

Instituția unde este titular: **Universitatea „ Aurel Vlaicu” din Arad**  
Facultatea de Inginerie  
Departamentul de Automatică, Inginerie Industrială, Textile și Transporturi (AIITT)  
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**LISTA LUCRĂRILOR ȘTIINȚIFICE**  
**în domeniul disciplinelor din postul didactic**  
<http://www.researcherid.com/rid/J-2933-2012>

**A. Teza de doctorat**

[1]. “Soluții pentru conducerea unor procese optomecatronice cu aplicații în domeniul biomedical”, Universitatea Politehnica Timișoara, Conducător Științific Prof.dr.ing. Ștefan Preitl, în domeniul **AUTOMATICĂ**, susținută în 24.04.2015 la Universitatea Politehnica Timișoara, Diplomă de Doctor seria I, nr. 0004181/ 2061 din 15.06.2015 în baza Ordinului Ministrului Educației Naționale 3869 din 19.05.2015, publicată în Teze de doctorat ale UPT, Seria 1, Nr. 19, Editura Politehnica, **2015**, 151 pagini, 62 figuri, 22 tabele, ISSN:1842-5208, ISBN: 978-606-554-941-8

**B. Cărți si capitole în cărți**

[1]. Duma V. F.\* , Schitea A., Tuef M., Cira O., Hutiu Gh., Demian D., **Mnerie C.**, Kaposta I., Optomechatronics applications of the theory of mechanisms with active student involvement in research, in *New Trends in Educational Activity in the Field of Mechanism and Machine Theory*, Mechanisms and Machine Science (Book Series), vol. 19, 111-119, García-Prada J. C. and Castejon C., Eds., Springer **2014**, ISSN: 2211-0984 (Print) 2211-0992 (Online), [http://dx.doi.org/10.1007/978-3-319-01836-2\\_12](http://dx.doi.org/10.1007/978-3-319-01836-2_12);

[2]. Duma V.F.\* , Nicolov M. F., Kiss M., Ilca T., **Mnerie C.**, Demian D. and Szantho L., Choppers: Optomechatronic Devices for the Controlled Modulation of Light, in *Mechanisms, Transmissions and Applications*, Mechanisms and Machine Science, Vol. 3, Lovasz E.C., Corves B., Eds., **2011**, Springer, ISSN 2211-0984, ISBN 978-94-007-2726-7, pp. 129-134, <http://dx.doi.org/10.1007/978-94-007-2727-4>;

**C. Lucrări indexate ISI/BDI**

**Articole ISI**

[1]. **Corina Mnerie**, Stefan Preitl, and Virgil-Florin Duma, *Galvanometer-Based Scanners: Mathematical Model and Alternative Control Structures for Improved Dynamics and Immunity to Disturbances*, International Journal of Structural Stability and Dynamics, 1740006 (**2017**) [15 pages] DOI: <http://dx.doi.org/10.1142/S0219455417400065>, Print ISSN: 0219-4554, Online ISSN: 1793-6764, IF 1,617 / (2016), **IF 2,082 / (2017) Q2**.

[2]. N. Pop, R. Beiu, P. Svera, **C. Mnerie**, Gh. Hutiu, V.-F. Duma\*, *Thermal degradation of photovoltaic panels: evaluations using a range of testing methods*, J. of Environmental Protection and Ecology (JEPE) **21**(6), 3687 (**2020**); **ISI IF 0.692/2019**; OPEN ACCESS; **Q4**

[3]. P. Naga Srinivasu, T. Srinivasa Rao, A.M. Dicu, C.A. Mnerie, I. Olariu, *A comparative review of optimisation techniques in segmentation of brain MR images*, Journal of Intelligent & Fuzzy Systems, 1-12, Volume: 38 Issue: 5 Pages: 6031-6043, (**2020**), [DOI: 10.3233/JIFS-179688](https://doi.org/10.3233/JIFS-179688) , ISSN 1064-1246 (P), ISSN 1875-8967 (E), **IF 1.851/2020**

[4]. A. Cioabla, V.-F. Duma\*, C. Mnerie, R.-A. Erdelyi, G. Dobre, A. Bradu, A. Podoleanu, Effect of an Anaerobic Fermentation Process on 3D-printed PLA Materials of a Biogas-generating Reactor, *Materials* (**2022**); EISSN 1996-1944; IF 3.748/2021; <https://doi.org/10.3390/ma15238571> , Q1

## Lucrări in volumele conferintelor internationale de specialitate indexate ISI

- [5] A.T. Teodorovits, C. Mnerie, V.-F. Duma\*, Analysis of measuring methods of optical micrometers with polygonal mirror-based laser scanners, *Proc. SPIE*, Vol. 12618, 126181W, SPIE Optical Metrology – LASER Congress, Munchen (Germany), **2023**; <http://dx.doi.org/10.1117/12.2665239>;
- [6] S. Coroban, C. Mnerie, V.-F. Duma\*, OCT versus X-ray imaging in the inspection of Ball Grid Arrays (BGAs), *Proc. SPIE*, Vol. 12618, 1261825, Optical Measurement Systems for Industrial Inspection XIII (SPIE Optical Metrology – LASER Congress), Munchen, **2023**; <https://doi.org/10.1117/12.2673194>;
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- [10]. Cheriguene, S., Azizi, N., Dey, N., Ashour, A., Mnerie, C., Olariu, T., Shi, F. (**2018**) Classifier Ensemble Selection Based on mRMR Algorithm and Diversity Measures: An Application of Medical Data Classification. In: Balas V., Jain L., Balas M. (eds) *Soft Computing Applications. SOFA 2016. Advances in Intelligent Systems and Computing*, vol 633. Springer, Cham, [https://doi.org/10.1007/978-3-319-62521-8\\_32](https://doi.org/10.1007/978-3-319-62521-8_32)
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- [12] Alina Barbulescu, Sanda V. Balas, Ioan E. Koles, **Corina A. Mnerie**, *On the Long Range Dependence Property of the Electrical Signals Collected in Cavitation Field*, In volume *Advances in Intelligent and Soft Computing*, Series Ed.: Kacprzyk, Janusz, *Proceedings of the 6th International Workshop on Soft Computing Applications SOFA 2014*, July 22-24, 2014, Timisoara, Romania, Guest Editors: Valentina E. Balas, Lakhmi C. Jain, Branko Kovačević, **Springer Verlag**, **2015**, AISC, , [http://link.springer.com/chapter/10.1007/978-3-319-18416-6\\_61](http://link.springer.com/chapter/10.1007/978-3-319-18416-6_61)
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- [15]. Duma V. F.\* , Negrutiu M. L.\* , Sinescu C., Miutescu E.\* , Burlea A., Vlascici M.\* , Gheorghiu N.\* , Demian D., Hutiu G., **Mnerie C.**, Marcauteanu C., Topala F., Rolland J. P., Voiculescu I., Podoleanu A. Gh.\* , Towards a Research Pole in Photonics in Western Romania, *Proc. SPIE*, Manuel Filipe P. C. Martins Costa, Mourad Zghal, Eds., *12<sup>th</sup> Education and Training in Optics and Photonics (ETOP)*, Portugal, July 22-26, **2013**, <http://dx.doi.org/10.1117/12.2070787>

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[19]. Dicu A.M., Balas M.M., Sîrghie C., Radu D., Mnerie C. (2021) *Assessing the Quality of Bread by Fuzzy Weights of Sensory Attributes*. In: Balas V., Jain L., Balas M., Shahbazova S. (eds) *Soft Computing Applications. SOFA 2018. Advances in Intelligent Systems and Computing*, vol 1221. Springer, Cham. [https://doi.org/10.1007/978-3-030-51992-6\\_32](https://doi.org/10.1007/978-3-030-51992-6_32)

#### **D. Lucrări publicate în reviste și volume de conferințe cu referenți (neindexate)**

##### **- Reviste de specialitate recunoscute de CNCSIS**

[1]. **Mnerie C.**, Kiss M., Ilca T., Szanthy L., Falcan O., Nicolov M. F., Demian D., Voiculescu I., Duma V.F.\*, Study of optical modulators with rotating wheels: The experimental setup, *Sc. Bulletin of the Politehnica Univ. of Timisoara, Transactions on Mathematics-Physics* **56(70)**, **2011**, ISSN 1224-6069, pp. 73-80;

[2]. Szanthy L., **Mnerie C.**, Ilca T., Falcan O., Nicolov M. F., Demian D., Duma V.F.\*, Radiometric scanning with applications in the lighting technology, *Sc. Bulletin of the Politehnica Univ. of Timisoara, Transactions on Mathematics-Physics* **56(70)**, **2011**, ISSN 1224-6069, pp. 89-97;

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##### **- Lucrări in volume de conferințe**

[4]. Luputi A., Mnerie C., Duma V.-F.\*, Polygon mirror-based optical micrometers: Programming aspects, *6<sup>th</sup> ISREIE, Series Engineering*, Arad, May 17-19, **2019** (Oral Presentation);

[5]. Beiu R. M., **Mnerie C.**, Pop N., Duma V.-F.\*, SEM, AFM, and OCT investigations of photovoltaic cells, *5<sup>th</sup> ISREIE, Series: Engineering*, Arad (Romania), May 17-19, **2018** (Oral Presentation).

[6]. Luputi A., **Mnerie C.**, Duma V.-F.\*, Robotic arm controlled by Arduino, *5<sup>th</sup> ISREIE, Series: Engineering*, Arad (Romania), May 17-19, **2018**; (Oral Presentation);

[7]. Luputi A., **Mnerie C.**, Duma V.-F.\*, Measurements methods of a polygon-based scanning system for dimensional evaluations, *5<sup>th</sup> ISREIE, Series: Engineering*, Arad (Romania), May 17-19, **2018**; (Oral Presentation);

[8]. **Mnerie C.**, Preitl S., Duma V.-F., Advanced control structures for galvanometer scanners for improved parameters in biomedical imaging, *Dynamical Systems. Nonlinear Dynamics and Control (13th DSTA)*, pp. 175-183, Awrejcewicz J., M. Kazmierczak, P. Olejnik, J. Mrozowski, Eds., Łódź (Poland), Dec. 7-11, **2015 (BDI)**

[9]. **Mnerie C.**, Preitl St., Duma V.-F.\*, Control structures of galvanometer-based laser scanners, *5<sup>th</sup> ISREIE, Series: Engineering*, Arad (Romania), May 17-19, **2018**; (Oral Presentation);

[10]. Beiu R., Corina Mnerie C., Pop N., Duma V.-F.\*, Dobre G. M., Bradu A., Podoleanu A., Study of thermal degradation of photovoltaic panels: Optical non-destructive versus mechanical destructive methods, *Central and*

*Eastern European Conference for Thermal Analysis and Calorimetry (CEEC-TAC4)*, Book of Abstracts, ISBN 978-3-940237-47-7, Chisinau (Republic of Moldova), Aug. 28-31, **2017**;

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## **E. BREVETE DE INVENTIE**

[1]. Duma V.F., Nicolov M. F, **Mnerie C.**, Szantho L., Modulator optic cu miscare de rotatie, OSIM, nr. 126505/29.07.2016, <http://www.osim.ro/publicatii/brevete/bopi-2016-inv.htm>

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