Christian Edilberto Portugal Zambrano

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Current position

Part-time Professor and research assistant on project "Digital image analysis of deforestation using artificial intelligence and high performance computing, UNSA - RetoBIO - FONDECYT.
Master student(c) - National University of San Agustin

Education

2011   ENGINEER in Systems, National University of San Agustin
2010   BACHELOR in Systems Engineer, National University of San Agustin

Areas of specialization

Artificial Intelligence • Image processing • Pattern recognition • Computer Vision • GIS • Urban Sensing

Teaching

April 2018 - December 2019   National University of San Agustin - System Engineering and Informatics Department, *"Assistant Professor and practice instructor."*

March 2014 - July 2017   University La Salle - Software Engineering Department, *"Part-time Professor in Object Oriented Programming and Design course."*

Appointments held

Mayo 2018 - December 2019   UNSA, *Research assistant on project "Digital image analysis deforestation using artificial intelligence and high performance computing."*

August 2018 - April 2019   CECOVASA Ltda., *Leader on project "Platform for the morphological analysis on digital video sequences of green coffee beans for the analysis of its physical quality properties"*

April 2017 - February 2018   Pitata S.A.C, *Leader on project "Optimization of Alpaca wool fiber classification process using computer vision"*

February 2016 - April 2017   Catholic University San Pablo - Computer Science Department, *Researcher at project "Development and Implementation of a Computer Optimization Model for Sustainable Building Design Architecture with Adaptability to Climate Change: A GIS tool for automatic categorization of SBTOOL."*

January 2014 - June 2015	National University of San Agustin, *Researcher at refinanced project "Automatic defect detection in green coffee bean for quality control through image processing and pattern recognition."*
August 2013 - August 2014	Incalpaca TPX and National University of San Agustin, *Research advisor at project "Development of a quality control process for the color matching and defect detection in alpaca wool knitted textiles."*
Feb 2012 - Sept 2013	National University of San Agustin and CECOVASA, *Researcher at project "Automatic defect detection in green coffee bean for quality control through image processing and pattern recognition."*
January 2011 - September 2012	National University of San Agustin and SEDIMED SRL, *Junior Researcher at project "Computational Software of support and assist to the medical diagnosis in medical brain resonance images through automatic analysis of Abnormality and Normality."*
August 2010 - December 2010	I+T Engineers , *Research assistant at project "Superresolution applied to Mammography Digital Images for cancer breast detection."*
June 2010 - July 2010	Global System and Consulting , *Software developer in image processing for editing images tools development.*

Grants, honors & awards

2011	Congratulations and public recommendation to the undergraduate thesis "Robust Range Finder through a Laser Pointer and a Webcam" by National University of San Agustin.
2011	Best paper award, selected into the three best papers at "Computer Graphics, Virtual reality and Image Processing Symposium" - CLEI 2011, publication in special edition of Electronical Notes in Theorical Computer Science (ENTCS).
2009	Second place at Undergraduate Thesis Challenge, III Peruvian Symposium of Computer Graphics and Image Processing.

Publications & talks

ARTICLES

2016	**Portugal-Zambrano, Christian**, Gutierrez C., Juan, Beltrán C., César, Ramirez T., Juan, "Computer vision grading system for physical quality evaluation of green coffee beans", Computing Conference (CLEI), Octubre 2016, Valparaiso, Chile.doi.org/10.1109/CLEI.2016.7833383.
2016	Limache C., Roxana E., **Portugal-Zambrano, Christian**, A Neuroevolutive Approach to the Normal/Abnormal Classification in Digital MR Brain Images", Computing Conference (CLEI), Octubre 2016, Valparaiso, Chile.doi.org/10.1109/CLEI.2016.7833355
2016	Ramirez T., Juan, Gutierrez C., Juan, **Portugal-Zambrano, Christian**, Cell-phone based model for the automatic classification of coffee beans defects using White Patch", Computing Conference (CLEI), Octubre 2016, Valparaiso, Chile. doi.org/10.1109/CLEI.2016.7833335.
2014	**Portugal-Zambrano, Christian**, Gutierrez C, Juan, Beltrán C, César, Tupac V, Yvan, "Classifier system for normality pre-diagnosis from MRI brain images in cerebral pathology studies", The Latin American Congress on Computation Intelligence, June 2014, San Carlos de Bariloche, Argentina
2014	**Portugal-Zambrano, Christian**, Gutierrez C, Juan, Beltrán C, César, "Computer Aided Medical Diagnosis Tool to detect Normal/Abnormal Studies in digital MR Brain Images", 27th International Symposium on Computer-Based Medical Systems, May 2014, New York, USA. doi:10.1109/CBMS.2014.110
2014	Guzman-Apaza, Rel, **Portugal-Zambrano, Christian**, Gutierrez C, Juan, Beltrán C, César, "An approach for improve the recognition of defects in coffee beans using retinex algorithms" , Computing Conference (CLEI) , January 2014, Montevideo, Uruguay. doi: 10.1109/CLEI.2014.6965102.
2014	Montes-Condori, R. H, **Portugal-Zambrano, Christian**, Gutierrez C, Juan, Beltrán C, César, "Automatic classification of physical defects in green coffee beans using CGLCM and SVM", Computing

Conference (CLEI), January 2014, Montevideo, Uruguay.doi:10.1109/CLEI.20146965169.

2012   Perez P, Roy, **Portugal-Zambrano, Christian**, Barrios D., "Automatic classification of agro-industrial products through dynamic membership functions in Fuzzy logic systems: An approach to Scallops", Computing Conference (CLEI), October 2012, Bogota, Colombia. doi:10.1109/CLEI.2012.6427-174.

2011   Chuctaya, H., **Portugal-Zambrano, Christian**, Gutierrez C, Juan, Beltrán C, César, Lopez C., Tupac V., Yvan, "M-CBIR: A medical content-based Image Retrieval System using metric Data-Structures", Computer Science Society (SCCC), 30th International Conference of the Chilean, pp 135-141, November 2011. doi:10.1109/SCC.2011.18.

2011   **Portugal-Zambrano, Christian**, Mena-Chalco, Jesus P., "Robust Range Finder Through a Laser Pointer and a Webcam", Electronic Notes in Theorical Computer Science, Volume 281, pp 143-157, December 2011, Quito ,Ecuador, ISSN 1571-0661. doi:10.1016/j.entcs.2011.11.031.

PROFESSIONAL SERVICES : MENTORING IN UNDERGRADUATE THESIS

2019   Becerra-Becerra, Daleshka, "Textural analysis of satellital images for the deteccion of routes into the Peruvian Amazon"(In development)

2019   Apaza-Vilca, Erick, "An deep approach for the estimation of change detection in satellital images"(In development)

2018   Tellez-Mendoza, Elvis, "Computation model for change detection in satellital images based on deep
2018   learning" Condo-Miranda, Renzo, "Estimation of green coffee beans measures to the automatic classification by shape and size". (In development).

2015   Limache-Calatayud, Roxana E., "A neuroevolutive approach to the classification of normal/abnormal brain digital images. "(Finished on July 2016).

2014   Guzman-Apaza, Rel, "An approach for improve the recognition of defects in coffee beans using retinex algorithms" (Finished on March 2015)

2013   Diaz Aréstegui, Daniel, "Recognition model for peruvian sign language using neural networks" (Finished on May 2013)

Further References

Phd. César A. Beltrán Castañón, http://www.pucp.edu.pe/cesar-beltran-castanon/

Phd. Jesús P. Mena Chalco, http://professor.ufabc.edu.br/ jesus.mena/

Phd. Yván J. Tupac Valdivia, http://www.ucsp.edu.pe/ ytupac/