

Universitatea Transilvania din Braşov
Facultatea de Inginerie Electrică şi Ştiinţa Calculatoarelor -IESC
Inginerie Electrica si Fizica Aplicata -IEFA

Poz. Postului : 23

Disciplinele postului:

Programarea calculatoarelor şi limbaje de programare II
Programarea calculatoarelor şi limbaje de programare III
Programarea calculatoarelor si limbaje de programare I
Programare IV
Electrotehnică şi electronică aplicată

FIŞA DE VERIFICARE A ÎNDEPLINIRII STANDARDELOR UNIVERSITĂŢII

Fac. IESC, Departamentul INGINERIE ELECTRICA SI FIZICA APLICATA,
poziţia 23,

publicat în Monitorul Oficial al României nr. din data de

Candidat: **Ghita Dana Elena**

Data naşterii: **06.05.1981**

Funcţia actuală: **Dr. ing.**

1. Studii universitare (licenţă şi masterat)

Nr. crt.	Instituţia de învăţământ superior şi facultatea	Domeniul	Perioada	Titlul acordat
1.	Universitatea “Transilvania” din Braşov, Facultatea de Inginerie Electrica si Stiinta Calculatoarelor	Inginerie Electrica	2000-2005	Licenţiat în: Inginerie Electrica si Calculatoare
2.	Dublin City University - Ireland	Faculty of Engineering and Computing, School of Electronic Engineering	2005-2006	Transfer report to PhD register

2. Studii de doctorat

Nr. crt.	Instituția organizatoare de doctorat	Domeniul	Perioada	Titlul științific acordat
1.	Dublin City University - Ireland	Faculty of Engineering and Computing, School of Electronic Engineering	2005-2008	(PhD) Doctor în: Inginerie Electrica și Calculatoare

3. Studii și burse postdoctorale (stagii de cel puțin 6 luni)

Nr. crt.	Instituția	Projects	Perioada	Tipul de bursă
	Center for Image Processing & Analysis (CIPA), School of Electronic Engineering, Dublin City University, Ireland.	Computer Aided Detection for Ultrasound Vascular Biology	2008-2012	Post-Doctoral Researcher (NBIPI National Biophotonics and Imaging Platform Ireland)
		Carotid Wall Tracking and Diameter Change		
		IMT Segmentation and Tracking		
		White Matter Volume Assessment on Premature Infants on MRI data at term – Computer Aided Volume Analysis		PhD student supervision - collaboration with Children's University Hospital, Dublin, Ireland

4. Realizările profesional-științifice

Calitatea activităților didactice/ profesionale	Realizări conform standardelor universității
Lucrări publicate în jurnale de specialitate recunoscute național internațional	<ol style="list-style-type: none"> Dana E. Ilea and Paul F. Whelan, "CTex - An Adaptive Unsupervised Segmentation Algorithm Based on Colour-Texture Coherence", <i>IEEE Transactions on Image Processing</i> (Impact factor: 4.82), vol. 17, no. 10, 2008. Dana E. Ilea and Paul F. Whelan (2011), "Image Segmentation based on the Integration of Colour-Texture Descriptors - A Review", <i>Pattern Recognition</i> (Impact factor: 3.4), vol. 44, issues 10-11, October-November 2011, pp. 2479-2501. In the top 10 (#8) Hottest Pattern Recognition articles from January 2011 to December 2013.

3. Dana E. Ilea Ghita, Caoimhe Duffy, Liam Kavanagh, Alice Stanton and Paul F. Whelan (2013), "Fully Automated Segmentation and Tracking of the Intima Media Thickness in Ultrasound Video Sequences of the Common Carotid Artery", *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control* (**Impact factor: 2.74**), vol. 60, no. 1, pp. 158-177, January 2013. [Also - Highly Cited Articles in *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control* - January 2014 edition].
4. Ovidiu Ghita, Dana E. Ilea and Paul F. Whelan (2013), "Texture Enhanced Histogram Equalisation Using TV-L1 Image Decomposition", *IEEE Transactions on Image Processing* (**Impact factor: 4.82**), vol. 22, no. 8, 2013, pp 3133-3144.
5. C.M. Brown, C. Duffy, Dana E. Ilea, Paul F. Whelan, A.V. Stanton (2009), "Carotid artery stiffness is only one tenth that of aortic artery stiffness as assessed by pulse wave velocity", *Journal of Human Hypertension* (**Impact factor: 2.79**), vol. 23, no. 10, pp 698-699, 2009.
6. Ovidiu Ghita, Dana E. Ilea and Paul F. Whelan (2009), "Image feature enhancement based on the time-controlled total variation flow formulation", *Pattern Recognition Letters* (**Impact factor: 1.58**), vol. 30, issue 3, 2009, pp. 314-320.
7. Ovidiu Ghita, Dana E. Ilea and Paul F. Whelan (2012), "An Adaptive Noise Removal Approach for Restoration of Digital Images Corrupted by Multimodal Noise", *IET Image Processing* (**Impact factor: 1.04**), vol. 6, issue 8, pp 1148-1160, November 2012.
8. Ovidiu Ghita, Dana E. Ilea, Antonio Fernandez and Paul F. Whelan (2012), "Local binary patterns versus signal processing texture analysis: a study from a performance evaluation perspective", *Sensor Review* (**Impact factor: 1.27**),

	<p>vol. 32 issue 2, pp. 149-162.</p> <p>9. M. Lynch, Dana E. Ilea, K. Robinson, O. Ghita and Paul F. Whelan, "Automatic Seed Initialization for the Expectation-maximization Algorithm and its Application in 3D Medical Imaging", <i>Journal of Medical Engineering and Technology</i> (Impact factor: 0.95), vol. 31, no. 5, pp. 332 – 340, September/October 2007.</p>
<p>Lucrări prezentate la conferințe naționale/ internaționale în profilul postului</p>	<p><u>Conference Papers.</u></p> <ul style="list-style-type: none"> • Dana E. Ilea, Paul F. Whelan, Catherine Brown, and Alice Stanton (2009), "An Automatic 2D CAD Algorithm for the Segmentation of the IMT in Ultrasound Carotid Artery Images", 31st Annual <i>International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS 2009)</i>, September 2-6, 2009 Minnesota, USA. • Dana E. Ilea and Paul F. Whelan (2009), "Colour Saliency-Based Parameter Optimisation for Adaptive Colour Segmentation", <i>IEEE International Conference on Image Processing (ICIP 2009)</i>, Cairo, Egypt November 7-11. • Dana E. Ilea and Paul F. Whelan, "Colour Image Segmentation Using a Spatial K-Means Clustering Algorithm", Proceedings of the <i>IEEE Irish Machine Vision and Image Processing Conference (IMVIP 2006)</i>, pp. 146-153, Dublin City University, Ireland, 30 August – 1 September, 2006. • Dana E. Ilea and Paul F. Whelan, "Adaptive Pre-Filtering Techniques for Colour Image Analysis", Proceedings of the <i>IEEE International Machine Vision and Image Processing Conference (IMVIP 2007)</i>, pp. 150-157, National University of Ireland, Maynooth, <i>IEEE Computer Society Press</i>, September 5 -7, 2007. • Dana E. Ilea and Paul F. Whelan, "Colour Image Segmentation Using a Self - Initialising EM Algorithm", Proceedings

	<p>of the <i>International Conference on Visualization, Imaging and Image Processing (VIIP 2006)</i>, Palma de Mallorca, Spain, August 28-30, 2006.</p> <ul style="list-style-type: none"> • Dana E. Ilea and Paul F. Whelan, "Automatic Segmentation of Skin Cancer Images Using Adaptive Colour Clustering", Proceedings of the <i>China-Ireland International Conference on Information and Communications Technologies (CIICT 2006)</i>, pp. 348-351, Hangzhou, China, October 18 -19, 2006. • Dana E. Ilea, Ovidiu Ghita and Paul F. Whelan, "Evaluation of Local Orientation for Texture Classification", Proceedings of the 3rd <i>International Conference on Computer Vision Theory and Applications (VISAPP 2008)</i>, pp. 357-364, Funchal, Madeira – Portugal, January 22-25, 2008. • Dana E. Ilea, Paul F. Whelan and Ovidiu Ghita, "Performance Characterization of Clustering Algorithms for Colour Image Segmentation", Proceedings of the <i>IEEE International Conference on Optimization of Electrical and Electronic Equipment (OPTIM 2006)</i>, May 18-19, 2006, Brasov, Romania. • Dana E. Ilea Ghita, Paul F. Whelan and Ovidiu Ghita (2010), "Unsupervised Image Segmentation Based On The Multi-Resolution Integration Of Adaptive Local Texture Descriptors", 5th <i>International Conference on Computer Vision Theory and Applications (VISAPP 2010)</i>, May 17-21, 2010, Angers, France. • Dana E. Ilea, Paul F. Whelan, Catherine Brown and Alice Stanton (2010), "Automatic detection and measurement of the IMT in longitudinal sections of ultrasound images of the CCA, <i>The European Congress of Radiology (ECR 2010)</i>, March 4-8, 2010, Vienna, Austria. • Dana E. Ilea, Ovidiu Ghita, K. Robinson, R. Sadleir, M. Lynch, D. Brennan and Paul F. Whelan (2004), "Identification of Body
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	<p>Fat Tissues in MRI Data”, 9th <i>International Conference On Optimization of Electrical and Electronic Equipment (IEEE OPTIM 2004)</i>, May 20-21, 2004, Brasov, Romania.</p> <ul style="list-style-type: none"> • Dana E. Ilea, O. Ghita, K. Robinson, M. Lynch, and Paul F. Whelan (2005) "A 3D CAD tool for body fat identification", Proceedings of 17th <i>European Congress of Radiology (ECR 2005)</i>, March 4-8, 2005, Vienna, Austria. • Ovidiu Ghita, Paul F. Whelan, Dana E. Ilea (2008), "Multi-resolution texture classification based on local image orientation", <i>The International Conference on Image Analysis and Recognition (ICIAR 2008)</i>, Póvoa de Varzim, Portugal, July 25-27, 2008 , Proc. Lecture Notes in Computer Science (LCNS), vol. 5112, pp 688-696. • Michele Peporte, Dana E. Ilea, Eilish Twomey and Paul F. Whelan (2013), "White Matter Segmentation of Brain MRI during Infancy", <i>BioPhotonics and Imaging Conference (BioPIC 2013)</i>, March 25-27, 2013, Castleknock Country Club, Dublin, Ireland. • Michele Peporte, Dana E. Ilea and Paul F. Whelan (2011),"A Hybrid Approach to Brain Extraction from Premature Infant MRI", (<i>SCIA 2011</i>), <i>Scandinavian Conference on Image Analysis</i>, Ystad Saltsjobad, Sweden, May 23-27, 2011. • Michele Peporte, Dana E. Ilea, Eilish Twomey and Paul F. Whelan (2011), "A morphological approach for infant brain segmentation in MRI data" Proceedings of the <i>IEEE Irish Machine Vision and Image Processing (IMVIP 2011)</i> Conference, September 8-9, <i>IEEE</i> Computer Society. • C.M. Brown, C. Duffy, Dana E. Ilea, Paul F. Whelan, A.V. Stanton (2009), "Carotid artery stiffness is only one tenth that of aortic artery stiffness as assessed by pulse wave velocity", <i>British Hypertension</i>
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	<i>Society / Nurses Hypertension Association Annual Scientific Meetings, St. Johns College, Cambridge, September 14-16, 2009.</i>
Activitate de cercetare	Image Segmentation based on the Integration of Colour-Texture Descriptors
	Noise Removal Strategies – Adaptive pre-filtering Techniques for Colour Image Analysis
	Development of Automatic Clustering Methods for Colour Image Segmentation
	Automatic Clustering Initialization Procedures
	Automatic Segmentation of Skin Cancer Images using Adaptive Colour Clustering
	Automated Segmentation and Tracking of the Intima Media Thickness in Ultrasound Video Sequences of the Common Carotid Artery
	Computer Aided Detection for Ultrasound Vascular Biology (Detection of functional abnormalities in carotid arteries using advanced image processing tools)
	Carotid Wall Tracking for Arterial Wall Stiffness Analysis for Cardiovascular Disease Detection
Activitate Didactica Profesionala	White Matter segmentation of Infant Brain MRI Images (PhD student supervision)
	Undergraduate modules laboratories and tutorials: <ul style="list-style-type: none"> • Software Engineering, School of Electronic Engineering, DCU • Programming Fundamentals, School of Electronic Engineering, DCU • Digital Electronics, School of Electronic Engineering, DCU • Analog Electronics School of Electronic Engineering, DCU • Image Processing and Analysis, School of Electronic Engineering, DCU
Suport de Curs	Contributions to the “Colour Texture Analysis” chapter of the “Image Processing and Analysis” module. Titlu: “Image Segmentation. Theory and Applications”(limba engleza), Author: Dr. Ing. Dana E. Ghita, nr. pagini: 150, ISBN 978-606-19-1007-6, Ed. Universitatii Transilvania, 2018 (in curs de aparitie).
Grants (Team Member)	Post-Doctoral Researcher NBPI - National Biophotonics & Imaging Platform Ireland (a

	€30 million HEA-PRTL IV initiative)
Recunoasterea Impactului Activitatii (Indice Hirsch)	9
Recunoasterea Impactului Activitatii (Nr. total de citatii la data de 24.07.18)	525
Reviewer pentru reviste si jurnale internationale (selectie)	<ul style="list-style-type: none"> - IEEE Transactions on Medical Imaging - IEEE Transactions on Image Processing - Pattern Recognition - Pattern Recognition Letters - Journal of Electronic Imaging - Medical & Biological Engineering & Computing - IEEE Transactions on Circuits and Systems for Video Technology - IEEE International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) - IEEE International Conference on Image Processing (ICIP) - IEEE International Irish Machine Vision and Image Processing (IMVIP) Conference
Session Chair and Member of Organizing Committees (Conferences)	<ul style="list-style-type: none"> - Session Chair: CIICT 2006 - China-Ireland International Conference on Information and Communications Technologies, Hangzhou, China, October 18 -19, 2006. - Session Chair: VISAPP 2010, 5th International Conference on Computer Vision Theory and Applications (VISAPP 2010), May 17-21, 2010, Angers, France. - Member of the organizing committee for the IEEE Irish Machine Vision and Image Processing (IMVIP) Conference, September 8-9, 2011, IEEE Computer Society.

Director de departament,

Prof. univ. dr. – ing. Danut Ilea

Candidat,

Dr. ing. Ghita Dana Elena