

RAPORT ACTIVITATE ¹

(2019)

1. Datele de identificare ale unității de cercetare

- 1.1. Denumire²: **Laboratorul de Modelare și Simulare SMLab**
- 1.2. Document de înființare: Hotărârea Senatului universitar 17/13 iulie 2017
- 1.3. Pagina web (limba romana, limba engleză):
<http://www.phys.ugal.ro/Mslab/>
http://www.phys.ugal.ro/Moraru_Luminita/Prezentare.htm
- 1.4. Adresa: Str Domneasca nr 111, corp cladire SB, cam 304
- 1.5 Telefon, fax, e-mail: luminita.moraru@ugal.ro

2. Scurta prezentare

- 2.1. Domeniul fundamental/ramura de știință³: Matematică și științe ale naturii/Fizica
- 2.2 Directii de cercetare-dezvoltare/obiective de cercetare/priorități de cercetare
 - a. domenii principale de cercetare-dezvoltare-inovare;
 - metode computationale dedicate procesarii imaginilor medicale (reconstructie/imbunatatire/analiza)
 - Imagistica medicală: Cercetări privind prelucrări de imagini medicale și interpretarea lor în vederea identificării de patologii. Dezvoltarea de aplicații CAD pentru susținerea activităților de diagnosticare;
 - Procesarea de imagini: segmentarea și clasificarea imaginilor medicale pentru identificarea obiectelor biologice de interes prin metode combinate de tehnici de procesare și 'patern recognition';
 - Dezvoltarea tehnologiilor în domeniul ultra- și infrasunetelor în medii stratificate pentru detectarea și recunoașterea obiectelor interzise cu potenția de risc major/securitate.
 - b. domenii secundare de cercetare-dezvoltare-inovare;
 - Simulări numerice.
 - Analize numerice si statistice.
 - Crearea de baze de date complexe pentru tipuri de patologii analizate.
 - Statistică aplicată în ingineria medicală; analiza propagării și imprastierii infrasunetelor/ultrasunetelor.
 - Detectia centrilor de imprastiere/reconstructii de suprafete vibrante/
 - ANFH Acoustic Near Field Holography
 - c. servicii / microproductie.
 - Algoritmi CAD (Computer Aided Diagnostic)
 - Consultanta în domeniul prelucrării semnalului și imaginii digitale, filtrare digitala, algoritmi pentru procesarea semnalelor, metode numerice, senzori
 - Instruire în domeniile procesării semnalelor digitale, filtrării digitale, metodelor matematice de prelucrare a semnalelor, statisticilor aplicate
 - Procesarea imaginilor medicale complexe pentru analiza detaliată.

¹ Se întocmește și se predă anual.

² Inclusiv acronim.

³ In acord cu Hotărârea nr. 376/2016 privind aprobarea Nomenclatorului domeniilor și al specializărilor/programele de studii universitare și a structurii instituțiilor de învățământ superior pentru anul universitar 2016-2017

- Asigurarea suportului științific și tehnologic pentru dezvoltarea de software de analiză.
- Modelări numerice și optimizări în medii stratificate.
- Instruire studenți, masteranzi, studenți doctoranzi în activități ce includ prelucrări de imagini, baze de date medicale, tehnici de analiză și recunoaștere a formelor, caracteristicilor, detectarea de obiecte etc.

3. Structura de conducere a centrului

- 3.1 Coordonator (Director/Responsabil) Prof. Dr. Ing. Fiz. Luminita Moraru
 3.2 Consiliul de conducere/științific Prof.dr.ing.fiz. habil Antoaneta Ene
 S.L. dr. Mat. Moldovanu Simona

4. Structura resursei umane

Numărul total de membri, din care:

- a. Număr membri titulari: **3**
- b. Număr membri asociați: **3**
- c. Conducători de doctorat⁴: **2**
- d. Număr de tineri cercetatori (postdoctoranzi, doctoranzi, masteranzi etc): **4**
- e. Număr ingineri/tehnicieni: **2** (laborant Dragoi Luminita, ing. Patrascu Dan)

5. Infrastructura de cercetare-dezvoltare, facilități de cercetare

5.1. Laboratoare⁵

Compartimentul de Modelare

-metode computationale dedicate procesarii imaginilor medicale (reconstrucție/imbunatatire/analiza)

Responsabil: Moraru Luminita

Ene Antoaneta
 Moldovanu Simona
 Dimitrievici Lucian-dr
 Stan Maria -drd
 MICHÎȘ N. FELICIA-ANIȘOARA(DAMIAN)-drd
 TOPORAȘ C. LENUȚA (PANĂ)- drd
 Obreja Cristian Dragos- dr

Compartimentul de Simulare

- Simulări numerice.
- Analize numerice și statistice.

Responsabil: Bibicu Dorin

Stan Maria-drd

5.2. Echipamente, instalații și software de interes național pentru cercetare fundamentală, dezvoltare tehnologică și inovare⁶

⁴ Nume, prenume, domeniul de doctorat.

⁵ Se vor nominaliza laboratoarele, responsabilul și principale direcțiile de cercetare.

- Desktop computer Intel Core i5 (2017)
- Multifunctional printer Lexmark X734de
- Desktop computer
- Laptop (2017)
- Local network
- Internet access
- Matlab 2017 (2017)
- Statistica

6. Contracte de cercetare derulate⁷

6.1. Contracte câștigate în competiții: - internaționale

MESMERISE 700399, -RIA

Title: Multi-Energy High Resolution Modular Scan System for Internal and External Concealed Commodities (http://cordis.europa.eu/project/rcn/203299_en.html)

Domeniul: [BES-08-2015 Security/Supply chain Security](#)

- naționale

6.2. Contracte cu agenți economici: - din străinătate - din țară

7. Rezultatele activității de cercetare, dezvoltare și inovare (CDI)

7.1. Rezultate ale activității CDI (cercetare fundamentală și aplicativă)⁸

		Nr.
7.1.1	<p>Lucrări publicate în reviste cotate ISI</p> <p>1. Fuqian Shi, Dan Wang; Zairan Li; Nilanjan Dey; Amira S Ashour; Luminita Moraru; Anjan Biswas; Optical pressure sensors based plantar image segmenting using an improved fully convolutional network Journal: Optik (Optik – International Journal for Light and Electron Optics) Volume 179, February 2019, Pages 99-114</p> <p>2. Jyotismita Chaki, Nilanjan Dey; Luminița Moraru; Fuqian Shi Fragmented plant leaf recognition: Bag-of-features, fuzzy-color and edge-texture histogram descriptors with multi-layer perceptron Optik - International Journal for Light and Electron Optics – Volume 181, March 2019, Pages 639-650</p>	10

⁶ Se vor enumera numai acele laboratoare și acele echipamente care au fost folosite în activitatea de cercetare din ultimii 2 ani); Se vor nominaliza 1-2 repere reprezentative la nivel de universitate, regional și național.

⁷ Se vor atașa liste pe categorii care să cuprindă următoarele detalii: nr. contract, titlu, domeniul (care se înscrie în lista domeniilor de cercetare declarate ale UC) de cercetare, director, parteneri (daca este cazul), valoare totală și valoarea regie și valoarea din regie care a fost solicitată pentru întreținerea UC.

⁸ Se vor anexa lista acestor contribuții.

	<p>3. Emilian DANILA, Hahuie VALENTIN, Puiu Lucian GEORGESCU, Luminița MORARU, SURVEY OF FOREST COVER CHANGES BY MEANS OF MULTIFRACTAL ANALYSIS Carpathian Journal of Earth and Environmental Sciences, February 2019, Vol. 14, No. 1, p. 51 - 60; DOI:10.26471/cjees/2019/014/057</p> <p>4. Luminita Moraru, Simona Moldovanu, Lucian Traian Dimitrievici, Nilanjan Dey, Amira S. Ashour, Fuqian Shi, Simon James Fong, Salam Khang, AnjanBiswas Gaussian mixture model for texture characterization with application to brain DTI images Journal of Advanced Research 16 (2019) 15–23, https://doi.org/10.1016/j.jare.2019.01.001</p> <p>5. Jinyan Li; Simon Fong; Lian-sheng Liu; Nilanjan Dey; Amira Ashour; Luminița Moraru "Dual Feature Selection and Rebalancing Strategy using Meta-Heuristic Optimization Algorithms in X-Ray Image Datasets" Multimedia Tools and Applications, Multimed Tools Appl (2019). 78:20913–20933 https://doi.org/10.1007/s11042-019-7354-5</p> <p>5. CunleiWanga, DonghuiLi, ZairanLi, DanWang, NilanjanDey, AnjanBiswas, LuminitaMoraru, R.S.Sherratt, FuqianShi An efficient local binary pattern based plantar pressure optical sensor image classification using convolutional neural networks Optik, Volume 185, May 2019, Pages 543-557, https://doi.org/10.1016/j.ijleo.2019.02.109</p> <p>6. Moraru, L., Moldovanu, S., Culea-Florescu, A.-L., Bibicu, D., Dey, N., Ashour, A. S., Sherratt, S. Texture spectrum coupled with entropy and homogeneity image features for myocardium muscle characterization. Current Bioinformatics, 2019, 14, 295-304, DOI: 10.2174/1574893614666181220095343</p> <p>7. Nilanjan Dey, V. Rajinikanth, Fuqian Shi, João Manuel R.S. Tavares, Luminita Moraru, K. Arvind Karthik, Hong Lin, K. Kamalanand, C. Emmanuel Social-group-optimization based tumor evaluation tool for clinical brain MRI of flair/DW modality Biocybernetics and Biomedical Engineering, Volume 39, Issue 3, July–September 2019, Pages 843-856, https://doi.org/10.1016/j.bbe.2019.07.005</p> <p>8. Biswas, Anjan; Yildirim, Yakup; Yasar, Emrullah; Zhou, Q; Moraru, L; Alshomrani, AS ; Belic, MR Resonant optical soliton perturbation with full nonlinearity and time-dependent coefficients by trial equation method JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS Volume: 21 Issue: 3-4 Pages: 213-221 Published: MAR-APR 2019</p> <p>9. Sassi Aouadi, Houria Triki, Anjan Biswas, Salam Khan, Luminita Moraru, Seithuti P. Moshokoa, Ali Saleh Alshomrani, Combo solitons of fifth-order nonlinear Schrodinger's hierarchy with complex-amplitude hypothesis, JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS Vol. 21, No. 11-12, November – December 2019, p. 679 – 684</p> <p>10. Gosav S., Ene A., Aflori M., Characterization and discrimination of plant fossils by ATR-FTIR, XRD and chemometric methods, Romanian Journal of Physics Vol. 64, Article no. 806, 2019, http://www.nipne.ro/rjp/2019_64_1-2/RomJPhys.64.806.pdf</p>	
7.1.2	Factor de impact cumulativ al lucrărilor cotate ISI	19,7 69
7.1.3	Citări în reviste de specialitate cotate ISI. (lista în extenso, mai jos)	183
7.1.4	<p>Lucrări științifice/tehnice în reviste indexate în baze de date internaționale</p> <p>1. Backscattering problems by a non-convex kite-shape objects in acoustic frequency domain Maria (Stan) Necula, Dorin Bibicu, and Luminita Moraru AIP Conference Proceedings 2071, 040008 (2019); https://doi.org/10.1063/1.5090075</p> <p>2. Acoustic radiation from baffled vibrating plates with various geometries</p>	14

	<p>Dorin Bibicu, Maria (Stan) Necula, and Luminita Moraru AIP Conference Proceedings 2071, 040009 (2019); https://doi.org/10.1063/1.5090076</p> <p>3. Numerical evaluation of low frequency sound propagation in two layered media D Bibicu, S Moldovanu, L Moraru Journal of Physics: Conference Series 1391 (2019) 012032 (9 pages) IOP Publishing, doi:10.1088/1742-6596/1391/1/012032</p> <p>4. Felicia Anisoara Damian, Simona Moldovanu, Luminita Moraru COLOUR HISTOGRAM ANALYSIS FOR SKIN LESIONS DISCRIMINATION Conference Proceedings, Section Advances in Biotechnology, pp 75-82, SGEM 2019, 19th INTERNATIONAL MULTIDISCIPLINARY SCIENTIFIC GEOCONFERENCE, VIENNA 9 - 12 DECEMBER, 2019, Issue 6.3 www.sgemviennagreen.org, doi: 10.5593/sgem2019V/6.3</p> <p>5. Pană Lenuța, Moldovanu Simona, Moraru Luminița USING GREY-SCALE HIT-OR-MISS TRANSFORM FOR DETECTION OF ISOLATED FOREGROUND PIXELS IN CEREBRAL RMN DATASETS Conference Proceedings, Section Advances in Biotechnology, pp 229-236 SGEM 2019, 19th INTERNATIONAL MULTIDISCIPLINARY SCIENTIFIC GEOCONFERENCE, VIENNA 9 - 12 DECEMBER, 2019, Issue 6.3 www.sgemviennagreen.org, doi: 10.5593/sgem2019V/6.3</p> <p>6. Cristian-Dragos Obreja, Luminita Moraru RETINAL VASCULAR SYSTEM EDGE DETECTION BASED ON WAVELET IMAGE FUSION AND FIRST ORDER DERIVATIVE ALGORITHMS Conference Proceedings, Section Advances in Biotechnology, pp 189-196, SGEM 2019, 19th INTERNATIONAL MULTIDISCIPLINARY SCIENTIFIC GEOCONFERENCE, VIENNA 9 - 12 DECEMBER, 2019, Issue 6.3 www.sgemviennagreen.org, doi: 10.5593/sgem2019V/6.3</p> <p>7. Cristian-Dragoș Obreja, Luminița Moraru An Optimal Solution Based on Image Fusion for Blood Vessel Diameter Measurements in Cerebral Angiographies ANNALS OF "DUNAREA DE JOS" UNIVERSITY OF GALATI MATHEMATICS, PHYSICS, THEORETICAL MECHANICS FASCICLE II, YEAR XI (XLII) 2019, No. 1, pp 19-26 https://doi.org/10.35219/ann-ugal-math-phys-mec.2019.1.03</p> <p>8. Analysis of common melanomas and nevi using geometrical features Luminița Moraru, Felicia Anisoara Damian, Simona Moldovanu ANNALS OF "DUNAREA DE JOS" UNIVERSITY OF GALATI MATHEMATICS, PHYSICS, THEORETICAL MECHANICS FASCICLE II, YEAR XI (XLII) 2019, No. 1, pp 27-33 https://doi.org/10.35219/ann-ugal-math-phys-mec.2019.1.04</p> <p>Edges identification based on the derivative filters and fractal dimension 9. Luminița Moraru, Simona Moldovanu, Lenuța Pană ANNALS OF "DUNAREA DE JOS" UNIVERSITY OF GALATI MATHEMATICS, PHYSICS, THEORETICAL MECHANICS FASCICLE II, YEAR XI (XLII) 2019, No. 1, pp 34-42 https://doi.org/10.35219/ann-ugal-math-phys-mec.2019.1.05</p> <p>10. Vibration of rectangular plates: fundamental mode and integer multiple of the fundamental period of vibration Maria Necula (Stan), Dorin Bibicu, Luminița Moraru ANNALS OF "DUNAREA DE JOS" UNIVERSITY OF GALATI MATHEMATICS, PHYSICS, THEORETICAL MECHANICS FASCICLE II, YEAR XI (XLII) 2019, No. 1, pp 43-48 https://doi.org/10.35219/ann-ugal-math-phys-mec.2019.1.06</p> <p>11. Ene, A. Moraru, S.S., Moraru D.I., Assessment of bioaccumulation of heavy metals in sunflower cultivated in the agricultural area next to steel industry, ISI Proceedings of the 19th International Multidisciplinary Scientific GeoConference SGEM 2019, Vol.19, Issue 3.2, p. 25-32 (2019) doi: 10.5593/sgem2019/3.2/S13.004.</p> <p>12. Moraru, S.S., Ene, A., Gosav, S., Study of the correlativity between parameters and mineralogy of contaminated agricultural soils, ISI Proceedings of the 19th International Multidisciplinary Scientific GeoConference SGEM 2019, Vol.19, Issue 3.2, p. 441-448 (2019) doi: 10.5593/sgem2019/3.2/S13.058.</p> <p>13. Arbanăș (Moraru) Sorina-Simona, Antoaneta Ene, Dana Iulia Moraru, Contamination level of Triticum Vulgare L. cultivated on soils around a metallurgical area in Galati, Romania, Annals of "Dunarea de Jos" University of Galati, Mathematics, Physics, Theoretical Mechanics, Fascicle II, Year XI (XLII) 2019, No. 1, p.1-9.</p> <p>14. Caprita Florina Cristiana, Antoaneta Ene, Valorification directions for marine algae, Annals of "Dunarea de Jos" University of Galati, Mathematics, Physics, Theoretical Mechanics, Fascicle II, Year XI (XLII) 2019, No. 1, p. 10-18.</p>	
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7.1.5	<p>Comunicări științifice prezentate la conferințe internaționale</p> <p>1. Skin lesions analysis based on significant features selection algorithmn algorithm. Michis, Felicia Anisoara; Simona Moldovanu, Luminita Moraru Volumul conferinței 8th IC-EpsMsO 2019 8th International Conference on Experiments/Process/System Modeling/Simulation/Optimization, vol 1, pp 380-387, 2019 ISBN 978-618-82173-8-6</p> <p>2. Brain tissue evaluation based on skeleton shape and similarity analysis between hemispheres Pana, Lenuta; Simona Moldovanu, Luminita Moraru Volumul conferinței 8th IC-EpsMsO 2019 8th International Conference on Experiments/Process/System Modeling/Simulation/Optimization Athens, vol 1, pp 60-67, 2019 ISBN 978-618-82173-8-6</p> <p>3. INVERSE SCATTERING PROBLEM FOR CONCEALED OBJECTS DETECTION Dorin Bibicu, Maria (Stan) Necula, Luminita Moraru TIM 19 Physics Conference, 29 - 31 May 2019, Timisoara, Romania</p> <p>4. Analysis of Common Melanomas and Nevi Using Geometrical Features Luminița Moraru, Felicia Anisoara Damian, Simona Moldovanu 7th edition of the Scientific Conference of the Doctoral Schools of “Dunărea de Jos” University of Galati (SCDS-UDJG), 13th and 14th of June 2019, in Galati, Romania.</p> <p>5. Edges Identification Based on the Derivative Filters and Fractal Dimension Luminița Moraru, Simona Moldovanu, Lenuța Pană 7th edition of the Scientific Conference of the Doctoral Schools of “Dunărea de Jos” University of Galati (SCDS-UDJG), 13th and 14th of June 2019, in Galati, Romania.</p> <p>6. Vibration of Rectangular Plates: Fundamental Mode and Integer Multiple of the Fundamental Period of Vibration Maria (Stan) Necula, Dorin Bibicu, Luminița Moraru 7th edition of the Scientific Conference of the Doctoral Schools of “Dunărea de Jos” University of Galati (SCDS-UDJG), 13th and 14th of June 2019, in Galati, Romania.</p> <p>7. An Optimal Solution Based on Image Fusion for Blood Vessel Diameter Measurements in Cerebral Angiographies Cristian-Dragoș Obreja, Luminița Moraru 7th edition of the Scientific Conference of the Doctoral Schools of “Dunărea de Jos” University of Galati (SCDS-UDJG), 13th and 14th of June 2019, in Galati, Romania.</p>	22
7.1.6	Comunicări științifice prezentate la conferințe naționale	31
7.1.7	Brevete de invenție (solicitate / acordate)	
7.1.8	Citări în sistemul ISI ale lucrărilor de cercetare/ brevete	
7.1.9	Produse/servicii/tehnologii rezultate din activități de cercetare, bazate pe brevete, omologări sau inovații proprii.	
7.1.1 0	Studii prospective și tehnologice, normative, proceduri, metodologii și planuri tehnice, noi sau perfecționate, comandate sau utilizate de beneficiar.	

7.1.3	Citări în reviste de specialitate cotate ISI.
<p>L. Moraru, F. Szendrei, Ancient pottery analysis using SEM image processing, European Journal of Science and Theology, June 2010, Vol.6, No.2, pp 69-79 ISSN 1841-046 Citat de Discrimination between the authentic and fake Egyptian funerary figurines “Ushabtis” via laser-induced breakdown spectroscopy Khedr, A., Sadek, H., Aied Nassef, O., Abdelhamid, M., Harith, M.A. Journal of Cultural Heritage, Volume 40, November–December 2019, Pages 25-33</p>	
<p>L. Moraru, O. Cotoi, F. Szendrei, The Euler Number: A Method for Statistical Analysis of Porosity of Ancient Pottery, European Journal of Science and Theology, September 2011, Vol. 7, no. 3, pp 99-108 Citat de Thermal analysis and multi-analytical comparison of samples of Neolithic ceramics from Dnepr–Dvina and Low Don regions By: Irina A. Zvereva, Viktor M. KuznetsovYuriy M. ZhukovAndrey N. MazurkevichEkaterina V. Dolbunova J Therm Anal Calorim (2019). 138, pages1879–1886(2019)https://doi.org/10.1007/s10973-019-08621-x</p>	

Dorin Bibicu, Luminita Moraru, Anjan Biswas, Thyroid nodule recognition based on feature selection and pixel classification methods, Journal of Digital Imaging DOI: 10.1007/s10278-012-9475-5, Volume 26, Issue 1 (2013), Page 119-128

Citat de

Li, Xiaomei et al.:

Knockoff filter-based feature selection for discrimination of non-small cell lung cancer in CT image
IET Image Processing (2019), 13 (3):543

Sonia Farhana Nimmy, Md. Golam Sarowar Nilanjan Dey Amira S. Ashour, K. C. Santosh

Investigation of DNA discontinuity for detecting tuberculosis
J Ambient Intell Human Comput (2018). <https://doi.org/10.1007/s12652-018-0878-0>

Discrete wavelet transform-based freezing of gait detection in Parkinson's disease

Amira El-Attar, Amira S. Ashour, Nilanjan Dey, Hatem Abdelkader, Mostafa M. Abd El-Naby & R. Simon Sherratt
Journal of Experimental & Theoretical Artificial Intelligence, Published online: 8 May 2019, <https://doi.org/10.1080/0952813X.2018.1519000>

An efficient local binary pattern based plantar pressure optical sensor image classification using convolutional neural networks Wang, C., Li, D., Li, Z., (...), Sherratt, R.S., Shi, F.

2019 Optik 185, pp. 543-557

Multitask Cascade Convolution Neural Networks for Automatic Thyroid Nodule Detection and Recognition

Song, W., Li, S., Liu, J., (...), Zhang, S., Hao, A.
2019 IEEE Journal of Biomedical and Health Informatics 23(3), 8402093, pp. 1215-1224

Xiao-Wen Liang; Yong-Yi Cai; Jin-Sui Yu; Jian-Yi Liao; Zhi-Yi Chen, .:

Update on thyroid ultrasound
Chinese Medical Journal. 2019 - Volume 132 - Issue 16 - p 1974-1982
doi: 10.1097/CM9.0000000000000346

Tianjiao Liu, Qianqian Guo, Chunfen Lian, Xuhua Ren, Shujun Liang, Jing Yu, Lijuan Niu, Weidong Sun, Dinggang Shen

Automated Detection and Classification of Thyroid Nodules in Ultrasound Images using Clinical-Knowledge-Guided Convolutional Neural Networks
Medical Image Analysis, available online 5 September 2019, 101555 <https://doi.org/10.1016/j.media.2019.101555>

Chambara, Nonhlanhla et Michael Ying

The Diagnostic Efficiency of Ultrasound Computer-Aided Diagnosis in Differentiating Thyroid Nodules: A Systematic Review and Narrative Synthesis Cancers. Volume: 11. Issue: 11. Pp 1759, 2019

Savescu, Michelle; Khan, Kaisar R.; Kohl, Russell W.; Moraru, Luminita; Yildirim, Ahmet; Biswas, Anjan, Optical Soliton Perturbation with Improved Nonlinear Schrödinger's Equation in Nano Fibers, Journal of Nanoelectronics and Optoelectronics (J. Nanoelectron. Optoelectron.) 8, 208-220 (2013) doi:10.1166/jno.2013.1459 (ISSN 1555-130X),

Citat de

Chaotic motions for a perturbed nonlinear Schrodinger equation with the power-law nonlinearity in a nano optical fiber

By: Yin, Hui-Min; Tian, Bo; Hu, Cong-Cong; et al.
APPLIED MATHEMATICS LETTERS Volume: 93 Pages: 139-146 Published: JUL 2019

W-shaped, dark and grey solitary waves in the nonlinear Schrodinger equation competing dual power-law nonlinear terms and potentials modulated in time and space

By: Youssoufa, Mati; Dafounansou, Ousmanou; Mohamadou, Alidou
JOURNAL OF MODERN OPTICS Volume: 66 Issue: 5 Pages: 530-540 Article Number: UNSP 134413 Published: MAR 12 2019

Stability analysis, soliton solutions and Gaussian solitons of the generalized nonlinear Schrodinger equation with higher order terms

By: Wang, Hui; Zhang, Tian-Tian
INTERNATIONAL JOURNAL OF NUMERICAL METHODS FOR HEAT & FLUID FLOW Volume: 29 Issue: 3 Pages: 878-889 Published: MAR 4 2019

Periodic and N-kink-like optical solitons for a generalized Schrodinger equation with variable coefficients in an inhomogeneous fiber system

By: Li, Bang-Qing; Ma, Yu-Lan
OPTIK Volume: 179 Pages: 854-860 Published: 2019

Analytical solitons with the Biswas-Milovic equation in the presence of spatio-temporal dispersion in non-Kerr law media

Tahir, M. & Awan, A.U
Eur. Phys. J. Plus (2019) 134: 464. <https://doi.org/10.1140/epjp/i2019-12887-3>

Optical solitons with quadratic nonlinearity by extended trial equation method

MEHMET EKICI, MOHAMMAD MIRZAZADEH, ABDULLAH SONMEZOGLU, MALIK ZAKA ULLAH, QIN ZHOU, MIR ASMA, SEITHUTI P. MOSHOKOA, ANJAN BISWAS, MILIVOJ BELIC
JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS Vol. 20, No. 5 - 6, May - June 2018, p. 271 - 278

Bright and dark solitons in (n+ 1)-dimensions with spatio-temporal dispersion

A Zubair, N Raza
Journal of Optics volume 48, pages594-605(2019) Springer

Savescu, Michelle; Khan, Kaisar R.; Naruka, Preeti; Jafari, Hossein; Moraru, Luminita; Biswas, Anjan, Optical Solitons in Photonic Nano Waveguides with an Improved Nonlinear Schrödinger's Equation, Journal of Computational and Theoretical Nanoscience, Volume 10, Number 5, May 2013, pp. 46 - 119(10), WOS:000320569600020

Citat de

Bright, dark and dark-singular soliton solutions of nonlinear Schrödinger's equation with spatio-temporal dispersion
Raza, N., Zubair, A.
2018 Journal of Modern Optics 65(17), pp. 1975-1982

Breather wave, rogue wave and lump wave solutions for a (3 + 1)-dimensional generalized Kadomtsev-Petviashvili equation in fluid
Li, M.-Z., Tian, B., Sun, Y., Wu, X.-Y., Zhang, C.-R.
2018 Modern Physics Letters B 32(20),1850223

Optical solitons, conservation laws and modulation instability analysis for the modified nonlinear Schrödinger's equation for Davydov solitons
Inc, M., Aliyu, A.I., Yusuf, A., Baleanu, D.
2018 Journal of Electromagnetic Waves and Applications 32(7), pp. 858-873

Optical solitons with quadratic nonlinearity by extended trial equation method
Ekici, M., Mirzazadeh, M., Sonmezoglu, A., (...), Biswas, A., Belic, M.
2018 Journal of Optoelectronics and Advanced Materials 20(5-6), pp. 271-278

A new approach to exact optical soliton solutions for the nonlinear Schrödinger equation
Morales-Delgado, V.F., Gómez-Aguilar, J.F., Baleanu, D.
2018 European Physical Journal Plus 133(5),189

Dark and singular optical solitons with spatio-temporal dispersion by Kudryashov's method
Zhou, Q., Mirzazadeh, M., Ekici, M., (...), Ullah, M.Z., Belic, M.
2018 Journal of Optoelectronics and Advanced Materials 20(3-4), pp. 126-132

Dispersive optical solitons and modulation instability analysis of Schrödinger-Hirota equation with spatio-temporal dispersion and Kerr law nonlinearity
Inc, M., Aliyu, A.I., Yusuf, A., Baleanu, D.
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27. A Ene, C Stihl, IV Popescu, A Bosneaga, C Radulescu, A Gheboianu - **XRF-AAS analysis of heavy metals in soils around of a ferrous metallurgical plant in eastern part of Romania** - ISINN-18 proceedings, Dubna (2008)
1. MOȚ, A., MADJAR, R.M. and MIHALACHE, M., **SPATIAL DISTRIBUTION OF HEAVY METALS IN AGRICULTURAL SOILS OF ROMANIA: REVIEW OF THE CURRENT SITUATION**, Scientific Papers. Series A. Agronomy, Vol. LXII, No. 1, 2019, pp.88-96. – ISI

Conferințe

1. Dempster-Shafer Fusion for Effective Retinal Vessels' Diameter Measurement
Prof. Moraru Luminita
Egyptian-Romanian Physics Day, 24-25 June 2019, U Mansura Egypt
2. Numerical evaluation of low frequency sound propagation in two layered media
D Bibicu, S Moldovanu, L Moraru
8th International Conference on Mathematical Modeling in Physical Sciences
August 26-29, 2019, Bratislava, Slovakia <https://www.icmsquare.net/index.php>, <https://www.icmsquare.net/index.php/program/participants>,
<https://www.icmsquare.net/index.php/program/schedule>
3. COLOUR HISTOGRAM ANALYSIS FOR SKIN LESIONS DISCRIMINATION
Felicía Anisoara Damian, Simona Moldovanu, Luminita Moraru
SGEM INTERNATIONAL SCIENTIFIC CONFERENCES ON EARTH & PLANETARY SCIENCES "GREEN SCIENCES FOR HAPPY FUTURE." EXTENDED SCIENTIFIC SESSIONS VIENNA 9 - 12 DECEMBER, 2019
Section Advances in Biotechnology www.sgemviennagreen.org
4. USING GREY-SCALE HIT-OR-MISS TRANSFORM FOR DETECTION OF ISOLATED FOREGROUND PIXELS IN CEREBRAL RMN DATASETS
Pană Lenuța, Moldovanu Simona, Moraru Luminita
SGEM INTERNATIONAL SCIENTIFIC CONFERENCES ON EARTH & PLANETARY SCIENCES "GREEN SCIENCES FOR HAPPY FUTURE." EXTENDED SCIENTIFIC SESSIONS VIENNA 9 - 12 DECEMBER, 2019
Section Advances in Biotechnology www.sgemviennagreen.org
5. RETINAL VASCULAR SYSTEM EDGE DETECTION BASED ON WAVELET IMAGE FUSION AND FIRST ORDER DERIVATIVE ALGORITHMS
Cristian-Dragos Obreja, Luminita Moraru
SGEM INTERNATIONAL SCIENTIFIC CONFERENCES ON EARTH & PLANETARY SCIENCES "GREEN SCIENCES FOR HAPPY FUTURE." EXTENDED SCIENTIFIC SESSIONS VIENNA 9 - 12 DECEMBER, 2019
Section Advances in Biotechnology www.sgemviennagreen.org
6. Skin lesions analysis based on significant features selection algorithm
Michis, Felicia Anisoara; Simona Moldovanu, Luminita Moraru
8th IC-EpsMsO 2019 8th International Conference on Experiments/Process/System Modeling/Simulation/Optimization Athens, Greece 3-6 July, 2019,
<http://www.epmsso.gr/>
7. Brain tissue evaluation based on skeleton shape and similarity analysis between hemispheres
Pana, Lenuța; Simona Moldovanu, Luminita Moraru
8th IC-EpsMsO 2019 8th International Conference on Experiments/Process/System Modeling/Simulation/Optimization Athens, Greece 3-6 July, 2019,
<http://www.epmsso.gr/>
8. INVERSE SCATTERING PROBLEM FOR CONCEALED OBJECTS DETECTION
Dorin Bibicu, Maria (Stan) Necula, Luminita Moraru

TIM 19 Physics Conference, 29 - 31 May 2019, Timisoara, Romania

9. Analysis of Common Melanomas and Nevi Using Geometrical Features

Luminița Moraru, Felicia Anișoara Damian, Simona Moldovanu

7th edition of the Scientific Conference of the Doctoral Schools of "Dunărea de Jos" University of Galați (SCDS-UDJG), 13th and 14th of June 2019, in Galați, Romania.

10. Edges Identification Based on the Derivative Filters and Fractal Dimension

Luminița Moraru, Simona Moldovanu, Lenuța Pană

7th edition of the Scientific Conference of the Doctoral Schools of "Dunărea de Jos" University of Galați (SCDS-UDJG), 13th and 14th of June 2019, in Galați, Romania.

11. Vibration of Rectangular Plates: Fundamental Mode and Integer Multiple of the Fundamental Period of Vibration

Maria (Stan) Necula, Dorin Bibicu, Luminița Moraru

7th edition of the Scientific Conference of the Doctoral Schools of "Dunărea de Jos" University of Galați (SCDS-UDJG), 13th and 14th of June 2019, in Galați, Romania.

12. An Optimal Solution Based on Image Fusion for Blood Vessel Diameter Measurements in Cerebral Angiographies

Cristian-Dragoș Obreja, Luminița Moraru

7th edition of the Scientific Conference of the Doctoral Schools of "Dunărea de Jos" University of Galați (SCDS-UDJG), 13th and 14th of June 2019, in Galați, Romania.

13. Luminița Moraru MATLAB for the Inverse Medium Problem in Scattering, MESMERISE workshop 11-12 July, 2019

Faculty of Medicine, University of Alcalá, Alcalá de Henares, Madrid, Spain

14. Prezentarea ofertei educaționale de programe de Licență aferente Colectivului de Fizică,

Microscopia electronică și aplicațiile sale în Medicină

Simona Condurache-Bota; Luminița Moraru;

Conferință științifică cu participarea elevilor: „Fizica medicală: simbioză între Fizică, Medicină și Mediu”, Galați, 28 februarie 2019 - secțiune plenară

15. Similaritate în studierea imaginilor RMN 2D ale creierului uman,

Pană Lenuța, Moldovanu Simona, Moraru Luminița

Conferință științifică cu participarea elevilor: „Fizica medicală: simbioză între Fizică, Medicină și Mediu”, Galați, 28 februarie 2019 - prezentată oral

16. Analizarea nervilor pe baza caracteristicilor semnificative,

Damian Felicia Anișoara, Moldovanu Simona, Moraru Luminița

Conferință științifică cu participarea elevilor: „Fizica medicală: simbioză între Fizică, Medicină și Mediu”, Galați, 28 februarie 2019 - prezentată oral

1. Sloata F., Antoaneta Ene, ED-XRF analysis of trace elements in soils located in the vicinity of a former chemical plant, TIM 19 Physics Conference, Timisoara, Romania, 29 – 31 mai 2019. https://timconference.uvt.ro/upload/Conference_Schedule_TIM19.pdf, <https://timconference.uvt.ro/>
2. Căpriță Florina Cristiana, Antoaneta Ene, 2019, Biosorption of Heavy Metals from the Metallurgical Industry Wastewater by Macroalgae, TIM 19 Physics Conference, West University of Timisoara, Faculty of Physics, Timisoara, Romania, 29 – 31 mai 2019. <https://timconference.uvt.ro/>
3. Ene A., Oleg Bogdevich, Elena Zubcov, Yuriy Denga, Thomas Spanos, Ana Pantelică, Marina Frontasyeva, Claudia Stih, Liliana Teodorof, Adrian Burada, Cristina Despina, Dana Iulia Moraru, Elena Culighin, Alina Sion, Vasile Bașliu, Alina Ceoromila, Simona Sorina Moraru, Florin Sloată, “Nuclear and Atomic Techniques Used for the Quantification and Mapping of Heavy Metals and Trace Elements in Soils”, S1.07, Abstract book MONITOX International Symposium “Deltas and Wetlands” September 15-17 2019, Tulcea, Romania, pp.24-26.
4. Ene A., Adrian Cîrciumaru, Iulian Gabriel Bîrsan, Elena Zubcov, Oleg Bogdevich, Thomas Spanos, Viorela Cartăș, Eugenia Pascu, Violeta Pintilie, Florin Sloată, Nicusor-Daniel Patrascu, Liviu Vodarici, Mădălina Stăvărache, “Radioactivity Levels in Selected Areas of the Black Sea Basin in Romania, Republic of Moldova and Greece”, S1.08, Abstract book MONITOX International Symposium “Deltas and Wetlands” September 15-17 2019, Tulcea, Romania, pp.26-27.
5. Ene A., Pintilie V., Radon and Thoron Activity Concentrations in Selected Indoor Environments in Lower Danube and Danube Delta Region, Romania, S3.07, Abstract book MONITOX International Symposium “Deltas and Wetlands”, September 15th-17th, 2019, Tulcea, Romania, pp.70-71.
6. Ene A., Gosav S., Capabilities of FT-IR Spectroscopy for the Investigation of Microplastics in Environmental Samples and Personal Care and Cosmetic Products, S3.13, Abstract book MONITOX International Symposium “Deltas and Wetlands”, September 15th-17th, 2019, Tulcea, Romania, pp.77-78.
7. Pantelica A., Ene A., PIXE Analysis of Elemental Content in River and Underground Water, S3.08, Abstract book MONITOX International Symposium “Deltas and Wetlands”, September 15th-17th, 2019, Tulcea, Romania, p.72.
8. Vasile A., Ene A., Bahrim G., 2019, Microbiological Quality and Contamination Level of Danube River Water in Ostrov-Isaccea Sector, South-Eastern Part of Romania, S1.12, Abstract book MONITOX International Symposium “Deltas and Wetlands”, September 15th-17th, 2019, Tulcea, Romania, pp.30-31.
9. Ene A., Dana Iulia Moraru, Steluța Gosav, Romana Drașovean, Alina Sion, Florina Cristiana Căpriță, Analysis of Physical-Chemical and Radiological Parameters of Surface and Groundwater from Lower Danube Region, Galați County, S2.14, Abstract book MONITOX International Symposium “Deltas and Wetlands” September 15-17, 2019, Tulcea, Romania, p.57.
10. Enachi E., Carmen Chițescu, Gabriela Bahrim, Antoaneta Ene, Monitoring of Emerging Pollutants from Aquatic Ecosystems – Antibiotics, Endocrine Disruptors and Contraceptives, S1.13, Abstract book MONITOX International Symposium “Deltas and Wetlands” September 15-17, 2019, Tulcea, Romania, pp. 32-33.
11. Arbanas (Moraru) S.S., Ene A., Gosav S., Moraru D.I., Intensive Agricultural Practices and Industrial Activities Influence on Soil Fertility of Agroecosystems from Prut and Siret Lowlands, SE Romania, S3.16, Abstract book MONITOX International Symposium “Deltas and Wetlands” September 15-17, 2019, Tulcea, Romania, pp.80-81.
12. Jurminskaia, O.; Zubcov, E.; Bagrin, N.; Biletschi, L.; Ene, A.; Teodorof, L. The Use of DO-BOD Correlation to Assess the Biochemical Potential of Water Ecosystem, S2.15, Abstract book MONITOX International Symposium “Deltas and Wetlands” September 15-17, 2019, Tulcea, Romania, pp.58-59.

13. Tumanova, D.; Ungureanu, L.; Andreev, N.; Ene, A.; Teodorof, L. Diversity of phytoplankton and water quality in the Danube, S1.20, Abstract book MONITOX International Symposium "Deltas and Wetlands" September 15-17, 2019, Tulcea, Romania, pp.40-41.
14. Bulat, Dm.; Bulat, Dn.; Toderas, I.; Usatii, M.; Ungureanu, L.; Ene, A.; Zubcov, E. Comparative aspects of ichthyofauna of Dniester and Prut Rivers, S2.07, Abstract book MONITOX International Symposium "Deltas and Wetlands" September 15-17, 2019, Tulcea, Romania, pp.49-50.
15. Arbanas (Moraru) S.S., Ene A., Gosav S., 2019, Mineralogical Composition Assessment of Soils from Covurlui and Braila Plains by ATR-FTIR Technique, 15th International Symposium "Priorities of Chemistry for a Sustainable Development" PRIOCHEM, Bucharest, Romania, 30th October–1st November 2019)

7.2. Teze de doctorat finalizate și în derulare⁹

1. Caracterizarea microstructurală și morfologică a imaginilor digitale complexe folosind operatori statistici
Doctorand Lucian Traian Dimitrievici -sustinuta 2019
Conducător științific, Prof. univ. dr. ing. fiz. Luminița Moraru
2. Titlul tezei: Monitorizarea substanțelor toxice în mediu prin utilizarea tehnicilor analitice performante pentru managementul deșeurilor periculoase
Doctorand Sloată Florin,
conducător Prof. Ene Antoaneta
3. Titlul tezei: Studii privind expunerea populației la radiații ionizante
Doctorand Pintilie Violeta, -sustinut 2019
conducător Prof. Georgescu Lucian Puiu
4. Titlul tezei: Imprastierea acustică pe sisteme complexe: cilindri, sferoizi rigizi și elastici. Aproximarea soluțiilor pentru regimurile de câmp apropiat și îndepărtat
Doctorand Necula (Stan) Maria
Conducător științific, Prof. univ. dr. ing. fiz. Luminița Moraru
5. Titlul tezei: Prognoza impactului energiilor alternative în raport cu sursele de energie convenționale
Doctorand CARANFIL VICTORIA
Conducător științific principal, Prof. univ. Dr. Ing. RUSU EUGEN
Conducător științific secundat (co-tutela) Prof. univ. dr. ing. fiz. Luminița Moraru
6. Titlul tezei: Aplicații ale tomografiei computerizate cu fascicul conic în medicina dentară
Doctorand Andrei Victor Marinescu, Universitatea de Medicină și Farmacie „Carol Davila” din București
Conducător științific principal, Prof. univ. Md. Dr. Andreea Didilescu
Conducător științific secundat (co-tutela) Prof. univ. dr. ing. fiz. Luminița Moraru
7. Titlul tezei: INSTRUMENTE MODERNE DE DEPISTARE A MELANOAMELOR. Aplicație SelfChecker pentru analiza nevelor (melanoamelor) prin intermediul imaginilor digitale

Doctorand MICHÎȘ N. FELICIA-ANIȘOARA(DAMIAN)
Conducător științific, Prof. univ. dr. ing. fiz. Luminița Moraru
8. Titlul tezei: APLICAȚII ALE TEHNICILOR DE SCANARE DWI și DTI PENTRU EVALUAREA RAPIDĂ A MODIFICĂRILOR PARAMETRILOR SPECIFICI ÎN CAZUL AFECȚIUNILOR CEREBRALE

⁹ Se va anexa lista tezelor de doctorat în derulare, cu specificarea titlului, domeniul de doctorat, nume doctorand, nume conducător de doctorat.

7.3. Oportunități de valorificare a rezultatelor CDI

- Elaborarea și depunerea de proiecte cu finanțare internațională diversă, în ariile de cercetare cu potențial recunoscut, alocarea de resurse optime pentru implementarea acestora și premiera echipelor de cercetare cu rezultate bune și foarte bune.

- Implicarea directă a tinerilor cercetători în activitățile experimentale și în implementarea proiectelor de cercetare – dezvoltare desfășurate în cadrul parteneriatelor internaționale.

- Contract de colaborare bilateral UDJG- Wenzhou University
- Contract de colaborare bilateral UDJG - Sinhgad Institutes, India
- Contract de colaborare bilateral UDJG - Dr. D. Y. Patil Institute, India

7.4. Rezultate ale activității CDI valorificate și efectele obținute

1. In prezent deruleaza proiectul H2020 MESMERISE/Security BES-08-2015.

2. UEFISCDI Premiera rezultatelor cercetarii pentru articolul cu titlul

Gaussian mixture model for texture characterization with application to brain DTI images *PN-III-P1-1.1-PRECISI-2019-32571*

3. UEFISCDI Premiera rezultatelor cercetarii pentru articolul cu titlul

"Dual Feature Selection and Rebalancing Strategy using Meta-Heuristic Optimization Algorithms in X-Ray Image Datasets"

Jinyan Li; Simon Fong; Lian-sheng Liu; Nilanjan Dey; Amira Ashour, Luminița Moraru

Multimedia Tools and Applications, Multimed Tools Appl *PN-III-P1-1.1-PRECISI-2019-36898*

4. UEFISCDI Premiera rezultatelor cercetarii pentru articolul cu titlul

"Texture anisotropy technique in brain degenerative diseases" *PN-III-P1-1.1-PRECISI-2019-26911*

5. Proiect Cod SMIS: 124539, cu titlul „Burse pentru educația antreprenorială în rândul doctoranzilor și cercetătorilor postdoctorat (BeAntreprenor!)”, finanțat prin FONDUL SOCIAL EUROPEAN, Programul Operațional Capital Uman 2014-2020, Axa prioritară: Educație și competențe, beneficiar: Universitatea „Dunărea de Jos” din Galați, perioada de desfășurare: iunie 2019 – Ianuarie 2021.

9. Măsuri privind creșterea capacității activității CDI

-Urmărirea permanentă a call-urilor de finanțare deschise. Se dezvoltă o nouă colaborare pentru depunerea unui proiect H2020 IMI2 – topic 6. În condițiile obținerii finanțării, prin acest proiect se vor deschide 2 noi poziții de tineri cercetători/doctoranzi.

-Colaborare bilaterală cu China, Wenzhou University și India Sinhgad Institutes prin depunerea de proiecte ERASMUS KA 107

10. Măsuri pentru creșterea prestigiului și a vizibilității UC¹⁰

10.1. Dezvoltarea de parteneriate:

- dezvoltarea de parteneriate la nivel național și internațional (cu personalități/instituții / asociații profesionale) în vederea participării la programele naționale și internaționale specifice;

-Dezvoltarea parteneriatului cu universitățile chineze din Beijing, pe baza colaborării inițiate cu Wenzhou University.

-Dezvoltarea parteneriatului cu universitățile din India pe baza colaborării inițiate cu Sinhgad Institutes și Dr. D. Y. Patil Institute, India

-Dezvoltarea parteneriatului cu Universitatea de Medicină și Farmacie „Carol Davila” din București

¹⁰ Se va descrie detaliat fiecare acțiune realizată.

-Parteneriate dezvoltate pentru participarea la competiția PCCDI 2018-2019:

1. Universitatea din Oradea
 2. Institutul National pentru Fizică și Inginerie Nucleară "Horia Hulubei" Măgurele
 3. Universitatea de Medicina și Farmacie Carol Davila, Bucuresti
 4. Centrul de diagnostic Pozitron-Diagnosztika, Oradea
- înscrierea UC în platforme naționale și internaționale care promovează parteneriatele;

-SMLAB este membru al clusterului ROHEALTH

- înscrierea UC în rețele de cercetare/asociații profesionale de prestigiu pe plan național/internațional;
- personalități științifice ce au vizitat UC;
- asigurarea de stagii de cercetare pentru specialiști din țară și străinătate;
- cursuri și seminarii susținute de personalitățile științifice invitate;
- membrii în colective editoriale ale revistelor recunoscute ISI sau incluse în baze internaționale de date.

1. Editorial Board of Computational and Mathematical Methods in Medicine,

<https://www.hindawi.com/journals/cmmm/editors/> (revista ISI, IF=1,563)

2. Editorial Board of JSM Mathematics and Statistics

(<http://www.j-scimedcentral.com/Mathematics/editors>)

3. Editorial Board of International Journal of Radiology (<http://www.ghrnet.org/index.php/ijr>)

4. Editorial Board of International Journal of Ambient Computing and Intelligence (IJACI),

<http://www.igi-global.com/journal/international-journal-ambient-computing-intelligence/1110>

5. Advances in Geospatial Technologies (AGT), <http://www.igi-global.com/book-series/advances-geospatial-technologies/73686>

6. Editorial Board ANALELE UNIVERSITĂȚII "DUNĂREA DE JOS" DIN GALAȚI, Fascicola II, MATEMATICĂ, FIZICĂ, MECANICĂ TEORETICĂ

10.2. Prezentarea rezultatelor la târgurile și expozițiile naționale și internaționale;

- târguri și expoziții internaționale;
- târguri și expoziții naționale.

10.3. Premii obținute prin proces de selecție/distincții, etc.

2019 Premiere articol CNFIS-FDI-2019-0063 Cercetarea de excelență din Universitatea „Dunărea de Jos” din Galați – pol al competitivității și performanței – COMPETICER

Științe ingineresti/Texture anisotropy technique in brain degenerative diseases/Moraru Luminița, Moldovanu Simona, Dimitrievici Lucian Traian/NEURAL COMPUTING & APPLICATIONS

Premiul I la Conferința CSSD-UDJG 2019, Secțiunea 2 . Advanced investigation methods in environment and biohealth, cu articolul " An Optimal Solution Based on Image Fusion for Blood Vessel Diameter Measurements in Cerebral Angiographies". Autori: Cristian-Dragos Obreja, Luminita Moraru

Premiul II la Conferința CSSD-UDJG 2019, Secțiunea 2 . Advanced investigation methods in environment and biohealth, cu articolul "Analysis of common melanomas and nevi using geometrical features". Autori: Luminița Moraru, Felicia Anișoara Damian, Simona Moldovanu

Mentiune la Conferința CSSD-UDJG 2019, Secțiunea 2 . Advanced investigation methods in environment and biohealth, cu articolul "Edges identification based on the derivative filters and fractal dimension". Autori: Luminița Moraru, Simona Moldovanu, Lenuța Pană

2019 Premiul BEST BOOTH 2019, Proiect MESMERISE 300799, Security Research Event 2019, 6-7 November 2019 – Helsinki, Finland, <https://www.sre2019.eu/exhibition#category-12>, co-organised by the European Commission and the Ministry of the Interior in Finland as a side event of Finland's Presidency of the Council of the European Union

Premiul special la Conferința Științifică Internațională SGEM Vienna Green 2019, Secțiunea: Advances in Biotechnology, cu articolul: Retinal vascular system edge detection based on wavelet image fusion and first order derivative algorithms,

Autori: Cristion Obreja, Luminita Moraru

10.4. Prezentarea activității de mediatizare:

- extrase din presa (interviuri);
- participare la dezbateri radiodifuzate / televizate.

-interviu TV Galati, ian 2018 -prezentarea vizitei in RP China, Wenzhou University

Data:30.03.2020

Responsabil UC
Prof. dr. ing. Fiz. Luminita Moraru

