

Activitatea științifică în perioada 2000-2018

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a) Lista publicațiilor științifice în 2000-2018:

- **Monografii, capitole de carte (edituri internaționale)**

[1] Popescu D., **Ichim L.**, Fratila R., Gornea D., capitolul: Image based Control of a Simple Mobile Robotic System, book title: Recent Advances in Systems Safety and Security, Studies in Systems, Decision and Control (Eds. Pricop E., Stamatescu G.), vol. 62, 2016, pp. 117-137, ISBN: 978-3-319-32523-1, ISSN 2198-4182, Springer International Publishing, DOI: 10.1007/978-3-319-32525-5_7

- **Monografii, capitole de carte (edituri naționale)**

[1] **Ichim L.**, Fractalii și Difuzia Luminii - Teorie, Aplicații, 144pag., Ed. Printech, București, 2006, ISBN: 973-718-636-2, ISBN: 978-973-718-636-2. Cod CNCIS 54

[2] Popescu D, Stamatescu G., Struțu M.-I., Măciucă A.-M., **Ichim L.**, Aplicații ale Rețelelor de Senzori Multinivel în Monitorizarea Ambientală, Ed. Politehnica Press, București, 2014, 213 pag., ISBN: 978-606-515-503-9. Cod CNCIS 19

[3] **Ichim L.**, Popescu D., Prelucrarea Imaginilor. Aplicații în Medicină, Ed. Politehnica Press, București, 2018, 140pag., ISBN: 978-606-515-829-0. Cod CNCIS 19

[4] **Ichim L.**, Popescu D, Dobrescu, R., Tehnici Fractale în Aplicații Multimedia, Ed. Politehnica Press, București, 2016, ISBN: 978-606-515-702-6, 100pag. Cod CNCIS 19

[5] Dobrescu R., **Ichim L.**, capitolul: Rețele Scale-free în Modelarea Sistemelor Complexe in cartea: Modelarea Complexității (Eds: Dobrescu R., Iordache D.A.), Ed. Politehnica Press, București, 2007 pag. 404–424, ISBN: 978-973-7838-43-8. Cod CNCIS 19

- **Articole în reviste și volume proceedings de conferințe (indexate ISI WoS)**

Articole în reviste indexate ISI WoS

[1] Popescu D., **Ichim L.**, Stoican F., “Unmanned aerial vehicle systems for remote estimation of flooded areas based on complex Image processing,” *Sensors*, 17(3), 446, pp. 1-24, 2017, ISSN: 1424-8220, DOI: 10.3390/s17030446. WOS: 000398818700019

[2] Popescu D., **Ichim L.**, “Intelligent image processing system for detection and segmentation of regions of interest in retinal images,” *Symmetry-Basel*, pp. 1-25, 10(3), 73, 2018; ISSN: 2073-8994, DOI: 10.3390/sym10030073, WOS: 000428515300022

[3] Caramihale T, Popescu D., **Ichim L.**, “Emotion classification using a tensorflow generative adversarial network implementation,” *Symmetry-Basel*, pp. 1-19, 10(9), 414, 2018; ISSN: 2073-8994, DOI: 10.3390/sym10090414, WOS: 000447336700060

[4] Popescu D., Drăgana C., Stoican F., **Ichim L.**, Stamatescu G., “A collaborative UAV-WSN network for monitoring large areas,” *Sensors*, 18(12), 4202, pp. 1-25, 2018, ISSN: 1424-8220, DOI: 10.3390/s18124202, WOS: 000454817100121

[5] Chenaru O., Popescu D., Enache D., **Ichim L.**, “Fault-tolerant control system implementation based on parameter analysis,” *Studies in Informatics and Control*, vol. 25, no. 2, pp. 227-237, 2016, ISSN: 1220-1766, WOS: 000378101300010

[6] Marcu R., Dănilă I., Popescu D., Chenaru O., **Ichim L.**, "Message queuing model for a healthcare hybrid cloud computing platform," *Studies in Informatics and Control*, vol. 26, no. 1, pp. 95-104, 2017, ISSN: 1220-1766, WOS: 000400630300011

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[1] Popescu D., **Ichim L.**, Caramihale T., Texture based method for automated detection, localization and evaluation of the exudates in retinal images, 22nd International Conference on Neural Information Processing (ICONIP 2015), 9-12 November, Istanbul, Turkey, S. Arik et al. (Eds.): ICONIP 2015, Part IV, LNCS 9492, pp. 463–472, 2015, ISBN:978-3-319-26561-2; 978-3-319-26560-5, ISSN: 0302-9743, DOI: 10.1007/978-3-319-26561-2_55, WOS: 000373889900055

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b) Lista granturilor și contractelor de cercetare în 2000-2018, cuprinzând:

• **Granturi și contracte internaționale (director/membru)**

- [1] FP7 project ERRIC Empowering Romanian Research on Intelligent Information Technologies,

REGPOT-2010-1 No. 264207, 2010-2014, Director: prof.dr.ing. Adina Florea (membru în echipa de proiect).

• **Granturi și contracte naționale (director/membru)**

[1] Grant Academia Română nr. 308 / 2001, Analiza spectrodifuziometrică a gradului de transformare în culturi celulare, Director de proiect: Ichim Loretta, Executant: Institutul de Virusologie "Stefan S. Nicolau", Beneficiar: Academia Romana, Perioada de desfasurare 2001 - 2002 (Director de proiect)

[2] „Sistem multispectral de monitorizare ambientală a zonelor critice în domeniul energetic”, nr. PN-III-P2-2.1-CI-2017-0638, Proiect 64CI/2017, Director de proiect: Ichim Loretta, Executant: UPB, Beneficiar SONERG TRADING SRL, Perioada de desfasurare: 07.2017-12.2017 (Director de proiect)

[3] „Modul multifuncțional bazat pe FPGA pentru prelucrarea imaginii în aplicații de robotică industrială”, nr. PN-III-P2-2.1-CI-2017-0523, Proiect 62CI/2017, Director de proiect: Ichim Loretta, Executant: UPB, Beneficiar ASTI CONTROL SA, Perioada de desfasurare: 07.2017-12.2017 (Director de proiect)

[4] „Rețea de noduri multisenzoriale inteligente pentru monitorizare indoor”, nr. PN-III-P2-2.1-CI-2017-0508, Proiect 100CI/2017, Director de proiect: Ichim Loretta, Executant: Universitatea Valahia din Targoviste, Beneficiar SOCIETATEA DE INGINERIE SISTEME SIS S.A. Perioada de desfasurare: 07.2017-12.2017 (Director de proiect)

[5] Arhitectura cloud pentru o biblioteca deschisa de blocuri functionale logice reutilizabile pentru sisteme optimizate (CALCULOS), Proiect PN-II-PT-PCCA2013-4-2123, Responsabil: Prof.dr.ing Daniela Hossu, Perioada de desfășurare: 2014-2017, (membru în echipa de proiect).

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[9] Sistem multi-dronă de evaluare a efectelor inundațiilor (SIMUL), Proiect Bridge BG49, Director de proiect: Prof.dr.ing. Dan Popescu, Perioada de desfășurare: 2016-2018, (membru în echipa de proiect).

[10] Platforma de management a contextului pentru aplicatii de inteligenta ambientala (CONCERT), Proiect nr. PN-III-P2-2.1-PED-2016-1753, 34PED/2017, Director de proiect: Prof.dr.ing. Adina Florea, Perioada de desfășurare: 2016-2018, (membru în echipa de proiect).

[11] Sistem robotic integrat aerian multiagent pentru explorarea regiunilor de interes terestre (MAARS), National Program STAR, Proiect 185/2017, Director de proiect: Prof.dr.ing. Dan Popescu, Perioada de desfășurare: 2017-2019, (membru în echipa de proiect).

[12] Conducerea inteligenta si distribuita a 3 sisteme autonome complexe integrate in tehnologii emergente pentru asistare personala medico-sociala si deservire de linii de fabricatie flexibila de precizie (CIDSACTEH) - PN-III-P1-1.2-PCCDI-2017-0290, contract 78PCCDI/01.03.2018, Responsabil de proiect UPB: Prof.dr.ing. Radu Dobrescu, Perioada de desfășurare: 2018-2020, (membru în echipa de proiect).

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[16] Particularități ale răspunsului imun și hormonal în neuroinfecții la copii, 2001-2002, Proiect MEC, Director de proiect: dr. Topârceanu F., (membru în echipa de proiect).

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[19] Cercetări privind dezvoltarea unei structuri (cognitive) complexe vizând definirea unor referențiere de riscuri majore în diverse activități socio-economice, 2007-2010, Proiect PNII-Parteneriate în domenii prioritare, Director de proiect: dr. Zaharia C., (membru în echipa de proiect).

c) Lista brevetelor obținute în 2000-2018 cuprinzând:

- **Brevete naționale**

[1] **Ichim L.**, "Dispozitiv spectrofotometric pentru microscop", brevet de invenție, BI nr.120590/ 2006, Derwent Primary Accession Number: 2007-006655 [01], International Patent Classification: G01J-003/44; G01N-013/10; G02B-021/06

[2] Dobrescu R., Țărălungă S., **Ichim L.**, Mocanu S., "Sistem de prelucrare distribuită, orientat pe analiză fractală", brevet de invenție, RO 123593 B1, prin hotărârea nr. 6/156 din 29.11.2013, Derwent Primary Accession Number: 2014-F54192 [26], International Patent Classification: G06F-017/30; G06F-009/50