



## Curriculum vitae Europass

### Informații personale

Nume / Prenume **DONTU, Octavian , Grigore**

Telefon(oane)

E-mail(uri)

Naționalitate Romana

Sex M

### Domeniul ocupațional **Prof. Univ. Dr. Ing. / Conducator de doctorat**

### Experiența profesională

Perioada 1972 –prezent, Universitatea POLITEHNICA Bucuresti

Funcția sau postul ocupat Profesor dr.ing. Din 1996-prezent

Activități și responsabilități principale Responsabil activitati de cercetare. Sunt conducator de doctorat si coordonez un numar de 15 doctoranzi

Instalatii si tehnologii pentru prelucrari in mecatronica (laser, fascicul electroni, plasma).

Sisteme si tehnologii de fabricatie CNC.

Sisteme de fabricatie pentru optoelectronica. MEMS.

Numele și adresa angajatorului Universitatea Politehnica Bucuresti, Splaiul Independentei 313, sector 6, Bucuresti, 060042, Romania

Perioada 1991-1996

Funcția sau postul ocupat Conf.dr.ing.

Activități și responsabilități principale Responsabil activitati de cercetare si didactice  
Instalatii si tehnologii pentru prelucrari in mecanica fina si mecatronica.  
Sisteme si tehnologii de fabricatie CNC.  
Sisteme de fabricatie pentru mecatronica si mecanica fina.

Perioada 1979-1991

Funcția sau postul ocupat Sef lucrari

Activități și responsabilități principale Instalatii si tehnologii pentru prelucrari in mecanica fina.  
Masini de prelucrat pentru mecanica fina.

Perioada 1975-1979

Funcția sau postul ocupat Asistent

Activități și responsabilități principale Masini si tehnologii pentru mecanica fina.

Perioada 1972-1975

Funcția sau postul ocupat Sef Atelier Central de Practica cu studentii din Institutul Politehnic Bucuresti

### Educatie si formare

Perioada 1975-1985

Pagina - 1 - Curriculum vitae al Pentru mai multe informații despre Europass accesați pagina: <http://europass.cedefop.europa.eu>

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Calificarea / diploma obținută

Doctorat -1985- Doctor inginer –Mecanica Fina-Perfectionarea sistemelor si tehnologiilor de prelucrare cu laser

## Aptitudini și competențe personale

Limba(i) maternă(e) Romana

Limba(i) străină(e) cunoscută(e)

**Franceza, Engleza, Rusa**

Autoevaluare

Nivel european (\*)

**Franceza**

**Rusa**

**Engleza**

Înțelegere				Vorbire				Scriere	
Ascultare		Citire		Participare la conversație		Discurs oral		Exprimare scrisă	
C2	Utilizator experimentat	C2	Utilizator experimentat	C2	Utilizator experimentat	C2	Utilizator experimentat	C2	Utilizator experimentat
C2	Utilizator experimentat	C2	Utilizator experimentat	C2	Utilizator experimentat	C2	Utilizator experimentat	C2	Utilizator experimentat
A2	Utilizator elementar	A2	Utilizator elementar	A1	Utilizator elementar	A1	Utilizator elementar	A1	Utilizator elementar

(\*) [Nivelul Cadrelor Europene Comune de Referință Pentru Limbi Străine](#)

Competențe și abilități sociale

Spirit de echipa – lucrul in echipa

Competențe și aptitudini organizatorice

Management de proiect- peste 44 proiecte – Director

Competențe și aptitudini tehnice

Expert evaluator proiecte de cercetare (CNCSIS)

Competențe și aptitudini de utilizare a calculatorului

Programare si sisteme de operare.

Competențe și aptitudini artistice

Muzica clasica si pictura acuarela.

Alte competențe și aptitudini

1981- Bursa UNESCO – Institut de Microtechnique EPF Lausanne Elvetia – 3 luni  
1988 – Bursa TU Dresden – 1 luna  
2000 – Programul LEONARDO , DE MONTFORT UNIVERSITY Leicester, Anglia, 3 saptamani.  
2001 – Atestat **Deutsche Management Akademie Germania** – 4 saptamani  
2001 – Specializare Centre de prelucrare CNC –Anglia-1 saptamana  
Din 2002 pana in prezent am sustinut in fiecare an module de cursuri, in domeniul laserelor, la Universitatea Politehico di Torino, Universitatea Bordeaux 1 S-T, Inst.National.Politehnic. Grenoble si Univeristatea West Macedonia TEI Kozani, Grecia **in calitate de profesor invitat**.  
Sunt unul din promotorii specializarii de mecatronica in invatamantul superior.

Permis(e) de conducere

Categorie B.

Pagina - 2 - Curriculum vitae al

Pentru mai multe informații despre Europass accesați pagina: <http://europass.cedefop.europa.eu>

Dontu Octavian Grigore

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## Informații suplimentare

Responsabil laborator : Sisteme integrate pentru tehnologii mecatronice si fabricatie produse.  
Membru al: SROMECA, AMFOR, Société Française d'Optique , Clubului International de Laseri – Paris, I.G.I.P. Austria, Societati Internationale de Mecatronica  
Am publicat : 12 carti (ISBN) ; 7 Manuale UPB, 47 articole cotate ISI dintr-un total de peste 190 articole publicate.  
Am fost diector/responsabil la peste 44 proiecte-contracte de cercetare stiintifica (din care 6 granturi + 1 MANUNET+ 1 EEA Norway Grants).

## LISTA DE LUCRĂRI DONTU GRIGORE OCTAVIAN

1. Teza de doctorat: **Perfectionarea sistemelor cu laser pentru imbunatatirea performantelor tehnologiilor specifice mecanicii fine**, Institutul POLITEHNIC Bucuresti, 1985

2. **Cărți și capitole din cărți publicate:**

CARTI in edituri I.S.B.N.

1. **O. Dontu** Tehnologii de prelucrare cu laser, Editura Tehnică, București 1985  
(unic autor)
2. Gh. Diaconescu, Tehnologia mecanicii fine și micromecanicii, Editura Tehnică, București, 1985  
C. Micu, **O. Dontu**
3. Gh. Diaconescu, Tehnologia mecanicii fine și microtehnicii, Editura Tehnică, București, 1986  
C. Micu, **O. Dontu**
4. **O. Dontu**, s.a. Studiul materialelor și biomaterialelor utilizate in mecatronică, Editura PRINTECH, București, 2001-ISBN 973-652-492-2
5. **O. Dontu** Tehnologii și sisteme de fabricație utilizate in mecatronica, (unic autor), Ed. PRINTECH, București, 2003-ISBN 973-652-797-2
6. **O. Dontu** Tehnologii de fabricatie, Ed. PRINTECH, Bucuresti 2005- (unic autor), ISBN 973-718-406-8.
7. D. Besnea, **O. Dontu**, Tehnologii de fabricatie asistate de calculator pentru executia unor componente mecatronice, Ed. PRINTECH, București, 2008-ISBN 978-606-521-174-2
8. **O. Dontu**, s.a. Metode si mijloace pentru evaluarea gradului de poluare a aerului si apei marine, Ed. PRINTECH, București, 2009-ISBN 978-606-521-456-9
9. **O. Dontu** Tehnologii și sisteme integrate de fabricație pentru mecatronica, Ed. PRINTECH, București, 2009-ISBN-978-606-521-459-0(unic autor)
10. **Octavian Dontu** Masini si sisteme integrate de fabricatie, Editura Printech, Bucuresti, 2015(unic autor)
11. D. Besnea, **O. Dontu** Tehnologii mecatronice si aplicatiile lor, Editura Printech

Manuale publicate in tipografia locale

12. **O. Dontu** Utilaje și tehnologii pentru electronica și microelectronică, (unic autor) Curs, Universitatea POLITEHNICA București – 1993
13. **O. Dontu** Construcția și exploatarea mașinilor de prelucrat pentru (unic autor) mecanică fină, Curs, Universitatea POLITEHNICA București – 1994
14. **O. Dontu** Utilaje și tehnologii pentru mecatronică, Curs, (unic autor) Universitatea POLITEHNICA Bucuresti – 1996
15. **O. Dontu** Materiale pentru mecatronică, Curs, (unic autor) Universitatea POLITEHNICA București – 1998

16. **O. Dontu**,  
A. Ercianu                   Mașini și instalații pentru prelucrări în mecanică fină,  
Curs, Universitatea POLITEHNICA București – 1993
17. Gh. Diaconescu,       Masini de lucru pentru mecanica fina, Curs, Institutul Politehnic  
**O. Dontu**  
București – 1979
18. S. Antonescu,  
**O. Dontu**                    Tehnologia mecanicii fine și micromecanicii, Curs, Institutul  
Politehnic București – 1984
19. D.Besnea,                Tehnologii aditive cu aplicații în mecatronică. Construcție și  
**O.Dontu**, E.Moraru,       exploatare, Editura Printech, 2019  
E.Dinu

### 3. Articole/studii publicate în reviste de specialitate de circulație internațională recunoscute sau în reviste din țară recunoscute de CNCSIS:

#### 3.1. Reviste de specialitate cotate ISI

##### 1.1 Prim autor :

- 20.1) **O. Dontu**, s.a. -Procese fizico – chimice care au loc la interacțiunea dintre țesuturile umane vii traumatizate, preparate colagenice și ultrasunete, Revista de Chimie, vol. 56, nr. 1/2004, pg. 101-104.
- 21.2) **O.Dontu**, s.a.- Procese fizico-chimice care apar în fluidele combustibile tratate în câmp magnetic, Revista de Chimie, vol. 54, nr. 12, 2003, pag. 997-999.
- 22.3) **G. Dontu**, Cioc, S., Neagu –Ventzel, S., Marinescu , I.D., Olson, W., Qualitative Analysis of the Wear of stone and Ring in Superfinishing Bearing Rings, Using FEM, Transactions of the NAMRI, of SME and NAMRC, Gaithersburg, FL, pag. 24-27, 2001
- 23.4) **O. Dontu**, s.a. -Sudarea cu laser a unor oțeluri inoxidabile utilizate la instalații de proces din industria chimică, Revista de Chimie, vol. 56, nr. 3/2005, pg. 322-325.
- 24.5) **O. Dontu**, s.a.- Tratamente termice cu laser aplicat cordoanelor de sudură la oțeluri inoxidabile pentru îmbunătățirea rezistenței la coroziune, Revista de Chimie, vol. 56, nr. 4/2005, pg. 446-448.
- 25.6) **O. Dontu**, s.a. -Influence of thermal deformations in the solid laser medium on the emitted radiation parameters, Journal of Mechanical Engineering, August 2005, vol 219 No C8, pag.823-829.
- 26.7) **O.Dontu**, s.a. – Micro-Welding of stainless steel by pulsed Nd:YAG laser, International Conference Industrial Applications of laser – INDLAS 2007, May 2007 – volum SPIE nr. 7007-23.
- 27.8) **O.Dontu**, s.a.,- Influence of the thermal stress in the solid active laser medium on the technological parameters of the laser beam, 11 th NOLAMP CONFERENCE IN LASER PROCESSING OF MATERIALS, Lappeenranta, Finlanda , 2007, ISBN 978-952-214-412-6, ISSN 1456-4491, pag.323-331
- 28.9) **O.Dontu**, s.a.,- Possibilities of increasing the pumping efficiency of solid active medium laser generators by optimizing the pumping cavity profile, International Conference Industrial Applications of laser – INDLAS 2007, May 2007 – volum SPIE nr. 7007-25.
- 29.10) **O.Dontu**, s.a., -Laser heat treatment of welds for various stainless steels, International Conference Industrial Applications of laser – INDLAS 2007, May 2007 – volum SPIE nr. 7007-22.
- 30.11) **O.Dontu**, s.a., Some Aspects of Laser Welding for Stainless Steel Radioactive Capsules, Journal of Optoelectronics and Advanced Materials (JOAM) , February 2009
- 31.12) **O.Dontu** ,Marinescu I.,Performance Superfinishing for Toroidal Surface, Superabrasives & CVD Diamond, Omni press, 1998, pp.93-103.
- 32.13) **Octavian Dontu** s.a - Modular system used for treating fuel fluids in a magnetic field, IEEE Mechanical and Electrical Technology (ICMET), 2010, pp.140-143
- 33.14) **Dontu, O.G.**, s.a. Mechatronic finger structure with pressure-sensitive conductive layer, Romanian Journal of Information Science and Technology, Vol.21(2), pp.139-150
- 34.15) **Dontu, O.**, Constantin, N., Butnariu, I., Research concerning reducing the pollution degrees in the sectors of production of metal materials, Revista de Chimie, Vol.8(2018)

##### 1.2 Coautor reviste cotate ISI

- 35.16) D. Cojoc, **O.Dontu**- Diffractive laser beam splitter: computer generated.Volum 18 th Congres of the "Optics for the



- Next, Milenium, August 1999" San Francisco USA, pag. 3749 – 3751
- 36.17) C. Wilson, Marinescu, I.D. **G.Dontu**, Forces and Wear of PCD Tool in Turning Granite, NMRC XXVI, Georgia Institute of Technology, Atlanta, GA, May 1998, pag.69-75
- 37.18) D.I.Marinescu, **G. Dontu** , Bordeianu, E. , - Efficiency Super – finishing of Bearing Rings with CBN, nmrc xxvi, Georgia Institute of Technology, Atlanta, GA, May 1998, pag. 27-33
- 38.19) S. Ganatios, **O.Dontu**, Increasing pumping efficiency in the cavities of the laser generators with active solid medium by optimising their profile, Rev. Romanian Journal of Optoelectronics SPIE, nr. 12 – 2004, pag. 1-7.
- 39.20) Gheorghe I. Gh., **O.Dontu**, - Automate generation of incremental linear network masks by using photocomposition method with multiple microphotographical reductions using laser Microsystems, International Conference Industrial Applications of laser – INDLAS 2007, May 2007 – volum SPIE nr.7007 -16.
- 40.21) Wilson C., Marinescu I., **G.Dontu** , Diamond Turning of Granite, Superabrasives & CVD Diamond, Omni press, 1998, pag.379-393.
- 41.22) I. Voiculescu, **O.Dontu**, s.a. Effects of the laser beam superficial heat treatment on the gas tungsten arc Ti-6Al-4V welded metal microstructure, International Conference Industrial Applications of laser – INDLAS 2007, May 2007 – volum SPIE nr. 7007-21.
- 42.23) Coman R., Marinescu I., **G. Dontu** , Acoustic Emission Signal – An Effective Tool for Monitoring the Grinding Process, Abrasives Magazine, USA, Dec./Jan., 1999, pag. 9-14.
- 43.24) Marinescu I., **G.Dontu** , Chemo –Mechanical Grinding of Si<sub>3</sub>N<sub>4</sub> Ceramic, Superabrasives & CVD Diamond, Omni press, 1998, pag..233-247.
- 44.25) I.Voiculescu, V. Geanta, **O.Dontu** , s.a. – The heat treatment influence on the welded OT4 titanium alloy, 3 rd Join International Conference Lappeenranta Finlanda, 2007, ISBN 978-952-214-412-6, ISSN 1456-4491, pag.303-309.
- 45.26) P.Beca, **O.Dontu** , s.a., Flexible Center for welding with High Power for Industrial Application, Journal of Optoelectronics and Advanced Materials (JOAM) , February 2009.
- 46.27) Avarvarei, I., **Dontu, O.**, Besnea, D., Voiculescu, I., Ciobanu, R- Laser welding of stainless steel capsules, Optoelectronics and Advanced Materials, Rapid Communications Volume 4, Issue 11, November 2010, Pages 1894-1897, ISSN: 18426573
- 47.28) Avarvarei I., **Dontu O.**, Filipoiu I.D., Besnea D., Turcan O., Savastru D., Control system, device and technologies for thin wire diameter measurement, Journal of Optoelectronics and Advanced Materials, vol. 13, nr. 8, pag. 1030 - 1036, 2011, ISSN: 14544164.
- 48.29) Ciobanu, R; Repetto, M; **Dontu, O**; Freschi, F; Prisecaru, T, Device Used for Magnetic Treatment of Fuel Fluids Before Burner, OPTIMIZATION OF THE MECHANICAL ENGINEERING, MANUFACTURING SYSTEMS, ROBOTICS AND AEROSPACE, Applied Mechanics and Materials, 2012, Volume: 186 Pages: 214-218; ISBN:978-3-03785-444-0; ISSN: 1660-9336;
- 49.30) Mîțiu, M.A. , Comeagă, D.C. , **Donțu, O.G.** - The control of vibration transmissibility using an electrodynamic actuator -close-loop solution International Conference on Smart Systems in all Fields of the Life-Aerospace, Robotics, Mechanical Engineering, Manufacturing Systems, Biomechatronics, Neurorehabilitation and Human Motricities, ICMERA 2013, vol 436, pag. 166-173, 2013, ISSN: 16609336 ISBN: 978-303785898-1;
- 50.31) Mîțiu, M.A. , Comeagă, D.C. , **Donțu, O.G.** - The control of vibration transmissibility using an electrodynamic actuator - passive solution, International Conference on Smart Systems in all Fields of the Life-Aerospace, Robotics, Mechanical Engineering, Manufacturing Systems, Biomechatronics, Neurorehabilitation and Human Motricities, ICMERA 2013, vol. 436, pag. 158-165, 2013, ISSN: 16609336, ISBN: 978-303785898-1;
- 51.32) Spanu, AR ; Besnea, D; **Dontu, O**; Avram, M-Improvements on Positional Accuracy by Using Mechatronic Device, Applied Mechanics and Materials, Volume: 332, Pages: 206-211, 8th IEEE/IACSIT/SCIEI International Conference on Optimization of the Intelligent Systems and Their Applications in Aerospace, Neurorehabilitation, Robotics, Mechanical Engineering, Manufacturing Systems, Biomechatronics and Neurorehabilitation (OPTIROB) Location: ROMANIA, Date: JUN 20-23, 2013
- 52.33) Ionela Mihaela Calusaru, Adrian Costache, Nicolae Baran, George-Lucian Ionescu, **Octavian Dontu**, A New Solution to Increase the Performance of the Water Oxygenation Process, REV. CHIM. (Bucharest) ♦ 64 ♦ No. 10 ♦ 2013 <http://www.revistadechimie.ro> pp (1143-1145)
- 53.34) Stergios Ganatsios, Alina Spanu, **Octavian Dontu**, Daniel Besnea, Gheorghe I.Gheorghe, CAD Analysis Applied to Self-Centering Compliant Grippers, Applied Mechanics and Materials, Vol 325-326 (2013) pag. 305-309.
- 54.35) Comeagă, D.C., Udrea, C., **Donțu, O.**, Necula, C. - Command structure design of a robot for the vibro-acoustic with scanning testing, 9th International Conference on Modeling and Optimization of the Aerospace, Robotics, Mechatronics, Machines-Tools, Mechanical Engineering and Human Motricity Fields, OPTIROB 2014, vol. 555, pag. 288-293, 2014,





ISBN 978-303835111-5, ISSN 16609336

- 55.36) Gheorghe, Gheorghe I.; Bratu, Vasile; **Donțu, Octavian**, Adaptronics - an intelligent science adaptive to advanced systems/micro - nanosystems, Applied Mechanics and Materials, Volume: 332 Pages: 471-484, DOI: 10.4028/www.scientific.net/AMM.332.471, Published: 2014.
- 56.37) Spanu, AR; Besnea, D; **Donțu, O**; Avram, M, Improvements on Positional Accuracy by Using Mechatronic Device, Applied Mechanics and Materials, Volume: 332 Pages: 206-211, 2014, DOI: 10.4028/www.scientific.net/AMM.332.206.
- 57.38) Comeagă, D.C.; Udrea, C.; **Donțu, O**; Necula, C - Mechanical structure design of a robot for vibro-acoustic with scanning testing, 9th International Conference on Modeling and Optimization of the Aerospace, Robotics, Mechatronics, Machines-Tools, Mechanical Engineering and Human Motricity Fields, OPTIROB, Vol. 555, Pag. 294-299, 2014, ISBN 978-303835111-5, ISSN 16609336.
- 58.39) Turcan, O; **Donțu, O** ; Moreno, JLO; Voiculescu, I; Savastru, D ; Vasile, IM -Increasing of the superficial hardness of a coupling system realized from a low carbon steel ST37-2 by surface treatment with Nd:YAG -JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, Volume: 16 Issue: 1-2 Pages: 20-24 Published: JAN-FEB 2014 Accession Number: WOS:000332347500004 ISSN: 1454-4164 eISSN: 1841-7132
- 59.40) Alina Spanu, **Octavian Donțu**, Daniel Besnea, Mihai Avram, Improvements on Design of Propeller for Chemical Compound Mixer, Revista de Chimie, Nr.3, 2015, pg. 422-425.
- 60.41) D Besnea, **Octavian Donțu**, , Mihai Avram, T Pascu Study on laser welding of stainless steel/copper dissimilar materials - IOP Conf. Series: Materials Science and Engineering 147 (2016) 012047. August 2016, DOI: 10.1088/1757-899X/147/1/012047 · License: [CC BY 3.0](https://creativecommons.org/licenses/by/3.0/)
61. 42) E Moraru, **O Donțu**, A Petre, D Vaireanu, F Constantinescu, D Besnea, Some technological particularities on the execution of dental prostheses realized by selective laser deposition - Journal of Optoelectronics and Advanced Materials, Vol.20, No 3-4, March-April 2018, pp.208-213
62. 43) E Moraru, **O Donțu**, D Besnea, V Constantin - Study and realization of prosthetic dental models by additive technologies, IOP Conf. Series: Materials Science and Engineering 444 (2018).
- 63.44) A. M. OPROIU, I. LASCAR, C. MOLDOVAN, **O. DONTU**, M. PANTAZICA, C. MIHAILA, C. FLOREA, L. DOBRESCU, I. SEBE, R. SCARLET, D. DOBRESCU, T.NEAGU, O. IONESCU, I. C. STOICA and A. EDU, Peripheral Nerve WIFI Interfaces and Electrodes for Mechatronic Prosthetic Hand, Romanian Journal of Information Science and Technology (ROMJIST), Vol.21(2), pp.129-138
- 64.45) Oproiu, A.M., Lascar, I., **Donțu, O.** s.a, Topography of the human ulnar nerve for mounting a neuro-prosthesis with sensory feedback, Revista de chimie, Vol.9(2018)
- 65.46) Călușaru, I.M., Băran, N., Ionescu, G.-L., **Donțu, O.**, Influence of fine bubble generators nozzles diameter on the dissolved O2 concentration, Environmental Engineering and Management Journal, 2018
- 66.47) Moldovan, C., Barbilian, A., Stergios, G., Drignei, M., Jovenet, E., Lascar, I., Berami, A., Drignei, E., Dobrescu, L., **Donțu, O.**, Dobrescu, D., Besnea, D., Fartat, B., Dragomir, D., Milea, P.L., Muraru, D., Neagu, T.P., Stănciulescu, E.L., Scarlet, R., Andru, F.S., Dumitrașcu, M.C., Draghici, C., Design and fabrication of tubes-guided structure with electrical stimulation module for neural regeneration and in-vivo testing, Romanian Journal of Information Science and Technology, Vol.22, Issue 2, 2019, pp.135-143, WOS:000472166600004, FI=0,485

### 3.1.4. Coautor reviste cotate BDI

- 67.1) Cioboata, D.a, **Donțu, O.b**, Besnea, D.b , Ciobanu, R.b, Soare, A.c Mecatronic equipment for bearing ring surface inspection Romanian Review Precision Mechanics, Optics and Mechatronics Volume 2015, Issue 48, 2015, Pages 262-266 ISSN: 15845982.
- 68.2) Ganatsios, S.a , Maropoulos, S.a , Papanikolaou, S.a , Gheorghe, G.b, **Donțu, O.c** , Seritan, G.c , Besnea, D.c Novel bulk and porous glass ceramics produced by waste materials Romanian Review Precision Mechanics, Optics and Mechatronics Volume 2015, Issue 48, 2015, Pages 186-189 ISSN: 15845982
- 69.3) **Donțu, O.a**, Ocana Moreno, J.L.b, Ciobanu, R.a, Branzei, J.L.c , Besnea, D.a Study on laser welding of AISI 316L austenitic stainless steel Journal of Optoelectronics and Advanced Materials Volume 17, Issue 9-10, September-October 2015, Pages 1444-1449 ISSN: 14544164
- 70.4) C. D. Comeagă, C. Necula, **O. Donțu**, "Optimizing the Design of a Magnetic Actuator for Scanning and Energy Harvesting MEMS Devices", Applied Mechanics and Materials, Vol. 811, pp. 204-209, 2015, Applied Mechanics and Materials (Volume 811), Pages 204-209, 10.4028/www.scientific.net/AMM.811.204
- 71.5) Ciobanu, Robert; **Donțu, Octavian**; Besnea, Daniel; Constantin, Victor; Cioboata, Doina, Research on laser micro welding of an aluminium alloy pressure sensor, Advanced Materials Research . 2015, Vol. 1114, p160-165. 6p.



- 72.6) Daniel, Besnea; **Octavian, Donțu**; Cioboata, Doina; Robert, Ciobanu; Catalina, Soare Anamaria, ADVANCED METHODS FOR USE OF NUMERICAL CONTROL COMPUTER AIDED FOR OPTIMIZATION OF BEARING RINGS SURFACE PROCESSING, Romanian Review Precision Mechanics, Optics & Mechatronics . 2015, Issue 47, p11-16. 6p.
- 73.7) C.Trifu, Dana Jianu, **O.Dontu** Ultrasound treatment of atypical organic dysfunction- International Society of Regenerative Medicine and Surgery Congress New Frontiers in regenerative medicine and surgery Interdisciplinary, research and clinical applications 12, 15-16 May 2015, Crowne Plaza Hotel, Bucharest, Romania
- 74.8) M.Bengescu, D. Jianu, **O. Dontu** –Stem cells treatment considerations with specialized lasers for improving/curing rheumatic affections.
- 75.9) R Ciobanu, G Charalampides, **O Dontu**, D Besnea, I Avarvarei, C Pop - SYSTEM WITH SPECIAL GEOMETRY USED FOR MAGNETOSTATIC TREATMENT OF FUEL FLUIDS BEFORE BURNER, University" Politehnica" of Bucharest Scientific Bulletin, Series D, Nr.2 2011
- 76.10) I Avarvarei, A Gerard, **O Dontu**, I Voiculescu, D Besnea, R Ciobanu - The Material's Temperature Influence On Absorption Degree Of Laser Radiation In Technological Processes, University" Politehnica" of Bucharest Scientific Bulletin, Series D, Nr.2 2011
- 77.11) **Octavian Dontu**, Robert Ciobanu, Iulian Avarvarei - Inertial system used to analyze normal and pathological human gait, Romanian Review Precision Mechanics, Optics & Mechatronics, Vol.38, 2010
- 78.12) S Ganatios, **O Dontu**, G Gheorghe, D Besnea, I Avarvarei - Considerations on treating some fuel fluids in a magnetic field, 2010
- 79.13) Christian Delavet, Gabriel Iacobescu, Ionelia Voiculescu, **Octavian Dontu**, SL Dr Ing Daniel Besnea, Drd Ing Elena Manuela Stanciu, Drd Ing Adrian Catalin Pavalache, Cooper-Carbide Composite Layer Obtained By Laser Beam Remelting, International Conference MECAHITECH, Vol.9, pp. 113-118

### 3.1.5. Articole publicate in reviste straine si din tara recunoscute CNCSIS

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183.34) Stefan C. Popescu, Gheorghe I. Ghe.**O. Dontu**, Besnea Daniel, Some Problems Biocompatible Materials Used for Making Endoprosthesis Ankle Proceeding of the International Conference of Mechatronic and cyber – MixMechatronics 2017, LNNS, Volume 20 pages 109-116

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188.39) **O Dontu**, C Moga, B Tanase, N. Baran, Gh.I.Gheorghe, E Moraru - RESEARCHES REGARDING THE USE OF ADDITIVE TECHNOLOGIES IN THE CONSTRUCTION OF WATER AERATION ELEMENTS, International Conference of Mechatronic and Cyber –MixMechatronics, 2018

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190.41) Cioienaru, T.-C., **Donțu, O.**, Băran, N., Albu, N., Gavrilă, A., Petroșel, M., Constantin, M., Moga, C., Researches on aeration of stagnant water or flowing through pipes, International Journal of Mechatronics and Applied Mechanics, Vol.1, Issue 5, 2019, pp.180-184

191.42) Dumitru, P.R., **Donțu, O.**, Dorina, A.N., Vlad, S.N., Moga, C.I., Tănase, E.B., Researches on the use of oxygen concentrators in wastewater oxygenation, International Journal of Mechatronics and Applied Mechanics, Vol.1, Issue 5 2019, pp.51-56

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194.45) E.Moraru, **O.Dontu**, A.Spanu, D.Prisecaru, C.Draghici, SOME CONSIDERATIONS REGARDING THE USE OF VAT PHOTOPOLYMERISATION TECHNIQUE IN PROSTHODONTICS, International Journal of Mechatronics and Applied Mechanics, 2019, Iss.6, Vol.I, pp.87-90



## 5. Brevete de invenție:

- 1) Gh. Andriescu, T. Demian, **O. Dontu**, Dispozitive C.N. pentru pozitionarea pieselor ce se prelucreaza pe instalatii laser, Brevet O.S.I.M. nr. 93.456
- 2) **Dontu G O**, Palii L, Besnea D, Appliance, for treatment of combustible fluids in magnetic field, comprises pipe for combustible fluid that passes through alternating magnetic field screens, nr. brevet: RO118263-B1
- 3) Robert Ciobanu, **Octavian Dontu**, Besnea Daniel, Dispozitiv pentru tratarea hidrocarburilor in camp magnetic inainte de arzator, A2012 0059, 2012
- 4) Avarvarei I, **Dontu O**, Turcan O, device measuring the diameters of thin yarns and fibres by means of laser, patent number(s): ro127554-a0, 2012
- 5) Avarvarei I, **Dontu O**, Turcan O, Ciobanu R, Device and process for increasing laser radiation absorptivity by heating the piece to be processed in micro-production laser installations, patent number(s): ro129352-a2, 2014
- 6) Tanasescu I., **Dontu O.**, Sistem cu ultrasunete pentru tratamentul tesuturilor umane vii traumatizate termic, Brevet A 2012 01071
- 7) **Dontu O.**, Moraru E., Sistem mecatronic cu ultrasunete pentru desfundarea – decolmatarea microorificiilor difuzoarelor pentru tratarea apelor uzate, Cerere de brevet A/01057/05.12.2018

## 6. Proiecte de cercetare-dezvoltare pe bază de contract/grant :

Contracte la care am fost / sunt **director** :

1. Cercetari si experimentari privind comportarea in regim dinamic a circuitelor electronice din componenta aparaturii de control activ, beneficiar Intreprinderea Mecanica Fina Bucuresti, Contract nr. 26/1978 - Director proiect – **Dontu Octavian Grigore**
2. Proiectarea si executia unui sistem pentru masurarea excentricitatii la asamblarile sudate ale racordului cu corpul prajinii de foraj, beneficiar Intreprinderea Tevi Republica Contract nr. 22 – 07/1980 - Director proiect - **Dontu Octavian Grigore**
3. Cercetari privind determinarea fiabilitatii la vibratii, socuri mecanice si termice pentru produsul A 91, beneficiar Institutul de Cercetari UM 02512 Bucuresti, Contractnr. 22 – 3 – 4 / 1983 - Director proiect - **Dontu Octavian Grigore**
4. Cercetari si experimentari privind realizarea contactorului magnetic 72910002, beneficiar Intreprinderea Aerofina Bucuresti, nr. 22 – 2 – 12/1982 - Director proiect - **Dontu Octavian Grigore**
5. Cercetari pentru stabilirea procedeelor optime de marcare – inscriptionare a magnetilor cu laser, beneficiar Intreprinderea Electromagnetica Bucuresti, Contract nr. 22 – 4 – 26/ 1985 - Director proiect - **Dontu Octavian Grigore**
6. Cercetari pentru realizarea unor sisteme de avertizare uzura cu destinatie speciala, beneficiar Intreprinderea Turbomecanica Bucuresti, Contract nr. 22 – 5 – 8/1985 - Director proiect - **Dontu Octavian Grigore**
7. Proiectarea unor sisteme modulare port scule pentru masini agregat si linii flexibile, beneficiar Intreprinderea 23 August Bucuresti, Contract nr. 22 – 5 – 20/ 1985 - Director proiect - **Dontu Octavian Grigore**
8. Cercetari privind realizarea microrotorului pentru motogenerator A 911, beneficiar Institutul de Cercetari UM 02512, Contract nr. 16 – 7 – 4 / 1987 - Director proiect - **Dontu Octavian Grigore**
9. Cercetari privind realizarea unei instalatii si a tehnologiei pentru determinarea fiabilitatii la vibratii a unor componente electronice si electromecanice cu destinatie speciala, beneficiar Intreprinderea Electromagnetica Bucuresti, Contract nr. 16 – 8 – 5/1988 - Director proiect - **Dontu Octavian Grigore**
10. Cercetari privind stabilirea parametrilor tehnologici optimi la curatirea – spalarea cu ultrasunete a magnetilor metalici permanenti, beneficiar Intreprinderea Electromagnetica Bucuresti, Contract nr. 22 – 90 – 6/1990 - Director proiect - **Dontu Octavian Grigore**
11. Studii si cercetari privind propagarea undelor ultrasonore in medii biologice, suspensii celulare si tesuturi, beneficiar S.C. CERPI – SA Bucuresti, nr. 21-93-14 - Director proiect - **Dontu Octavian Grigore**
12. Cercetari privind croirea materialelor textile prin procedee neconventionale LASER, beneficiar S.C. MATIRO SA, Contract nr. 21 – 94 – 13 - Director proiect - **Dontu Octavian Grigore**
13. Cercetari privind influenta ultrasunetelor asupra tesuturilor conjunctive vii traumatizate, beneficiar M.C.T. Contract nr. 21 – 94 – 12 - Director proiect - **Dontu Octavian Grigore**
14. Cercetari teoretice si aplicative in vederea realizarii unei game de traductoare de debit pentru medii fluide, beneficiar M.C.T. Contract nr. 21 – 94 – 11 - Director proiect - **Dontu Octavian Grigore**
15. Studii si cercetari privind punerea la punct a aparaturii cu ultrasunete si procedului de distrugere a calculilor renali si biliari cu ultrasunete, beneficiar CNCSU – Ministerul Invatamantului Contract nr. 4001 – B 15/1995. - Director proiect - **Dontu Octavian Grigore**
- 16 Studii si cercetari privind microchirurgia oftalmica cu ultrasunete, beneficiar CNCSU Ministerul Invatamantului Contract nr. 500, Tema A 46/1996 - Director proiect - **Dontu Octavian Grigore**



17. Cercetari pentru realizarea aparaturii destinate terapiei cu ultrasunete pentru afectiuni dermatologice atipice, beneficiar M.C.T – Contract nr. 264, tema A 2/1997. - Director proiect - **Dontu Octavian Grigore**
18. Cercetari pentru executia unor debitmetre cu ultrasunete pentru diverse medii fluide, beneficiar M.C.T. – Contract 337 C, tema B 16 / 1994. - Director proiect - **Dontu Octavian Grigore**
19. Cercetari experimentale pentru implementarea debitmetrelor cu ultrasunete in retelele de distributie a agentului termic, Contract 891, tema A 12/ 1995 - Director proiect - **Dontu Octavian Grigore**
20. Cercetari experimentale asupra gelurilor de colagen aplicate tesuturilor conjunctive vii traumatizate in camp ultrasonor, Contract 510 B, tema A8/ 1995 - Director proiect - **Dontu Octavian Grigore**
21. Cercetari experimentale pe pacienti pentru tratarea tesuturilor vii traumatizate in camp ultrasonor, Contract 836, tema B4/1996 - Director proiect - **Dontu Octavian Grigore**
22. Cercetari si experimentari pentru imbunatatirea parametrilor tehnico – functionali ai aparaturii de productie a ultrasunetelor in conditii impuse de uz medical uman, beneficiar M.C.T., Contract 836, tema A6/1997 - Director proiect - **Dontu Octavian Grigore**
23. Studii si cercetari privind actiunea ultrasunetelor asupra dermei umane si proiectarea aparaturii cu ultrasunete in gamele de frecvente, amplitudini si lungimi de unda impuse, beneficiar M.C.T. – Academia de Stiinte Medicale, Contract 789, tema B01/1998 - Director proiect - **Dontu Octavian Grigore**
24. Cercetari privind proiectarea si executia aparaturii cu ultrasunete pentru terapie specifica – selectiva si tratament neconventional in stomatogie, beneficiar ANSTI, Contract 836 – tema B24/1999 - Director proiect - **Dontu Octavian Grigore**
25. Proiectarea aparaturii de productie a ultrasunetelor si precizarea domeniilor si afectiunilor pentru care este oportun acest procedeu neconventional de tratament, beneficiar Academia de Stiinte Medicale, Contract 21 – 99 – 01 - Director proiect - **Dontu Octavian Grigore**
26. Cercetari pentru executia aparaturii de productie a ultrasunetelor pentru uz stomatologic si a seturilor de anse specializate, beneficiar ANSTI, Contract 334, tema A8/2000 - Director proiect - **Dontu Octavian Grigore**
27. Lucrari de cercetare executie a unor matrite pe centrul de prelucrare vertical FVMC – 610 ACRA, Contract nr. 01 – 154 – Beneficiar S.C. CAM TECHNOLOGY SRL. - Director proiect - **Dontu Octavian Grigore**
28. Studii de materiale si tehnologii speciale pentru suduri speciale ale unor elemente din otel – inox, nr. 3B/2000 – Beneficiar FAST – ECO S.A. - Director proiect - **Dontu Octavian Grigore**
29. Cercetare – proiectare executie sistem de pozitionare deplasare in XOY echipat cu motoare pas cu pas si comanda numerica, Beneficiar INCDMF, Contract 546 U.P.B. - Director proiect - **Dontu Octavian Grigore**
30. Cercetari privind realizarea unor sisteme magnetice pentru tratamentul in camp magnetic (in aval de arzator) a unor gaze si fluide combustibile (gaz metan, pacura, motorina) in vederea cresterii randamentului termic in instalatiile termice si reducerea noxelor eliminate, Contract 148/2000-2003, RELANSIN - Director proiect - **Dontu Octavian Grigore**
31. Stand pentru testarea fiabilitatii la vibratii a aparaturii de control activ si contoare energie termica , Contract 4230/29.07.2003 CALIST - Director proiect - **Dontu Octavian Grigore**
32. Noi metode si tehnici mecatronice de incercare a rezistentei la rupere a asamblarilor realizate prin sudare cu laser, Beneficiar INCDMF, Contract nr. 378/2004 - Director proiect - **Dontu Octavian Grigore**
33. Dezvoltarea unei facilitati nationale de cercetare si aplicatii tehnologice de prelucrare cu fascicul laser, CEEX 1/2005 – codirector. -
34. Realizarea de sisteme mecatronice de inalta rezolutie pentru manipularea, transportul si controlul produselor pe linii tehnologice de transfer, CEEX nr. 9/2005- codirector. -
35. Cercetari privind realizarea unui sistem integrat high-tech de monitorizare vibroacustica si control dimensional a procesului de rectificare pentru cresterea calitatii productiei si a gradului de adaptare la cernitele clientilor, CEEX nr. 115/2006 – codirector.
36. Proiect PN-II\_PCCA-213-4-1671, Sistem mecatronic inovativ pentru controlul inelelor de rulmenti prelucrati pe masini CNC, contract nr 268/2014, **responsabil O. Dontu**
37. Tehnologie eficienta pentru epurarea biologica a apelor uzate, CEBIOTREAT, NR.24/2018 ERANET, Co-director proiect - **Dontu Octavian Grigore**
38. Arm neuroprosthesis equipped with artificial skin and sensorial feedback, ARMIN EEA GRANTS (Norway Grants), NR.8/2019, Director proiect – **Dontu Octavian Grigore**



**Contracte la care am participat, fara a fi responsabil:**

39. Proiectarea unor mecanisme de antrenare a benzii magnetice, beneficiar Intreprinderea pentru Aparare si Utilaje de Cercetare Bucuresti, nr. 17/1975
40. Cercetari in vederea elaborarii unor procedee si tehnologii de masurare bazate pe fenomene oscilatorii si vibratorii, beneficiar CNCSU – Ministerul Invatamantului, Nr. 4001, tema A 65/1995
41. Sistem robotic miniatural cu abilitati de reconfigurare si de automatizare, CEEEX 91/2006
- 42.Contract CEEEX Nr. 71-132/2007, Sudarea cu laser a capsulelor pentru surse radioactive - LASERCAP .
- 43.Contract PNCD 2/PARTENERIATE, nr. 72-216/2008, Tehnologie de depunere prin sudare hibrida Laser-MIG cu pulberi – LASERDEP.
- 44.Proiect ID 64069, POSDRU/87/1.3./S/64069 FLEXFORM-Program de formare profesionala flexibila pe platforme mecatronice

Data: 29.01.2021

Prof.Dr.Ing.Dontu Octavian

