

# LISTA COMPLETĂ DE LUCRĂRI

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## I. TEZA DE DOCTORAT (T)

T1. Titlul tezei: “Proiectarea și realizarea unor micro-componente optice difractive și utilizarea metodelor holografice digitale pentru reconstrucția obiectelor”, (susținută iulie 2007, titlul februarie 2008), Universitatea Politehnica București, conducător: Prof. Dr. Ion M. Popescu.

## II. CĂRȚI ȘI CAPITOLE DE CĂRȚI PUBLICATE (C)

- Ca1. **M. MIHĂILESCU**, *Mecanică clasică. Legi fundamentale și aplicații în bioinginerie*, 230 pagini, POLITEHNICA Press, București, 2013, ISBN 978-606-515-464-3.
- Ca2. Al. M. Preda, **M. MIHĂILESCU**, *Straturi subțiri. Thin films. Couches Minces*, 276 pagini, Ed. Printech, București, 2004, ISBN 973-718-038-0
- Ca3. **M. MIHĂILESCU**, N. Eșeanu, *Biofizică și Bioinginerie. Lucrări practice* 220 pagini, POLITEHNICA Press, București, 2015, ISBN 978-606-515-610-4
- Ca4. **M. MIHĂILESCU** I. A. Păun, Modelarea fenomenelor din biofizică prin soft specializat. Îndrumar de laborator. 177 pagini, Politehnica Press 2016 ISBN 978-606-515-703-3
- Ca5. **M. MIHĂILESCU**, I. A. Păun, L. A Niță, *Fizică și Biofizică. Probleme și Aplicații*, 170 pagini, Politehnica Press 2021 ISBN 978-606-515-953-2
- Cb1. L. Preda, **M. MIHĂILESCU**, A Synthesis Of JPY-USD Exchange Rate Based On The “Generalized Devil Staircase” Singular Function, in *Predictability in non-linear dynamical systems the economic crises* (120 pagini, ISBN 978-606-515-324-0), Ed. E. Scarlat, București, Politehnica Press 2011.
- Cb2. **M. MIHĂILESCU**, E I. Scarlat, I A Păun, I Grigorescu , R Radu, O T Nedelcu, Fractal descriptor on holographic images of cervical cells, in *Computational Vision and Medical Image Processing*, editors J. M. Tavares, R. M. Natal Jorge, Taylor and Francis Group, pag 255-260, 2015, ISBN 978-1-138-02926-2

## III. ALTE MATERIALE PUBLICATE (I, D)

- I1. **M. MIHĂILESCU**, *BIOFIZICĂ și BIOINGINERIE*, Note de curs, 4 fascicule format electronic, 2015 [http://www.physics.pub.ro/Cursuri/Mona\\_Mihailescu\\_-\\_Biofizica\\_si\\_Bioinginerie\\_Note\\_de\\_curs\\_IM\\_An\\_I\\_\(2015-2016\)/](http://www.physics.pub.ro/Cursuri/Mona_Mihailescu_-_Biofizica_si_Bioinginerie_Note_de_curs_IM_An_I_(2015-2016)/)
- I2. I. M. Popescu (coord), G. Cone (coord), C. P. Cristescu (coord), A.M. Preda (coord), R. Chisleag, M. Dobre, C. Ghizdeanu, N.N. Puscas, G. Ionescu, Gh. Stanciu, M. Honciuc, A. Lupascu, V. Popescu, R. Bena, T. Pop, C. Rosu, M. Stan, R. Mitroi, E.I. Scarlat, E. Slavnicu, I. Belciu, C. Calin, D. Buzatu, M. Cilea, M. Cristea, I. Creanga, I. Gurgu, M. Piscureanu, I. Ivanov, L. Preda, I. Puica, C. Stan, G. Tiriba, N. Eșeanu, C. Negutu, **M. MIHĂILESCU**, M. Puica, M. Stafe, C. Toma, *Teste de fizică*, 515 pagini, Politehnica Press, Bucuresti, 2002 (reeditata 2003, 2005, 2006), ISBN 973-85237-6-1

## IV. ARTICOLE/STUDII ÎN EXTENSO PUBLICATE (R, V)

- Ris1. Scarlat E, **M. MIHĂILESCU**, IA Păun, Identification of independent modes in two inputs free space communications system, *Optics and Lasers in Engineering* 136, 106320, 2021, WOS: 000583900900002 <https://doi.org/10.1016/j.optlaseng.2020.106320> IF: 4.273, AIS: 0.695.
- Ris2. Călin VL, **M. MIHĂILESCU**, N Tarba, AM Sandu, E Scarlat, MG Moiescu, T Savopol, Digital holographic microscopy evaluation of dynamic cell response to electroporation, *Biomedical Optics Express* 12 (4), 2519-2530, 2021 WOS:000636754000004, <https://doi.org/10.1364/BOE.421959> IF: 3.921, AIS: 0.963.

- Ris3. Păun IA, Mustaciosu CC, **M. MIHĂILESCU**, BS Calin, AM Sandu, Magnetically-driven 2D cells organization on superparamagnetic micromagnets fabricated by laser direct writing, *Scientific Reports* 10 (1), 1-12, 2020 WOS: 000577151500013, <https://doi.org/10.1038/s41598-020-73414-4> IF: 3.998, AIS: 1.261.
- Ris4. Păvăloiu R-D, F Sha'at, C Bubueanu, M Deaconu, G Neagu, M Sha'at, M Anastasescu, **M. MIHĂILESCU**, C Matei, G Nechifor, D Berger, Polyphenolic extract from *Sambucus ebulus* L. leaves free and loaded into lipid vesicles, *Nanomaterials* 10 (1), 56, 2020 WOS: 000516825600056, <https://doi.org/10.3390/nano10010056> IF: 4.324, AIS: 0.671.
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- Ris6. Păun I A, Calin B S, Mustaciosu C C, **M. MIHĂILESCU**, C S Popovici, C R Luculescu, Osteogenic cells differentiation on topological surfaces under ultrasound stimulation, *Journal of Materials Science* 54 (16), 11213-11230, 2019 WOS: 000469467500020, <https://doi.org/10.1007/s10853-019-03680-9> IF: 3.553, AIS: 0.565.
- Ris7. I A Paun, B S Calin, C C Mustaciosu, **M. MIHĂILESCU**, A Moldovan, O Crisan, A Leca, C R Luculescu, 3D superparamagnetic scaffolds for bone mineralization under static magnetic field stimulation, *Materials* 12, 17 2834, 2019 WOS: 000488880300187, <https://doi.org/10.3390/ma12172834>, IF: 3.057, AIS: 0.543.
- Ris8. EI Scarlat, **M. MIHĂILESCU**, N Mihale, IA Paun, BS Calin, CR Luculescu, D TRANCĂ, Adaptive phase steps for diffractive phase elements using two-photon polymerization, *Journal of Optoelectronics and Advanced Materials*, 21, 153-162, 2019 WOS: 000472534300001
- Ris9. A E Coman, A R Gabor, V Raditoiu, C Andi Nicolae, G Hubca, **M. MIHĂILESCU**, S Stoian, T V Iordache, A study of a class of flame retardant system based on thermal, optical and mechanical analysis, *UPB Sci Bull* 81, 4, 271-286, 2019 WOS: 000501894000026,
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- Ris12. **M. MIHĂILESCU**, EI Scarlat, Parallel superposition of phase holograms for multiple parameters identification, *Applied optics* 57 (28), 8460-8466, 2018 WOS: 000446048600047, <https://doi.org/10.1364/AO.57.008460>, IF: 1.707, AIS: 0.496.
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- Ris15. **M Mihăilescu**, A Crăciun, R A Gabor, C A Nicolae, M Pelteacu, B Comanescu, G Bostan, Diffractive microstructures with twin focal points, *UPB Sci Bull*, 2018 WOS: 000435265100026
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- Ris17. Calin VL, **M. MIHĂILESCU** Mihale N, Baluta AV, Kovacs E, Savopol T and Moisescu MG Changes in optical properties of electroporated cells as revealed by digital holographic microscopy. *Biomed Opt Express* 8, 2222-2234 2017 WOS: 000400499300016, <https://doi.org/10.1364/BOE.8.002222>, IF: 3.482, AIS: 0.978.
- Ris18. D M Panaitescu, C A Nicolae, A N Frone, I Chiulan, P O Stanescu, C Draghici, M Iorga, **M. MIHĂILESCU**, Plasticized poly(3-hydroxybutyrate) with improved melt processing and balanced properties, *Journal of Applied Polymer Science* Volume 134, Issue 19 2017 WOS: 000395150000024, <https://doi.org/10.1002/app.44810>
- Ris19. Paun I A, M Zamfirescu, C R Luculescu, A M Acasandrei, C C Mustaciosu, **M MIHĂILESCU**, M Dinescu, Electrically responsive microreservoirs for controllable delivery of dexamethasone in bone tissue engineering, *Applied Surface Science* 392 2016 WOS: 000389088300037, <https://doi.org/10.1016/j.apsusc.2016.09.027>
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## V. BREVETE DE INVENȚIE / INOVAȚII (B,A)

**B1 - Brevet de invenție nr. 126877**, Titulari : **MIHAILESCU M**, Curcan O, Procedeu de transformare a unei holograme calculate cu structură fină cvasi-periodică cu pixeli nedivizați, într-o hologramă cu structura hibridă, rezultând o marcă holografică înalt securizată

## VI. CONTRACTE ȘI RAPOARTE ȘTIINȚIFICE (P, F)

- Pn1. **M. MIHĂILESCU** în calitate de **Director de proiect** din partea Universității ”Politehnica” București ”Dezvoltarea laboratorului de holografie digitală cu echipamente pentru analiza sistemelor micro-opto-electro-mecanice și biologice” μDIGIHOLOLAB PN II Capacități CP/I/nr.4/2008, 2007-2009, Buget: 2000Mlei.  
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- Pn2. **M. MIHĂILESCU** în calitate de **Director de proiect** din partea Universității ”Politehnica” București OTED Optimizarea tehnologiei de producere a elementelor optice difractive cu aplicatii in securizare 45BG/30.09.2016 PN-III-P2-2.2-BG-2016-0288, 2016-2018, Buget: 420 Mlei  
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- Pn3. **M. MIHĂILESCU** în calitate de **Director de proiect** din partea Universității ”Politehnica” București THECODE Elemente holografice fabricate prin polimerizare cu doi fotoni pentru model demonstrativ de comunicatii optice 218PED/2017, PN-III-P2-2.1-PDE-2016-1396, 2017-2018, Buget: 261 Mlei  
[http://www.physics.pub.ro/Departament\\_Fizica/Proiecte\\_cercetare/Mona\\_MIHAILESCU\\_-\\_THECODE/index.html](http://www.physics.pub.ro/Departament_Fizica/Proiecte_cercetare/Mona_MIHAILESCU_-_THECODE/index.html)
- Pn4. **M. MIHĂILESCU** în calitate de **responsabil** din partea Universității ”Politehnica” București “Sistem micro-electro-fluidic pentru separarea si electroporarea celulelor biologice (MEFSYS)” PARTENERIATE nr. 30/2013, Coordonator: Institutul National de Cercetare-Dezvoltare pentru Microtehnologii (IMT), 2014-2016, Buget: 1,380Mlei. <https://www.imt.ro/mefsys/>
- Pn5. **M. MIHĂILESCU** în calitate de **responsabil** din partea Universității ”Politehnica” București “Comunicatii optice securizate de mare capacitate prin spatiul liber, bazate pe holograme generate pe computer (HOLCOMM)” PARTENERIATE nr. 203/2011, Conducător: Institutul National de Cercetare-Dezvoltare pentru Microtehnologii (IMT), 2012-2016, Buget: 2,115Mlei.
- Pn6. **M. MIHĂILESCU** în calitate de **responsabil** din partea Universității ”Politehnica” București QTECH-RO Dezvoltarea tehnologiilor cuantice in Romania 79PCCDI/2018 PN-III-P1-1.2-PCCDI-2017-0338, Buget: 840Mlei  
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- Pn7. **M. MIHĂILESCU** în calitate de **responsabil** din partea Universității ”Politehnica” București CARSAFE Platformă hibridă de comunicații prin lumină vizibilă și realitate augmentată pentru dezvoltarea de sisteme inteligente de asistență și siguranță activă a autovehiculelor 21PCCDI/2018, Buget: 250Mlei
- Pn8. **M. MIHĂILESCU** în calitate de **responsabil** din partea Universității ”Politehnica” București DONANORAD Tehnologie inteligentă bazată pe nanoparticule noi pentru îmbunătățirea terapiei cu fotoni și hadroni 543PED/2020, Buget: 180Mlei
- Pn9. **M. MIHĂILESCU** în calitate de **responsabil** din partea Universității ”Politehnica” București TSCEH Transfer tehnologic pentru cresterea nivelului de securizare si a calitatii etichetelor holografice 37PTE/2016 PN-III-P2-2.1-PTE-2016-0072, Buget: 200Mlei
- Pn10. **M. MIHĂILESCU** în calitate de **membru** ”Structuri magnetice de tip scaffold pentru stimularea regenerării osoase” Autoritatea Română pentru Cercetare Științifică și Inovare, CNCS-UEFISCDI, Project Number PN-II-RU-TE-2014-4-2534 - contract numărul 97 din 01/10/2015, 2015-2017, buget 550Mlei, Director de proiect Ș. I. I. A. Păun.

- Pn11. **M. MIHĂILESCU** în calitate de **membru**  
 „Structuri tridimensionale stimulate electric pentru inginerie tisulară” - ELITISS, PNCDI - PCCA UEFISCDI 6/2012, Director: Institutul Național de Fizica Laserilor, Plasmei și Radiației, buget: 2Mlei, pentru UPB: 200Mlei, responsabil UPB: Conf. E.I. Scarlat.
- Pn12. **M. MIHĂILESCU** în calitate de **membru**  
 “Memorii optice plasmonice 2D cu strat activ de sticlă calcogenică (MEMOPLAS)”, PN-II-PT-PCCA-2011-3.2-1007 (2012-2015): buget: 582MLei. Coordonator- UPB, Director proiect: Prof. Dr. N.N. Puscas.
- Pn13. **M. MIHĂILESCU** în calitate de **membru**  
 “Criteriu de predictibilitate pentru dinamica neliniara a sistemelor economice, pe baza proprietatilor multifractale ale seriilor masurabile generate de acestea: cazul Romaniei”, PN-II-Idei-2009-Contract #836/2009 (2009-2011): buget: 690Mlei, director de proiect Conf. E.I. Scarlat.
- Pn14. **M. MIHĂILESCU** în calitate de **membru**  
 “Sistem laser avansat în femtosecunde pentru nanostructurare de metamateriale și cristale fotonice”, FEMAT, PN-II-Parteneriate - -Contract #11-030/2007 (2007-2010): director de proiect R. Dabu, Institutul Național de Fizica Laserilor, Plasmei și Radiației, Responsabil din partea UPB: L. Preda.
- Pi1. **M. MIHĂILESCU** în calitate de **responsabil pachet de lucru**  
 Contract internațional FP7: “Join Physicists In Festival – MYPHY” <http://www.rn09.pub.ro>  
 Contract nr. 244978 / 2009, domeniul PEOPLE-NIGHT-2009  
 Conducator: Universitatea POLITEHNICA Bucuresti (UPB)  
 Parteneri din România: UPB, INCD Optoelectronica, INFLPR, IFIN-HH, Universitatea de Medicina și Farmacie “Carol Davila”-Bucuresti, Universitatea “Babes-Bolyai” Cluj-Napoca, Universitatea “A.I. Cuza” Iași, Societatea Romana de Radiodifuziune, Perioada: 2009, Buget 51340 €UR, rol în proiect: **responsabil pachet de lucru** WP 2: **M. MIHĂILESCU**
- Pi2. **M. MIHĂILESCU** în calitate de **director** de proiect  
 Contract din Fondul pentru Relații Bilaterale din cadrul Programului RO14  
 Contract nr. 17BIL/2017  
 Perioada: martie-iulie 2017  
 TITLU: Metode combinate acustice și optice de monitorizare a condițiilor de mediu și a echipamentelor din centrale electrice (geotermale, eoliene, hidro), 34 000lei  
 Parteneri: University-College Southeast of Norway, Christian Michelsen Research din Bergen Norway, University of Iceland.