

Raport de autoevaluare¹

1. Date de identificare

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

2. Scurtă 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';

- metode de deep learning (supervizate și ne supervizate);

- 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 și 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)

- Rețele Neuronale Artificiale folosite ca instrumente de predicție obiectivă în domeniul medicinei

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/programeelor de studii universitare și a structurii instituțiilor de învățământ superior pentru anul universitar 2016-2017

- Consultanta in domeniul prelucrării semnalului și imaginii digitale, filtrare digitală, 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.
- 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:

Număr membri titulari: 5

Număr membri asociați: 1

Conducători de doctorat : 2

Număr de tineri cercetatori (postdoctoranzi, doctoranzi, masteranzi etc): 5

Număr ingineri/tehnicieni: 1 (laborant Dragoi Luminita)

5. Infrastructura de cercetare-dezvoltare, facilități de cercetare

Compartimentul de Modelare

-metode computationale dedicate procesării imaginilor medicale (reconstrucție/ îmbunătățire/analiza)

Responsabil: Moraru Luminita

Ene Antoaneta

Moldovanu Simona

Bibicu Dorin

Obreja Cristian Dragos-dr

Dimitrievici Lucian-dr

STAN Maria -drd

LAZARESCU ANDREEA - drd

MICHIȘ N. FELICIA-ANIȘOARA(DAMIAN)-drd

TOPORAȘ C. LENUȚA (PANĂ)- drd

ANGHELACHE Iulia -drd

Compartimentul de Simulare

- Simulări numerice.

- Analize numerice și statistice.

Responsabil: Bibicu Dorin

Moldovanu Simona
Stan Maria-drd

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

- Desktop computer Intel Core i5 (2017)
- Multifunctional printer Lexmark X734de
- Desktop computer
- Laptop (2017)
- Local network
- Internet access
- Matlab 2021a
- SPSS

6. Contracte de cercetare derulate⁴

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/Suply chain Security

- naționale

Beneficiar grant. Simona Moldovanu Nr. 17525/13.07.2021, Granturi pentru susținerea unităților de cercetare din universitate, Fond de dezvoltare instituțională, CNFIS-FDI-2021-0443 „Măsurile active de creștere și eficientizare a capacității de cercetare, dezvoltare, inovare și transfer tehnologic în Universitatea „Dunărea de Jos” din Galați - CEREX-UDJG_2021”, Durata contractului: de la data de 20.07.2021 până la data de 15.11.2021, aloarea contractului de finanțare este de 50 000 lei

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

7.1. Rezultate ale activității CDI (cercetare fundamentală și aplicativă)⁵

		Nr.
7.1.1	Lucrări publicate în reviste cotate ISI.	30 x Nic/Na

⁴ 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 centrului) de cercetare, director/responsabil UC, parteneri (dacă este cazul), valoarea totală, valoarea regiei și valoarea din regie care a fost solicitată pentru întreținerea centrului.

⁵ Se vor anexa lista acestor contribuții.

	<p>1.CUBIC-QUARTIC OPTICAL SOLITON PERTURBATION WITH KUDRYASHOV'S LAW OF REFRACTIVE INDEX HAVING QUADRUPLED-POWER LAW AND DUAL FORM OF GENERALIZED NONLOCAL NONLINEARITY BY SINE-GORDON EQUATION APPROACH</p> <p>Yakup Yldrm, Anjan Biswas, Houria Triki, Mehmet Ekici, Padmaja Guggilla, Salam Khan, Luminita Moraru & Milivoj R. Belic</p> <p>Journal of Optics J Opt (December 2021) 50(4):593–599 https://doi.org/10.1007/s12596-021-00686-y</p>	3.75
	<p>2.OPTICAL SOLITON POLARIZATION WITH LAKSHMANAN-PORSEZIAN-DANIEL MODEL BY UNIFIED APPROACH</p> <p>Mohammad Safi Ullah, Harun-Or-Roshid, M. Zulkar Ali, Anjan Biswas, Mehmet Ekici, Salam Khan, Luminita Moraru, Abdullah Khamis Alzahrani & Milivoj R. Belic</p> <p>Results in Physics, vol 22, 103958, 2021, https://doi.org/10.1016/j.rinp.2021.103958</p>	3.33
	<p>3.Towards Accurate Diagnosis of Skin Lesions Using Feedforward Back Propagation Neural Networks</p> <p>Simona Moldovanu, Cristian-Dragos Obreja, Keka C. Biswas and Luminita Moraru</p> <p>Diagnostics 2021, 11, 936. (16 pages) https://doi.org/10.3390/diagnostics11060936</p>	15
	<p>4.TIME-DEPENDENT COUPLED COMPLEX SHORT PULSE EQUATION: INVARIANT ANALYSIS AND COMPLEXITONS by Vikas Kumar, Anjan Biswas, Mehmet Ekici, Luminita Moraru, Abdullah Khamis Alzahrani & Milivoj R. Belic.</p> <p>Chaos, Solitons and Fractals 150 (2021) 111151, https://doi.org/10.1016/j.chaos.2021.111151 IF = 3.764, ISSN 0960-0779</p>	5
	<p>5.Cubic-quartic optical soliton perturbation with Fokas-Lenells equation by semi-inverse variation</p> <p>Anjan Biswas, Anelia Dakova, Salam Khan, Mehmet Ekici, Luminita Moraru and Milivoj Belic.</p> <p>Semiconductor Physics, Quantum Electronics and Optoelectronics (SPQEO) – 2021. V. 24, No 4. P. 431-435 Doi: 10.15407/spqeo24.04.431</p>	5
	<p>6.Skin Lesion Classification Based on Surface Fractal Dimensions and Statistical Color Cluster Features Using an Ensemble of Machine Learning Techniques.</p> <p>Moldovanu, S.; Damian Michis, F.A.; Biswas, K.C.; Culea-Florescu, A.; Moraru, L.</p> <p>Cancers 2021, 13(21), 5256. https://doi.org/10.3390/cancers13215256</p>	18
	Total 7.1.1	50.08
7.1.2	Factor de impact cumulativ al lucrărilor cotate ISI.	(35 x FI) + (70 x SRI)
	Results in Physics 4,476	245.83
	Diagnostics 3.11	219.19
	Chaos, Solitons and Fractals 5,944	315.40
	Cancers 6,639	327.60
	Journal of Optics J Opt	190.96
	Total 7.1.2	1298.9
7.1.3	Citări în reviste de specialitate cotate ISI.	10 p/citare

	<p>1.Moraru L., Praisler M., Marin S.A., Bentea C.C. (2013) The Academic Profession: Quality Assurance, Governance, Relevance, and Satisfaction. In: Kehm B., Teichler U. (eds) The Academic Profession in Europe: New Tasks and New Challenges. The Changing Academy – The Changing Academic Profession in International Comparative Perspective, vol 5. Springer, Dordrecht. http://doi-org-443.webvpn.fjmu.edu.cn/10.1007/978-94-007-4614-5_8</p> <p>Citat de:</p> <p>Theoretical, practical and hybrid ex-academics: Career transfer stories P Kuoppakangas, K Suomi, E Pekkola... - European ..., 2021 - journals.sagepub.com</p> <p>Changing managerial roles in Danish universities HF Hansen, JK Lind, AK Stage - Science and Public Policy, 2020 - academic.oup.com</p> <p>The Determinants of External Engagement of Hard Scientists: A Study of Generational and Country Differences in Europe S Pekşen, A Queirós, A Flander, L Leişytê... - Higher Education ..., 2021 – Springer</p> <p>Re-visiting Gender Equality Policy and the Role of University Top Management A Lipinsky, A Wroblewski - Gender, Power and Higher Education in a ..., 2021 – Springer</p> <p>Exploring the ways of studying academic identity as a dynamic discursive performance: the use of diary as a method S Djerasimovic - European Journal of Higher Education, 2021 - Taylor & Francis</p> <p>Does higher education research have a theory deficit? Explorations on theory work J Hamann, A Kosmützky - European Journal of Higher Education, 2021 - Taylor & Francis</p>	50
	<p>2. <u>Optical Soliton Perturbation with Improved Nonlinear Schrodinger's Equation in Nano Fibers</u> <u>Savescu, M; Khan, KR; (...); Biswas, A</u> Feb 2013 JOURNAL OF NANO ELECTRONICS AND OPTOELECTRONICS 8 (2) , pp.208-220</p> <p>Citat de:</p> <p>Chirped Periodic and Solitary Waves for Improved Perturbed Nonlinear Schrodinger Equation with Cubic Quadratic Nonlinearity Seadawy, AR; Rizvi, STR and Althobaiti, S Dec 2021 FRACTAL AND FRACTIONAL 5 (4)</p> <p>New Gaussian solitary wave solutions in nanofibers Darvishi, MT; Najafi, M and Wazwaz, AM Sep 2021 (Early Access) WAVES IN RANDOM AND COMPLEX MEDIA</p>	20
	<p>3. <u>Optical Solitons in Photonic Nano Waveguides with an Improved Nonlinear Schrodinger's Equation</u> <u>Savescu, M; Khan, KR; (...); Biswas, A</u></p>	50

	<p>May 2013 JOURNAL OF COMPUTATIONAL AND THEORETICAL NANOSCIENCE 10 (5) , pp.1182-1191</p> <p>Citat de:</p> <p>Soliton structures of a nonlinear Schrodinger equation involving the parabolic law Salahshour, S; Hosseini, K; (...); Baleanu, D Dec 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (12)</p> <p>New Gaussian solitary wave solutions in nanofibers Darvishi, MT; Najafi, M and Wazwaz, AM Sep 2021 (Early Access) WAVES IN RANDOM AND COMPLEX MEDIA</p> <p>The bright and singular solitons of (2+1)-dimensional nonlinear Schrodinger equation with spatio-temporal dispersions Akinyemi, L; Hosseini, K and Salahshour, S Sep 2021 OPTIK 242</p> <p>Riemann-Hilbert approach and nonlinear dynamics of the coupled higher-order nonlinear Schrodinger equation in the birefringent or two-mode fiber Wei, HY; Fan, EG and Guo, HD Mar 2021 Feb 2021 (Early Access) NONLINEAR DYNAMICS 104 (1) , pp.649-660</p> <p>Optical solitons of (2+1)-dimensional nonlinear Schrodinger equation involving linear and nonlinear effects Matinfar, M and Hosseini, K Feb 2021 OPTIK 228</p>	
	<p>4. Social-Group-Optimization based tumor evaluation tool for clinical brain MRI of Flair/diffusion-weighted modality Dey, N; Rajinikanth, V; (...); Emmanuel, C Jul-sep 2019 BIOCYBERNETICS AND BIOMEDICAL ENGINEERING 39 (3) , pp.843-856</p> <p>Citat de:</p> <p>VGG19 Network Assisted Joint Segmentation and Classification of Lung Nodules in CT Images Khan, MA; Rajinikanth, V; (...); Damasevicius, R Dec 2021 DIAGNOSTICS 11 (12)</p> <p>Automated segmentation of leukocyte from hematological images-a study using various CNN schemes Kadry, S; Rajinikanth, V; (...); Valencia, XPB Nov 2021 (Early Access) JOURNAL OF SUPERCOMPUTING</p> <p>Mortality Prediction of Victims in Road Traffic Accidents (RTAs) in India using Opposite Population SGO-DE based Prediction Model Jena, JJ and Satapathy, SC Nov 2021 JOURNAL OF SCIENTIFIC & INDUSTRIAL RESEARCH 80 (11) , pp.1001-1007</p>	100

	<p>A new adaptive tuned Social Group Optimization (SGO) algorithm with sigmoid-adaptive inertia weight for solving engineering design problems Jena, JJ and Satapathy, SC Aug 2021 (Early Access) MULTIMEDIA TOOLS AND APPLICATIONS</p> <p>Development of a Framework for Preserving the Disease-Evidence-Information to Support Efficient Disease Diagnosis Rajinikanth, V and Kadry, S Apr-jun 2021 INTERNATIONAL JOURNAL OF DATA WAREHOUSING AND MINING 17 (2) , pp.63-84</p> <p>Automated classification of retinal images into AMD/non-AMD Class-a study using multi-threshold and Gassian-filter enhanced images Rajinikanth, V; Sivakumar, R; (...); Nhu, NG Jun 2021 Mar 2021 (Early Access) EVOLUTIONARY INTELLIGENCE 14 (2) , pp.1163-1171</p> <p>Customized VGG19 Architecture for Pneumonia Detection in Chest X-Rays Dey, N; Zhang, YD; (...); Raja, NSM Mar 2021 PATTERN RECOGNITION LETTERS 143 , pp.67-74</p> <p>Image fusion practice to improve the ischemic-stroke-lesion detection for efficient clinical decision making Hemanth, DJ; Rajinikanth, V; (...); Arunmozhi, S Jun 2021 Feb 2021 (Early Access) EVOLUTIONARY INTELLIGENCE 14 (2) , pp.1089-1099</p> <p>Evaluation of brain tumor using brain MRI with modified-moth-flame algorithm and Kapur's thresholding: a study Kadry, S; Rajinikanth, V; (...); Raj, ANJ Jun 2021 Jan 2021 (Early Access) EVOLUTIONARY INTELLIGENCE 14 (2) , pp.1053-1063</p> <p>Convolutional-Neural-Network Assisted Segmentation and SVM Classification of Brain Tumor in Clinical MRI Slices Rajinikanth, V; Kadry, S and Nam, Y 2021 INFORMATION TECHNOLOGY AND CONTROL 50 (2) , pp.342-356</p>	
	<p>5.Optical soliton perturbation in magneto-optic waveguides with spatio-temporal dispersion Vega-Guzman, J; Alshaery, AA; (...); Biswas, A Sep-oct 2014 JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS 16 (9-10) , pp.1063-1070</p> <p>Citat de:</p> <p>Optical singular and dark solitons to the nonlinear Schrodinger equation in magneto-optic waveguides with anti-cubic nonlinearity Mathanaranjan, T; Rezazadeh, H; (...); Akinyemi, L</p>	130

	<p>Dec 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (12)</p> <p>Conservation laws for solitons in magneto-optic waveguides with dual-power law nonlinearity Biswas, A; Vega-Guzman, JM; (...); Belic, MR Nov 17 2021 PHYSICS LETTERS A 416</p> <p>Construction of optical solitons of magneto-optic waveguides with anti-cubic law nonlinearity Asjad, MI; Ullah, N; (...); Inc, M Nov 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (11)</p> <p>New multiple-different impressive perceptions for the solitary solution to the magneto-optic waveguides with anti-cubic nonlinearity Bekir, A and Zahran, EHM Aug 2021 OPTIK 240</p> <p>Solitons in magneto-optics waveguides for the nonlinear Biswas-Milovic equation with Kudryashov's law of refractive index using the unified auxiliary equation method Zayed, EME; Gepreel, KA; (...); Alngar, MEM Jun 2021 OPTIK 235</p> <p>Addendum to Kudryashov's method for finding solitons in magneto-optics waveguides to cubic-quartic NLSE with Kudryashov's sextic power law of refractive index Zayed, EME; Gepreel, KA and Alngar, MEM Mar 2021 OPTIK 230</p> <p>Sub pico-second Soliton with Triki-Biswas equation by the extended $(G'/G(2))$-expansion method and the modified auxiliary equation method Akram, G and Gillani, SR Mar 2021 OPTIK 229</p> <p>Optical solitons with Biswas-Arshed equation by F-expansion method Yildirim, Y Feb 2021 OPTIK 227</p> <p>Optical envelope patterns in nonlinear media modeled by the Lakshmanan-Porsezian-Daniel equation Xin, H Feb 2021 OPTIK 227</p> <p>Investigation of exact soliton solutions in magneto-optic waveguides and its stability analysis Younas, U and Ren, JL Feb 2021 RESULTS IN PHYSICS 21</p> <p>Solitons and conservation laws in magneto-optic waveguides with generalized Kudryashov's equation Zayed, EME; Alngar, MEM; (...); Belic, MR</p>	
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	<p>Feb 2021 CHINESE JOURNAL OF PHYSICS 69 , pp.186-205</p> <p>Highly dispersive optical solitons perturbation having Kudryashov's arbitrary form with sextic-power law refractive index and generalized non-local laws Nofal, TA; Zayed, EME; (...); Ekici, M Feb 2021 OPTIK 228</p> <p>Highly dispersive optical solitons with non-local law of refractive index by Laplace-Adomian decomposition Gonzalez-Gaxiola, O; Biswas, A; (...); Alzahrani, AK Jan 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (1)</p>	
	<p>6.Thyroid Nodule Recognition Based on Feature Selection and Pixel Classification Methods Bibicu, D; Moraru, L and Biswas, A Feb 2013 JOURNAL OF DIGITAL IMAGING 26 (1) , pp.119-128</p> <p>Citat de:</p> <p>Discrete wavelet transform-based freezing of gait detection in Parkinson's disease El-Attar, A; Ashour, AS; (...); Sherratt, RS Jul 4 2021 JOURNAL OF EXPERIMENTAL & THEORETICAL ARTIFICIAL INTELLIGENCE 33 (4) , pp.543-559</p> <p>Automated detection and recognition of thyroid nodules in ultrasound images using Improve Cascade Mask R-CNN Zheng, YH; Qin, LN; (...); Xue, ZX May 2021 (Early Access) MULTIMEDIA TOOLS AND APPLICATIONS</p> <p>Differential Diagnosis of Malignant Thyroid Calcification Nodule Based on Computed Tomography Image Texture Peng, WX; Qian, YJ; (...); Xiao, H Mar 2021 JOURNAL OF MEDICAL IMAGING AND HEALTH INFORMATICS 11 (3) , pp.767-772</p> <p>Thyroid nodule recognition using a joint convolutional neural network with information fusion of ultrasound images and radiofrequency data Liu, Z; Zhong, SB; (...); Zou, RH Jul 2021 Jan 2021 (Early Access) EUROPEAN RADIOLOGY 31 (7) , pp.5001-5011</p>	40
	<p>7. Solitons and conservation laws in magneto-optic waveguides with triple-power law nonlinearity Zayed, EME; Alngar, MEM; (...); Belic, MR Dec 2020 Sep 2020 (Early Access) JOURNAL OF OPTICS-INDIA 49 (4) , pp.584-590</p> <p>Citat de:</p> <p>Solitons and conservation laws in magneto-optic waveguides with generalized Kudryashov's equation by the unified auxiliary equation approach Zayed, EME; Shohib, RMA; (...); Belic, MR</p>	360

	<p>Nov 2021 OPTIK 245</p> <p>Algorithm for dark solitons with Radhakrishnan-Kundu-Lakshmanan model in an optical fiber Annamalai, M; Veerakumar, N; (...); Belic, MR Nov 2021 RESULTS IN PHYSICS 30</p> <p>Optical solitons in birefringent fibers having anti-cubic nonlinearity with Jacobi's elliptic function expansions Bolukbasi, H; Ekici, M and Biswas, A Oct 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (10)</p> <p>Stationary optical solitons with Kudryashov's laws of refractive index Ekici, M; Sonmezoglu, A and Biswas, A Oct 2021 CHAOS SOLITONS & FRACTALS 151</p> <p>Solitons dynamics in optical metamaterial with quadratic-cubic nonlinearity using modified extended direct algebraic method Samir, I; Badra, N; (...); Arnous, AH Oct 2021 OPTIK 243</p> <p>Cubic-quartic polarized optical solitons and conservation laws for perturbed Fokas-Lenells model Zayed, EME; Alngar, MEM; (...); Belic, MR Sep 2021 JOURNAL OF NONLINEAR OPTICAL PHYSICS & MATERIALS 30 (03N04)</p> <p>Time-dependent coupled complex short pulse equation: Invariant analysis and complexitons Kumar, V; Biswas, A; (...); Belic, MR Sep 2021 CHAOS SOLITONS & FRACTALS 150</p> <p>A second-order nonlinear Schrodinger equation with weakly nonlocal and parabolic laws and its optical solitons Mirzazadeh, M; Hosseini, K; (...); Salahshour, S Sep 2021 OPTIK 242</p> <p>Multi-soliton solutions and interaction for a (2+1)-dimensional nonlinear Schr &ouml; dinger equation Li, YY; Jia, HX and Zuo, DW Sep 2021 OPTIK 241</p> <p>Solitons in nonlinear directional couplers with optical metamaterials by unified Riccati equation approach Zayed, EME; Alngar, MEM; (...); Belic, MR Sep 2021 OPTIK 241</p> <p>Structure of optical solitons in magneto-optic waveguides with dual-power law nonlinearity using modified extended direct algebraic method</p>	
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	<p>Ahmed, HM and Rabie, WB Aug 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (8)</p> <p>Optical envelope patterns in quadratic-cubic nonlinear medium by trial method Hu, JY; Tian, YZ and Yang, YF Aug 2021 OPTIK 240</p> <p>Highly dispersive optical solitons and conservation laws with sextic-law of nonlinear refractive index Yildirim, Y; Biswas, A; (...); Belic, MR Aug 2021 OPTIK 240</p> <p>Optical soliton perturbation with Kudryashov's generalized nonlinear refractive index Elsherbeny, AM; El-Barkouky, R; (...); Alshomrani, AS Aug 2021 OPTIK 240</p> <p>New multiple-different impressive perceptions for the solitary solution to the magneto-optic waveguides with anti-cubic nonlinearity Bekir, A and Zahran, EHM Aug 2021 OPTIK 240</p> <p>Optical soliton perturbation and conservation law with Kudryashov's refractive index having quadrupled power-law and dual form of generalized nonlocal nonlinearity Yildirim, Y; Biswas, A; (...); Belic, MR Aug 2021 OPTIK 240</p> <p>Cubic-quartic optical solitons with Kudryashov's arbitrary form of nonlinear refractive index Zayed, EME; Shohib, RMA; (...); Belic, MR Jul 2021 OPTIK 238</p> <p>Optical solitons in fiber Bragg gratings with dispersive reflectivity by sine-Gordon equation approach Yildirim, Y; Biswas, A; (...); Belic, MR Jul 2021 OPTIK 237</p> <p>Reliable methods to look for analytical and numerical solutions of a nonlinear differential equation arising in heat transfer with the conformable derivative Hosseini, K; Sadri, K; (...); Salahshour, S Jun 2021 (Early Access) MATHEMATICAL METHODS IN THE APPLIED SCIENCES</p> <p>Pure-Cubic Optical Soliton Perturbation with Complex Ginzburg-Landau Equation Having a Dozen Nonlinear Refractive Index Structures Zayed, EME; Alngar, MEM; (...); Alshomrani, AS May 2021 JOURNAL OF COMMUNICATIONS TECHNOLOGY AND ELECTRONICS 66 (5) , pp.481-544</p> <p>New visions of the soliton solutions to the modified nonlinear Schrodinger equation</p>	
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	<p>Bekir, A and Zahran, EHM Apr 2021 OPTIK 232</p> <p>Lump wave phase transition for the (2+1)-dimensional Heisenberg ferromagnetic spin chain equation Ma, YL Apr 2021 OPTIK 231</p> <p>An alternate pathway to solitons in magneto-optic waveguides with triple-power law nonlinearity Seadawy, AR; Ahmed, HM; (...); Biswas, A Apr 2021 OPTIK 231</p> <p>Optical soliton perturbation with Kudryashov's law of arbitrary refractive index Yildirim, Y; Biswas, A; (...); Belic, MR Jun 2021 Mar 2021 (Early Access) JOURNAL OF OPTICS-INDIA 50 (2) , pp.245-252</p> <p>Optical solitons and conservation law with Kudryashov's form of arbitrary refractive index Yildirim, Y; Biswas, A; (...); Belic, MR Dec 2021 Mar 2021 (Early Access) JOURNAL OF OPTICS-INDIA 50 (4) , pp.542-547</p> <p>Cubic-quartic optical soliton perturbation with Kudryashov's law of refractive index having quadrupled-power law and dual form of generalized nonlocal nonlinearity by sine-Gordon equation approach Yildirim, Y; Biswas, A; (...); Belic, MR Dec 2021 Mar 2021 (Early Access) JOURNAL OF OPTICS-INDIA 50 (4) , pp.593-599</p> <p>Optical soliton perturbation with Kudryashov's law of refractive index by modified sub-ODE approach Zayed, EME; Alngar, MEM; (...); Belic, MR Mar 2021 JOURNAL OF NONLINEAR OPTICAL PHYSICS & MATERIALS 30 (01N02)</p> <p>An integrable (2+1)-dimensional nonlinear Schrodinger system and its optical soliton solutions Hosseini, K; Sadri, K; (...); Salahshour, S Mar 2021 OPTIK 229</p> <p>Optical solitons for the perturbed Biswas-Milovic equation with Kudryashov's law of refractive index by the unified auxiliary equation method Zayed, EME; Gepreel, KA; (...); Yildirim, Y Mar 2021 OPTIK 230</p> <p>Addendum to Kudryashov's method for finding solitons in magneto-optics waveguides to cubic-quartic NLSE with Kudryashov's sextic power law of refractive index</p>	
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	<p>Zayed, EME; Gepreel, KA and Alngar, MEM Mar 2021 OPTIK 230</p> <p>Bright and dark solitons of a weakly nonlocal Schrodinger equation involving the parabolic law nonlinearity Hosseini, K; Salahshour, S and Mirzazadeh, M Feb 2021 OPTIK 227</p> <p>Three distinct and impressive visions for the soliton solutions to the higher-order nonlinear Schrodinger equation Bekir, A and Zahran, E Feb 2021 OPTIK 228</p> <p>Cubic-quartic optical soliton perturbation and conservation laws with generalized Kudryashov's form of refractive index Yildirim, Y; Biswas, A; (...); Belic, MR Sep 2021 Jan 2021 (Early Access) JOURNAL OF OPTICS-INDIA 50 (3) , pp.354-360</p> <p>Cubic-quartic optical solitons having quadratic-cubic nonlinearity by sine-Gordon equation approach Yildirim, Y; Biswas, A; (...); Belic, MR 2021 UKRAINIAN JOURNAL OF PHYSICAL OPTICS 22 (4) , pp.255-269</p> <p>Optical solitons and conservation laws associated with Kudryashov's sextic power-law nonlinearity of refractive index Zayed, EME; Shohib, RMA; (...); Belic, MR 2021 UKRAINIAN JOURNAL OF PHYSICAL OPTICS 22 (1) , pp.38-49</p>	
	<p>8. Optical soliton perturbation in magneto-optic waveguides with spatio-temporal dispersion Vega-Guzman, J; Alshaery, AA; (...); Biswas, A Sep-oct 2014 JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS 16 (9-10) , pp.1063-1070</p> <p>Citat de:</p> <p>Optical singular and dark solitons to the nonlinear Schrodinger equation in magneto-optic waveguides with anti-cubic nonlinearity Mathanaranjan, T; Rezazadeh, H; (...); Akinyemi, L Dec 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (12)</p> <p>Conservation laws for solitons in magneto-optic waveguides with dual-power law nonlinearity Biswas, A; Vega-Guzman, JM; (...); Belic, MR Nov 17 2021 PHYSICS LETTERS A 416</p> <p>Construction of optical solitons of magneto-optic waveguides with anti-cubic law nonlinearity</p>	130

	<p>Asjad, MI; Ullah, N; (...); Inc, M Nov 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (11)</p> <p>New multiple-different impressive perceptions for the solitary solution to the magneto-optic waveguides with anti-cubic nonlinearity Bekir, A and Zahran, EHM Aug 2021 OPTIK 240</p> <p>Solitons in magneto-optics waveguides for the nonlinear Biswas-Milovic equation with Kudryashov's law of refractive index using the unified auxiliary equation method Zayed, EME; Gepreel, KA; (...); Alngar, MEM Jun 2021 OPTIK 235</p> <p>Addendum to Kudryashov's method for finding solitons in magneto-optics waveguides to cubic-quartic NLSE with Kudryashov's sextic power law of refractive index Zayed, EME; Gepreel, KA and Alngar, MEM Mar 2021 OPTIK 230</p> <p>Sub pico-second Soliton with Triki-Biswas equation by the extended ($G'/G(2)$)-expansion method and the modified auxiliary equation method Akram, G and Gillani, SR Mar 2021 OPTIK 229</p> <p>Optical solitons with Biswas-Arshed equation by F-expansion method Yildirim, Y Feb 2021 OPTIK 227</p> <p>Optical envelope patterns in nonlinear media modeled by the Lakshmanan-Porsezian-Daniel equation Xin, H Feb 2021 OPTIK 227</p> <p>Investigation of exact soliton solutions in magneto-optic waveguides and its stability analysis Younas, U and Ren, JL Feb 2021 RESULTS IN PHYSICS 21</p> <p>Solitons and conservation laws in magneto-optic waveguides with generalized Kudryashov's equation Zayed, EME; Alngar, MEM; (...); Belic, MR Feb 2021 CHINESE JOURNAL OF PHYSICS 69 , pp.186-205</p> <p>Highly dispersive optical solitons perturbation having Kudryashov's arbitrary form with sextic-power law refractive index and generalized non-local laws Nofal, TA; Zayed, EME; (...); Ekici, M Feb 2021 OPTIK 228</p> <p>Highly dispersive optical solitons with non-local law of refractive index by Laplace-Adomian decomposition</p>	
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	<p>Gonzalez-Gaxiola, O; Biswas, A; (...); Alzahrani, AK Jan 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (1)</p>	
	<p>9.CONSERVATION LAWS OF COUPLED KLEIN-GORDON EQUATIONS WITH CUBIC AND POWER LAW NONLINEARITIES Biswas, A; Kara, AH; (...); Zaman, FD Apr-jun 2014 PROCEEDINGS OF THE ROMANIAN ACADEMY SERIES A-MATHEMATICS PHYSICS TECHNICAL SCIENCES INFORMATION SCIENCE 15 (2) , pp.123-129</p> <p>Citat de:</p> <p>The error estimations of a two-level linearized compact ADI method for solving the nonlinear coupled wave equations Deng, DW and Wu, Q Jul 2021 (Early Access) NUMERICAL ALGORITHMS</p> <p>The studies of the linearly modified energy-preserving finite difference methods applied to solve two-dimensional nonlinear coupled wave equations Deng, DW and Wu, Q Dec 2021 Apr 2021 (Early Access) NUMERICAL ALGORITHMS 88 (4) , pp.1875-1914</p>	<p>20</p>
	<p>10.OPTICAL SOLITONS IN MULTI-DIMENSIONS WITH SPATIO-TEMPORAL DISPERSION AND NON-KERR LAW NONLINEARITY Xu, YN; Jovanoski, Z; (...); Biswas, A Sep 2013 JOURNAL OF NONLINEAR OPTICAL PHYSICS & MATERIALS 22 (3)</p> <p>Citat de:</p> <p>Soliton structures of a nonlinear Schrodinger equation involving the parabolic law Salahshour, S; Hosseini, K; (...); Baleanu, D Dec 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (12)</p> <p>The bright and singular solitons of (2+1)-dimensional nonlinear Schrodinger equation with spatio-temporal dispersions Akinyemi, L; Hosseini, K and Salahshour, S Sep 2021 OPTIK 242</p> <p>Sub pico-second Soliton with Triki-Biswas equation by the extended (G 'G(2))-expansion method and the modified auxiliary equation method Akram, G and Gillani, SR Mar 2021 OPTIK 229</p> <p>1-Soliton solutions of the (2+1)-dimensional Heisenberg ferromagnetic spin chain model with the beta time derivative Hosseini, K; Kaur, L; (...); Baskonus, HM Feb 12 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (2)</p> <p>Optical solitons with Biswas-Arshed equation by F-expansion method Yildirim, Y</p>	<p>130</p>

	<p>Feb 2021 OPTIK 227</p> <p>Bright and dark solitons of a weakly nonlocal Schrodinger equation involving the parabolic law nonlinearity Hosseini, K; Salahshour, S and Mirzazadeh, M Feb 2021 OPTIK 227</p> <p>Optical envelope patterns in nonlinear media modeled by the Lakshmanan-Porsezian-Daniel equation Xin, H Feb 2021 OPTIK 227</p> <p>Optical solitons of (2+1)-dimensional nonlinear Schrodinger equation involving linear and nonlinear effects Matinfar, M and Hosseini, K Feb 2021 OPTIK 228</p> <p>Highly dispersive optical solitons perturbation having Kudryashov's arbitrary form with sextic-power law refractive index and generalized non-local laws Nofal, TA; Zayed, EME; (...); Ekici, M Feb 2021 OPTIK 228</p> <p>Optical solutions of Sasa-Satsuma equation in optical fibers Sun, F Feb 2021 OPTIK 228</p> <p>Soliton Solutions of High-order Nonlinear Schrodinger Equations with Different Laws of Nonlinearities Hosseini, K; Matinfar, M and Mirzazadeh, M Jan 2021 REGULAR & CHAOTIC DYNAMICS 26 (1) , pp.105-112</p> <p>Highly dispersive optical solitons with non-local law of refractive index by Laplace-Adomian decomposition Gonzalez-Gaxiola, O; Biswas, A; (...); Alzahrani, AK Jan 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (1)</p>	
	<p>11.Singular optical solitons in birefringent nano-fibers Savescu, M; Zhou, Q; (...); Belic, M 2016 OPTIK 127 (20) , pp.8995-9000</p> <p>Citat de</p> <p>New optical soliton solutions of Biswas-Arshed model with Kerr law nonlinearity Tripathy, A; Sahoo, S; (...); Abdou, MA Oct 20 2021 INTERNATIONAL JOURNAL OF MODERN PHYSICS B 35 (26)</p> <p>A second-order nonlinear Schrodinger equation with weakly nonlocal and parabolic laws and its optical solitons Mirzazadeh, M; Hosseini, K; (...); Salahshour, S</p>	70

	<p>Sep 2021 OPTIK 242</p> <p>An integrable (2+1)-dimensional nonlinear Schrodinger system and its optical soliton solutions Hosseini, K; Sadri, K; (...); Salahshour, S Mar 2021 OPTIK 229</p> <p>1-Soliton solutions of the (2+1)-dimensional Heisenberg ferromagnetic spin chain model with the beta time derivative Hosseini, K; Kaur, L; (...); Baskonus, HM Feb 12 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (2)</p> <p>Optical solitons of (2+1)-dimensional nonlinear Schrodinger equation involving linear and nonlinear effects Matinfar, M and Hosseini, K Feb 2021 OPTIK 228</p> <p>Optical solutions of Sasa-Satsuma equation in optical fibers Sun, F Feb 2021 OPTIK 228</p> <p>Soliton Solutions of High-order Nonlinear Schrodinger Equations with Different Laws of Nonlinearities Hosseini, K; Matinfar, M and Mirzazadeh, M Jan 2021 REGULAR & CHAOTIC DYNAMICS 26 (1) , pp.105-112</p>	
	<p>12. BRIGHT AND DARK SOLITON SOLUTIONS OF THE GENERALIZED ZAKHAROV-KUZNETSOV-BENJAMIN-BONA-MAHONY NONLINEAR EVOLUTION EQUATION Guner, O; Bekir, A; (...); Biswas, A Jul-sep 2015 PROCEEDINGS OF THE ROMANIAN ACADEMY SERIES A-MATHEMATICS PHYSICS TECHNICAL SCIENCES INFORMATION SCIENCE 16 (3) , pp.422-429</p> <p>Citat de</p> <p>Dynamics of new optical solitons for the Triki-Biswas model using beta-time derivative Zafar, A; Bekir, A; (...); Mustafa, S Dec 10 2021 MODERN PHYSICS LETTERS B 35 (34)</p> <p>M-truncated optical solitons to a nonlinear Schrodinger equation describing the pulse propagation through a two-mode optical fiber Yusuf, A; Sulaiman, TA; (...); Hosseini, K Oct 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (10)</p> <p>A second-order nonlinear Schrodinger equation with weakly nonlocal and parabolic laws and its optical solitons Mirzazadeh, M; Hosseini, K; (...); Salahshour, S Sep 2021 OPTIK 242</p>	80

	<p>Study of W-shaped, V-shaped, and other type of surfaces of the ZK-BBM and GZD-BBM equations Kayum, MA; Roy, R; (...); Osman, MS Jul 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (7)</p> <p>An integrable (2+1)-dimensional nonlinear Schrodinger system and its optical soliton solutions Hosseini, K; Sadri, K; (...); Salahshour, S Mar 2021 OPTIK 229</p> <p>1-Soliton solutions of the (2+1)-dimensional Heisenberg ferromagnetic spin chain model with the beta time derivative Hosseini, K; Kaur, L; (...); Baskonus, HM Feb 12 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (2)</p> <p>Optical solitons of (2+1)-dimensional nonlinear Schrodinger equation involving linear and nonlinear effects Matinfar, M and Hosseini, K Feb 2021 OPTIK 228</p> <p>Soliton Solutions of High-order Nonlinear Schrodinger Equations with Different Laws of Nonlinearities Hosseini, K; Matinfar, M and Mirzazadeh, M Jan 2021 REGULAR & CHAOTIC DYNAMICS 26 (1) , pp.105-112</p>	
	<p>13.Solitons in optical metamaterials by F-expansion scheme Ebadi, G; Mojaver, A; (...); Belic, M Sep-oct 2014 OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS 8 (9-10) , pp.828-832</p> <p>Citat de</p> <p>Traveling wave with beta derivative spatial-temporal evolution for describing the nonlinear directional couplers with metamaterials via two distinct methods Uddin, MF; Hafez, MG; (...); Baleanu, D Feb 2021 ALEXANDRIA ENGINEERING JOURNAL 60 (1) , pp.1055-1065</p>	10
	<p>14.Conservation laws for optical solitons with Chen-Lee-Liu equation Kara, AH; Biswas, A; (...); Belic, M 2018 OPTIK 174 , pp.195-198</p> <p>Citat de</p> <p>The (3+1)-dimensional Wazwaz-KdV equations: the conservation laws and exact solutions Akbulut, A; Rezazadeh, H; (...); Tascan, F Nov 2021 (Early Access) INTERNATIONAL JOURNAL OF NONLINEAR SCIENCES AND NUMERICAL SIMULATION</p> <p>On pulse propagation of soliton wave solutions related to the perturbed Chen-Lee-Liu equation in an optical fiber</p>	170

	<p>Baskonus, HM; Osman, MS; (...); Ashraf, S Oct 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (10)</p> <p>New conservation laws and exact solutions of coupled Burgers' equation Akbulut, A; Hashemi, MS and Rezazadeh, H Sep 2021 (Early Access) WAVES IN RANDOM AND COMPLEX MEDIA</p> <p>Optical Solitons for Chen-Lee-Liu Equation with Two Spectral Collocation Approaches Abdelkawy, MA; Ezz-Eldien, SS; (...); Belic, MR Sep 2021 COMPUTATIONAL MATHEMATICS AND MATHEMATICAL PHYSICS 61 (9) , pp.1432-1443</p> <p>A second-order nonlinear Schrodinger equation with weakly nonlocal and parabolic laws and its optical solitons Mirzazadeh, M; Hosseini, K; (...); Salahshour, S Sep 2021 OPTIK 242</p> <p>Reliable methods to look for analytical and numerical solutions of a nonlinear differential equation arising in heat transfer with the conformable derivative Hosseini, K; Sadri, K; (...); Salahshour, S Jun 2021 (Early Access) MATHEMATICAL METHODS IN THE APPLIED SCIENCES</p> <p>New solutions to the fractional perturbed Chen-Lee-Liu equation with a new local fractional derivative Yepez-Martinez, H; Rezazadeh, H; (...); Akinlar, MA May 2021 (Early Access) WAVES IN RANDOM AND COMPLEX MEDIA</p> <p>Different wave structures to the Chen-Lee-Liu equation of monomode fibers and its modulation instability analysis Bilal, M; Hu, WC and Ren, JL Apr 11 2021 EUROPEAN PHYSICAL JOURNAL PLUS 136 (4)</p> <p>Investigation of optical solitons with Chen-Lee-Liu equation of monomode fibers by five free parameters Younis, M; Younas, U; (...); Rizvi, STR Apr 2021 (Early Access) INDIAN JOURNAL OF PHYSICS</p> <p>Sub pico-second Soliton with Triki-Biswas equation by the extended (G'/G(2))-expansion method and the modified auxiliary equation method Akram, G and Gillani, SR Mar 2021 OPTIK 229</p> <p>Numerical investigation of the Adomian-based methods with w-shaped optical solitons of Chen-Lee-Liu equation Mohammed, ASHF and Bakodah, HO Mar 2021 PHYSICA SCRIPTA 96 (3)</p> <p>Optical solitons with Biswas-Arshed equation by F-expansion method</p>	
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	<p>Yildirim, Y Feb 2021 OPTIK 227</p> <p>Bright and dark solitons of a weakly nonlocal Schrodinger equation involving the parabolic law nonlinearity Hosseini, K; Salahshour, S and Mirzazadeh, M Feb 2021 OPTIK 227</p> <p>Optical solutions of Sasa-Satsuma equation in optical fibers Sun, F Feb 2021 OPTIK 228</p> <p>Optical envelope patterns in nonlinear media modeled by the Lakshmanan-Porsezian-Daniel equation Xin, H Feb 2021 OPTIK 227</p> <p>Highly dispersive optical solitons perturbation having Kudryashov's arbitrary form with sextic-power law refractive index and generalized non-local laws Nofal, TA; Zayed, EME; (...); Ekici, M Feb 2021 OPTIK 228</p> <p>Highly dispersive optical solitons with non-local law of refractive index by Laplace-Adomian decomposition Gonzalez-Gaxiola, O; Biswas, A; (...); Alzahrani, AK Jan 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (1)</p>	
	<p>15.Optical solitons in multiple-core couplers Alshaery, AA; Hilal, EM; (...); Biswas, A May-jun 2014 JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS 16 (5-6) , pp.750-758</p> <p>Citat de</p> <p>On traveling wave solutions: the decoupled nonlinear Schrodinger equations with inter modal dispersion Younis, M; Rizvi, STR; (...); Bekir, A Win 2021 COMPUTATIONAL METHODS FOR DIFFERENTIAL EQUATIONS 9 (1) , pp.52-62</p> <p>Sub pico-second Soliton with Triki-Biswas equation by the extended (G'/G(2))-expansion method and the modified auxiliary equation method Akram, G and Gillani, SR Mar 2021 OPTIK 229</p> <p>Traveling wave with beta derivative spatial-temporal evolution for describing the nonlinear directional couplers with metamaterials via two distinct methods Uddin, MF; Hafez, MG; (...); Baleanu, D Feb 2021 ALEXANDRIA ENGINEERING JOURNAL 60 (1) , pp.1055-1065</p>	80

	<p>Optical solitons with Biswas-Arshed equation by F-expansion method Yildirim, Y Feb 2021 OPTIK 227</p> <p>Optical envelope patterns in nonlinear media modeled by the Lakshmanan-Porsezian-Daniel equation Xin, H Feb 2021 OPTIK 227</p> <p>Highly dispersive optical solitons perturbation having Kudryashov's arbitrary form with sextic-power law refractive index and generalized non-local laws Nofal, TA; Zayed, EME; (...); Ekici, M Feb 2021 OPTIK 228</p> <p>Optical solutions of Sasa-Satsuma equation in optical fibers Sun, F Feb 2021 OPTIK 228</p> <p>Highly dispersive optical solitons with non-local law of refractive index by Laplace-Adomian decomposition Gonzalez-Gaxiola, O; Biswas, A; (...); Alzahrani, AK Jan 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (1)</p>	
	<p>16. Thyroid Nodule Recognition Based on Feature Selection and Pixel Classification Methods Bibicu, D; Moraru, L and Biswas, A Feb 2013 JOURNAL OF DIGITAL IMAGING 26 (1) , pp.119-128</p> <p>Citat de</p> <p>Discrete wavelet transform-based freezing of gait detection in Parkinson's disease El-Attar, A; Ashour, AS; (...); Sherratt, RS Jul 4 2021 JOURNAL OF EXPERIMENTAL & THEORETICAL ARTIFICIAL INTELLIGENCE 33 (4) , pp.543-559</p> <p>Automated detection and recognition of thyroid nodules in ultrasound images using Improve Cascade Mask R-CNN Zheng, YH; Qin, LN; (...); Xue, ZX May 2021 (Early Access) MULTIMEDIA TOOLS AND APPLICATIONS</p> <p>Differential Diagnosis of Malignant Thyroid Calcification Nodule Based on Computed Tomography Image Texture Peng, WX; Qian, YJ; (...); Xiao, H Mar 2021 JOURNAL OF MEDICAL IMAGING AND HEALTH INFORMATICS 11 (3) , pp.767-772</p> <p>Thyroid nodule recognition using a joint convolutional neural network with information fusion of ultrasound images and radiofrequency data Liu, Z; Zhong, SB; (...); Zou, RH</p>	40

	Jul 2021 Jan 2021 (Early Access) EUROPEAN RADIOLOGY 31 (7) , pp.5001-5011	
	<p>17. Optical solitons in photonic crystal fibers with spatially inhomogeneous nonlinearities Zhou, Q; Zhu, QP; (...); Biswas, A Nov-dec 2014 OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS 8 (11-12) , pp.995-997</p> <p>Citat de</p> <p>M-truncated optical solitons to a nonlinear Schrodinger equation describing the pulse propagation through a two-mode optical fiber Yusuf, A; Sulaiman, TA; (...); Hosseini, K Oct 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (10)</p> <p>A second-order nonlinear Schrodinger equation with weakly nonlocal and parabolic laws and its optical solitons Mirzazadeh, M; Hosseini, K; (...); Salahshour, S Sep 2021 OPTIK 242</p> <p>An integrable (2+1)-dimensional nonlinear Schrodinger system and its optical soliton solutions Hosseini, K; Sadri, K; (...); Salahshour, S Mar 2021 OPTIK 229</p> <p>1-Soliton solutions of the (2+1)-dimensional Heisenberg ferromagnetic spin chain model with the beta time derivative Hosseini, K; Kaur, L; (...); Baskonus, HM Feb 12 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (2)</p> <p>Optical solitons of (2+1)-dimensional nonlinear Schrodinger equation involving linear and nonlinear effects Matinfar, M and Hosseini, K Feb 2021 OPTIK 228</p> <p>Soliton Solutions of High-order Nonlinear Schrodinger Equations with Different Laws of Nonlinearities Hosseini, K; Matinfar, M and Mirzazadeh, M Jan 2021 REGULAR & CHAOTIC DYNAMICS 26 (1) , pp.105-112</p>	60
	<p>18. Optical solitons with quadratic nonlinearity and spatio-temporal dispersion Savescu, M; Hilal, EM; (...); Biswas, A May-jun 2014 JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS 16 (5-6) , pp.619-623</p> <p>Citat de</p> <p>The chaotic, supernonlinear, periodic, quasiperiodic wave solutions and solitons with cascaded system Raza, N; Jhangeer, A; (...); Inc, M</p>	10

	<p>Jun 2021 (Early Access) WAVES IN RANDOM AND COMPLEX MEDIA</p> <p>19.CHARACTERIZATION OF MYOCARDIUM MUSCLE BIOSTRUCTURE USING FIRST ORDER FEATURES Moldovanu, S; Moraru, L and Bibicu, D Jul-sep 2011 DIGEST JOURNAL OF NANOMATERIALS AND BIOSTRUCTURES 6 (3) , pp.1357-1363</p> <p>Citat de</p> <p>MR-Based Radiomics for Differential Diagnosis between Cystic Pituitary Adenoma and Rathke Cleft Cyst Wang, YP; Chen, SX; (...); Zhang, ZQ Aug 11 2021 COMPUTATIONAL AND MATHEMATICAL METHODS IN MEDICINE 2021</p>	10
	<p>20. Optical soliton perturbation with Kudryashov's equation by semi-inverse variational principle Biswas, A; Asma, M; (...); Belic, MR Nov 27 2020 PHYSICS LETTERS A 384 (33)</p> <p>Citat de</p> <p>VARIATIONAL APPROACH TO FRACTAL SOLITARY WAVES He, JH; Hou, WF; (...); Hayat, T Nov 2021 FRACTALS-COMPLEX GEOMETRY PATTERNS AND SCALING IN NATURE AND SOCIETY 29 (07)</p> <p>The combined spatial soliton and breather solutions in the (2+1)-dimensional NLS equation of PT symmetric media Wang, SF and Xu, XJ Oct 2021 OPTIK 243</p> <p>A computational approach for finding the numerical solution of modified unstable nonlinear Schrodinger equation via Haar wavelets Abdullah, A and Rafiq, M Jan 30 2022 Sep 2021 (Early Access) MATHEMATICAL METHODS IN THE APPLIED SCIENCES 45 (2) , pp.681-696</p> <p>Dispersion and phase managed optical soliton solutions of a nonautonomous (3+1)-dimensional coupled nonlinear Schrodinger equation Kumar, V and Patel, A Sep 2021 OPTIK 242</p> <p>Soliton, breather and rogue wave solutions for the Myrzakulov-Lakshmanan-IV equation Wang, HR and Guo, R Sep 2021 OPTIK 242</p> <p>A second-order nonlinear Schrodinger equation with weakly nonlocal and parabolic laws and its optical solitons Mirzazadeh, M; Hosseini, K; (...); Salahshour, S</p>	120

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	<p>21. Gaussian mixture model for texture characterization with application to brain DTI images Moraru, L; Moldoyanu, S; (...); Biswas, A Mar 2019 JOURNAL OF ADVANCED RESEARCH 16 , pp.15-23</p> <p>Citat de</p> <p>Unsupervised Feature Learning Using Recurrent Neural Nets for Segmenting Hyperspectral Images Tulczyjew, L; Kawulok, M and Nalepa, J Dec 2021 IEEE GEOSCIENCE AND REMOTE SENSING LETTERS 18 (12) , pp.2142-2146</p> <p>Restoration and quality improvement of distorted tribal artworks using Particle Swarm Optimization (PSO) technique along with nonlinear filtering Kaur, M and Dutta, MK</p>	170

	<p>Nov 2021 OPTIK 245</p> <p>Investigation on quality enhancement of old and fragile artworks using non-linear filter and histogram equalization techniques Kaur, M; Sarkar, RK and Dutta, MK Oct 2021 OPTIK 244</p> <p>A Medical Image Registration Method Based on Progressive Images Zheng, Q; Wang, Q; (...); Zhang, SZ Jul 28 2021 COMPUTATIONAL AND MATHEMATICAL METHODS IN MEDICINE 2021</p> <p>Permafrost Dynamics Observatory-Part I: Postprocessing and Calibration Methods of UAVSAR L-Band InSAR Data for Seasonal Subsidence Estimation Michaelides, RJ; Chen, RCH; (...); Chen, JY Jul 2021 EARTH AND SPACE SCIENCE 8 (7)</p> <p>Assessment of regional drought vulnerability and risk using principal component analysis and a Gaussian mixture model Kim, JE; Yu, J; (...); Kim, TW Oct 2021 Jun 2021 (Early Access) NATURAL HAZARDS 109 (1) , pp.707-724</p> <p>Extraction of Coronary Atherosclerotic Plaques From Computed Tomography Imaging: A Review of Recent Methods Liu, HP; Wingert, A; (...); Zheng, DC Feb 10 2021 FRONTIERS IN CARDIOVASCULAR MEDICINE 8</p>	
	<p>22.Optimization of breast lesion segmentation in texture feature space approach Moraru, L; Moldovanu, S and Biswas, A Jan 2014 MEDICAL ENGINEERING & PHYSICS 36 (1) , pp.129-135</p> <p>Citat de</p> <p>Radiomics Analysis Based on Automatic Image Segmentation of DCE-MRI for Predicting Triple-Negative and Nontriple-Negative Breast Cancer Ma, MM; Gan, LY; (...); Wang, XY Aug 10 2021 COMPUTATIONAL AND MATHEMATICAL METHODS IN MEDICINE 2021</p>	10
	<p>23. Optical pressure sensors based plantar image segmenting using an improved fully convolutional network Wang, D; Li, ZR; (...); Shi, FQ 2019 OPTIK 179 , pp.99-114</p> <p>Citat de</p> <p>Eye-Tracking Signals Based Affective Classification Employing Deep Gradient Convolutional Neural Networks Li, YF; Deng, JG; (...); Wang, Y Dec 2021 INTERNATIONAL JOURNAL OF INTERACTIVE MULTIMEDIA AND ARTIFICIAL INTELLIGENCE 7 (2) , pp.34-43</p>	50

	<p>Restoration and quality improvement of distorted tribal artworks using Particle Swarm Optimization (PSO) technique along with nonlinear filtering Kaur, M and Dutta, MK Nov 2021 OPTIK 245</p> <p>Investigation on quality enhancement of old and fragile artworks using non-linear filter and histogram equalization techniques Kaur, M; Sarkar, RK and Dutta, MK Oct 2021 OPTIK 244</p> <p>Plantar pressure image classification employing residual-network model-based conditional generative adversarial networks: a comparison of normal, planus, and talipes equinovarus feet Han, JL; Wang, D; (...); Shi, FQ Aug 2021 (Early Access) SOFT COMPUTING</p> <p>Experimental and numerical diagnosis of fatigue foot using convolutional neural network Sharifi, A; Ahmadi, M; (...); Pourasad, Y Dec 6 2021 Apr 2021 (Early Access) COMPUTER METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING 24 (16) , pp.1828-1840</p>	
	<p>24. Dey N., Chaki J., Moraru L., Fong S., Yang XS. (2020) Firefly Algorithm and Its Variants in Digital Image Processing: A Comprehensive Review. In: Dey N. (eds) Applications of Firefly Algorithm and its Variants. Springer Tracts in Nature-Inspired Computing. Springer, Singapore. https://doi.org/10.1007/978-981-15-0306-1_1</p> <p>Citat de</p> <p>A new metaheuristic approach based on orbit in the multi-objective optimization of wireless sensor networks R Özdağ, M Canayaz - Wireless Networks, 2021 – Springer</p> <p>Fully automatic grayscale image segmentation based fuzzy C-means with firefly mate algorithm W Alomoush, A Alrosan, YM Alomari... - Journal of Ambient ..., 2021 – Springer</p> <p>Solving constrained economic electrical energy generation and CO2 emission dispatch using hybrid algorithm SDS Jebaseelan, NBM Selvan, C Kumar... - ... Technology & Innovation, 2021 – Elsevier</p> <p>A hybrid approach of density-based topology, multilayer perceptron, and water cycle-moth flame algorithm for multi-stage optimal design of a flexure ... N Le Chau, NT Tran, TP Dao - Engineering with Computers, 2021 – Springer</p> <p>An Optimal Energy Management System for University Campus Using the Hybrid Firefly Lion Algorithm (FLA) H Ullah, M Khan, I Hussain, I Ullah, P Uthansakul... - Energies, 2021 - mdpi.com</p>	80

	<p>Classification of Brain Tumor Using Firefly Optimisation Algorithm B Sundaramurthy, A Mubarak, R Murali... - Annals of the ..., 2021 - annalsofrscb.ro</p> <p>An Enhanced Firefly Algorithm for Time Shared Grid Task Scheduling A Yousif - Applied Artificial Intelligence, 2021 - Taylor & Francis</p> <p>Hybrids of Support Vector Regression with Grey Wolf Optimizer and Firefly Algorithm for Spatial Prediction of Landslide Susceptibility R Liu, J Peng, Y Leng, S Lee, M Panahi, W Chen... - Remote Sensing, 2021 - mdpi.com</p>	
	<p>25. Natural radioactivity in drinking water from Galati and Vrancea areas, Romania V Pintilie, LP Georgescu, L Moraru, A Ene, C Iticescu Radiat Appl 1 (3), 165-170</p> <p>Citat de</p> <p>The assessment of the annual effective dose due to ingestion of radionuclides from drinking water consumption: calculation methods V Pintilie-Nicolov, PL Georgescu, C Iticescu... - ... of Radioanalytical and ..., 2021 - Springer</p>	10
	<p>26. Blood Pressure and Flow Values in small Vessels Angioarchitectures: Application for Diabetic Retinopathy L MORARU, CD Obreja, S Moldovanu, A Ene, A BISWAS Rom. Journ. Phys 61 (7-8), 1287-1298</p> <p>Citat de</p> <p>Investigation on quality enhancement of old and fragile artworks using non-linear filter and histogram equalization techniques M Kaur, RK Sarkar, MK Dutta - Optik, 2021 – Elsevier</p> <p>Restoration and quality improvement of distorted tribal artworks using Particle Swarm Optimization (PSO) technique along with nonlinear filtering M Kaur, MK Dutta - Optik, 2021 - Elsevier</p>	20
	<p>27. Digital Image Processing Using Wavelets: 71Basic Principles and Application L Moraru, S Moldovanu, S Khan, A Biswas Applied Machine Learning for Smart Data Analysis, 71-96</p> <p>Citat de</p> <p>Restoration and quality improvement of distorted tribal artworks using Particle Swarm Optimization (PSO) technique along with nonlinear filtering M Kaur, MK Dutta - Optik, 2021 – Elsevier</p> <p>Investigation on quality enhancement of old and fragile artworks using non-linear filter and histogram equalization techniques M Kaur, RK Sarkar, MK Dutta - Optik, 2021 - Elsevier</p>	20
	<p>28. Colored video analysis in wireless capsule endoscopy: a survey of state-of-the-art AS Ashour, N Dey, WS Mohamed, JG Tromp, RS Sherratt, F Shi, L Moraru Current medical imaging 16 (9), 1074-1084</p>	10

	<p>Citat de</p> <p>Registration of Consecutive Frames From Wireless Capsule Endoscopy for 3D Motion Estimation M Oliveira, H Araujo, IN Figueiredo, L Pinto... - IEEE ..., 2021 - ieeexplore.ieee.org</p> <p>Gastrointestinal Tract Disease Classification from Wireless Endoscopy Images Using Pretrained Deep Learning Model J Yogapriya, V Chandran, MG Sumithra... - ... methods in medicine, 2021 - hindawi.com</p>	
	<p>29. MEASUREMENTS OF GROSS ALPHA AND BETA ACTIVITY IN DRINKING WATER FROM GALATI REGION, ROMANIA Pintilie, V; Ene, A; (...); Iticescu, C 2016 ROMANIAN REPORTS IN PHYSICS 68 (3) , pp.1208-1220</p> <p>Citat de</p> <p>Measurement of Natural Radionuclides in Drinking Water and Risk Assessment in a Volcanic Region of Italy, Campania La Verde, G; Artiola, V; (...); Pugliese, M Nov 2021 WATER 13 (22)</p> <p>Impact of produced water discharge on the gross alpha and gross beta activity concentrations and radiological health risk on drinking water sources in coastal areas of Nigeria Oghenevovwero, EE; Agbalagba, EO and Gregory, OA Jan 2 2021 INTERNATIONAL JOURNAL OF AMBIENT ENERGY 42 (1) , pp.18-28</p>	20
	<p>30. Cardiac Cycle Phase Estimation in 2-D Echocardiographic Images Using an Artificial Neural Network Bibicu, D and Moraru, L May 2013 IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING 60 (5) , pp.1273-1279</p> <p>Citat de</p> <p>Neural Modeling of Fetal Biometric Parameters for Detection of Fetal Abnormality Rawat, V; Jain, A; (...); Raghuwansi, S Jul 4 2021 IETE JOURNAL OF RESEARCH 67 (4) , pp.546-558</p> <p>Fetal cardiac cycle detection in multi-resource echocardiograms using hybrid classification framework Pu, B; Zhu, NB; (...); Li, SL Feb 2021 FUTURE GENERATION COMPUTER SYSTEMS-THE INTERNATIONAL JOURNAL OF ESCIENCE 115 , pp.825-836</p>	20
	<p>31. Fragmented plant leaf recognition: Bag-of-features, fuzzy-color and edge-texture histogram descriptors with multi-layer perceptron</p>	20

	<p>Chaki, J; Dey, N; (...); Shi, FQ 2019 OPTIK 181 , pp.639-650</p> <p>Citat de</p> <p>Recognition of leaves of different medicinal plant species using a robust image processing algorithm and artificial neural networks classifier Azadnia, R and Kheiralipour, K Dec 2021 JOURNAL OF APPLIED RESEARCH ON MEDICINAL AND AROMATIC PLANTS 25</p> <p>Detecting White Cotton Bolls Using High-Resolution Aerial Imagery Acquired Through Unmanned Aerial System Xu, ZJ; Latif, MA; (...); Habib, MA 2021 IEEE ACCESS 9 , pp.169068-169081</p>	
	<p>32.Texture analysis of parasitological liver fibrosis images Moraru, L; Moldovanu, S; (...); Dey, N Aug 2017 MICROSCOPY RESEARCH AND TECHNIQUE 80 (8) , pp.862-869</p> <p>Citat de</p> <p>A clustering based Swarm Intelligence optimization technique for the Internet of Medical Things El-shafeiy, E; Sallam, KM; (...); Abohany, AA Jul 1 2021 EXPERT SYSTEMS WITH APPLICATIONS 173</p>	10
	<p>33.Level set method coupled with Energy Image features for brain MR image segmentation Punga, M; Gaurav, R and Moraru, L Jun 2014 BIOMEDICAL ENGINEERING-BIOMEDIZINISCHE TECHNIK 59 (3) , pp.219-229</p> <p>Citat de</p> <p>Enhanced Segmentation of Inflamed ROI to Improve the Accuracy of Identifying Benign and Malignant Cases in Breast Thermogram Venkatachalam, N; Shanmugam, L; (...); Sasipriya, P Apr 21 2021 JOURNAL OF ONCOLOGY 2021</p> <p>A Joint Model for Macular Edema Analysis in Optical Coherence Tomography Images Based on Image Enhancement and Segmentation Tao, ZF; Zhang, WP; (...); Wang, ZH Feb 17 2021 BIOMED RESEARCH INTERNATIONAL 2021</p>	20
	<p>34. Optical solitons with Kudryashov's model by a range of integration norms Yildirim, Y; Biswas, A; (...); Belic, MR Aug 2020 CHINESE JOURNAL OF PHYSICS 66 , pp.660-672</p> <p>Citat de</p>	50

	<p>A second-order nonlinear Schrodinger equation with weakly nonlocal and parabolic laws and its optical solitons Mirzazadeh, M; Hosseini, K; (...); Salahshour, S Sep 2021 OPTIK 242</p> <p>In oceanography, acoustics and hydrodynamics: An extended coupled (2+1) - dimensional Burgers system Gao, XY; Guo, YJ and Shan, WR Apr 2021 CHINESE JOURNAL OF PHYSICS 70 , pp.264-270</p> <p>New extended direct algebraic method for the resonant nonlinear Schrodinger equation with Kerr law nonlinearity Vahidi, J; Zabihi, A; (...); Ansari, R Feb 2021 OPTIK 227</p> <p>Solitons and conservation laws in magneto-optic waveguides with generalized Kudryashov's equation Zayed, EME; Alngar, MEM; (...); Belic, MR Feb 2021 CHINESE JOURNAL OF PHYSICS 69 , pp.186-205</p> <p>Highly dispersive optical solitons perturbation having Kudryashov's arbitrary form with sextic-power law refractive index and generalized non-local laws Nofal, TA; Zayed, EME; (...); Ekici, M Feb 2021 OPTIK 228</p>	
	<p>35..An efficient local binary pattern based plantar pressure optical sensor image classification using convolutional neural networks Wang, CL; Li, DH; (...); Shi, FQ 2019 OPTIK 185 , pp.543-557</p> <p>Citat de</p> <p>Restoration and quality improvement of distorted tribal artworks using Particle Swarm Optimization (PSO) technique along with nonlinear filtering Kaur, M and Dutta, MK Nov 2021 OPTIK 245</p> <p>Investigation on quality enhancement of old and fragile artworks using non-linear filter and histogram equalization techniques Kaur, M; Sarkar, RK and Dutta, MK Oct 2021 OPTIK 244</p> <p>Plantar pressure image classification employing residual-network model-based conditional generative adversarial networks: a comparison of normal, planus, and talipes equinovarus feet Han, JL; Wang, D; (...); Shi, FQ Aug 2021 (Early Access) SOFT COMPUTING</p> <p>Extraction and Evaluation of Corpus Callosum from 2D Brain MRI Slice: A Study with Cuckoo Search Algorithm</p>	60

	<p>Manic, KS; Biju, R; (...); Uma, S Aug 2 2021 COMPUTATIONAL AND MATHEMATICAL METHODS IN MEDICINE 2021</p> <p>Experimental and numerical diagnosis of fatigue foot using convolutional neural network Sharifi, A; Ahmadi, M; (...); Pourasad, Y Dec 6 2021 Apr 2021 (Early Access) COMPUTER METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING 24 (16) , pp.1828-1840</p> <p>Tracing Mechanism of Sports Competition Pressure Based on Backpropagation Neural Network Zhao, HY and Liu, SN Feb 8 2021 COMPLEXITY 2021</p>	
	<p>36. Robust Skull-Stripping Segmentation Based on Irrational Mask for Magnetic Resonance Brain Images Moldovanu, S; Moraru, L and Biswas, A Dec 2015 JOURNAL OF DIGITAL IMAGING 28 (6) , pp.738-747</p> <p>Citat de</p> <p>Deep Learning-Based Post-Processing of Real-Time MRI to Assess and Quantify Dynamic Wrist Movement in Health and Disease Radke, KL; Wollschlager, LM; (...); Muller-Lutz, A Jun 2021 DIAGNOSTICS 11 (6)</p>	10
	<p>37. MULTI-RESOLUTION ANALYSIS OF WAVELET LIKE SOLITON SOLUTION OF KdV EQUATION Bhosale, B; Moraru, L; (...); Biswas, A Jan-mar 2014 PROCEEDINGS OF THE ROMANIAN ACADEMY SERIES A-MATHEMATICS PHYSICS TECHNICAL SCIENCES INFORMATION SCIENCE 15 (1) , pp.18-26</p> <p>Citat de</p> <p>A second-order nonlinear Schrodinger equation with weakly nonlocal and parabolic laws and its optical solitons Mirzazadeh, M; Hosseini, K; (...); Salahshour, S Sep 2021 OPTIK 242</p>	10
	<p>38. Study concerning the electrical resistivity of some liquid metals in ultrasonic field Moraru, L Feb 1999 CZECHOSLOVAK JOURNAL OF PHYSICS 49 (2) , pp.253-261</p> <p>Citat de</p> <p>Liquid structure of aluminum binary alloys characterized by electrical parameters under electromagnetic field Hu, WX; Zhang, JF and Le, QC Oct 2021 MATERIALS RESEARCH EXPRESS 8 (10)</p>	10
	<p>39. Texture anisotropy technique in brain degenerative diseases Moraru, L; Moldovanu, S; (...); Dey, N</p>	10

	<p>Sep 2018 NEURAL COMPUTING & APPLICATIONS 30 (5) , pp.1667-1677</p> <p>Citat de</p> <p>A Medical Image Registration Method Based on Progressive Images Zheng, Q; Wang, Q; (...); Zhang, SZ Jul 28 2021 COMPUTATIONAL AND MATHEMATICAL METHODS IN MEDICINE 2021</p>	
	<p>40. Dark, singular and straddled optical solitons in birefringent fibers with generalized anti-cubic nonlinearity Zayed, EME; Alngar, MEM; (...); Belic, MR Jul 16 2020 PHYSICS LETTERS A 384 (20)</p> <p>Citat de</p> <p>Cubic-quartic solitons for twin-core couplers in optical metamaterials Zayed, EME; Gepreel, KA; (...); Belic, MR Nov 2021 OPTIK 245</p> <p>Optical solitons with fractional temporal evolution in fiber bragg gratings with generalized anti-cubic nonlinearity by the fractional Riccati method Altwaty, AA; Hassan, SM and Masry, BRK Mar 2021 RESULTS IN PHYSICS 22</p> <p>New optical solitons perturbation in the birefringent fibers for the CGL equation with Kerr law nonlinearity using two integral schemes methods Gepreel, KA; Zayed, EME and Alngar, MEM Feb 2021 OPTIK 227</p>	30
	<p>41. Feature Selection of Non-Dermoscopic Skin Lesion Images for Nevus and Melanoma Classification Damian, FA; Moldovanu, S; (...); Moraru, L Jun 2020 COMPUTATION 8 (2)</p> <p>Citat de</p> <p>Dermoscopy Images Enhancement via Multi-Scale Morphological Operations Mello-Roman, JC; Noguera, JLV; (...); Mello-Roman, JD Oct 2021 APPLIED SCIENCES-BASEL 11 (19)</p> <p>Skin lesion image retrieval using transfer learning-based approach for query-driven distance recommendation Barhoumi, W and Khelifa, A Oct 2021 COMPUTERS IN BIOLOGY AND MEDICINE 137</p> <p>Automatic Detection of Melanins and Sebums from Skin Images Using a Generative Adversarial Network Hu, L; Chen, Q; (...); Ye, R Apr 2021 (Early Access) COGNITIVE COMPUTATION</p>	60

	<p>Genetic algorithm-based initial contour optimization for skin lesion border detection AS Ashour, RM Nagieb, HA El-Khobby... - Multimedia Tools and ..., 2021 – Springer</p> <p>A Content-Based Image Retrieval System for Diagnosis and Detection of Skin Cancer Using Self-Organizing Feature Maps K Sujatha, RS Ponmagal, R Hari, M Anand... - Digital Future of ..., 2021 - taylorfrancis.com</p> <p>Quantitative Comparison of Color Asymmetry Features for Automatic Melanoma Detection R Srivastava, EP Ong, BH Lee... - 2021 43rd Annual ..., 2021 - ieeeexplore.ieee.org</p>	
	<p>42. Multifractal analysis of ceramic pottery SEM images in Cucuteni-Tripolye culture Danila, E; Moraru, L; (...); Biswas, A 2018 OPTIK 164 , pp.538-546</p> <p>Citat de</p> <p>Restoration and quality improvement of distorted tribal artworks using Particle Swarm Optimization (PSO) technique along with nonlinear filtering Kaur, M and Dutta, MK Nov 2021 OPTIK 245</p> <p>Investigation on quality enhancement of old and fragile artworks using non-linear filter and histogram equalization techniques Kaur, M; Sarkar, RK and Dutta, MK Oct 2021 OPTIK 244</p>	20
	<p>43.Edge-Based Structural Similarity Analysis in Brain MR Images Moldovanu, S; Moraru, L and Biswas, A Apr 2016 JOURNAL OF MEDICAL IMAGING AND HEALTH INFORMATICS 6 (2) , pp.539-546</p> <p>Citat de</p> <p>Restoration and quality improvement of distorted tribal artworks using Particle Swarm Optimization (PSO) technique along with nonlinear filtering Kaur, M and Dutta, MK Nov 2021 OPTIK 245</p> <p>Investigation on quality enhancement of old and fragile artworks using non-linear filter and histogram equalization techniques Kaur, M; Sarkar, RK and Dutta, MK Oct 2021 OPTIK 244</p>	20
	<p>44.Highly dispersive optical solitons in birefringent fibers with four forms of nonlinear refractive index by three prolific integration schemes Yildirim, Y; Biswas, A; (...); Belic, MR Oct 2020 OPTIK 220</p> <p>Citat de</p>	40

	<p>Cubic-quartic solitons for twin-core couplers in optical metamaterials Zayed, EME; Gepreel, KA; (...); Belic, MR Nov 2021 OPTIK 245</p> <p>Optical solitons with Biswas-Arshed equation by F-expansion method Yildirim, Y Feb 2021 OPTIK 227</p> <p>Highly dispersive optical solitons with non-local law of refractive index by Laplace-Adomian decomposition Gonzalez-Gaxiola, O; Biswas, A; (...); Alzahrani, AK Jan 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (1)</p> <p>Highly dispersive optical solitons with quadratic-cubic law of refractive index by the variational iteration method Gonzalez-Gaxiola, O; Biswas, A; (...); Khan, S Jan 2021 (Early Access) JOURNAL OF OPTICS-INDIA</p>	
	<p>45. Optical Solitons with Kudryashov's Equation by Lie Symmetry Analysis Kumar, S; Malik, S; (...); Belic, MR Jul 2020 PHYSICS OF WAVE PHENOMENA 28 (3) , pp.299-304</p> <p>Citat de</p> <p>Different analytical approaches for finding novel optical solitons with generalized third-order nonlinear Schrodinger equation Malik, S; Kumar, S; (...); Saleel, CA Oct 2021 RESULTS IN PHYSICS 29</p> <p>Cubic-quartic optical solitons with Kudryashov's law of refractive index by Lie symmetry analysis Kumar, S and Malik, S Sep 2021 OPTIK 242</p> <p>Optical soliton with Kudryashov's equation via sine-Gordon expansion and Kudryashov methods Ali, KK; Zabihi, A; (...); Inc, M Jul 2021 OPTICAL AND QUANTUM ELECTRONICS 53 (7)</p> <p>Optical solitons and bifurcation analysis in fiber Bragg gratings with Lie symmetry and Kudryashov's approach Malik, S; Kumar, S; (...); Belic, MR Jul 2021 Jun 2021 (Early Access) NONLINEAR DYNAMICS 105 (1) , pp.735-751</p> <p>A (2+1)-dimensional Kadomtsev-Petviashvili equation with competing dispersion effect: Painleve analysis, dynamical behavior and invariant solutions Malik, S; Almusawa, H; (...); Osman, MS Apr 2021 RESULTS IN PHYSICS 23</p>	50

	<p>46. Dual feature selection and rebalancing strategy using metaheuristic optimization algorithms in X-ray image datasets Li, JY; Fong, S; (...); Moraru, L Aug 2019 MULTIMEDIA TOOLS AND APPLICATIONS 78 (15) , pp.20913-20933</p> <p>Citat de</p> <p>bSSA: Binary Salp Swarm Algorithm With Hybrid Data Transformation for Feature Selection Shekhawat, SS; Sharma, H; (...); Qureshi, B 2021 IEEE ACCESS 9 , pp.14867-14882</p>	10
	<p>47. Apparent Diffusion Coefficient of the Normal Human Brain for Various Experimental Conditions Moraru, L and Dimitrievici, L TIM15-16 Physics Conference 2017 TIM15-16 PHYSICS CONFERENCE 1796</p> <p>Citat de</p> <p>The diagnostic value of apparent diffusion coefficient to differentiate benign and malignant meningiomas Marissa, R; Rahayu, RF; (...); Soewondo, W May-aug 2021 UNIVERSA MEDICINA 40 (2) , pp.138-147</p> <p>Anatomic compartments extraction from diffusion medical images using factorial analysis and K-means clustering methods: a combined analysis tool Medeghri, H and Sabeur, SA Jul 2021 Mar 2021 (Early Access) MULTIMEDIA TOOLS AND APPLICATIONS 80 (16) , pp.23949-23962</p>	20
	<p>48. Viscosity of eutectic silumin alloy in ultrasonic field and estimation of melting temperature Moraru, L Sep 2007 INDIAN JOURNAL OF PURE & APPLIED PHYSICS 45 (9) , pp.733-737</p> <p>Citat de</p> <p>Numerical simulation of liquid aluminum leakage in casting process Kong, LY; Liu, XZ; (...); Liu, AM Jan 2021 TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA 31 (1) , pp.297-305</p>	10
	<p>49. Towards Accurate Diagnosis of Skin Lesions Using Feedforward Back Propagation Neural Networks Moldovanu, S; Obreja, CD; (...); Moraru, L Jun 2021 DIAGNOSTICS 11 (6)</p> <p>Citat de</p> <p>Restoration and quality improvement of distorted tribal artworks using Particle Swarm Optimization (PSO) technique along with nonlinear filtering</p>	30

	<p>Kaur, M and Dutta, MK Nov 2021 OPTIK 245</p> <p>Investigation on quality enhancement of old and fragile artworks using non-linear filter and histogram equalization techniques Kaur, M; Sarkar, RK and Dutta, MK Oct 2021 OPTIK 244</p> <p>MR-Based Radiomics for Differential Diagnosis between Cystic Pituitary Adenoma and Rathke Cleft Cyst Wang, YP; Chen, SX; (...); Zhang, ZQ Aug 11 2021 COMPUTATIONAL AND MATHEMATICAL METHODS IN MEDICINE 2021</p>	
	<p>50. Cubic-quartic optical soliton perturbation with Kudryashov's law of refractive index having quadrupled-power law and dual form of generalized nonlocal nonlinearity by sine-Gordon equation approach Yildirim, Y; Biswas, A; (...); Belic, MR Dec 2021 Mar 2021 (Early Access) JOURNAL OF OPTICS-INDIA 50 (4) , pp.593-599</p> <p>Citat de</p> <p>Cubic-quartic optical solitons with Kudryashov's arbitrary form of nonlinear refractive index Zayed, EME; Shohib, RMA; (...); Belic, MR Jul 2021 OPTIK 238</p> <p>Optical solitons in fiber Bragg gratings with dispersive reflectivity by sine-Gordon equation approach Yildirim, Y; Biswas, A; (...); Belic, MR Jul 2021 OPTIK 237</p> <p>Optical soliton perturbation with Kudryashov's law of arbitrary refractive index Yildirim, Y; Biswas, A; (...); Belic, MR Jun 2021 Mar 2021 (Early Access) JOURNAL OF OPTICS-INDIA 50 (2) , pp.245-252</p> <p>Cubic-quartic optical solitons having quadratic-cubic nonlinearity by sine-Gordon equation approach Yildirim, Y; Biswas, A; (...); Belic, MR 2021 UKRAINIAN JOURNAL OF PHYSICAL OPTICS 22 (4) , pp.255-269</p>	40
	<p>51. Combining Sparse and Dense Features to Improve Multi-Modal Registration for Brain DTI Images Moldovanu, S; Toporas, LP; (...); Moraru, L Nov 2020 ENTROPY 22 (11)</p> <p>Citat de</p>	30

	<p>Restoration and quality improvement of distorted tribal artworks using Particle Swarm Optimization (PSO) technique along with nonlinear filtering Kaur, M and Dutta, MK Nov 2021 OPTIK 245</p> <p>Investigation on quality enhancement of old and fragile artworks using non-linear filter and histogram equalization techniques Kaur, M; Sarkar, RK and Dutta, MK Oct 2021 OPTIK 244</p> <p>A Medical Image Registration Method Based on Progressive Images Zheng, Q; Wang, Q; (...); Zhang, SZ Jul 28 2021 COMPUTATIONAL AND MATHEMATICAL METHODS IN MEDICINE 2021</p>	
	<p>52. Optical solitons with differential group delay for Kudryashov's model by the auxiliary equation mapping method Zayed, EME; Shohib, RMA; (...); Belic, MR Oct 2020 CHINESE JOURNAL OF PHYSICS 67 , pp.631-645</p> <p>Citat de</p> <p>Highly dispersive optical solitons perturbation having Kudryashov's arbitrary form with sextic-power law refractive index and generalized non-local laws Nofal, TA; Zayed, EME; (...); Ekici, M Feb 2021 OPTIK 228</p> <p>The (2+1)-dimensional hyperbolic nonlinear Schrodinger equation and its optical solitons Baleanu, U; Hosseini, K; (...); Ahmadian, A 2021 AIMS MATHEMATICS 6 (9) , pp.9568-9581</p>	20
	<p>53. Deep-segmentation of plantar pressure images convolutional neural networks Wang, D; Li, ZR; (...); Shi, FQ Jan-mar 2020 BIOCYBERNETICS AND BIOMEDICAL ENGINEERING 40 (1) , pp.546-558</p> <p>Citat de</p> <p>Plantar pressure image classification employing residual-network model-based conditional generative adversarial networks: a comparison of normal, planus, and talipes equinovarus feet Han, JL; Wang, D; (...); Shi, FQ Aug 2021 (Early Access) SOFT COMPUTING</p> <p>Experimental and numerical diagnosis of fatigue foot using convolutional neural network Sharifi, A; Ahmadi, M; (...); Pourasad, Y Dec 6 2021 Apr 2021 (Early Access) COMPUTER METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING 24 (16) , pp.1828-1840</p>	30

	<p>Model Inversion Attack: Analysis under Gray-box Scenario on Deep Learning based Face Recognition System Khosravy, M; Nakamura, K; (...); Babaguchi, N Mar 31 2021 KSII TRANSACTIONS ON INTERNET AND INFORMATION SYSTEMS 15 (3) , pp.1100-1118</p>	
	<p>54. Classification Features of US Images Liver Extracted with Co-occurrence Matrix Using the Nearest Neighbor Algorithm Moldovanu, S; Bibicu, D; (...); Nicolae, MC 1st International Congress on Advances in Applied Physics and Materials Science (APMAS) 2011 INTERNATIONAL CONGRESS ON ADVANCES IN APPLIED PHYSICS AND MATERIALS SCIENCE 1400 , pp.565-570</p> <p>Citat de</p> <p>MR-Based Radiomics for Differential Diagnosis between Cystic Pituitary Adenoma and Rathke Cleft Cyst Wang, YP; Chen, SX; (...); Zhang, ZQ Aug 11 2021 COMPUTATIONAL AND MATHEMATICAL METHODS IN MEDICINE 2021</p>	10
	<p>55. Time-dependent coupled complex short pulse equation: Invariant analysis and complexitons Kumar, V; Biswas, A; (...); Belic, MR Sep 2021 CHAOS SOLITONS & FRACTALS 150</p> <p>Citat de</p> <p>On analytic series solutions and conserved fluxes of the time fractional (2+1)-dimensional Burger's system via invariant approach San, S; Kumari, P and Kumar, S Dec 2021 (Early Access) WAVES IN RANDOM AND COMPLEX MEDIA</p> <p>Darboux transformation, generalized Darboux transformation and vector breathers for a matrix Lakshmanan-Porsezian-Daniel equation in a Heisenberg ferromagnetic spin chain Wang, M; Tian, B and Zhou, TY Nov 2021 CHAOS SOLITONS & FRACTALS 152</p>	40
	<p>56. Resonant optical soliton perturbation with full nonlinearity and time-dependent coefficients by trial equation method Biswas, A; Yildirim, Y; (...); Belic, MR Mar-apr 2019 JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS 21 (3-4) , pp.213-221</p> <p>Citat de</p> <p>Optical solitons and other solutions to the (2+1)-dimensional coupled system of NLSE by two integration approaches Zayed, EME; Nofal, TA; (...); Alngar, MEM Apr 2021 OPTIK 232</p>	10

	<p>57. Exploiting distance metrics-based similarity for spatial feature analysis: Application to brain magnetic resonance imaging Moraru, L; Moldovanu, S; (...); Biswas, A May-aug 2016 MAEJO INTERNATIONAL JOURNAL OF SCIENCE AND TECHNOLOGY 10 (2) , pp.220-232</p> <p>Citat de</p> <p>Restoration and quality improvement of distorted tribal artworks using Particle Swarm Optimization (PSO) technique along with nonlinear filtering Kaur, M and Dutta, MK Nov 2021 OPTIK 245</p> <p>Investigation on quality enhancement of old and fragile artworks using non-linear filter and histogram equalization techniques Kaur, M; Sarkar, RK and Dutta, MK Oct 2021 OPTIK 244</p>	20
	<p>58. BLOOD PRESSURE AND FLOW VALUES IN SMALL VESSELS ANGIOARCHITECTURES: APPLICATION FOR DIABETIC RETINOPATHY Moraru, L; Obreja, CD; (...); Biswasm, A 2016 ROMANIAN JOURNAL OF PHYSICS 61 (7-8) , pp.1287-1298</p> <p>Citat de</p> <p>Restoration and quality improvement of distorted tribal artworks using Particle Swarm Optimization (PSO) technique along with nonlinear filtering Kaur, M and Dutta, MK Nov 2021 OPTIK 245</p> <p>Investigation on quality enhancement of old and fragile artworks using non-linear filter and histogram equalization techniques Kaur, M; Sarkar, RK and Dutta, MK Oct 2021 OPTIK 244</p>	20
	<p>59. Optical soliton polarization with Lakshmanan-Porsezian-Daniel model by unified approach Ullah, MS; Harun-Or-Roshid; (...); Belic, MR Mar 2021 RESULTS IN PHYSICS 22</p> <p>Citat de</p> <p>Regarding New Traveling Wave Solutions for the Mathematical Model Arising in Telecommunications Baskonus, HM; Guirao, JLG; (...); Bermudez, GR Jul 14 2021 ADVANCES IN MATHEMATICAL PHYSICS 2021</p>	10
	<p>60 Solitons and conservation laws in magneto-optic waveguides with polynomial law nonlinearity Zayed, EME; El-Horbaty, MM; (...); Belic, MR Dec 2020 OPTIK 223</p>	10

	<p>Citat de</p> <p>Closed-form solutions to the perturbed NLSE with Kerr law nonlinearity in optical fibers Alkhidhr, HA Mar 2021 RESULTS IN PHYSICS 22</p>	
	<p>61 Grey-Wolf-Based Wang's Demons for Retinal Image Registration Chakraborty, S; Pradhan, R; (...); Dey, N Jun 2020 ENTROPY 22 (6)</p> <p>Citat de</p> <p>Prediction of the Collapse of Necrotic Femoral Head by CT and X-Ray Examinations before Hip Replacement Based on Intelligent Medical Big Data Shang, YW; Xu, JJ; (...); Xie, Z Dec 22 2021 JOURNAL OF HEALTHCARE ENGINEERING 2021</p>	10
	<p>62. Colored Video Analysis in Wireless Capsule Endoscopy: A Survey of State-of-the-Art Ashour, AS; Dey, N; (...); Moraru, L 2020 CURRENT MEDICAL IMAGING 16 (9) , pp.1074-1084</p> <p>Citat de</p> <p>Registration of Consecutive Frames From Wireless Capsule Endoscopy for 3D Motion Estimation Oliveira, M; Araujo, H; (...); Perdigoto, L 2021 IEEE ACCESS 9 , pp.119533-119545</p>	10
	<p>63. Texture Spectrum Coupled with Entropy and Homogeneity Image Features for Myocardium Muscle Characterization Moraru, L; Moldovanu, S; (...); Sherratt, RS 2019 CURRENT BIOINFORMATICS 14 (4) , pp.295-304</p> <p>Citat de</p> <p>Texture Spectrum Coupled with Entropy and Homogeneity Image Features for Myocardium Muscle Characterization Moraru, L; Moldovanu, S; (...); Sherratt, RS 2019 CURRENT BIOINFORMATICS 14 (4) , pp.295-304</p>	10
	<p>64. Bright and dark soliton solutions of the generalized Zakharov-Kuznetsov-Benjamin-Bona-Mahony nonlinear evolution equation O Guner, A Bekir, L Moraru, A Biswas PROCEEDINGS OF THE ROMANIAN ACADEMY SERIES A-MATHEMATICS PHYSICS TECHNICAL SCIENCES INFORMATION SCIENCE, cilt.16, sa.3, ss.422-429, 2015</p> <p>Citat de</p> <p>Construction of the Soliton Solutions for the Manakov System by Extended Simplest Equation Method</p>	10

	HM Ahmed, MMA El-Sheikh, AH Arnous... - International Journal of ..., 2021 - Springer	
	65. SURVEY OF FOREST COVER CHANGES BY MEANS OF MULTIFRACTAL ANALYSIS Danila, E; Valentin, H; (...); Moraru, L Feb 2019 CARPATHIAN JOURNAL OF EARTH AND ENVIRONMENTAL SCIENCES 14 (1) , pp.51-60 Citat de THE COOLING INTENSITY DEPENDENT ON LANDSCAPE COMPLEXITY OF GREEN INFRASTRUCTURE IN THE METROPOLITAN AREA Wang, YC; Huang, JD; (...); Sheng, S 2021 JOURNAL OF ENVIRONMENTAL ENGINEERING AND LANDSCAPE MANAGEMENT 29 (3) , pp.318-336	10
	Total 7.1.3	2760
7.1.4	Lucrări științifice/tehnice în reviste indexate în baze de date internaționale	20 x Nic/Na
	1.Felicia Anisoara Damian, Simona Moldovanu, Luminita Moraru Color space influence on ANN skin lesion classification using statistics texture feature ANNALS OF "DUNAREA DE JOS" UNIVERSITY OF GALATI, MATHEMATICS, PHYSICS, THEORETICAL MECHANICS FASCICLE II, YEAR XIII (XLIV) 2021, No. 1, pag. 53-62, DOI: https://doi.org/10.35219/ann-ugal-math-phys-mec.2021.1.08	20
	2.Luminita Moraru, Simona Moldovanu, Andreea-Monica (Lăzărescu) Dină Feed-Forward Back Propagation Network for prediction of diabetic retinopathy disorder ANNALS OF "DUNAREA DE JOS" UNIVERSITY OF GALATI, MATHEMATICS, PHYSICS, THEORETICAL MECHANICS FASCICLE II, YEAR XIII (XLIV) 2021, No. 1, pag. 67-74, DOI: https://doi.org/10.35219/ann-ugal-math-phys-mec.2021.1.10	20
	3.Lenuța Pană, Simona Moldovanu, Luminița Moraru 3D volume reconstruction of brain tissues using nonlinear filters, k-means clustering and Bland-Altman analysis ANNALS OF "DUNAREA DE JOS" UNIVERSITY OF GALATI, MATHEMATICS, PHYSICS, THEORETICAL MECHANICS FASCICLE II, YEAR XIII (XLIV) 2021, No. 1, pag. 75-87, DOI: https://doi.org/10.35219/ann-ugal-math-phys-mec.2021.1.11	20
	4.S. Moldovanu, F.A. Damian and L. Moraru A kNN approach for melanoma diagnosis based on color cluster features Advances in Signal Processing and Artificial Intelligence, Sergey Y. Yurish, Editor, by International Frequency Sensor Association (IFSA) Publishing, S. L., e-ISBN: 978-84-09-35865-6, pp 6-9, 20213	20
	5.S. Moldovanu, L. Pana and L. Moraru 3D volume reconstruction of brain images for common diseases of aging Advances in Signal Processing and Artificial Intelligence, Sergey Y. Yurish, Editor, by International Frequency Sensor Association (IFSA) Publishing, S. L., e-ISBN: 978-84-09-35865-6, pp 15-18, 2021	20
	6.Assessing the impact of hydropower constructions on functioning of Dniesterand Prut rivers ecosystems within the Hydroeconex project N Andreev, E Zubcov, A Ene, I Trombitsky, S Kovalyshyna, AS Matygin	3.33

	Sustainable use and protection of animal world in the context of climate	
	7.Application of vermifiltration for sustainable management of septage N Andreev, PM Mawioo, E Zubcov, N Bagrin, A Ivanova, A Ene Sustainable use and protection of animal world in the context of climate ...	3.33
	8. Ion. V.I., Ene A., Mocanu G., Boiler blowdown recovery, Annals of the” Dunarea de Jos” University of Galati. Fascicle II, Mathematics, Physics, Theoretical Mechanics, 44(2), pp. 98-102	6.66
	9. Environmental toxicants evaluation in a modern monitoring system-Romanianmonitox network area L Teodorof, A Burada, C Despina, D Seceleanu-Odor, C Trifanov, A Ene, ... Sustainable use and protection of animal world in the context of climate	2
	10.Monitox international network for monitoring of environmental toxicants andrisk assessment in the Black Sea basin: research and interdisciplinarycooperation dimensions A Ene, E Zubcov, T Spanos, O Bogdevich, L Teodorof Sustainable use and protection of animal world in the context of climate	4
	Total 7.1.4	119.33
7.1.5	Comunicări științifice prezentate la conferințe internaționale	5 x Nic/Na
	1.Lenuța Pană, Simona Moldovanu, Luminița Moraru Statistical Filters for Processing and Reconstruction of 3D Brain MRI 25th International Conference on System Theory, Control and Computing ICSTCC 2021, Iasi, Romania, October 20-23, 2021	15
	2.Felicia Anisoara Damian, Simona Moldovanu, Luminita Moraru SKIN LESIONS ASYMMETRY ESTIMATION USING ARTIFICIAL NEURAL NETWORKS 25th International Conference on System Theory, Control and Computing ICSTCC 2021, Iasi, Romania, October 20-23, 2021	15
	3.S. Moldovanu, F.A. Damian and L. Moraru A kNN approach for melanoma diagnosis based on color cluster features 3rd International Conference on Advances in Signal Processing and Artificial Intelligence (ASPAI' 2020), 17-19 November 2021, Porto, Portugal	15
	4.S. Moldovanu, L. Pana and L. Moraru 3D volume reconstruction of brain images for common diseases of aging 3rd International Conference on Advances in Signal Processing and Artificial Intelligence (ASPAI' 2020), 17-19 November 2021, Porto, Portugal	15
	5.Dorin Bibicu, Maria (Stan) Necula, Luminita Moraru SIMULATIONS TO CONCEALED OBJETCS DETECTION PROHIBITED ON THE HUMAN BODY USING THE 2D INVERSE SCATTERING THEORY TIM 20-21 Physics Conference, Timisoara, November 11-13, 2021, https://timconference.uvt.ro/	15
	Total 7.1.5	75
7.1.6	Comunicări științifice prezentate la conferințe naționale	3 x Nic/Na
	1.Felicia Anisoara Damian, Simona Moldovanu, Luminita Moraru Color space influence on ANN skin lesion classification using statistics texture feature Ninth Scientific Conference of Doctoral Schools from “Dunarea de Jos” University of Galati (CCSD-UDJG 2021), Galati, June 10-11, 2021	3
	2.Luminita Moraru, Simona Moldovanu, Andreea-Monica (Lăzărescu) Dincă Feed-Forward Back Propagation Network for prediction of diabetic retinopathy disorder	3

	Ninth Scientific Conference of Doctoral Schools from “Dunarea de Jos” University of Galati (CCSD-UDJG 2021), Galati, June 10-11, 2021	
	3.Lenuța Pană, Simona Moldovanu, Luminița Moraru 3D volume reconstruction of brain tissues using nonlinear filters, k-means clustering and Bland-Altman analysis Ninth Scientific Conference of Doctoral Schools from “Dunarea de Jos” University of Galati (CCSD-UDJG 2021), Galati, June 10-11, 2021	3
		Total 7.1.6 9
		Total 4312.3

7.2. Teze de doctorat finalizate și în derulare⁶.

Drd. Stan Maria (Necula) **Împrăștierea acustică pe sisteme complexe, rigide și elastice**

Drd. MICHÎȘ N. FELICIA-ANIȘOARA (DAMIAN) **Instrumente moderne de depistare a melanomului. Aplicație SelfChecker pentru analiza leziunilor cutanate prin intermediul imaginilor digitale**

Drd. TOPORAȘ C. LENUȚA (PANĂ) **APLICAȚII ALE TEHNICILOR DE SCANARE DWI și DTI PENTRU EVALUAREA RAPIDĂ A MODIFICĂRILOR PARAMETRILOR SPECIFICI ÎN CAZUL AFECȚIUNILOR CEREBRALE**

Drd. Angheache Iulia-**Rețele neuronale și concepte de învățare automată pentru depistarea cancerului de sân**

Drd.Lazarescu Andreea---**Tehnici de învățare automată utilizate în procesarea imaginilor**

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 premiarea 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.

1. Wenzhou Medical University Wenzhou 023 Languages
2. Wenzhou Medical University Wenzhou 0533 Physics
3. Wenzhou Medical University Wenzhou 061 Information and Communication Technologies
4. Wenzhou Medical University Wenzhou 0911 Dental studies
5. Wenzhou Medical University Wenzhou 0912 Medicine
6. Wenzhou Medical University Wenzhou 0916 Pharmacy
7. Wenzhou Medical University Wenzhou 1014 Sports
8. Università degli Studi di Firenze I FIRENZE01 0533 Physics
9. Sinhgad Institutes, India 061 Information and Communication Technologies
10. Sinhgad Institutes, India 0911 Dental studies
11. Sinhgad Institutes, India 0912 Medicine
12. Sinhgad Institutes, India 0916 Pharmacy

⁶ Se va anexa lista tezelor de doctorat în derulare, cu specificarea titlului, domeniului de doctorat, numelui doctoranzilor, numelui conducătorului de doctorat.

7.4. Rezultate ale activității CDI valorificate și efectele obținute.

1. Contracte initiale cu doua firme din domeniul de cercetare de interes:

- Apel Laser, Bucuresti
- AIMinder, strat-up, Timisoara

2. Propunere de proiect depusa pe mecanismul de finatare Horizont Europe

9. Măsuri privind creșterea capacității activității CDI.

- creșterea numarului de publicatii
- depunerea de proiect de cercetare pe call-urile de finantare ce vor fi deschise

10. Măsuri pentru creșterea prestigiului și a vizibilității Centrului de cercetare⁷

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 universitatile chineze din Beijing, pe baza colaborarii initiate cu Wenzhou University.

-Dezvoltarea parteneriatului cu universitatile din India pe baza colaborarii initiate cu Sinhgad Institutes si Dr. D. Y. Patil Institute, India

-realizare site: <https://www.smlab.ro/>

-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.

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

Premiu în anul evaluat pentru contribuții profesionale/științifice (articole, cărți, invenții, manifestări artistice, sportive etc) acordate de MEN și alte instituții publice centrale din România

1. PRECISI-2021-85705
2. PRECISI-2021-87276
3. PRECISI-2021-89028
4. PRECISI-2021-90033
5. PRECISI-2021-90330
6. PRECISI-2021-90636
7. Premiu în anul evaluat pentru contribuții profesionale/științifice (de ex. Profesor emerit, Profesor Honoris Causa) acordate de MEN, CNCS, Universități, Academii și alte instituții publice

⁷ Se va descrie detaliat fiecare acțiune realizată.

- centrale din România "Color space influence on ANN skin lesion classification using statistics texture feature", 10th Edition "Dunarea de Jos" University of Galati Scientific Conference of Doctoral Schools SCDS-UDJG 10-11 iunie 2021 Premiul III
8. 3D VOLUME RECONSTRUCTION OF BRAIN TISSUES USING NONLINEAR FILTERS, K-MEANSCLUSTERING AND BLAND-ALTMAN ANALYSIS, 10th Edition "Dunarea de Jos" University of Galati Scientific Conference of Doctoral Schools SCDS-UDJG 10-11 iunie 2021, premiul I
 9. Best paper award, articol Statistical Filters for Processing and Reconstruction of 3D Brain MRI, autori Lenuța Pană, Simona Moldovanu, Luminița Moraru, prezentat la ICSTCC 2021, Iasi, Romania
 10. Simona Moldovanu, Premiu de excelență pentru rezultatele excelente in activitatea de cercetare in cadrul univertitatii Dunarea de Jos Galati, CNFIS-FDI-2021-0443, Măsurile active de creștere și eficientizare a capacității de cercetare, dezvoltare, inovare și transfer tehnologic în Universitatea „Dunărea de Jos” din Galați CEREX-UDJG_2021
 11. 1. Mentiune, Felicia Anisoara Damian, Simona Moldovanu, Luminita Moraru Color space influence on ANN skin lesion classification using statistics texture features, 9th Edition of CSSD-UDJG, 10th and 11th of June 2021, Galati, Romania
 12. 2. Mentiune Luminita Moraru, Simona Moldovanu, Andreea-Monica (Lăzărescu) Dincă, Feed-Forward Back Propagation Network for prediction of diabetic retinopathy disorder,, 9th Edition of CSSD-UDJG, 10th and 11th of June 2021, Galati, Romania
 13. 3. Premiul I, Lenuța Pană, Simona Moldovanu, Luminița Moraru, 3D volume reconstruction of brain tissues using nonlinear filters, k-means clustering and Bland-Altman analysis, 9th Edition of CSSD-UDJG, 10th and 11th of June 2021, Galati, Romania.

Data: 11.03.2022

Coordonator unitate de cercetare
Prof. dr. ing. fiz. Luminita Moraru