
Diego Hernán Peluffo-Ordóñez

Last updated: October 17, 2025

Datos Personales

Nombre: Nicol Mishell Taques Garcia
Fecha de Nacimiento: Diciembre 01, 2001. (Tulcán, Ecuador)
Nacionalidad: Ecuatoriana
Celular: +593992855656
E-mail: misheltaques@gmail.com



Perfil profesional

Ingeniera en Logística y Transporte por la Universidad Politécnica Estatal del Carchi, con formación en el diseño y optimización de los procesos relacionados con el aprovisionamiento, almacenamiento, distribución y transporte de bienes y servicios. Con el fin de mejorar la eficiencia en las cadenas de suministro, reducir costos y garantizar la satisfacción del cliente mediante estrategias operativas efectivas y el uso de tecnologías innovadoras. Especializada en la evaluación de la competitividad y la implementación de estrategias de expansión en el sector florícola, con experiencia en la optimización de la cadena de suministro y el análisis de gestión logística. Con conocimientos en BPMN y Bizagi para el modelado de procesos, así como en la teoría de las restricciones y el análisis competitivo basado en las cinco fuerzas de Porter. Apasionada por la investigación y aplicación de metodologías que permitan mejorar la eficiencia de las operaciones logísticas. Proactiva y orientada a resultados, con gran capacidad de adaptación y aprendizaje continuo. Poseo habilidades para el trabajo en equipo, la toma de decisiones bajo presión y la resolución de problemas de manera efectiva. Comprometida con la mejora continua y el uso de tecnologías emergentes para la optimización de los procesos empresariales.

My main research interests are kernel-based and spectral methods for data clustering and dimensionality reduction. The scope of the topics that I am currently interested in encompasses complex high-dimensional data, signal, image and video analysis for medical and industry applications.

Áreas de actuación

- Logística de aprovisionamiento y compras
- Gestión de almacenamiento y centros de distribución
- Aplicación de Lean Logistics y Just in Time.
- Gestión de la cadena de suministro
- Seguridad y normativa en transporte y logística
- Realidad virtual aplicada a procesos

Habilidades en programación

- **Python :**

Automatizar tareas, analizar grandes volúmenes de datos, realizar simulaciones y optimizar procesos logísticos

- **Suit Microsoft Office (Excel) :**

Gestionar inventarios, elaborar reportes, manejar bases de datos sencillas y apoyar en la toma de decisiones mediante tablas dinámicas y gráficos.

- **Autocad, Sketchup :**

Diseñar planos de almacenes, rutas de transporte o espacios de distribución para optimizar la gestión de recursos.

- **MySQL :**

Administrar bases de datos relacionadas con pedidos, clientes, proveedores e inventarios, facilitando la trazabilidad de la información.

- **Flexsim :**

Simular procesos logísticos y de transporte, evaluar escenarios de almacenamiento, producción y distribución para mejorar la eficiencia operativa.

- **Power Bi :**

Se utilizó Power BI para analizar la información de las inspecciones de unidades de carga, integrando datos desde Excel para crear paneles de control e indicadores logísticos que optimizaron el seguimiento y la eficiencia del transporte.

Idiomas

English Suficiencia B1
27/Febrero/2023 Universidad Politécnica Estatal del Carchi.

Participación y colaboración con la industria

2025: *Proyecto Vinculación - Entornos virtuales y desarrollo de habilidades prácticas en el sector de transporte de carga pesada* Duration: 240 horas. proyecto de vinculación con la sociedad

<https://framevr.io/carta-porte01#office-square-6>

Publicaciones

2024: Congreso Internacional de Ingenierías) https://upecedu-my.sharepoint.com/:b:/g/personal/nicol_tagues_upec_edu_ec/Edt2ZKSCX4tCkwWBBJr90UBgjP9cpXRh0Y6uKVCod5nAA?e=wZhgOR

2025: (Tesis) Taques, N. (2025). *Gestión de Inventario y Almacenamiento en Comercial Nicol* [Trabajo de Investigación]. Universidad Politécnica Estatal del Carchi.

https://upecedu-my.sharepoint.com/:b:/g/personal/nicol_taqes_upec_edu_ec/EevshMTE1W9DrgPCize=QPBoFP

Links

LinkedIn) www.linkedin.com/in/nicol-taques-108090385

GitHub <https://mishelltaques-a11y.github.io/nicol/>

Master's theses

Degree theses

Guest editor/Invited talks/Organizing and Program committees

- [1]. Guest editor: Special Issue: The Impact of Technological Advancements on Educational Innovation (VSI-tei). Journal: Computers and Electrical Engineering.
Link:

<https://www.journals.elsevier.com/computers-and-electrical-engineering/call-for-papers/technological-advancements-on-educational-innovation>

- [2]. Plenary talk: Kernel-based approaches for time-varying data analysis within unsupervised settings. Latin American Workshop on Computational Neuroscience. São João del-Rei, MG - Brazil - September, 18-20, 2019. Link: <https://www.lawcn.com.br/keynote.html>

- [3]. Plenary talk: Interactive data visualization of high-dimensional data: A dimensionality reduction viewpoint. ICAETT 2019 - International Conference on Advances in Emerging Trends and Technologies.
Link:

<http://icaett-conferences.org/icaett2019/interactive-data-visualization-of-high-dimensional-data-a-dimensionality-reduction-viewpoint/>

- [4]. Plenary talk: Aplicaciones y perspectivas del procesamiento digital de señales. VIII Simposio Internacional Apropiación, Generación y Uso Edificador del Conocimiento. Quito - Ecuador - November, 20-22, 2019. Link: <https://uisrael.edu.ec/siaguec-2019/ponentes/>

- [5]. Plenary talk: Sistemas inteligentes para aplicaciones biomédicas. Congreso Internacional en Ciencias de la Computación - INCICS 2019. Link:
<https://www.utn.edu.ec/incics/index.php/conferencistas/>

- [6]. Plenary talk: SDAS Research Group: A bridge between human knowledge and machine learning. Primeras Jornadas Internacionales de Mecatrónica at UIDE, 2019. Link:

<https://www.uide.edu.ec/primeras-jornadas-internacionales-trascendiendo-en-el-conocimiento-de-la-ingenieria-en-mecatronica/>

- [7]. Organizing committee member: IEEE Latin American Conference on Computational Intelligence – LA-CCI.

2019 (<http://la-cci.org/la-cci-2019/organizers-2019/>)

2017 (<http://la-cci.org/la-cci-2017/local-organizers-2017/>)

2016 (<http://la-cci.org/la-cci-2016/local-organizers-2016/>)

- [8]. Talk: Interactive data visualization of high-dimensional data: A dimensionality reduction viewpoint. Seminario abierto. Doctorado en Ingeniería. Manizales, Colombia. 2019
Link: <https://ingenieria.redmutis.org.co/es/estudiantes/seminarios/charla/?id=29>

- [9]. General chair: TICEC 2017.

Link: <https://ticec2017.cedia.edu.ec/es/programa-ticec-2017/comite-organizador>

-
- [10]. Talk: Dynamic spectral clustering based on kernels. Universitat Rovira i Virgili. Tarragona, Spain. May 4, 2018. Link: <http://130.206.36.64/serveisiactivitats/deiminari/357.html>
- [11]. Talk: *Kernel Spectral Clustering for Dynamic Data*. In: SISTA Seminar. KU Leuven. Leuven, Belgium. May 2, 2013. Link: <https://www.esat.kuleuven.be/stadius/event.php?id=1820>

Publications

- [1] C. González-Castaño, L. L. Lorente-Leyva, J. Muñoz, C. Restrepo, and D. H. Peluffo-Ordóñez, "An MPPT Strategy based on a surface-based polynomial fitting for solar photovoltaic systems using real-time hardware," *Electronics*, vol. 10, no. 2, p. 206, jan 2021. [Online]. Available: <https://www.mdpi.com/2079-9292/10/2/206>
- [2] D. F. Dorado-Sevilla, D. H. Peluffo-Ordóñez, L. L. Lorente-Leyva, E. P. Herrera-Granda, and I. D. Herrera-Granda, "An interactive framework to compare multi-criteria optimization algorithms: Preliminary results on nsga-ii and mopso," in *International Conference on Communication, Computing and Electronics Systems*. Singapore: Springer Singapore, 2021, pp. 61–76. [Online]. Available: https://link.springer.com/chapter/10.1007/978-981-33-4909-4_5
- [3] Y. Fernández-Fernández, L. L. Lorente-Leyva, D. H. Peluffo-Ordóñez, and E. N. C. Álvarez, "A dynamic programming approach for power curtailment decision making on pv systems," in *International Conference on Communication, Computing and Electronics Systems*. Singapore: Springer Singapore, 2021, pp. 77–86. [Online]. Available: https://link.springer.com/chapter/10.1007/978-981-33-4909-4_23
- [4] Y. Fernández-Fernández, D. H. Peluffo-Ordóñez, A. C. Umaquina-Criollo, L. L. Lorente-Leyva, and E. N. Cabrera-Alvarez, "A brief review on instance selection based on condensed nearest neighbors for data classification tasks," in *International Conference on Communication, Computing and Electronics Systems*, V. Bindhu, J. M. R. S. Tavares, A.-A. A. Boulogeorgos, and C. Vuppapapati, Eds. Singapore: Springer Singapore, 2021, pp. 313–324. [Online]. Available: https://link.springer.com/chapter/10.1007/978-981-33-4909-4_6
- [5] P. D. Rosero-Montalvo, V. F. López-Batista, R. Arciniega-Rocha, and D. H. Peluffo-Ordóñez, "Air Pollution Monitoring Using WSN Nodes with Machine Learning Techniques: A Case Study," *Logic Journal of the IGPL*, feb 2021. [Online]. Available: <https://academic.oup.com/jigpal/advance-article/doi/10.1093/jigpal/jzab005/6133990>
- [6] Y. Fernández, I. Marrufo, M. A. Paez, A. C. Umaquina-Criollo, P. D. Rosero, and H. D. Peluffo-Ordóñez, "Overview on kernels for least-squares support-vector-machine-based clustering: explaining kernel expectral clustering." *REVISTA INVESTIGACION OPERACIONAL*, 2021. [Online]. Available: <https://rev-inv-ope.univ-paris1.fr/fileadmin/rev-inv-ope/files/forthcoming/PAPER-ICOR2020-91C20-01.pdf>
- [7] M. C. Ortega-Bustamante, W. Hasperué, D. H. Peluffo-Ordóñez, M. Paéz-Jaime, I. Marrufo-Rodríguez, P. Rosero-Montalvo, A. C. Umaquina-Criollo, and M. Vélez-Falconi, "Introducing the concept of interaction model for interactive dimensionality reduction and data visualization," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2020. [Online]. Available: https://link.springer.com/chapter/10.1007/978-3-030-58802-1_14
- [8] P. D. Rosero-Montalvo, V. C. Erazo-Chamorro, V. F. López-Batista, M. N. Moreno-García, and D. H. Peluffo-Ordóñez, "Environment monitoring of rose crops greenhouse based on autonomous vehicles with a wsn and data analysis," *Sensors (Switzerland)*, 2020. [Online]. Available: <https://www.mdpi.com/1424-8220/20/20/5905>
- [9] D. R. Patiño-Alarcón, F. A. Patiño-Alarcón, L. L. Lorente-Leyva, and D. H. Peluffo-Ordóñez, "Clustering of Reading Ability Performance Variables in the English Language Based on TBL Methodology and Behavior in the Left Hemisphere of the Brain," in *Communications in Computer and Information Science*, 2020. [Online]. Available: https://link.springer.com/chapter/10.1007/978-3-030-62833-8_7

-
- [10] J. González-Vergara, D. Escobar-González, D. Chaglla-Aguagallo, and D. H. Peluffo-Ordóñez, "A Data-Driven Approach for Automatic Classification of Extreme Precipitation Events: Preliminary Results," in *Communications in Computer and Information Science*, 2020. [Online]. Available: https://link.springer.com/chapter/10.1007/978-3-030-61702-8_14
- [11] J. Parraga-Alava, J. D. Moncayo-Nacaza, J. Revelo-Fuelagán, P. D. Rosero-Montalvo, A. Anaya-Isaza, and D. H. Peluffo-Ordóñez, "A data set for electric power consumption forecasting based on socio-demographic features: Data from an area of southern Colombia," *Data in Brief*, 2020. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S2352340920301402>
- [12] M. A. Becerra, E. Delgadotrejos, C. Mejía-Arboleda, D. H. Peluffo-Ordóñez, and A. C. Umaquinga-Criollo, "Stochastic-and neuro-fuzzy-analysis-based characterization and classification of 4-channel phonocardiograms for cardiac murmur detection," *RISTI - Revista Iberica de Sistemas e Tecnologias de Informacao*, 2020. [Online]. Available: <https://search.proquest.com/docview/2451419849/fulltextPDF/F4AF5E590BD14D5EPQ/8>
- [13] M. Vélez-Falconí, J. González-Vergara, and D. H. Peluffo-Ordóñez, "Inverse data visualization framework (IDVF): towards a prior-knowledge-driven data visualization," in *Communications in Computer and Information Science*, 2020. [Online]. Available: https://link.springer.com/chapter/10.1007/978-3-030-61702-8_19
- [14] P. E. Godoy-Trujillo, P. D. Rosero-Montalvo, L. E. Suárez-Zambrano, D. H. Peluffo-Ordóñez, and E. J. Revelo-Fuelagán, "A new approach to supervised data analysis in embedded systems environments: A case study," in *Advances in Intelligent Systems and Computing*, 2020. [Online]. Available: https://link.springer.com/chapter/10.1007/978-3-030-52249-0_29
- [15] P. D. Rosero-Montalvo, V. F. Lopez-Batista, and D. H. Peluffo-Ordóñez, "Hybrid Embedded-Systems-based Approach to in-Driver Drunk Status Detection using Image Processing and Sensor Networks," *IEEE Sensors Journal*, 2020. [Online]. Available: <https://ieeexplore.ieee.org/document/9258992>
- [16] E. Maya-Olalla, M. Dominguez-Limaico, S. Meneses-Narvaez, P. D. Rosero-Montalvo, S. Narvaez-Pupiales, M. Zambrano Vizuete, and D. H. Peluffo-Ordóñez, "Design and Tests to Implement Hyperconvergence into a DataCenter: Preliminary Results," in *Advances in Intelligent Systems and Computing*, 2020. [Online]. Available: https://link.springer.com/chapter/10.1007/978-3-030-32022-5_6
- [17] M. A. Becerra, E. Londoño-Montoya, L. Serna-Guarín, D. Peluffo-Ordóñez, C. Tobón, and L. Giraldo, "Structural capital model for universities based on JDL data fusion model and information quality," *RISTI - Revista Iberica de Sistemas e Tecnologias de Informacao*, 2020. [Online]. Available: <https://search.proquest.com/docview/2394535766>
- [18] E. Maya-Olalla, H. Domínguez-Limaico, C. Vásquez-Ayala, E. Jaramillo-Vinueza, M. Zambrano V, A. Jácome-Ortega, P. D. Rosero-Montalvo, and D. H. Peluffo-Ordóñez, "A new approach of service platform for water optimization in lettuce crops using wireless sensor network," in *Advances in Intelligent Systems and Computing*, 2020. [Online]. Available: https://link.springer.com/chapter/10.1007/978-3-030-52249-0_29
- [19] M. A. Becerra, L. Lasso-Arciniegas, A. Viveros, L. Serna-Guarín, D. Peluffo-Ordóñez, and C. Tobón, "Data fusion and information quality for biometric identification from multimodal signals," *RISTI - Revista Iberica de Sistemas e Tecnologias de Informacao*, 2020. [Online]. Available: <https://search.proquest.com/docview/2385757504?pq-origsite=gscholar&fromopenview=true>
- [20] Y. A. Feliciano, C. A. Trinchet, E. Meléndez, L. L. Lorente-Leyva, and D. H. Peluffo-Ordóñez, "Analysis of the thermal behavior in the goldwind S50/750 wind turbines installed in the wind farm gibara ii using cad-cae tools," *International Journal of Mechanical and Production Engineering Research and Development*, 2020. [Online]. Available: http://www.tjprc.org/view_paper.php?id=12471
- [21] P. D. Rosero-Montalvo, V. F. López-Batista, J. A. Riascos, and D. H. Peluffo-Ordóñez, "Intelligent WSN system for water quality analysis using machine learning algorithms: A case study (Tahuando river from Ecuador)," 2020. [Online]. Available: <https://www.mdpi.com/2072-4292/12/12/1988>

-
- [22] Y. E. Bravo, E. R. Narváez, P. C. Cabrera, J. L. Bonilla, and D. P. Ordoñez, "Evaluation of characterization techniques for classification of seismic-volcanic signals of the nevado del ruiz," *RISTI - Revista Iberica de Sistemas e Tecnologias de Informacao*, 2020. [Online]. Available: <https://search.proquest.com/docview/2350120798>
- [23] A. C. Umaquina-Criollo, J. D. Tamayo-Quintero, M. N. Moreno-García, J. A. Riascos, and D. H. Peluffo-Ordóñez, "Multi-expert Methods Evaluation on Financial and Economic Data: Introducing Bag of Experts," in *Lecture Notes in Computer Science*, 2020. [Online]. Available: https://link.springer.com/chapter/10.1007/978-3-030-61705-9_36
- [24] J. Riofrío, O. Chang, E. J. Revelo-Fuelagán, and D. H. Peluffo-Ordóñez, "Forecasting the Consumer Price Index (CPI) of Ecuador: A comparative study of predictive models," *International Journal on Advanced Science, Engineering and Information Technology*, 2020. [Online]. Available: http://ijaseit.insightsociety.org/index.php?option=com_content&view=article&id=9&Itemid=1&article_id=10813
- [25] D. Mayorca-Torres, J. C. Caicedo-Eraso, and D. H. Peluffo-Ordóñez, "Knee joint angle measuring portable embedded system based on inertial measurement units for gait analysis," *International Journal on Advanced Science, Engineering and Information Technology*, 2020. [Online]. Available: http://ijaseit.insightsociety.org/index.php?option=com_content&view=article&id=9&Itemid=1&article_id=10814
- [26] D. C. Chamorro-Sangoquiza, A. M. Vargas-Muñoz, A. C. Umaquina-Criollo, M. A. Becerra, and D. H. Peluffo-Ordóñez, "Comparative study of data mining techniques to reveal patterns of academic performance in secondary education," *RISTI - Revista Iberica de Sistemas e Tecnologias de Informacao*, 2020. [Online]. Available: <https://search.proquest.com/docview/2452331372/fulltextPDF/64A2741CD0B646EAPQ/1>
- [27] D. Bastidas, C. Piñeros, D. H. Peluffo-Ordóñez, L. M. Sierra, M. A. Becerra, and A. C. Umaquina-Criollo, "Analytic study on the performance of multi-classification approaches in case-based reasoning systems: Medical data exploration," *RISTI - Revista Iberica de Sistemas e Tecnologias de Informacao*, 2020. [Online]. Available: <https://search.proquest.com/docview/2451420129/fulltextPDF/F4AF5E590BD14D5EPQ/9>
- [28] E. P. Herrera-Granda, K. A. Herrera-Mayorga, I. D. Herrera-Granda, L. M. S. Martínez, and D. H. peluffo-Ordoñez, "Comparison of controllers and mathematical modeling of a magnetic levitator," *RISTI - Revista Iberica de Sistemas e Tecnologias de Informacao*, 2020. [Online]. Available: <https://search.proquest.com/docview/2350120753>
- [29] A. C. Umaquina-Criollo, D. H. Peluffo-Ordóñez, P. D. Rosero-Montalvo, P. E. Godoy-Trujillo, and H. Benítez-Pereira, "Interactive Visualization Interfaces for Big Data Analysis Using Combination of Dimensionality Reduction Methods: A Brief Review," in *Advances in Intelligent Systems and Computing*, 2020. [Online]. Available: https://link.springer.com/chapter/10.1007/978-3-030-37221-7_17
- [30] I. D. Herrera-Granda, W. G. Imbaquingo-Usiña, L. L. Lorente-Leyva, E. P. Herrera-Granda, D. H. Peluffo-Ordóñez, and D. G. Rossit, "Optimization of the network of urban solid waste containers: A case study," in *Communications in Computer and Information Science*, 2019, pp. 578–589. [Online]. Available: http://link.springer.com/10.1007/978-3-030-05532-5_44
- [31] L. L. Lorente-Leyva, J. F. Pavón-Valencia, Y. Montero-Santos, I. D. Herrera-Granda, E. P. Herrera-Granda, and D. H. Peluffo-Ordóñez, "Artificial Neural Networks for Urban Water Demand Forecasting: A Case Study," *Journal of Physics: Conference Series*, vol. 1284, p. 012004, aug 2019. [Online]. Available: <https://iopscience.iop.org/article/10.1088/1742-6596/1284/1/012004>
- [32] I. D. Herrera-Granda, J. A. Chicaiza-Ipiales, E. P. Herrera-Granda, L. L. Lorente-Leyva, J. A. Caraguay-Procel, I. D. García-Santillán, and D. H. Peluffo-Ordóñez, "Artificial Neural Networks for Bottled Water Demand Forecasting: A Small Business Case Study," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2019, pp. 362–373. [Online]. Available: http://link.springer.com/10.1007/978-3-030-20518-8_31
- [33] P. D. Rosero-Montalvo, V. F. L. Batista, E. A. Rosero, E. D. Jaramillo, J. A. Caraguay, J. Pijal-Rojas, and D. H. Peluffo-Ordóñez, "Intelligence in Embedded Systems: Overview and Applications," in *Advances in Intelligent Systems and Computing*, 2019, pp. 874–883. [Online]. Available: http://link.springer.com/10.1007/978-3-030-02686-8_65

-
- [34] E. Londoño-Montoya, M. A. Becerra, J. Murillo-Escobar, L. Gómez-Bayona, G. Moreno-López, and D. Peluffo-Ordóñez, "Classification system for corporate reputation based on financial variables," *RISTI - Revista Iberica de Sistemas e Tecnologías de Informacao*, 2019. [Online]. Available: <https://search.proquest.com/openview/fc081b269b3464d65f6211b07c6ca1e5/>
- [35] P. D. Rosero-Montalvo, D. H. Peluffo-Ordóñez, V. F. López Batista, J. Serrano, and E. A. Rosero, "Intelligent system for identification of wheelchair user's posture using machine learning techniques," *IEEE Sensors Journal*, 2019. [Online]. Available: <https://ieeexplore.ieee.org/document/8565996>
- [36] L. Betancur-Delgado, M. A. Becerra, C. Duque-Mejía, D. Peluffo-Ordóñez, and K. C. Álvarez-Uribe, "Public urban transport optimization by means of tabu search and pso algorithms: Medellín, colombia," *RISTI - Revista Iberica de Sistemas e Tecnologías de Informacao*, 2019. [Online]. Available: <https://search.proquest.com/openview/ec8601c82489c20f58286629e316c348>
- [37] L. L. Lorente-Leyva, J. R. Murillo-Valle, Y. Montero-Santos, I. D. Herrera-Granda, E. P. Herrera-Granda, P. D. Rosero-Montalvo, D. H. Peluffo-Ordóñez, and X. P. Blanco-Valencia, "Optimization of the Master Production Scheduling in a Textile Industry Using Genetic Algorithm," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2019, pp. 674–685. [Online]. Available: http://link.springer.com/10.1007/978-3-030-29859-3_57
- [38] M. T. Encalada-Grijalva, S. K. Narváez-Pupiales, A. C. Umaquina-Criollo, L. E. Suárez-Zambrano, and D. H. Peluffo-Ordóñez, "Medical dispenser of control and monitoring services for the elderly health care institute hogar del anciano "san vicente de paúl" from atuntaqui (Ecuador)," *RISTI - Revista Iberica de Sistemas e Tecnologías de Informacao*, 2019. [Online]. Available: <https://search.proquest.com/docview/2260411316>
- [39] C. Duque-Mejía, M. A. Becerra, C. Zapata-Hernández, C. Mejia-Arboleda, A. E. Castro-Ospina, E. Delgado-Trejos, D. H. Peluffo-Ordóñez, P. Rosero-Montalvo, and J. Revelo-Fuelagán, "Cardiac Murmur Effects on Automatic Segmentation of ECG Signals for Biometric Identification: Preliminary Study," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2019, pp. 269–279. [Online]. Available: http://link.springer.com/10.1007/978-3-030-14799-0_23
- [40] P. D. Rosero-Montalvo, V. F. López-Batista, D. H. Peluffo-Ordóñez, L. L. Lorente-Leyva, and X. P. Blanco-Valencia, "Urban Pollution Environmental Monitoring System Using IoT Devices and Data Visualization: A Case Study," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2019, pp. 686–696. [Online]. Available: http://link.springer.com/10.1007/978-3-030-29859-3_58
- [41] M. Y. M. Revelo, J. B. Gómez Menoza, and D. H. Peluffo Ordoñez, "Satellite-image-based crop identification using unsupervised machine learning techniques: Preliminary results," *RISTI - Revista Iberica de Sistemas e Tecnologías de Informacao*, 2019. [Online]. Available: <https://search.proquest.com/openview/07a5294795bdf4c5423a32a23b32a228>
- [42] O. A. Ordóñez-Bolanos, J. F. Gómez-Lara, M. A. Becerra, D. H. Peluffo-Ordóñez, C. M. Duque-Mejía, D. Medrano-David, and C. Mejia-Arboleda, "Recognition of emotions using ICEEMD-based characterization of multimodal physiological signals," in *2019 IEEE 10th Latin American Symposium on Circuits & Systems (LASCAS)*. IEEE, feb 2019, pp. 113–116. [Online]. Available: <https://ieeexplore.ieee.org/document/8667585/>
- [43] P. D. Rosero-Montalvo, V. F. López-Batista, D. H. Peluffo-Ordóñez, V. C. Erazo-Chamorro, and R. P. Arciniega-Rocha, "Multivariate Approach to Alcohol Detection in Drivers by Sensors and Artificial Vision," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2019, pp. 234–243. [Online]. Available: http://link.springer.com/10.1007/978-3-030-19651-6_23
- [44] D. Bastidas Torres, C. Piñeros Rodríguez, D. H. Peluffo-Ordóñez, X. Blanco Valencia, J. Revelo-Fuelagán, M. A. Becerra, A. E. Castro-Ospina, and L. L. Lorente-Leyva, "Adaptation and Recovery Stages for Case-Based Reasoning Systems Using Bayesian Estimation and Density Estimation with

-
- Nearest Neighbors,” in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2019, pp. 339–350. [Online]. Available: http://link.springer.com/10.1007/978-3-030-14799-0_29
- [45] D. Mayorca-Torres, J. C. Caicedo-Eraso, and D. H. Peluffo-Ordóñez, “Method for the Improvement of Knee Angle Accuracy Based on Kinect and IMU: Preliminary Results,” in *Communications in Computer and Information Science*, 2019, pp. 184–199. [Online]. Available: http://link.springer.com/10.1007/978-3-030-36636-0_14
- [46] E. P. Herrera-Granda, J. A. Caraguay-Procel, P. D. Granda-Gudiño, I. D. Herrera-Granda, L. L. Lorente-Leyva, D. H. Peluffo-Ordóñez, and J. Revelo-Fuelagán, “Drowsiness Detection in Drivers Through Real-Time Image Processing of the Human Eye,” in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2019. [Online]. Available: https://link.springer.com/chapter/10.1007/978-3-030-14799-0_54
- [47] C. Duque-Mejía, M. A. Becerra, C. Zapata-Hernández, C. Mejía-Arboleda, A. E. Castro-Ospina, E. Delgado-Trejos, D. H. Peluffo-Ordóñez, P. Rosero-Montalvo, and J. Revelo-Fuelagán, “Cardiac Murmur Effects on Automatic Segmentation of ECG Signals for Biometric Identification: Preliminary Study BT - Intelligent Information and Database Systems,” in *Intelligent Information and Database Systems*, 2019. [Online]. Available: https://link.springer.com/chapter/10.1007/978-3-030-14799-0_23
- [48] D. Mayorca-Torres, H. Guerrero-Chapal, J. Mejía-Manzano, D. Lopez-Mesa, D. H. Peluffo-Ordóñez, and J. A. Salazar-Castro, “Multi-target tracking for sperm motility measurement using the kalman filter and JPDAF: Preliminary results,” *RISTI - Revista Iberica de Sistemas e Tecnologias de Informacao*, 2019. [Online]. Available: <https://search.proquest.com/openview/69fcef4b61d6ec863099124a9c2fe66f>
- [49] O. Oña-Rocha, J. A. Riascos-Salas, I. C. Marrufo-Rodríguez, M. A. Páez-Jaime, D. Mayorca-Torres, K. L. Ponce-Guevara, J. A. Salazar-Castro, and D. H. Peluffo-Ordóñez, “Kernel-spectral-clustering-driven motion segmentation: rotating-objects first trials,” in *Communications in Computer and Information Science*, 2019, pp. 30–40. [Online]. Available: http://link.springer.com/10.1007/978-3-030-36636-0_3
- [50] L. L. Lorente-Leyva, D. R. Patino-Alarcon, Y. Montero-Santos, I. D. Herrera-Granda, D. H. Peluffo-Ordóñez, A. M. Lastre-Aleaga, and A. Cordoves-Garcia, “Artificial Neural Networks in the Demand Forecasting of a Metal-Mechanical Industry,” *Journal of Engineering and Applied Sciences*, vol. 15, no. 1, pp. 81–87, oct 2019. [Online]. Available: <http://www.medwelljournals.com/abstract/?doi=jeasci.2020.81.87>
- [51] M. A. Becerra, E. Londoño-Delgado, O. I. Botero-Henao, D. Marín-Castrillón, C. Mejía-Arboleda, and D. H. Peluffo-Ordóñez, “Low resolution electroencephalographic-signals-driven semantic retrieval: Preliminary results,” pp. 333–342, 2019. [Online]. Available: http://link.springer.com/10.1007/978-3-030-17935-9_30
- [52] L. L. Lorente-Leyva, D. R. Patino-Alarcon, Y. Montero-Santos, I. D. Herrera-Granda, D. H. Peluffo-Ordóñez, A. M. Lastre-Aleaga, and A. Cordoves-Garcia, “Artificial neural networks in the demand forecasting of a metal-mechanical industry,” *Journal of Engineering and Applied Sciences*, vol. 15, pp. 81–87, 10 2019. [Online]. Available: <http://www.medwelljournals.com/abstract/?doi=jeasci.2020.81.87>
- [53] J. F. Gómez-Lara, O. A. Ordóñez-Bolaños, M. A. Becerra, A. E. Castro-Ospina, C. Mejía-Arboleda, C. Duque-Mejía, J. Rodriguez, J. Revelo-Fuelagán, and D. H. Peluffo-Ordóñez, “Feature extraction analysis for emotion recognition from ICEEMD of multimodal physiological signals,” in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2019, pp. 351–362. [Online]. Available: http://link.springer.com/10.1007/978-3-030-14799-0_30
- [54] Y. F. Fernández, A. C. Tobar, D. H. Peluffo-Ordóñez, T. S. Manosalvas, and R. Miranda, “Optimization-based algorithms applied in photovoltaic systems,” *RISTI - Revista Iberica de Sistemas e Tecnologias de Informacao*, 2019. [Online]. Available: <https://search.proquest.com/openview/33e52f4b710e1368bead8eda6346684a>
- [55] M. A. Becerra, C. Duque-Mejía, C. Zapata-Hernández, D. H. Peluffo-Ordóñez, L. Serna-Guarín, E. Delgado-Trejos, E. J. Revelo-Fuelagán, and X. P. Blanco Valencia, “Exploratory Study of the Effects of Cardiac Murmurs on Electrocardiographic-Signal-Based Biometric Systems,” in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2018, pp. 410–418. [Online]. Available: http://link.springer.com/10.1007/978-3-030-03493-1_43

-
- [56] "Advances in Homotopy Applied to Object Deformation," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2018, pp. 231–242. [Online]. Available: http://link.springer.com/10.1007/978-3-319-78759-6_22
- [57] J. A. Salazar-Castro, P. D. Rosero-Montalvo, D. F. Peña-Unigarro, A. C. Umaquina-Criollo, Z. Castillo-Marrero, E. J. Revelo-Fuelagán, D. H. Peluffo-Ordóñez, and C. G. Castellanos-Domínguez, "A Novel Color-Based Data Visualization Approach Using a Circular Interaction Model and Dimensionality Reduction," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2018, pp. 557–567. [Online]. Available: http://link.springer.com/10.1007/978-3-319-92537-0_64
- [58] L. O. Alpala, M. d. M. E. Alemany, D. H. Peluffo, F. A. Bolaños, A. M. Rosero, and J. C. Torres, "Methodology for the design and simulation of industrial facilities and production systems based on a modular approach in an "industry 4.0" context," *DYNA*, vol. 85, no. 207, pp. 243–252, oct 2018. [Online]. Available: <https://revistas.unal.edu.co/index.php/dyna/article/view/68545>
- [59] I. D. Herrera-Granda, L. L. Lorente-Leyva, D. H. Peluffo-Ordóñez, R. M. Valencia-Chapi, Y. Montero-Santos, J. L. Chicaiza-Vaca, and A. E. Castro-Ospina, "Optimization of the university transportation by contraction hierarchies method and clustering algorithms," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2018, pp. 95–107. [Online]. Available: http://link.springer.com/10.1007/978-3-319-92639-1_9
- [60] I. García-Santillán, D. Peluffo-Ordoñez, V. Caranqui, M. Pusedá, F. Garrido, and P. Granda, "Computer vision-based method for automatic detection of crop rows in potato fields," in *Advances in Intelligent Systems and Computing*, 2018, pp. 355–366. [Online]. Available: http://link.springer.com/10.1007/978-3-319-73450-7_34
- [61] M. A. Becerra, E. Londoño-Delgado, S. M. Pelaez-Becerra, L. Serna-Guarín, A. E. Castro-Ospina, D. Marin-Castrillón, and D. H. Peluffo-Ordóñez, "Odor pleasantness classification from electroencephalographic signals and emotional states," in *Communications in Computer and Information Science*, 2018, pp. 128–138. [Online]. Available: http://link.springer.com/10.1007/978-3-319-98998-3_10
- [62] J. A. Salazar-Castro, D. F. Peña, C. Basante, C. Ortega, L. Cruz-Cruz, J. Revelo-Fuelagán, X. P. Blanco-Valencia, G. Castellanos-Domínguez, and D. H. Peluffo-Ordóñez, "Generalized Low-Computational Cost Laplacian Eigenmaps," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2018, pp. 661–669. [Online]. Available: http://link.springer.com/10.1007/978-3-030-03493-1_69
- [63] P. D. Rosero-Montalvo, J. A. Caraguay-Procel, E. D. Jaramillo, J. M. Michilena-Calderon, A. C. Umaquina-Criollo, M. Mediavilla-Valverde, M. A. Ruiz, L. A. Beltran, and D. H. Peluffo, "Air Quality Monitoring Intelligent System Using Machine Learning Techniques," in *2018 International Conference on Information Systems and Computer Science (INCISCOS)*. IEEE, nov 2018, pp. 75–80. [Online]. Available: <https://ieeexplore.ieee.org/document/8564511/>
- [64] M. A. Becerra, E. Londoño-Delgado, S. M. Pelaez-Becerra, A. E. Castro-Ospina, C. Mejia-Arboleda, J. Durango, and D. H. Peluffo-Ordóñez, "Electroencephalographic Signals and Emotional States for Tactile Pleasantness Classification," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2018, pp. 309–316. [Online]. Available: http://link.springer.com/10.1007/978-3-030-01132-1_35
- [65] X. Blanco Valencia, D. Bastidas Torres, C. Piñeros Rodriguez, D. H. Peluffo-Ordóñez, M. A. Becerra, and A. E. Castro-Ospina, "Case-Based Reasoning Systems for Medical Applications with Improved Adaptation and Recovery Stages," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2018, pp. 26–38. [Online]. Available: http://link.springer.com/10.1007/978-3-319-78723-7_3
- [66] M. A. Becerra, K. C. Alvarez-Urbe, and D. H. Peluffo-Ordoñez, "Low Data Fusion Framework Oriented to Information Quality for BCI Systems," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2018, pp. 289–300. [Online]. Available: http://link.springer.com/10.1007/978-3-319-78759-6_27

-
- [67] A. Viveros-Melo, L. Lasso-Arciniegas, J. A. Salazar-Castro, D. H. Peluffo-Ordóñez, M. A. Becerra, A. E. Castro-Ospina, and E. J. Revelo-Fuelagán, "Exploration of Characterization and Classification Techniques for Movement Identification from EMG Signals: Preliminary Results," in *Communications in Computer and Information Science*, 2018, pp. 139–149. [Online]. Available: http://link.springer.com/10.1007/978-3-319-98998-3_11
- [68] F. M. Lopez-Chamorro, A. F. Arciniegas-Mejia, D. E. Imbajoa-Ruiz, P. D. Rosero-Montalvo, P. García, A. E. Castro-Ospina, A. Acosta, and D. H. Peluffo-Ordóñez, "Cardiac Pulse Modeling Using a Modified van der Pol Oscillator and Genetic Algorithms," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2018, pp. 96–106. [Online]. Available: http://link.springer.com/10.1007/978-3-319-78723-7_8
- [69] L. Lasso-Arciniegas, A. Viveros-Melo, J. A. Salazar-Castro, M. A. Becerra, A. E. Castro-Ospina, E. J. Revelo-Fuelagán, and D. H. Peluffo-Ordóñez, "Movement Identification in EMG Signals Using Machine Learning: A Comparative Study," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2018, pp. 368–375. [Online]. Available: http://link.springer.com/10.1007/978-3-030-01132-1_42
- [70] Y. F. Uribe, K. C. Alvarez-Uribe, D. H. Peluffo-Ordóñez, and M. A. Becerra, "Physiological Signals Fusion Oriented to Diagnosis - A Review," in *Communications in Computer and Information Science*, 2018, pp. 1–15. [Online]. Available: http://link.springer.com/10.1007/978-3-319-98998-3_1
- [71] L. M. Sierra Martínez, C. A. Cobos, J. C. Corrales Muñoz, T. Rojas Curieux, E. Herrera-Viedma, and D. H. Peluffo-Ordóñez, "Building a Nasa Yuwe Language Corpus and Tagging with a Metaheuristic Approach," *Computación y Sistemas*, vol. 22, no. 3, sep 2018. [Online]. Available: <http://www.cys.cic.ipn.mx/ojs/index.php/CyS/article/view/3018>
- [72] L. L. Lorente-Leyva, I. D. Herrera-Granda, P. D. Rosero-Montalvo, K. L. Ponce-Guevara, A. E. Castro-Ospina, M. A. Becerra, D. H. Peluffo-Ordóñez, and J. L. Rodríguez-Sotelo, "Developments on Solutions of the Normalized-Cut-Clustering Problem Without Eigenvectors," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2018, pp. 318–328. [Online]. Available: <http://link.springer.com/10.1007/978-3-319-92537-037>
- [73] A. E. Castro-Ospina, A. M. Correa-Mira, I. D. Herrera-Granda, D. H. Peluffo-Ordóñez, and H. A. Fandiño-Toro, "Fingertips Segmentation of Thermal Images and Its Potential Use in Hand Thermoregulation Analysis," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2018, pp. 455–463. [Online]. Available: http://link.springer.com/10.1007/978-3-319-92639-1_38
- [74] P. D. Rosero-Montalvo, P. Godoy-Trujillo, E. Flores-Bosmediano, J. Carrascal-Garcia, S. Otero-Potosi, H. Benitez-Pereira, and D. H. Peluffo-Ordóñez, "Sign Language Recognition Based on Intelligent Glove Using Machine Learning Techniques," in *2018 IEEE Third Ecuador Technical Chapters Meeting (ETCM)*. IEEE, oct 2018, pp. 1–5. [Online]. Available: <https://ieeexplore.ieee.org/document/8580268/>
- [75] C. K. Basante-Villota, C. M. Ortega-Castillo, D. F. Peña-Unigarro, J. E. Revelo-Fuelagán, J. A. Salazar-Castro, and D. H. Peluffo-Ordóñez, "Comparative Analysis Between Embedded-Spaces-Based and Kernel-Based Approaches for Interactive Data Representation," in *Communications in Computer and Information Science*, 2018, pp. 28–38. [Online]. Available: http://link.springer.com/10.1007/978-3-319-98998-3_3
- [76] P. D. Rosero-Montalvo, J. Pijal-Rojas, C. Vasquez-Ayala, E. Maya, C. Pupiales, L. Suarez, H. Benitez-Pereira, and D. Peluffo-Ordóñez, "Wireless Sensor Networks for Irrigation in Crops Using Multivariate Regression Models," in *2018 IEEE Third Ecuador Technical Chapters Meeting (ETCM)*. IEEE, oct 2018, pp. 1–6. [Online]. Available: <https://ieeexplore.ieee.org/document/8580322/>
- [77] H. J. Areiza-Laverde, A. E. Castro-Ospina, and D. H. Peluffo-Ordóñez, "Voice Pathology Detection Using Artificial Neural Networks and Support Vector Machines Powered by a Multicriteria Optimization Algorithm," in *Communications in Computer and Information Science*, 2018, pp. 148–159. [Online]. Available: http://link.springer.com/10.1007/978-3-030-00350-0_13

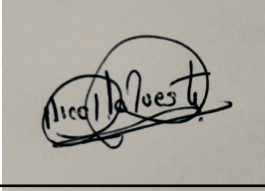
-
- [78] C. K. Basante-Villota, C. M. Ortega-Castillo, D. F. Peña-Unigarro, E. J. Revelo-Fuelagán, J. A. Salazar-Castro, M. Ortega-Bustamante, P. Rosero-Montalvo, L. S. Vega-Escobar, and D. H. Peluffo-Ordóñez, "Angle-Based Model for Interactive Dimensionality Reduction and Data Visualization," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2018, pp. 149–157. [Online]. Available: http://link.springer.com/10.1007/978-3-030-01132-1_17
- [79] M. Moreno-Revelo, M. Ortega-Adarme, D. H. Peluffo-Ordóñez, K. C. Alvarez-Urbe, and M. A. Becerra, "Comparison among physiological signals for biometric identification," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2017, pp. 436–443. [Online]. Available: http://link.springer.com/10.1007/978-3-319-68935-7_47
- [80] K. L. Ponce-Guevara, J. A. Palacios-Echeverria, E. Maya-Olalla, H. M. Dominguez-Limaico, L. E. Suarez-Zambrano, P. D. Rosero-Montalvo, D. H. Peluffo-Ordóñez, and J. C. Alvarado-Perez, "GreenFarm-DM: A tool for analyzing vegetable crops data from a greenhouse using data mining techniques (First trial)," in *2017 IEEE Second Ecuador Technical Chapters Meeting (ETCM)*. IEEE, oct 2017, pp. 1–6. [Online]. Available: <http://ieeexplore.ieee.org/document/8247519/>
- [81] D. Peluffo-Ordóñez, P. Rosero-Montalvo, A. Umaquinga-Criollo, L. Suárez-Zambrano, H. Domínguez-Limaico, O. Oña-Rocha, S. Flores-Armas, and E. Maya-Olalla, "Theoretical developments for interpreting kernel spectral clustering from alternative viewpoints," *Advances in Science, Technology and Engineering Systems Journal*, vol. 2, no. 3, pp. 1670–1676, aug 2017. [Online]. Available: <http://astesj.com/v02/i03/p208/>
- [82] M. Moreno-Revelo, S. Patascoy-Botina, A. Pantoja-Buchelli, J. Revelo Fuelagán, J. Rodríguez-Sotelo, S. Murillo-Rendón, and D. Peluffo-Ordóñez, "Análisis no supervisado aplicado a la detección de arritmias cardiacas," *Enfoque UTE*, vol. 8, no. 1, pp. 257–272, feb 2017. [Online]. Available: <https://ingenieria.ute.edu.ec/enfoqueute/index.php/revista/article/view/125>
- [83] P. Rosero-Montalvo, P. Diaz, J. A. Salazar-Castro, D. F. Peña-Unigarro, A. J. Anaya-Isaza, J. C. Alvarado-Pérez, R. Therón, and D. H. Peluffo-Ordóñez, "Interactive Data Visualization Using Dimensionality Reduction and Similarity-Based Representations," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2017, pp. 334–342. [Online]. Available: http://link.springer.com/10.1007/978-3-319-52277-7_41
- [84] R. I. Pereira-Martínez, J. F. Muñoz-Paredes, and D. H. Peluffo-Ordóñez, "Empleo del estropajo común (Luffa cylindrica) en la remoción de contaminantes." *Revista de Investigación Agraria y Ambiental*, vol. 8, no. 1, pp. 205–215, jun 2017. [Online]. Available: <http://hemeroteca.unad.edu.co/index.php/riaa/article/view/1850>
- [85] D. F. Peña-Unigarro, P. Rosero-Montalvo, E. J. Revelo-Fuelagán, J. A. Castro-Silva, J. C. Alvarado-Pérez, R. Therón, C. M. Ortega-Bustamante, and D. H. Peluffo-Ordóñez, "Interactive Data Visualization Using Dimensionality Reduction and Dissimilarity-Based Representations," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2017, pp. 461–469. [Online]. Available: http://link.springer.com/10.1007/978-3-319-68935-7_50
- [86] D. Viveros-Melo, M. Ortega-Adarme, X. Blanco Valencia, A. E. Castro-Ospina, S. Murillo Rendón, and D. H. Peluffo-Ordóñez, "Razonamiento basado en casos aplicado al diagnóstico médico utilizando clasificadores multi-clase: Un estudio preliminar," *Enfoque UTE*, vol. 8, no. 1, pp. 232–243, feb 2017. [Online]. Available: <https://ingenieria.ute.edu.ec/enfoqueute/index.php/revista/article/view/141>
- [87] V. Alvear-Puertas, P. Rosero-Montalvo, D. Peluffo-Ordóñez, and J. Pijal-Rojas, "Internet de las cosas y visión artificial, funcionamiento y aplicaciones: revisión de literatura," *Enfoque UTE*, vol. 8, no. 1, pp. 244–256, feb 2017. [Online]. Available: <https://ingenieria.ute.edu.ec/enfoqueute/index.php/revista/article/view/121>
- [88] D. E. Imbajoa-Ruiz, I. D. Gustin, M. Bolaños-Ledezma, A. F. Arciniegas-Mejía, F. A. Guasmayan-Guasmayan, M. J. Bravo-Montenegro, A. E. Castro-Ospina, and D. H. Peluffo-Ordóñez, "Multi-labeler classification using Kernel representations and mixture of classifiers," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2017, pp. 343–351. [Online]. Available: http://link.springer.com/10.1007/978-3-319-52277-7_42

-
- [89] P. Rosero-Montalvo, D. Peluffo-Ordóñez, P. Godoy, K. Ponce, E. Rosero, C. Vasquez, F. Cuzme, S. Flores, and Z. A. Mera, "Elderly fall detection using data classification on a portable embedded system," in *2017 IEEE Second Ecuador Technical Chapters Meeting (ETCM)*. IEEE, oct 2017, pp. 1–4. [Online]. Available: <http://ieeexplore.ieee.org/document/8247529/>
- [90] R. Mejia-Campos, D. Nejer-Haro, S. Recalde-Avincho, P. Rosero-Montalvo, and D. Peluffo-Ordóñez, "Face Detection and Classification Using Eigenfaces and Principal Component Analysis: Preliminary Results," in *2017 International Conference on Information Systems and Computer Science (INCISCOS)*. IEEE, nov 2017, pp. 309–315. [Online]. Available: <http://ieeexplore.ieee.org/document/8328124/>
- [91] P. Rosero-Montalvo, D. H. Peluffo-Ordóñez, A. Umaquina, A. Anaya, J. Serrano, E. Rosero, C. Vasquez, and L. Suarez, "Prototype reduction algorithms comparison in nearest neighbor classification for sensor data: Empirical study," in *2017 IEEE Second Ecuador Technical Chapters Meeting (ETCM)*. IEEE, oct 2017, pp. 1–5. [Online]. Available: <http://ieeexplore.ieee.org/document/8247530/>
- [92] J. L. Rodríguez-Sotelo, D. H. Peluffo-Ordóñez, D. López-Londoño, and A. Castro-Ospina, "Segment Clustering for Holter Recordings Analysis," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2017, pp. 456–463. [Online]. Available: http://link.springer.com/10.1007/978-3-319-59740-9_45
- [93] J. L. Rodríguez-Sotelo, A. Osorio-Forero, A. Jiménez-Rodríguez, F. Restrepo-de Mejía, D. H. Peluffo-Ordóñez, and J. Serrano, "Sleep Stages Clustering Using Time and Spectral Features of EEG Signals," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2017, pp. 444–455. [Online]. Available: http://link.springer.com/10.1007/978-3-319-59740-9_44
- [94] X. P. BLANCO VALENCIA, M. A. BECERRA, A. E. CASTRO OSPINA, M. ORTEGA ADARME, D. VIVEROS MELO, and D. H. PELUFFO ORDÓÑEZ, "Kernel-based framework for spectral dimensionality reduction and clustering formulation: A theoretical study," *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal*, vol. 6, no. 1, p. 31, jan 2017. [Online]. Available: <http://revistas.usal.es/index.php/2255-2863/article/view/ADCAIJ2017613140>
- [95] M. Ortega-Adarme, M. Moreno-Revelo, D. H. Peluffo-Ordóñez, D. Marín Castrillon, A. E. Castro-Ospina, and M. A. Becerra, "Analysis of Motor Imaginary BCI Within Multi-environment Scenarios Using a Mixture of Classifiers," in *Communications in Computer and Information Science*, 2017, pp. 511–523. [Online]. Available: http://link.springer.com/10.1007/978-3-319-66562-7_37
- [96] H. J. Areiza-Laverde, A. E. Castro-Ospina, P. Rosero-Montalvo, D. H. Peluffo-Ordóñez, J. L. Rodríguez-Sotelo, and M. A. Becerra-Botero, "Two Novel Clustering Performance Measures Based on Coherence and Relative Assignments of Clusters," in *Communications in Computer and Information Science*, 2017, pp. 792–804. [Online]. Available: http://link.springer.com/10.1007/978-3-319-66562-7_56
- [97] M. A. Becerra, M. B. Sánchez, J. G. Carvajal, J. A. G. Luna, D. H. Peluffo-Ordóñez, and C. Tobón, "Data Fusion from Multiple Stations for Estimation of PM2.5 in Specific Geographical Location," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2017, pp. 426–433. [Online]. Available: http://link.springer.com/10.1007/978-3-319-52277-7_52
- [98] O. R. Oña-Rocha, O. T. Sánchez-Manosalvas, A. C. Umaquina-Criollo, P. D. Rosero-Montalvo, L. E. Suárez-Zambrano, J. L. Rodríguez-Sotelo, and D. H. Peluffo-Ordóñez, "Automatic Motion Segmentation via a Cumulative Kernel Representation and Spectral Clustering," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2017, pp. 406–414. [Online]. Available: http://link.springer.com/10.1007/978-3-319-68935-7_44
- [99] D. F. Pena-unigarro, J. A. Salazar-Castro, D. H. Peluffo-Ordóñez, P. D. Rosero-Montalvo, O. R. Ona-Rocha, A. A. Isaza, J. C. Alvarado-Perez, and R. Theron, "Interactive visualization methodology of high-dimensional data with a color-based model for dimensionality reduction," in *2016 XXI Symposium on Signal Processing, Images and Artificial Vision (STSIVA)*. IEEE, aug 2016, pp. 1–7. [Online]. Available: <http://ieeexplore.ieee.org/document/7743318/>

-
- [100] D. H. Peluffo-Ordóñez, M. A. Becerra, A. E. Castro-Ospina, X. Blanco-Valencia, J. C. Alvarado-Pérez, R. Therón, and A. Anaya-Isaza, "On the relationship between dimensionality reduction and spectral clustering from a Kernel viewpoint," in *Advances in Intelligent Systems and Computing*, 2016, pp. 255–264. [Online]. Available: http://link.springer.com/10.1007/978-3-319-40162-1_28
- [101] C. A. Duarte-Salazar, A. Orozco-Duque, C. Tobon, D. H. Peluffo-Ordonez, J. A. Guzman Luna, and M. A. Becerra, "Comparison between unipolar and bipolar electrograms for detecting rotor tip from 2D fibrillation model using image fusion. A simulation study," in *2016 IEEE Latin American Conference on Computational Intelligence (LA-CCI)*. IEEE, nov 2016, pp. 1–6. [Online]. Available: <https://ieeexplore.ieee.org/document/7885712/>
- [102] J. A. Salazar-Castro, D. Pena-Unigarro, D. H. Peluffo-Ordonez, P. D. Rosero-Montalvo, H. M. Dominguez-Limaico, J. C. Alvarado-Perez, and R. Theron, "Dimensionality reduction for interactive data visualization via a Geo-Desic approach," in *2016 IEEE Latin American Conference on Computational Intelligence (LA-CCI)*. IEEE, nov 2016, pp. 1–6. [Online]. Available: <http://ieeexplore.ieee.org/document/7885740/>
- [103] J. L. Rodríguez-Sotelo, D. Peluffo-Ordóñez, and G. Castellanos Dominguez, "Segment clustering methodology for unsupervised Holter recordings analysis," in *10th International Symposium on Medical Information Processing and Analysis*, E. Romero and N. Lepore, Eds., jan 2015, p. 92870M. [Online]. Available: <http://proceedings.spiedigitallibrary.org/proceeding.aspx?doi=10.1117/12.2073882>
- [104] D. H. Peluffo-Ordonez, J. L. Rodriguez-Sotelo, E. J. Revelo-Fuelagan, C. Ospina-Aguirre, and G. Olivard-Tost, "Generalized Bonhoeffer-van der Pol oscillator for modelling cardiac pulse: Preliminary results," in *2015 IEEE 2nd Colombian Conference on Automatic Control (CCAC)*. IEEE, oct 2015, pp. 1–6. [Online]. Available: <http://ieeexplore.ieee.org/document/7345211/>
- [105] D. H. Peluffo-Ordóñez, J. C. Alvarado-Pérez, and A. E. Castro-Ospina, "On the Spectral Clustering for Dynamic Data," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2015, pp. 148–155. [Online]. Available: http://link.springer.com/10.1007/978-3-319-18833-1_16
- [106] J. A. Lee, D. H. Peluffo-Ordóñez, and M. Verleysen, "Multi-scale similarities in stochastic neighbour embedding: Reducing dimensionality while preserving both local and global structure," *Neurocomputing*, vol. 169, pp. 246–261, dec 2015. [Online]. Available: <https://linkinghub.elsevier.com/retrieve/pii/S0925231215003641>
- [107] J. C. Alvarado-Pérez and D. H. Peluffo-Ordóñez, "Artificial and Natural Intelligence Integration," in *Advances in Intelligent Systems and Computing*, 2015, pp. 167–173. [Online]. Available: http://link.springer.com/10.1007/978-3-319-19638-1_19
- [108] D. H. Peluffo-Ordóñez, J. C. Alvarado-Pérez, J. A. Lee, and M. Verleysen, "Geometrical homotopy for data visualization," in *23rd European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning, ESANN 2015 - Proceedings*, 2015. [Online]. Available: https://dial.uclouvain.be/pr/boreal/object/boreal%3A168996/datastream/PDF_01/view
- [109] L. O. Alpala, D. H. Peluffo-Ordonez, C. Gonzalez-Castano, and F. A. Guasmayan, "Deforming objects via exponential homotopy: A first approach," in *2015 20th Symposium on Signal Processing, Images and Computer Vision (STSIVA)*. IEEE, sep 2015, pp. 1–6. [Online]. Available: <https://ieeexplore.ieee.org/document/7330401>
- [110] J. A. Salazar-Castro, Y. C. Rosas-Narvaez, A. D. Pantoja, J. C. Alvarado-Perez, and D. H. Peluffo-Ordonez, "Interactive interface for efficient data visualization via a geometric approach," in *2015 20th Symposium on Signal Processing, Images and Computer Vision (STSIVA)*. IEEE, sep 2015, pp. 1–6. [Online]. Available: <https://ieeexplore.ieee.org/document/7330397>
- [111] M. E. Acosta-Munoz, H. A. Paredes-Argoty, E. J. Revelo-Fuelagan, and D. H. Peluffo-Ordonez, "On the effect of inverse problem weighted solutions for epileptic sources localization," in *2015 20th Symposium on Signal Processing, Images and Computer Vision (STSIVA)*. IEEE, sep 2015, pp. 1–5. [Online]. Available: <https://ieeexplore.ieee.org/document/7330448>

-
- [112] D. H. Peluffo-Ordóñez, A. E. Castro-Ospina, J. C. Alvarado-Pérez, and E. J. Revelo-Fuelagán, "Multiple Kernel Learning for Spectral Dimensionality Reduction," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2015, pp. 626–634. [Online]. Available: http://link.springer.com/10.1007/978-3-319-25751-8_75
- [113] C. Castro-Hoyos, D. H. Peluffo-Ordóñez, J. L. Rodríguez-Sotelo, and G. Castellanos-Domínguez, "Effectiveness of morphological and spectral heartbeat characterization on arrhythmia clustering for Holter recordings," in *10th International Symposium on Medical Information Processing and Analysis*, E. Romero and N. Lepore, Eds., jan 2015, p. 92870A. [Online]. Available: <http://proceedings.spiedigitallibrary.org/proceeding.aspx?doi=10.1117/12.2070686>
- [114] J. C. ALVARADO-PÉREZ, D. H. PELUFFO-ORDÓÑEZ, and R. THERÓN, "Bridging the gap between human knowledge and machine learning," *ADCAIJ: ADVANCES IN DISTRIBUTED COMPUTING AND ARTIFICIAL INTELLIGENCE JOURNAL*, vol. 4, p. 54, 2015.
- [115] D. H. Peluffo-Ordóñez, S. Murillo-Rendón, J. D. Arias-Londoño, and G. Castellanos-Domínguez, "A multi-class extension for multi-labeler support vector machines," in *22nd European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning, ESANN 2014 - Proceedings*, 2014. [Online]. Available: <https://www.elen.ucl.ac.be/Proceedings/esann/esannpdf/es2014-169.pdf>
- [116] D. H. Peluffo-Ordóñez, J. A. Lee, and M. Verleysen, "Generalized kernel framework for unsupervised spectral methods of dimensionality reduction," in *2014 IEEE Symposium on Computational Intelligence and Data Mining (CIDM)*. IEEE, dec 2014, pp. 171–177. [Online]. Available: <http://ieeexplore.ieee.org/document/7008664/>
- [117] J. A. Lee, D. H. Peluffo-Ordóñez, and M. Verleysen, "Multiscale stochastic neighbor embedding: Towards parameter-free dimensionality reduction," in *22nd European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning, ESANN 2014 - Proceedings*, 2014. [Online]. Available: <https://www.elen.ucl.ac.be/Proceedings/esann/esannpdf/es2014-64.pdf>
- [118] D. H. Peluffo-Ordóñez, J. A. Lee, and M. Verleysen, "Short Review of Dimensionality Reduction Methods Based on Stochastic Neighbour Embedding," in *Advances in Intelligent Systems and Computing*, 2014, pp. 65–74. [Online]. Available: http://link.springer.com/10.1007/978-3-319-07695-9_6
- [119] D. H. Peluffo-Ordóñez and E. J. Revelo-Fuelagán, "Novel spectral characteristics of the electrical current waveform to quantifying power quality on LED lamps," in *2014 XIX Symposium on Image, Signal Processing and Artificial Vision*. IEEE, sep 2014, pp. 1–5. [Online]. Available: <http://ieeexplore.ieee.org/document/7010182/>
- [120] D. Peluffo-Ordóñez, A. E. Castro-Ospina, D. Chavez-Chamorro, C. D. Acosta-Medina, and G. Castellanos-Domínguez, "Normalized cuts clustering with prior knowledge and a pre-clustering stage," in *ESANN 2013 proceedings, 21st European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning*, 2013. [Online]. Available: <https://www.elen.ucl.ac.be/Proceedings/esann/esannpdf/es2013-90.pdf>
- [121] D. Peluffo-Ordóñez, S. García-Vega, R. Langone, J. A. K. Suykens, and G. Castellanos-Domínguez, "Kernel spectral clustering for dynamic data using multiple kernel learning," in *The 2013 International Joint Conference on Neural Networks (IJCNN)*. IEEE, aug 2013, pp. 1–6. [Online]. Available: <http://ieeexplore.ieee.org/document/6706858/>
- [122] A. E. Castro-Ospina, C. Castro-Hoyos, D. Peluffo-Ordóñez, and G. Castellanos-Domínguez, "Novel heuristic search for ventricular arrhythmia detection using normalized cut clustering," in *2013 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*. IEEE, jul 2013, pp. 7076–7079. [Online]. Available: <http://ieeexplore.ieee.org/document/6611188/>
- [123] D. H. Peluffo-Ordóñez, S. García-Vega, A. M. Álvarez-Meza, and C. G. Castellanos-Domínguez, "Kernel Spectral Clustering for Dynamic Data," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2013, pp. 238–245. [Online]. Available: http://link.springer.com/10.1007/978-3-642-41822-8_30

-
- [124] D. Peluffo-Ordóñez, S. García-Vega, and C. G. Castellanos-Domínguez, "Kernel Spectral Clustering for Motion Tracking: A First Approach," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2013, pp. 264–273. [Online]. Available: http://link.springer.com/10.1007/978-3-642-38637-4_27
- [125] S. Murillo-Rendón, D. Peluffo-Ordóñez, J. D. Arias-Londoño, and C. G. Castellanos-Domínguez, "Multi-labeler analysis for bi-class problems based on soft-margin support vector machines," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2013, pp. 274–282. [Online]. Available: http://link.springer.com/10.1007/978-3-642-38637-4_28
- [126] J. Rodríguez-Sotelo, D. Peluffo-Ordoñez, D. Cuesta-Frau, and G. Castellanos-Domínguez, "Unsupervised feature relevance analysis applied to improve ECG heartbeat clustering," *Computer Methods and Programs in Biomedicine*, vol. 108, no. 1, pp. 250–261, oct 2012. [Online]. Available: <https://linkinghub.elsevier.com/retrieve/pii/S0169260712001095>
- [127] S. Molina-Giraldo, A. M. Álvarez-Meza, D. H. Peluffo-Ordoñez, and G. Castellanos-Domínguez, "Image Segmentation Based on Multi-Kernel Learning and Feature Relevance Analysis," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2012, pp. 501–510. [Online]. Available: http://link.springer.com/10.1007/978-3-642-34654-5_51
- [128] D. H. Peluffo-Ordóñez, C. D. Acosta-Medina, and C. G. Castellanos-Domínguez, "An Improved Multi-Class Spectral Clustering Based on Normalized Cuts," in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2012, pp. 130–137. [Online]. Available: http://link.springer.com/10.1007/978-3-642-33275-3_16
- [129] E. Giraldo, D. Peluffo-Ordoñez, and G. Castellanos-Domínguez, "Weighted time series analysis for electroencephalographic source localization," (*Prueba*) *DYNA (Prueba)*, 2012. [Online]. Available: http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0012-73532012000600008
- [130] D. H. Peluffo-Ordóñez, J. D. Martínez-Vargas, and G. Castellanos-Domínguez, "Effect of latency on clustering of P300 recordings for ADHD discrimination," in *2012 Annual International Conference of the IEEE Engineering in Medicine and Biology Society*. IEEE, aug 2012, pp. 5202–5205. [Online]. Available: <http://ieeexplore.ieee.org/document/6347166/>
- [131] B. Ortiz-Jaramillo, J. García-Álvarez, J. Rodríguez-Sotelo, D. Peluffo-Ordóñez, and G. Castellanos-Domínguez, "Region of interest extraction using redundant wavelet transform and unsupervised techniques on thermal imaging," in *Proceedings of the 2010 International Conference on Quantitative InfraRed Thermography*. QIRT Council, 2010. [Online]. Available: <http://qirt.gel.ulaval.ca/archives/qirt2010/papers/QIRT2010-103.pdf>
- [132] J. L. Rodríguez-Sotelo, E. Delgado-Trejos, D. Peluffo-Ordóñez, D. Cuesta-Frau, and G. Castellanos-Domínguez, "Weighted-PCA for unsupervised classification of cardiac arrhythmias," in *2010 Annual International Conference of the IEEE Engineering in Medicine and Biology*. IEEE, aug 2010, pp. 1906–1909. [Online]. Available: <http://ieeexplore.ieee.org/document/5627321/>
- [133] D. H. Peluffo-Ordóñez, J. L. Rodríguez-Sotelo, and G. Castellanos-Domínguez, "Estudio comparativo de métodos de selección de características de inferencia supervisada y no supervisada," *TecnoLógicas*, no. 23, p. 149, dec 2009. [Online]. Available: <https://revistas.itm.edu.co/index.php/tecnologicas/article/view/239>
- [134] J. L. Rodríguez-Sotelo, D. Peluffo-Ordoñez, D. Cuesta-Frau, and G. Castellanos-Domínguez, "Nonparametric density-based clustering for cardiac arrhythmia analysis," in *Computers in Cardiology*, 2009. [Online]. Available: <https://ieeexplore.ieee.org/document/5445342/versions>
- [135] J. Rodríguez-Sotelo, D. Cuesta-Frau, D. Peluffo-Ordóñez, and G. Castellanos-Domínguez, "Unsupervised feature selection in cardiac arrhythmias analysis," in *2009 Annual International Conference of the IEEE Engineering in Medicine and Biology Society*. IEEE, sep 2009, pp. 2571–2574. [Online]. Available: <http://ieeexplore.ieee.org/document/5335284/>



Nicol Mishell Taques Garcia