nformation.ro/results/results.uri?sort=plf-f&src=s&st1=Ilie&st2=Cristinel&nlo=1&nlr=20&nls=count-f&sid=2bf129729432fe1159558f19c764de3e&sot=anl&sdt=aut&sl=41&s=AU-ID%28%22Ilie%2c+Cristinel+Ioan%22+36184311100%29&txGid=37e04af50f638ffeb343970a871610ed>

**S11.** Chirita, I; Apostol, ES; Tanase, N; **Ilie, C**; Popa, M., *Mathematical Modelling of the Induction Soldering Process for the Coils Connection*, PROCEEDINGS OF THE INTERNATIONAL CONFERENCE OF MECHATRONICS AND CYBER-MIXMECHATRONICS – 2017, Edited by:Gheorghe, GI, Book Series: Lecture Notes in Networks and Systems, Volume: 20, Pages: 109-116, DOI: 10.1007/978-3-319-63091-5\_13, Published: 2018; Accession Number: WOS:000540747400013, [https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=7&doc=61](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=7&doc=61).

**S12.** Barbu, P; Codescu, MM; Iordoc, M; Marinescu, V; Manta; **Ilie, C**; Popa, M, *Electrodeposition of CoNiMnP Thick Films for Micromachined Magnetic Device Applications*, REVISTA DE CHIMIE, Volume: 69 Issue: 6 Pages: 1355-1362, Published: JUN 2018, Accession Number: WOS: 000438397400012 [https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=5&doc=45](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=5&doc=45).

**S13.** Popa, M; **Ilie, C**; Lipcinski, D; Chirita, I; Tanase, N ; Apostol, S, *Coupling and Assembly Elements Using Microfabrication Technologies*, PROCEEDINGS OF THE INTERNATIONAL CONFERENCE OF MECHATRONICS AND CYBER-MIXMECHATRONICS – 2017, Edited by:Gheorghe, GI, Book Series: Lecture Notes in Networks and Systems, Volume: 20, Pages: 149-157, DOI: 10.1007/978-3-319-63091-5\_18, Published: 2018; Accession Number: WOS:000540747400018, DOI [https://doi.org/10.1007/978-3-319-63091-5\\_18](https://doi.org/10.1007/978-3-319-63091-5_18), [https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=7&doc=62](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=7&doc=62), <https://www-scopus-com.am.e-nformation.ro/results/results.uri?sort=plf-f&src=s&st1=Ilie&st2=Cristinel&nlo=1&nlr=20&nls=count-f&sid=2bf129729432fe1159558f19c764de3e&sot=anl&sdt=aut&sl=41&s=AU-ID%28%22Ilie%2c+Cristinel+Ioan%22+36184311100%29&txGid=37e04af50f638ffeb343970a871610ed>.

**S14.** Chirita, I.; Tanase, N.; Apostol, SE.; **Ilie, C.**; Popa, M., *Design Optimization of a Flywheel using SolidWorks Modeling and Simulation Capabilities*, 2017 8TH INTERNATIONAL CONFERENCE ON ENERGY AND ENVIRONMENT (CIEM), Book Group Author(s):IEEE, Book Series: International Conference on Energy and Environment, Pages: 344-348, Published: 2017, Accession Number: WOS:000427610300073 [https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=8&doc=77](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=8&doc=77).

**S15.** Daniel, DV; Tanase, N.; Apostol, ES.; Chirita, I.; **Ilie, C.**, *An Overview Regarding the Analytical vs. Numerical Computation for a PMB used for FESS*, 2017 10TH

INTERNATIONAL SYMPOSIUM ON ADVANCED TOPICS IN ELECTRICAL ENGINEERING (ATEE),

Book Group Author(s):IEEE, Book Series: International Symposium on Advanced Topics in Electrical Engineering, Pages: 458-462, Published: 2017, Accession Number: WOS:000403399400090

[https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=57&SID=E1CDVURVA6a1tW79fG3&page=1&doc=10](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=57&SID=E1CDVURVA6a1tW79fG3&page=1&doc=10).

**S16.** Morega, AM; Tanase, N; Morega, M; Comeaga, D; **Ilie, C.**, *Bending Mode Cantilever Actuators for Micro-Electromechanical Systems*, 2015, 9TH INTERNATIONAL SYMPOSIUM ON ADVANCED TOPICS IN ELECTRICAL ENGINEERING (ATEE), Book Group Author(s):IEEE, Pages: 556-561, Published: 2015, Accession Number: WOS:000368159800106  
[https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=11&doc=104](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=11&doc=104).

**S17.** Tanase, N; Morega, AM; Nedelcu, A; **Ilie, C.**, *Radial-Axial Passive Magnetic Bearing System - Numerical Simulation Aided Design Solutions*, 2015 9TH INTERNATIONAL SYMPOSIUM ON ADVANCED TOPICS IN ELECTRICAL ENGINEERING (ATEE), Book Group Author(s): IEEE, Pages: 566-572, Published: 2015, Document, Accession Number: WOS:000368159800108  
[https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=11&doc=105](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=11&doc=105).

**S18.** Prioteasa, P; **Ilie, C**; Popa, M; Iordoc, M; Sbarcea, BG., *Electrodeposition of Nickel for Fabrication of Microfluidic Pumps*, REVISTA DE CHIMIE, Volume: 64 Issue: 3 Pages: 275-280, Published: MAR 2013, Accession Number: WOS:000319179300013  
[https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=14&doc=136](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=14&doc=136).

**S19.** **Ilie, C**; Comeagă, D; Donțu, O., *Modeling and Testing of a New Dynamic Balancing System Based on Magnetic Interaction*, ACOUSTICS & VIBRATION OF MECHANICAL STRUCTURES, Edited by: Herisanu, N; Marinca, V., Book Series: Applied Mechanics and Materials, Volume: 430, Pages: 143-+, DOI: 10.4028/www.scientific.net/AMM.430.143 Published: 2013, Accession Number: WOS:000335880800022  
[https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=14&doc=140](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=14&doc=140).

**S20.** **Ilie, C**; Comeagă, D; Nedelcu, A., *Modeling and Simulation of a New Dynamic Balancing System Based on Magnetic Interaction*, 2013 8TH INTERNATIONAL SYMPOSIUM ON ADVANCED TOPICS IN ELECTRICAL ENGINEERING (ATEE), Book Group Author(s):IEEE, Published: 2013, Accession Number: WOS:000332928500101  
[https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=15&doc=143](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E1CDVURVA6a1tW79fG3&page=15&doc=143).



**S21.** Prioteasa, P; Petica, A; Popa, M; **Ilie, C**; Visan, T., *Electrochemical Deposition of Nickel for Micro-mechanical Systems*, REVISTA DE CHIMIE, Volume: 62 Issue: 5 Pages: 543-548, Published: MAY 2011, Accession Number: WOS:000291275700012

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**D1.** Nicolae TANASE, **Cristinel ILIE**, Dragos OVEZEA, Ionel CHIRITA, Marius POPA, Romulus M. MIHAI, Mihai GUȚU, “*Dynamic analysis and testing of a single gimbal control momentum gyroscope*”: International Journal of Mechatronics and Applied Mechanics, IJOMAM 2022, Issue 11, pp. 7-14. DOI: [dx.doi.org/10.17683/ijomam/issue11.1](https://doi.org/10.17683/ijomam/issue11.1).

**D2.** Dragos OVEZEA, Romulus M. MIHAI, **Cristinel ILIE**, Adrian NEDELUCU, Nicolae TANASE, Marius POPA, Mihai GUȚU “*Exeprimental testing of a tremor compensation system with bimorph piezoceramic actuators using optical methods*”. International Journal of Mechatronics and Applied Mechanics IJOMAM 2022, Issue 11, pp. 31-40, DOI: [dx.doi.org/10.17683/ijomam/issue11.4](https://doi.org/10.17683/ijomam/issue11.4)

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**D5.** Dragos OVEZEA, Romulus M. MIHAI, **Cristinel ILIE**, Adrian NEDELUCU, Nicolae TANASE, Marius POPA, Mihai GUȚU “*Exeprimental testing of a tremor compensation system with bimorph piezoceramic actuators using optical methods*”. International Journal of Mechatronics and Applied Mechanics IJOMAM 2022, Issue 11, pp. 31-40, DOI: [dx.doi.org/10.17683/ijomam/issue11.4](https://doi.org/10.17683/ijomam/issue11.4)

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**D12.** Florin Teodor Tănăsescu, Gheorghe Ștefănescu, **Cristinel Ilie**, Marius Popa, Sergiu Dumitru *Incercări de performanță pentru caracterizarea unui dispozitiv mems*, *Buletin AGIR*, An XX, nr.4/ 2015, p 97-102, ISSN-L 1224-7928, Online: ISSN 2247-3548,  
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**D15. Cristinel Ilie**, Constantin Daniel Comeaga, Octavian Dontu, *Sensory analysis for a new dynamic balancing system based on magnetic interaction*, ISSN 1454-2358, U.P.B. Sci. Bull., Series D, Vol. 75, 173-184, Iss. 4, 2013

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**D16. Cristinel Ioan Ilie**, Marius Popa, Paula Prioteasa, Nicolae Tanase *Applications of liga technology for the development of micromechanical systems*, U.P.B. Sci. Bull., Series D, Vol. 73, Iss. 2, 137-150, 2011, ISSN 1454-2358

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**D17. D. Strambeanu, I. Popovici, D. Lipcinski, S. Medianu, M. Ignat, G. Zărnescu, A. Dumitru, C. Ilie, I. Chiriță**, *Sistem pentru compensarea vibrațiilor prin suspensii active*, Buletinul Agir, ISSN-L 1224-7928, 2011, P98-102.

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**D18. Violeta Tsakiris, Cristinel Ilie, Marinescu Virgil, Ionel Chirita** *Pivots for magnetical fixing of dental prosthesis obtained by diffusion welding technique*, June 2010, International Conference Innovative technologies for joining advanced materials, SUDURA Publishing House ISSN 1844-4938At: Timisoara, Romania

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**D19.** Marian D, Palii L, Samoilescu G., Nicolae S, nedelcu A, **Ilie C.** Popa M, *Protection against frost on the overhead power lines*, Annals of DAAAM for Proceedings of the 21st International DAAAM Symposium, ISSN1726-9679, 2010, Zadar, Croatia  
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**D20.** Bunea Florentina, Gabriela Oprina, Gabriel Ciocan, **Cristinel Ilie**, Irina Pincovschi, *Aeration parameters optimization for an imposed energy consumption* January 2009, Project: Innovative aeration system of the water used by hydraulic turbines, for preservation of the aquatic life  
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Vi1. Mircea Ignat, **Cristinel Ilie**, *Aspects of the standardization of the experimental characterization and specific parametres of nanoelectromechanical actuators and manipulators*, International Conference EURONANOFORUM 2007 19-21 IUNIE 2007 Dusseldorf, Germania, ISBN-13ISSN : 978-92-79-05481-5 1018-5593, 2007, Dusseldorf, Germania., (Proceedings ENFeichen - European Commission - Europa).

### **Brevete acordate**

**B1.** Brevet acordat indexat WOS: **ILIE C I**, POPA M, IORDACHE I, CHIRITA I, TANASE N *Micro pump with elastic membranes with internal cutouts, intended to be used in medical, pharmaceutical, aeronautics or biotechnology field*, (Micropompă cu membrane elastice cu decupări interioare), Patent Number(s): RO129247-A2, Derwent Primary Accession Number: 2014-D83689  
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**B2.** Brevet acordat indexat WOS: KAPPEL W, MIHAIESCU G M, **ILIE C I**, GAVRILA H C, VASILE I, *Inductor-armature structure without ferromagnetic core for permanent magnet electrical machine* (Structură inductor-indus fără miez feromagnetic pentru mașini electrice cu magneți permanenți), Patent Number(s): RO123604-B1, Derwent Primary Accession Number: 2014-L22722  
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**B3.** Brevet acordat indexat WOS: **ILIE C I**, POPA M, CHIRITA I, TANASE N, PRIOTEASA P, *Method for making miniature gear wheels with cycloid-profiled tothing for watchmaking*, (Metodă de realizare a roților dintate miniaturale cu dantura cu profil cicloidal), Patent Number(s): RO128393-A2; RO128393-B1; Derwent Primary Accession Number: 2013- K35871  
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**B5.** Brevet acordat indexat WOS: KAPPEL W, MIHAIESCU G M, **ILIE C I**, LIPCINSKI D, VASILE I., *Device for dynamic equilibration with magnetic coupling, (Dispozitiv de echilibrare dinamică cu cuplaj magnetic)*, comprises driving rotary assembly, hollow shaft supported by two fixed radial bearings, integral with casing and two lateral flanges  
Patent Number(s): RO123090-B1, Derwent Primary Accession Number: 2010-M68924  
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**B6.** Brevet acordat indexat WOS: OLARU G, NICOLAE S, **ILIE C I**, SAMOILESCU G, MARIN M D., *Wave channel for researches, (Instalație de producere a valurilor pentru cercetări)*, comprises tank made of transparent material, cylinder provided with two arms mounted on axle sustained by two parts, and connecting rod crank system,  
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**B7.** Brevet acordat indexat WOS: POPOVICI L, **ILIE C.**, *Car wheels dynamic vertical balancing machine (Mașină de echilibrat cu ax vertical)* - has motorised balancing shaft reducing bulk, cost and imprecision, and compensating abnormal forces, Patent Number(s): RO110981-B, Derwent Primary Accession Number: 1997- 211123  
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Patent Number(s): RO102539-A, Derwent Primary Accession Number: 1993-124103, Citing Patents: 2  
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## Cerere Brevete

**B9.** Cerere de brevet: Sistem de reglare a înclinației roților pentru robot de inspecție țevi, Solicitantul brevetului este Institutul Național de Cercetare Dezvoltare pentru Inginerie Electrică ICPE-CA, Autorii cererii de brevet sunt: Ilie Cristinel Ioan, Tanase Nicolae, Popa Marius, , Ovezea Dragos, Lipcinski daniel, Gutu Mihai, Daniel Mihai Romulus Marian. Cererea a fost înregistrată cu numărul: A/00750/21.nov.2022.

**B10.** Cerere brevet: „Sistem de compensare a tremorului”, Solicitantul brevetului este Institutul Național de Cercetare Dezvoltare pentru Inginerie Electrică ICPE-CA, Autorii cererii de brevet sunt: Mihai Romulus Marian, Ovezea Dragos, Ilie Cristinel Ioan, Popa Marius, Tanase Nicolae, Nedelcu Adrian, Gutu Mihai, Udrea Radu Mihail, Comeagă Constantin Daniel. Cererea a fost înregistrată cu numărul: A/00716/26.11.2021.

**B11.** Cerere brevet indexat WOS: **ILIE C I**, MIHAIESCU G M, CHIRITA I, NICOLAIE S, TANASE N, POPA M, POPESCU M, *Inertial device for energy storage and protection of local electric micro-grid, (Dispozitiv inerțial pentru stocare energetică și protecție a microrețelelor electrice locale)*, has driving electric machine provided to flywheel and then to generator machine, and driving electric machine supplied from industrial electric grid, Patent Number(s): RO134279-A2  
Patent Assignee Name(s) and Code(s): INST NAT CERC-DEZVOLTARE ING ELECTRICA (NADE-Non-standard)  
Derwent Primary Accession Number: 2020-606159,  
[https://apps.webofknowledge.com/full\\_record.do?product=DIIDW&search\\_mode=GeneralSearch&qid=1&SID=E285JALmggJFCzb4btx&page=1&doc=2](https://apps.webofknowledge.com/full_record.do?product=DIIDW&search_mode=GeneralSearch&qid=1&SID=E285JALmggJFCzb4btx&page=1&doc=2).

**B12.** Cerere brevet indexat WOS: OVEZEA D, TANASE N, CHIRITA I, GUTU M, **ILIE C I**, POPA M, NEDELUCU A, *Linear positioning system has subassembly which causes deformation/return to initial shape for achieving highly accurate regulation and continuous control of position in vicinity of target location, (Sistem de poziționare liniară cu acționare piezoelectrică pentru sisteme de ghidare standardizate)* Patent Number(s): RO134346-A2, Patent Assignee Name(s) and Code(s): NAT CERC-DEZVOLTARE PENTRU ING ELECTRICA (NADE-Non-standard), Derwent Primary Accession Number: 2020-73761F,  
[https://apps.webofknowledge.com/full\\_record.do?product=DIIDW&search\\_mode=GeneralSearch&qid=1&SID=E285JALmggJFCzb4btx&page=1&doc=1](https://apps.webofknowledge.com/full_record.do?product=DIIDW&search_mode=GeneralSearch&qid=1&SID=E285JALmggJFCzb4btx&page=1&doc=1).

**B13.** Cerere brevet indexat WOS: TANASE N, MIHAIESCU G M, NICOLAIE S, CHIRITA I, **ILIE C I**, LIPCINSKI D, OVEZEA D, NEDELUCU A, POPA M, *Electromagnet used in digital hydraulics application (Electromagnet pentru hidraulica digitală)*, has remaining supporting and reinforcing portions of electromagnetic assembly, central axle, lateral flanges and threaded rods with clamping nuts that are made of materials, Patent Number(s): RO134148-A2  
Patent Assignee Name(s) and Code(s): INST NAT CERC-DEZVOLTARE ELECTRICA ICPE (NADE-Non-standard) Derwent Primary Accession Number: 2020-49916W,  
[https://apps.webofknowledge.com/full\\_record.do?product=DIIDW&search\\_mode=GeneralSearch&qid=1&SID=F4LW4yVnvGbNacqHFV&page=1&doc=3](https://apps.webofknowledge.com/full_record.do?product=DIIDW&search_mode=GeneralSearch&qid=1&SID=F4LW4yVnvGbNacqHFV&page=1&doc=3).

**B14.** Cerere brevet indexat WOS: OVEZEA D, TANASE N, CHIRITA I, **ILIE C I**, POPA M, LIPCINSKI D, NEDELUCU A., *System for position securing/releasing with piezoelectric actuators and parallelogram mechanism (Sistem pentru asigurarea/eliberarea pozitiei cu actuatori piezoelectrici si mecanism paralelogram)*, has slide that is kept locked on rolling track by locking springs when piezoelectric actuators are not voltage supplied, Patent Number(s): RO133530-A2, Patent Assignee Name(s) and Code(s): ICPE NAT CERC-DEZVOLTARE ELECTRICA INST (ICPE-Non-standard),

Derwent Primary Accession Number: 2019-68721P,

[https://apps.webofknowledge.com/full\\_record.do?product=DIIDW&search\\_mode=GeneralSearch&qid=1&SID=E285JALmggJFCzb4btx&page=1&doc=4](https://apps.webofknowledge.com/full_record.do?product=DIIDW&search_mode=GeneralSearch&qid=1&SID=E285JALmggJFCzb4btx&page=1&doc=4).

**B15.** Cerere brevet indexat WOS: OVEZEA D, TANASE N, CHIRITA I, **ILIE C I**, POPA M, LIPCINSKI D, NEDELCU A., *Positioning system with incremental displacement by controlling systems*, carries out unlocking of slides on rolling track by supplying piezoelectric actuators and gives amplification of deformation by actuators by parallelogram mechanisms ( *Sistem de poziționare cu deplasare incrementală prin controlul a doua sisteme pentru asigurarea/eliberarea poziției cu actuatori piezoelectrici si mecanism paralelogram*) ( Patent Number(s): RO133532-A2, Patent Assignee Name(s) and Code(s): ICPE NAT CERC-DEZVOLTARE ING ELECTRICA (ICPE-Non-standard), Derwent Primary Accession Number: 2019-68721M,

[https://apps.webofknowledge.com/full\\_record.do?product=DIIDW&search\\_mode=GeneralSearch&qid=1&SID=E285JALmggJFCzb4btx&page=1&doc=5](https://apps.webofknowledge.com/full_record.do?product=DIIDW&search_mode=GeneralSearch&qid=1&SID=E285JALmggJFCzb4btx&page=1&doc=5)

**B16.** Cerere brevet indexat WOS: NICOLAIE S, MIHAIESCU G M, BUNEA F, POPESCU M, CHIHAIA R A, BABUTANU C A, DUMITRU C, MACAMETE E, GUTU M, **ILIE C I**, FUIOREA I, *Counter-rotating hydroelectric micro power plant for hydraulic-electric conversion of energy of rivers of variable flowrate (Microhidrocentrală cu două turbine contrarotitoare cu curgere transversală)*, has sealing elements with permanent magnets, points of crossing walls of central chamber includes sealing elements, Patent Number(s): RO133057-A0,

Patent Assignee Name(s) and Code(s): SMART MECHANICS SRL (SMAR-Non-standard), INST NAT CERC-DEZVOLTARE ELECTRICA ICPE (NADE-Non-standard), Derwent Primary Accession Number: 2019-45292J,

[https://apps.webofknowledge.com/full\\_record.do?product=DIIDW&search\\_mode=GeneralSearch&qid=1&SID=E285JALmggJFCzb4btx&page=1&doc=6](https://apps.webofknowledge.com/full_record.do?product=DIIDW&search_mode=GeneralSearch&qid=1&SID=E285JALmggJFCzb4btx&page=1&doc=6).

**B17.** Cerere brevet indexat WOS : IBABUTANU C, BUNEA F, CHIHAIA R, DUMITRU J, HOLOTESCU S, **ILIE C**, MARINICA O, MOREGA A, MOREGA M, NICOLAIE S, PISLARU-DANESCU L, POPA M, POPA N, STOIAN F D., *Planar transformer with magnetic nanofluid* (Transformator planar cu nanofluid magnetic) comprises an assembly of planar coils comprising primary and secondary planar coils, Patent Number(s): RO131757-A0, Derwent Primary Accession Number: 2017-21890U

[http://apps.webofknowledge.com/full\\_record.do?product=DIIDW&search\\_mode=GeneralSearch&qid=3&SID=D4HS4yKDfmY8EsPDRdg&page=1&doc=1](http://apps.webofknowledge.com/full_record.do?product=DIIDW&search_mode=GeneralSearch&qid=3&SID=D4HS4yKDfmY8EsPDRdg&page=1&doc=1).

**B18.** Cerere brevet indexat WOS: CATANESCU A L, IGNAT M, PUFLEA I, **ILIE C I**, POPA M, TINCA I, *Electrostatic micro motor with rotating field (Micromotor electrostatic cu camp invariantor)* which comprises a three-phase assembly of twelve stator electrodes, Patent Number(s): RO128346-A2, Patent Assignee Name(s) and Code(s): INST NAT CERCETARE DEZV ELECTROCHIMIE (NADE-Non-standard), Derwent Primary Accession Number: 2013-G49281

[http://apps.webofknowledge.com/full\\_record.do?product=DIIDW&search\\_mode=GeneralSearch&qid=3&SID=D4HS4yKDfmY8EsPDRdg&page=1&doc=9](http://apps.webofknowledge.com/full_record.do?product=DIIDW&search_mode=GeneralSearch&qid=3&SID=D4HS4yKDfmY8EsPDRdg&page=1&doc=9).

**B19.** Cerere brevet inregistrata OSIM: Udrea Virgil Mircea, Comeagă Constantin Daniel, **Ilie Cristinel Ioan**, Coandă Philip, Nita Emil-Ionut, Udrea Radu-Mihail, Popa Marius, Tanase Nicolae, *Dispozitiv si procedeu de compensare activă a vibrațiilor aleatoare în cazul unui bisturii LASER*

Solicitantul brevetului APEL LASER SRL, ICPE-CA , UPB, Cererea a fost înregistrată cu numărul: A/00777 25-11-2020.



**B20.** Cerere brevet inregistrata OSIM: Chirita Ionel, Ovezea Dragos, Tanase Nicolae, **Ilie Cristinel Ioan**, Popa Marius, „*Echipament pentru reglarea continuă a debitului lichidelor, cu acționare electrică directă a elementului care realizează modificarea secțiunii de curgere*”, Solicitantul brevetului este Institutul Național de Cercetare Dezvoltare pentru Inginerie Electrică ICPE-CA, Cererea a fost înregistrată cu numărul: A/00694/03.11.2020.

**B21.** Cerere Brevet extindere internationala inregistrata OSIM: Chiriță Ionel, Ovezea Dragoș, Tănase Nicolae, **Ilie Cristinel Ioan**, Popa Marius, *Equipment for continuous adjustment of liquid flow, with direct electric drive of the element which performs the modification of the flow section*, request no. PCT/RO2020/000018, 11.11.2020

**Articole/studii publicate în volumele unor manifestări științifice naționale (Vn1, Vn2 etc).**

**Vn1.** Yelda VELI, Nicolae TĂNASE, Marius POPA, Cristinel ILIE, Alexandru MOREGA, “*Numerical Analysis of a Simplified Magnetic Gearbox for Energy Harvesting Applications*”, Actualități și Perspective în Domeniul Mașinilor Electrice, Vol. 18 Nr. 1 (2022): APME-2022, Universitatea Politehnica din București, pg. 1-6, ISSN / ISSN-L: 1843-5912.

**Vn2.** **Cristinel ILIE**, Nicolae TĂNASE, Gheorghe-Mihai MIHĂIESCU, Ionel CHIRIȚĂ, Mihai GUȚU, Marius POPA, *Micromașini electrice sincrone în construcție „Dublu Excitată” dezvoltate la INCDIE ICPE-CA*, SIMPOZIONUL DE MAȘINI ELECTRICE SME’19 – 15 Noiembrie, UPB, Bucuresti 2019 ISSN, ISSN-L:1843-5912.

[http://www.apme.pub.ro/apme/apme-2019\\_Contents.html](http://www.apme.pub.ro/apme/apme-2019_Contents.html).

**Vn3.** Nicolae TĂNASE, Alexandru M. MOREGA, **Cristinel ILIE**, Marius POPA, Mihail POPESCU, *Sistem De Stocare A Energiei Cinetice Pe Principiul Roții Volante, Cu Sustentație Magnetică* FESS SIMPOZIONUL DE MAȘINI ELECTRICE SME’15.

**Vn4.** N. TĂNASE, A. M. MOREGA, **C. ILIE**, A. NEDELCU - *Simulare sistem de lăgăruire radial-axial cu magneți permanenți folosit pentru dispozitive de stocare a energiei cu volant* - SIMPOZIONUL DE MAȘINI ELECTRICE SME’14 – 3 Octombrie, 2014, UNIVERSITATEA POLITEHNICA DIN BUCUREȘTI. ISSN 1843-5912.

**Vn5.** G. Oprina, Gh. Băran, Fl. Bunea, M. Popa, **C. Ilie**, *Determinarea coeficienților globali de rezistență aerodinamică la plăci perforate*, a 6-a Conferință a hidroenergeticienilor din Romania, ISSN 2068-276X , editura Politehnica PRESS, 2010, București.