

Cristina Pomales-García

Department of Industrial Engineering, University of Puerto Rico at Mayagüez
Call Box 9000, Mayagüez, PR 00681

Office: (787) 265-3819, E-mail: cristina.pomales@upr.edu
<https://www.linkedin.com/in/cristina-pomales-garcia-a6992566/>
<http://vivo.uprm.edu/vivo/display/n100002911>

EDUCATION

Ph.D., Industrial and Operations Engineering, University of Michigan, Ann Arbor, MI, 2006
M.S., Industrial and Operations Engineering, University of Michigan, Ann Arbor, MI, 2003
B.A., Psychology, University of Puerto Rico, Mayagüez, PR, 2001

RESEARCH INTERESTS

Engineering Education and Educational Technology, Work Measurement Applications, Human Computer Interaction, Engineering Aesthetics, Ergonomics, Distance Learning Design

TEACHING INTERESTS

Ergonomics, Work Systems Design and Work Measurement, Human Behavior in Work Organizations, Human Factors in Design, Occupational Safety Engineering

CONSULTING INTERESTS

Project Assessment and Evaluation, Work Measurement, Ergonomics, Occupational Safety and Health, Organizational Behavior Training

ADMINISTRATIVE AND TEACHING EXPERIENCE

Associate Dean of Academic Affairs, College of Engineering *University of Puerto Rico, Mayagüez, PR.*, 2020-present

Coordinator of Accreditation, Assessment, and Continuous Improvement, College of Engineering *University of Puerto Rico, Mayagüez, PR.*, 2018-present

Professor at the *Department of Industrial Engineering, University of Puerto Rico, Mayagüez, PR.*, 2016-present

Associate Director and Graduate Program Coordinator, Industrial Engineering Department, July 2013-May 2015.

Associate Professor of Industrial Engineering, *University of Puerto Rico, Mayagüez, PR.*, 2012-2016.

Coordinator for Instituto de Enseñanza y Aprendizaje en Línea (IDEAL), University of Puerto Rico, Mayagüez, PR, October 2008- December 2009

Assistant Professor of Industrial Engineering, *University of Puerto Rico, Mayagüez, PR.*, 2006-2011; Tenured in July 2011.

Graduate Student Instructor for Ergonomics Laboratory. *Department of Industrial and Operations Engineering, University of Michigan, Ann Arbor, MI.*, 2003-2005.

REFEREED JOURNAL ARTICLES (orcid.org/0000-0001-7809-7314)

- Pomales-García, C., Reyes-Rivera, Z., Mercado-Colón, J., Padovani, A., Suarez, O., & Álvarez, J. (2019). Impact of Materials Science and Engineering Clubs on Student's perceptions and aspirations towards STEM. *MRS Advances*, 4(19), 1087-1100. doi:10.1557/adv.2018.584
- De Hoyos-Ruperto, Moraima, Pomales-García, Cristina, Padovani, Agnes, Suárez, O. Marcelo. (2017). An Entrepreneurship Education Co-Curricular Program to Stimulate Entrepreneurial Mindset in Engineering Students, *MRS Advances (Broader Impact)*, 2 (31-32),1673-1679. doi:10.1557/adv.2017.109
- Pomales-García, C., and Rivera-Nivar, M. (2015) Web-based Module Design Guidelines Considering Age. *International Journal of Distance Education Technologies*, 13(4), 64-82.
- Pomales-García, C. and Cortes, K. (2014) Comparative Analysis of Student Self-Reflections on Course Projects. *European Journal of Engineering Education*, 39 (6), 685-699.
- Rivera-Nivar, M. and Pomales-García, C. (2010) E-training: Can young and older users be accommodated with the same interface? *Computers & Education*, 55 (3) 949-960.
- Pomales-García, C., Liu, Y. and Lopez, A.D. (2010) Design Dimensions and Attributes for Web-Based Distance Learning Modules, *The American Journal of Distance Education*, 24(1). (Routledge Education Class of 2011; *Editor's Choice* 2012)
- Pomales-García, C., Carlo, H.J., Ramos-Ortiz, T., Figueroa-Santiago, I.M., and Garcia-Ortiz, S.M. (2009) Non-Traditional Exam Seat Arrangements. *Computers & Industrial Engineering*, 57: 188-195
- Pomales-García, C., and Liu, Y. Excellence in Engineering Education: Views of Undergraduate Engineering Students, *Journal of Engineering Education*, 96 (3), 253-262, 2007.
- Pomales-García, C., and Liu, Y. Web-Based Distance Learning Technology: The Impacts of Web Module Length and Format. *The American Journal of Distance Education*, 20 (3), 163-179, 2006.
- Pomales-García, C., and Liu, Y. Web-Based Distance Learning Technology: Interface Design Variables and their Effects. *International Journal of Instructional Technology and Distance Learning*, 3 (5), 2006. Available electronically at: http://www.itdl.org/Journal/May_06/article02.htm
- Pomales-García, C., and Liu, Y. Web-Based Distance Learning Technology: Effects of Instructor Video on Information Recall and Aesthetic Ratings. *International Journal of Instructional Technology and Distance Learning*, 3 (3), 2006. Available electronically at: http://www.itdl.org/Journal/Mar_06/article04.htm
- Santos, D., Marrero, E., López, V., González, F., y Pomales, C. (2001). Necesidades, uso y satisfacción con los servicios de consejería profesional: Lo que revela una muestra de estudiantes del RUM. *Revista Profesional Asociación Puertorriqueña de Consejería Profesional* 17 (1): 18-25.

CONFERENCE PROCEEDINGS

- Pomales-García, C. Jaquelina Ester Alvarez, Hilda Teresa Ayala-Gonzalez, Design, Impact and Best Practices for a Graduate Research and Innovation Center, 126th ASEE Annual Conference, June 16-19, 2019, Tampa, FL.
- Ruiz González, Marcus C., De Hoyos-Ruperto, Moraima, Pomales-García, Cristina, and María A. Amador-Dumois. Entrepreneurial Education Program for STEM teachers and students, 2019 Annual ASEE-SE Conference, North Carolina State University, Raleigh, NC March 10-12, 2019.

- Pomales-García, C., Suárez, O.M., Padovani, A. M., and Alvarez, J.E. A Successful Pre-college Nanotechnology Experience for Low-income Students (Evaluation), ASEE Annual Conference and Exposition, June 24-27, 2018, Salt Palace Convention Center, Salt Lake City, UT.
- Reyes, Zairelys, Pomales-García, Cristina, and Martin-Marantes Julio D., Characterization of Health Issues amongst Latino Agricultural and Non-agricultural Workers. Proceedings of the 2018 IISE Annual Conference, Institute of Industrial & Systems Engineers, Annual Conference and Expo, Orlando, Florida, May 2018.
- Rodriguez-Velez, Ambar, Pomales-García, Cristina, and Mercado-Colón, Johana, Discomfort, Pain, Posture and Level of Risk in a Coffee Harvesting Task. Proceedings of the 2018 IISE Annual Conference, Institute of Industrial & Systems Engineers, Annual Conference and Expo, Orlando, Florida, May 2018.
- Pomales-García, Cristina and Papadopoulos, Christopher. An Industrial Engineering Design Experience Reflecting upon Moral Development and Well-being. 2017 ASEE Annual Conference & Exposition, June 2017. <https://dire.uprm.edu/handle/20.500.11801/28>
- Méndez-Piñero, Mayra I., Pomales-García, Cristina and Irizarry, María. Industrial Engineering Students Making a Difference - Capstone Design Projects Impacting Adults with Disabilities. 2017 ASEE Zone 2 Spring Conference, March 2 - 5, 2017, Caribe Hilton, San Juan, Puerto Rico.
- Méndez-Piñero, Mayra I., Irizarry, María, and Pomales-García, Cristina. A Non-Traditional Capstone Design Project Experience for Industrial Engineering Students. Proceedings of the 5th Annual World Conference of the Society for Industrial and Systems Engineering, San Francisco Bay Area, CA, USA, October 13-14, 2016
- O'Neill-Carrillo, E., Irizarry-Rivera, A., Pomales, C., Contreras, E. (2015). A Novel, International Masters Program to Address the Sustainable Energy Challenge, Frontiers in Education 2015, October 21-24, El Paso Texas.
- Irizarry, M., Pomales-García, C. Méndez-Piñero, M.I., Hernández, E.O., Antongiorgi, L., Martínez, J.I., (October, 2014). The learning curves of workers with different visual abilities: Sewing Industry Case Study. Proceedings of the 3rd Annual World Conference of the Society for Industrial and Systems Engineering, San Antonio, Texas, USA.
- Treviño-Guzmán, N. and Pomales-García, C., (May 2014). How Can a Serious Game Impact Student Motivation and Learning? Proceedings of the 2014 Industrial and Systems Engineering Research Conference, Canada.
- Pomales-García, C. and Acosta Sojo, Y. (May, 2013). Student misconceptions of probability and statistics problems: A Case Study, Proceedings of the 2013 Industrial and Systems Engineering Research Conference, San Juan, PR.
- Bengoa-Teran, D. Velez, B., Rullán, A., and Pomales-García, C. (2013). Development of an Educational Game for Industrial Engineering Freshman Students, Proceedings of the 2013 Industrial and Systems Engineering Research Conference, San Juan, PR.
- Pomales-García, C. and Cortez, K. (2012). Enhancing Engineering Student Skills through Project-Based Learning. Proceedings of the 2012 Industrial and Systems Engineering Research Conference, Florida.
- Pomales-García, C. and Perez-Canals, M.J. (2011) Could Cutting Boards Help Students Understand IE Core Concepts?: A Pilot Study. Proceedings of the 41st International Conference on Computers & Industrial Engineering, 745-750, Los Angeles, California, USA.
- Castro-Sitiriche, M., O'Neill-Carrillo, E., Papadopoulos, C., Pomales-García, C. Santiago-Román, A. and Seguel, J. (2010) Work in Progress - Leveraging Accreditation Activities to Foster Innovation in Engineering Education. FIE 2010 Annual Conference, Washington, DC.

- Pomales-Garcia, C. Liu, Y., and Lopez, A. D. (2009). Student perceptions on the importance of Distance Learning Module Design Dimensions. FIE 2009 Annual Conference, San Antonio, Texas.
- Pomales-García, C., Rivera Nivar, M., and Chamoun, D. (2009). Best practices and assessment process for an engineering course through videoconference. IIE IERC, Industrial Engineering Annual Conference, Miami, USA.
- O’Neill-Carrillo, E., Irizarry-Rivera, A., Pomales-García, C., and Contreras, E. (2009). Integrative Graduate Program in Sustainable Electric Energy Systems, IEEE Power and Energy Society Annual Conference.
- Pomales-García, C. and Picó, F. (2008). Improving Yield in a Visual Inspection Task. IIE IERC, Industrial Engineering Annual Conference, Vancouver, Canada.
- Jimenez, M., Nieves, A., Pomales, C., Santiago, N., Vega, J.F., and López, V. (2007). An Analysis of Behavior Patterns in Generation Y Engineering Students and their Implications in the Teaching-Learning Process. 114th American Society for Engineering Education Annual Conference & Exposition.
- Pomales-Garcia, C., and Liu, Y., (2006). Educational Technology and Web-Based Distance Learning: Views of Undergraduate Engineering Students. International Conference on Engineering Education, July, San Juan, PR
- Pomales-Garcia, C., Liu, Y., and Soto, V. (2006). Excellence in Engineering Education and Educational Technology: Views of Undergraduate Engineering Students. 113th American Society for Engineering Education Annual Conference and Exposition.
- Pomales-Garcia, C., Liu, Y., and Méndez, D. (2005). Web-based distance learning technology: Does appearance matter? *Proceedings of the 49th Annual Conference of the Human Factors and Ergonomics Society.*

ORAL PRESENTATIONS

- Zairelys Andrea Reyes-Rivera, Cristina Pomales-Garcia. Prevalent Health Issues amongst Puerto Rican Agricultural Workers, 2019 Emerging Researchers National (ERN) Conference in STEM, February 21-23, 2019, Washington, DC.
- Zairelys Reyes-Rivera, Johana M. Mercado-Colón, Cristina Pomales-García, Impact of MSE Clubs on Student’s attitudes & perceptions towards STEM, Junior Technical Meeting and the Puerto Rico Interdisciplinary Scientific Meeting (JTM/PRISM), April 28, 2018, Universidad del Turabo.
- Pomales-Garcia, Cristina, and Martin Marantes, Julio D. Characterization of Musculoskeletal Disorders of agricultural workers in Puerto Rico. Proceedings of the 2018 IISE Annual Conference, Institute of Industrial & Systems Engineers, Annual Conference and Expo, Orlando, Florida, May 2018.
- Pomales-Garcia, Cristina, De Hoyos, Moraima, Padovani, Agnes, Suarez, O. Marcelo. An Entrepreneurship Education Co-Curricular Program to Stimulate Entrepreneurial Mindset in Engineering Students. Venture Well 21st Annual Conference, March 23-25, 2017, Washington, D.C.
- Mayra I. Méndez-Piñero, María Irizarry, and Cristina Pomales-García, A Non-Traditional Capstone Design Project Experience for Industrial Engineering Students, Proceedings of the 5th Annual World Conference of the Society for Industrial and Systems Engineering, San Francisco Bay Area, CA, USA, October 13-14, 2016
- Mendez, M., Pomales-García, C., and Irizarry, M.I. Productivity Evaluation for Visually Impaired Employees – A Sewing Industry Application. Institute of Industrial Engineers Conference and Expo, San Juan, PR, May 2013.
- Santiago-Román, A. I., Pomales-García, C. and Cesaní, V. An Outcome-Based curriculum design approach for an IE Program curriculum revision. Institute of Industrial Engineers

- Conference and Expo, San Juan, PR, May 2013.
- Pomales-Garcia, C. 2012. Computer-Based Puzzle-Type Games and 3-D Educational Game for Industrial Engineers, Society of Hispanic Professional Engineers (SHPE) National Conference, Graduate Program, Dallas Texas.
- Pomales-García, C. (April 24, 2012). Case Study or Industry Project - Which project is better to enhance student skills and experiences? OPERA Seminar, Faculty of Economics and Business, University of Groningen, Netherlands.
- Acosta Sojo, Y., and Pomales-García, C. (2012). Statistics Concept Inventory as a Tool to Enhance Teaching and Learning in Industrial Engineering, 32nd Puerto Rico Interdisciplinary Scientific Meeting (PRISM), March 10, 2012, Carolina, Puerto Rico.
- Cortes, K., and Pomales-García, C. (2012). Enhancing Engineering Student Skills through Project-Based Learning. 32nd Puerto Rico Interdisciplinary Scientific Meeting (PRISM), March 10, 2012, Carolina, Puerto Rico
- Rullan, A., Medina-Borja, A., Pomales-García, C., Artilles, N., Hernandez, W., Figueroa-Villanueva, M., and Zapata, F. (2009). Developing a Serious Computer Game for Industrial Engineering: Providing Context to Learning. IIE IERC, Industrial Engineering Annual Conference, Miami, US.
- Carlo, H.J., Pomales-Garcia, C., Ramos, T.M., and Figueroa, I.M. (2008). Non-Traditional Exam Seating Arrangements that Minimize Academic Dishonesty. IIE IERC, Industrial Engineering Annual Conference, Vancouver, Canada.
- Ramos, T.M., Garcia, S., Carlo, H. J., and Pomales-García, C. (2007). Non-Traditional Exam Seating Arrangements that Minimize Academic Dishonesty. Invited presentation *INFORMS International Puerto Rico*, July 2007, Wyndham Rio Mar Beach Resort & Spa, Rio Grande, PR. (<http://meetings.informs.org/Puertorico2007/index.htm>)
- Garcia, S., Carlo, H.J., Pomales-Garcia, C., Ramos, T. (2007). Non-Traditional Exam Seating Arrangements that Minimize Academic Dishonesty. 27th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), March 2007, Bayamón, Puerto Rico.
- Pomales-Garcia, C., Liu, Y., and Soto, V. (2006). Excellence in Engineering Education and Educational Technology: Views of Undergraduate Engineering Students. *Research and Scholarship in Engineering Education; Poster Session*, CRLT, University of Michigan, Ann Arbor, MI.
- Pomales, C. (April, 2003). Perceptual Countermeasures for Safe Driving. *IOE 802 Research Presentation*, Industrial and Operations Engineering Department, Ann Arbor, MI.
- Pomales, C., y Banuchi, M. (2001). Relación entre el uso de servicios de consejería profesional antes y después de la admisión a estudios universitarios. Presentación Oral en el *9no Simposio de Investigación Subgraduada en las Ciencias Sociales*, Mayagüez, Puerto Rico.

PANNELS AND KEYNOTE PRESENTATIONS

- Tull, Renetta G., Sanches de Da Silva, Esmerita, Rodriguez, Maria Denise, Medina Lourdes, Pomales-García, Cristina, and Quintal, Aryanne. Keynote Speaker at Mujeres en “STEM” y Diversidad, An Annual LACCEI & OAS Conversation on Women, Diversity and STEM. Web Presentation, Boca Raton Florida, July 19, 2017.
- Pomales-García, C. La Ergonomía y el Trabajo=Ergonomics and Work. Conferenciante Principal, Centro Enriquecimiento Profesional, Universidad de Puerto Rico, Mayagüez, 4 de junio de 2017.
- Pomales-García, C. La Ergonomía en el Ambiente Laboral. Conferenciante Invitada, Sociedad Nacional de Honor de Biología Beta Beta Beta, Capítulo Zeta Lambda, Universidad de Puerto Rico, Aguadilla, 4 de febrero de 2017.
- Ordóñez, P, Pomales, C. Reed, A. M. Tull, R.G., Zayas, B. Think Big! Broadening Horizons for Women in Engineering and Computer Science through Global Scholar Networks (Panel),

2015 WEPAN Change Leader Forum: Roadmap to Inclusion, Denver, Colorado, June 11, 2015.

Pomales-García, C. Invited Speaker for Community Matters @ Your Library. Proceso de Avalúo como Método para Alcanzar Efectividad Institucional, General Library, UPRM, April 11, 2014.

Pomales-García, C. Invited Speaker for NSF Advance Workshop. MY Research, Life/Work Balance and Future Plans. March 7, 2014, San Juan, PR.

POSTER PRESENTATIONS

Cristina D. Pomales-García and Dayanna Aymat-Liaño^{UG}. Case study of nightclub noise exposure near a college campus. 2019 IISE Annual Conference, Institute of Industrial & Systems Engineers, Annual Conference and Expo, May 2019

Marcus C. Ruiz González^G, Moraima De Hoyos-Ruperto, Cristina Pomales-García, María A. Amador-Dumois. Entrepreneurial Education Program for STEM teachers and students, NSF HSI Conference on Innovation Ecosystems, UPRM, November 8, 2018.

Dayanna Aymat^{UG}, Cristina Pomales, Case Study of Clubbing Noise Exposure Near UPRM Campus, Open Capstone, December 5, 2018 (Undergraduate Research Project)

Jaquelina E. Álvarez, Oscar Marcelo Suárez, Didier M. Valdés-Díaz, Cristina D. Pomales-García, Lizzette González-Gill, and Eduardo J. Juan-García. Fostering Students' Graduate Education Attainment and Success in Biomedical and Aerospace Engineering and Sustainable Agriculture. Best Practices Conferences (PR_LSAMP). October 2018.
<http://hdl.handle.net/20.500.11801/1092>

Reyes Rivera, Zairelys A.^{UG}, Mercado-Colón, Johana^{UG}, Pomales-García, Cristina, Padovani, Agnes. Impact of Material Science and Engineering Clubs on student's attitudes and perceptions towards STEM. 2017 Emerging Researchers National (ERN) Conference in STEM, Washington DC, March 2-4, 2017.

Mercado-Colón, Johana M.^{UG}, Reyes-Rivera, Zairelys^{UG}, Pomales-García, Cristina. Impact of Materials Science and Engineering clubs on students' expectations and perceived challenges toward pursuing higher education degrees. American Society for Engineering Education, 2017 ASEE Zone 2 Spring Conference, Engineering Everywhere of Everyone, San Juan, Puerto Rico, March 2-5, 2017.

Martínez Velazquez^{UG}, Iraida N., Moreno Hernández^{UG}, Amanda D. and Pomales-García, Cristina. Design of An Ergonomic Coffee Basket to Increase Worker Productivity and Comfort. American Society for Engineering Education, 2017 ASEE Zone 2 Spring Conference, Engineering Everywhere of Everyone, San Juan, Puerto Rico, March 2-5, 2017.

Pomales-García, Cristina, Durand-Mercado, Luzmariel^{UG}, J. Castro-Sitiriche, M. Papadopoulos, C and Frey, W. Industrial Engineering Students Perspectives on Well-Being. Alcance de investigación en UPRM e impacto en sociedad, Academia Investigación y CEP, May 13, 2016, University of Puerto Rico, Mayagüez.

De Hoyos-Ruperto, M., and Pomales-García, C., Development of Entrepreneurial Mindset in UPRM CREST Phase II Participants. Alcance de investigación en UPRM e impacto en sociedad, Academia Investigación y CEP, May 13, 2016, University of Puerto Rico, Mayagüez.

Resto, A. M.^{UG}, Martínez, I^{UG}. and Pomales-García, C. Design of an Ergonomic Coffee Basket to Increase Worker Productivity and Comfort. XXI Sigma Xi Student Poster Day, April 19, 2016, University of Puerto Rico, Mayagüez.

- Carlo, Héctor J., Martínez, Yeiram^{GS}, and Pomales-García, Cristina. Real-time Dock Door Monitoring Using a Kinect Sensor. June-2014 Institute of Material Handling Research Colloquium, Cincinnati Ohio.
- Pomales-García, C. Gaming in Engineering Education. NSF Advance Workshop. March 7, 2014, San Juan, PR
- Treviño, N.^{UG} and Pomales-García, C. How can a serious game impact student motivation and learning? 7th NEA Science Day, Northeast Alliance for Graduate Education and the Professoriate, University of Puerto Rico-Mayagüez, 2014. (Awarded First Place as Undergraduate Research Work)
- Rosario, C.^{UG} and Pomales-García, C. Decision-Making Framework for Capacity Calculation of Manufacturing Lines, Institute of Industrial Engineers Conference and Expo, San Juan, PR, May 2013.
- Acosta Sojo, Y.^{UG} and Pomales-García, C. Student Misconceptions of Probability and Statistics Problems: A Case Study. 6th NEA Science Day, Northeast Alliance for Graduate Education and the Professoriate, University of Puerto Rico-Mayagüez, 2013.
- Bengoa-Teran, D., Velez, B., Rullán, A., Pomales, C., Borges, J. Development of an Educational Game for Industrial Engineering Freshman Students, 6th NEA Science Day, Northeast Alliance for Graduate Education and the Professoriate, University of Puerto Rico-Mayagüez, 2013
- Perez Canals, M.J.^{UG} and Pomales-García, C. Could Cutting Boards Help Students Understand IE Core Concepts?: A Pilot Study”, 8va Feria de Investigación y Diseño de Ingeniería Industrial y Ramas Afines, Departamento de Ingeniería Industrial, Universidad de Puerto Rico-Mayagüez, 2011.
- Gutiérrez, A.^{UG} Meléndez, J. A.^{UG}, Muñoz, E.B.^{UG}, Pomales-García, C. Integrating Human Factors to Formula SAE racecar design, 7ma Feria de Investigación y Diseño de Ingeniería Industrial y Ramas Afines, Universidad de Puerto Rico-Mayagüez, Enero de 2009.
- Rivera, M. Chamoun, D.^{UG} y Pomales, C. Desarrollo de un proceso de avalúo para un curso por video conferencia. 6ta Feria de Investigación y Diseño de Ingeniería Industrial y Ramas Afines, Universidad de Puerto Rico-Mayagüez, Noviembre 2007.
- Lopez A.^{UG} and Pomales-García, C. Design Dimensions and attributes for Web-Based Distance Learning Modules. 6ta Feria de Investigación y Diseño de Ingeniería Industrial y Ramas Afines, Universidad de Puerto Rico-Mayagüez, Noviembre 2007.
- Figuerola, I.^{UG}, García, S. Ramos, T. M.^{UG}, Carlo, H. and Pomales, C. Seating Arrangements that Reduce Academic Dishonesty. 6ta Feria de Investigación y Diseño de Ingeniería Industrial y Ramas Afines, Universidad de Puerto Rico-Mayagüez, Noviembre 2007. (1er premio categoría subgraduada)
- Valera, L. Lopez^{UG}, J., Cintron, J.^{UG} y Pomales, C. Percepción de Posturas y Antropometría en Niños de Escuela Primaria, 6ta Feria de Investigación y Diseño de Ingeniería Industrial y Ramas Afines, Universidad de Puerto Rico-Mayagüez, Noviembre 2007. (1er premio categoría subgraduada)

BOOK CHAPTERS

- Carlo, Héctor J., Martínez, Yeiram^{GS}, and Pomales-García, Cristina. Real-time Dock Door Monitoring Using a Kinect Sensor. 2014 Institute of Material Handling Research Colloquium.

SERVICE

- Reviewer:** Canadian Journal of Learning and Technology/La Revue canadienne de l'apprentissage et de la technologie

Workshop: Avalúo Institucional de la Educación General (March 5, 14 & 15, 2019)

Workshop: Teamwork, Center for Professional Development, November 2018.

Workshop: Data Visualization, Center for Professional Development, September 2018.

Peer Reviewer: Computers and Education Journal, May 2018 & July 2019

Mentor: PR-LSAMP undergraduate research program, 2018-present, 2011-2012

Evaluator: 44th Puerto Rico Teachers of English to Speakers of Other Languages (PR TESOL) Convention Evaluator, Transformative Inquiry: Unearthing the ques for knowledge beyond the English classroom, March 2-3, 2018, Guayanilla, P.R.

Peer Reviewer: 2018 IISE Annual Conference and Expo, Safety, Human Factors and Egonomics track. February 2018.

Panelist: 2018 NSF Graduate Research Fellowship Program (GRFP) panelist, December 2017-January 2018.

Session Chair: American Society for Engineering Education, 2017 ASEE Zone 2 Spring Conference, Engineering Everywhere of Everyone, San Juan, Puerto Rico, March 2-5, 2017.

Workshop: Técnicas efectivas para presentaciones orales, Center for Professional Development, November 1, 2016.

Workshop: Effective Time Management, Research Experience for Undergraduates in Reconfigurable and Multifunctional Soft Materials, May 28, 2015.

Judge: 8th NEA Science Day, University of Puerto Rico, Mayagüez Campus, March 19, 2015.

Workshop: Effective Teamwork, Alpha Pi Mu, Department of Industrial Engineering, Mayagüez Campus, March 5, 2015

Judge: Open Capstone, College of Engineering, December 5, 2014.

Panel: Eco-cine: Happy, the movie (2011), University of Puerto Rico, Mayagüez Campus, October 14, 2014.

Judge: Material Advantage, Student Speaking Contest, University of Puerto Rico, Mayagüez Campus, September 16, 2014.

Judge: 7th NEA Science Day, University of Puerto Rico, Mayagüez Campus, February 13, 2014

Workshop: Poka-Yoke in the Design of Operations, Human Factors and Ergonomics Student Chapter, UPRM, November 23, 2013.

Faculty Counselor for Student Society: Human Factors and Ergonomics Society (HFES - 2013-present) and Industrial Engineering Graduate Student Association (IEGA - 2013-present)

Workshop: Discovering IE through Gaming, CAAMpamento de Pre-Ingeniería, Engineering College, UPRM, July 2013 and June 2014.

Seminar: Tools for a Successful Professional Conference, Institute of Industrial Engineers UPRM Student Chapter, April 30, 2013.

Workshop: Effective Time Management, Center for Professional Development, January 29, 2013.

Judge: 6th NEA Science Day, University of Puerto Rico, Mayagüez Campus, February 7, 2013

Judge: SHPE National Meeting, Student Technical Poster Competition, Dallas Texas, November 2012

Mentor: PR-LSAMP undergraduate research program, 2011-2012

Mentor: Industrial Engineering Department, NSF REU Site-Educating the Culturally Sensitive Industrial Engineer, 2010-2011.

Workshop: Effective PowerPoint Presentation Skills, NSF REU Site-Educating the Culturally Sensitive Industrial Engineer: A complex interdisciplinary systems perspective to global non-traditional IE settings. August 13, 2010 and July 13, 2011.

Consultant: Consejo Educación Superior (CES), Member of Evaluators Panel for licensing of Ramirez College of Business and Technology Institute, May 2008-2012.

Seminar: “La protección de los participantes humanos en la Investigación (IRB)”, February 17, 2009 Recurso: Dra. Cristina Pomales, representante de la Facultad de Ingeniería ante el Comité para la Protección de Seres Humanos en Investigación

Workshop: “Presenting results effectively using PowerPoint”, invited by the PRLSAMP group to develop and present a workshop for undergraduate engineering students on how to use PowerPoint to create effective presentations and posters to present their research work. February 26, 2008.

Master of Ceremony for the Blogfesores 2008 Congress: Congress in technologies for teaching and learning. Mayagüez, PR. February 8, 2008.

Panel: “*The Importance of Undergraduate Research*”, coordinated seminar/panel for undergraduate students at the University of Puerto Rico, Mayagüez Campus. Christopher M. Jones from the Massachusetts Institute of Technology (MIT) was the speaker. September 24, 2007.

Workshop: ININWEB Questionnaire System Workshop, *University of Puerto Rico, Mayagüez Campus*, 2007-2008. Developed a series of training workshop for the faculty, administration and students on campus. These workshops were hosted by the Professional Development Center (CEP) and IDEAL. September 18, 2007; January 24, 2008 and February 12, 2008; March 5 & 12, 2009.

Distinguished Guest Speaker, *PROMISE Summer Success Institute*, Maryland’s AGEP, USA, August 16-18, 2007.

Teachers Workshop Liaison, INFORMS International Puerto Rico, Wyndham Rio Mar Beach Resort, Puerto Rico, July 9, 2007. Recruited over 40 Middle/High School Teachers for full day workshop in Operations Research.

Workshop “Games to Explain Human Factors: come, participate, have fun!”, presented a workshop in the series of workshops offered by the Industrial Engineering Department for high school students, *University of Puerto Rico, Mayagüez Campus*, April, 2007.

Moderator for SHPE Regional Science Bowl, *University of Puerto Rico, Mayagüez Campus*, February 17, 2007.

Judge: MATHCOUNTS, middle school mathematics competition, *University of Puerto Rico, Mayagüez Campus*, February 10, 2007.

Workshop: Effective use of PowerPoint, *University of Puerto Rico, Mayagüez Campus*, 2006-2007. Developed a series of workshops for the faculty on campus on effective use and advanced tools in Power Point. Delivered three seminars hosted by the Professional Development Center (CEP) and IDEAL.

Session Chair and Reviewer: *International Conference on Engineering Education (ICEE): Education, Research and Development: Fostering Economic Growth*, San Juan, Puerto Rico, July 23-28, 2006.

Graduate Student Recruiter: *University of Michigan, College of Engineering, Ann Arbor, MI.*, 2002-2005.

- Society of Hispanic Professional Engineers (SHPE-NTCC) college/career fair (2002 and 2003); and HENAAC conference (October 6-8, 2005, Anaheim, CA).
- Offered orientation and recruited prospective graduate students for the University of Michigan, College of Engineering.
- Actively participated in Graduate Programs Information Day and PREVIEW program (November, 2004-05) as student volunteer in different information panels.

Project leader for the Summer Engineering Institute (SEI): *University of Michigan, College of Engineering, Ann Arbor, MI*

- Lead a team of 7 high school females accepted at the University of Michigan, working in an engineering project.
- By the end of the summer, the students created and presented a poster for the Academic Development Conference held August 5, 2005.

Peer Counselor for the Graduate Women in Industrial and Operations Engineering Department, Winter 2005-2006 (Women in Engineering Office Programs at the University of Michigan).

SERVICE--UNIVERSITY COMMITTEES

Academic Senator, University of Puerto Rico Mayagüez, December 2019

Comité Institucional Educación General, Representative for the College of Engineering in the Institutional Committee responsible for the development and implementation of the UPRM General Education Curriculum, September 2019-Present.

Middle States Commission Higher Education Accreditation Visit, Member of Steering Committee, Lead efforts in Standard 7 (Institutional Assessment), January 2013-May 2014.

Ad-hoc Committee Member, Development of Mission and Vision for Industrial Engineering Department, December 2012- February 2013.

ABET Assessment Coordinator, Industrial Engineering Department, August 2009- December 2012.

Special Institutional Committee, Development of a Student Assessment Instrument for Online and Hybrid Courses at UPR-Mayagüez, 2011-2012; 2017.

Graduate Studies Committee, Member of the Departmental Committee for Graduate Studies, November 2009-December 2011, August 2012- December 2014.

Graduate Council, Member of College Graduate Council as representative from Industrial Engineering Department, August 2012- December 2013.

Coordinator, Human Factors Laboratory, Department of Industrial Engineering, August 2007-present

IRB, Comité Protección de Seres Humanos en Investigación (CPSHI), University of Puerto Rico, Mayagüez, PR, August, 2007- March 2009.

Library Committee University of Puerto Rico, Mayagüez, PR, 2006-2011.

IDEAL, Instituto de Enseñanza y Aprendizaje en Línea, University of Puerto Rico, Mayagüez, PR, Advising Committee: 2006-2007. Coordinator: 2008-2009.

PROFESSIONAL AFFILIATIONS

- Alpha Delta Kappa, 2010-present, ADK Puerto Rico Treasurer 2018-2021, Delta Chapter Membership Coordinator 2016-2018, Delta Chapter President 2014-2016, Delta Chapter President Elect 2012-2014; Delta Chapter Correspondence Secretary 2010-2011
- Member, Institute of Industrial and Systems Engineers, 2007-2009, 2018-present
- Member, The American Society for Engineering Education, 2003-present
- Member, Human Factors and Ergonomics Society, 2002-2011; 2013-present
- Member, Unity on Campus Board of Trustees, Ann Arbor, MI., 2002-2006
- Student Member, Institute of Electrical and Electronic Engineers (IEEE), 1999-2001
- Student Member, Society of Hispanic Professional Engineers (SHPE), 1999-2001

ACADEMIC HONORS and AWARDS

- Marquis Who's Who, 2018 Albert Nelson Marquis Lifetime Achievement Award.
- Distinguished Professor, Industrial Engineering Department, College of Engineering 2014-2015.
- First Place in Undergraduate Poster Competition, 7th NEA Science Day, University of Puerto Rico, Mayagüez Campus, February 13, 2014. Treviño, N. and Pomales-García, C. How can a serious game impact student motivation and learning, 7th NEA Science Day, Northeast

Alliance for Graduate Education and the Professoriate, University of Puerto Rico-Mayagüez, 2014.

- Educational Media & Technology, Editor's Choice (2012) for most significant article published in the American Journal of Distance Education (Article title: Design Dimensions and Attributes for Web-Based Distance Learning Modules)
- Recognized in the Routledge Education Class of 2011 for most popular article published in the American Journal of Distance Education within the area of educational media and technology (Article title: Design Dimensions and Attributes for Web-Based Distance Learning Modules)
- The Mildred B. and Charles A. Wedemeyer Award for distinguished scholarship and publication, 2007
- Society of Women Engineers Teaching Award, University of Michigan, 2005

CERTIFICATIONS

- Moodle 3.3 Practice, (15 hrs), University of Puerto Rico, Mayagüez, April 2018.
- Design and Creation of Educational Materials for Online Courses, (22.5 hrs), University of Puerto Rico, Mayagüez, March 2018.
- Creation of Online Courses (22.5 hrs), University of Puerto Rico, Mayagüez, January 2018.
- Social & Behavioral Research, Collaborative Institutional Training Initiative (CITI), October 2016, Valid thru Oct-2019
- Basic Maynard Operator Sequence Technique (MOST) Certification, Accenture Academy, November 2012, Recertification December 2019.
- Certified Community Emergency Response Team (CERT), Emergency Management and Disaster Administration Office, July 2011
- Training in Occupational Safety and Health Standards for the General Industry, OSHA 30 hr certification, June 2007

GRADUATE STUDENTS

Graduate Chair:

- Ambar Rodriguez (2015-2018), "Evaluation of Manual Force Requirements and Posture in a Coffee Harvesting Task" (MS Thesis, July 2018)
- Julio Martin, (2016-2018), "Musculoskeletal Disorders Among Agricultural Workers in Puerto Rico" (MS Thesis, May 2018)
- Rafael Bautista (2011-2013), "Development of Room Cleaning Standards for the Hotel Industry in Puerto Rico" (project-work in progress)
- Cristina Martinez (2009-2011), "The Prediction of Heat Stress in a Hot-Humid Tropical Agricultural Environment using ISO 7243 and ISO 7933" (thesis-not completed)
- Mericia Rivera Nivar, (2006-2009), "Development of Universal Design Guidelines for E-Learning and E-Training"

Graduate Committee member

- Marcus C. Ruiz González, 2019, A Content Analysis of Undergraduate Engineering Programs: Creativity, Innovation and Financial Literacy
- David Bengoa-Terán, (2012), "Implementation of a 3-D educational game for Industrial Engineers"

Graduate School Representative

- David Ramos Maldonado, (2015), “Estudio de las órdenes de cambio de proyectos de diseño-construcción en las escuelas del siglo XXI”
- Yamil Torres Ramirez, (2014), “Simulación de la política (Q,r) en un ambiente Assembly to Order con un tiempo de seguridad estocástico incluido en el tiempo de entrega al cliente”
- Erileen Garcia Roldan, (2012), “Parasitic eggs in ancient coprolites from archeological sites in Puerto Rico”, Biology
- Edgard Vélez Morales, (2010), “A comparative usability study of Microsoft Office 2007 and microsoft office 2003”, Computer Science
- Fernando J. Maymí, (2009), “A Framework for Pervasively Shared Situational Awareness in Mobile Ad Hoc Environments”. Computer Science
- Julio Cesar Castro Avila, (2008), “A screw theory approach to analyze the dynamics of parts in a vibratory bowl feeder”, Mechanical Engineering
- Juan Antonio Correa Colón, (2006), “A framework for Web Based Transaction Coordinator Switch”, Computer Science

UNDERGRADUATE RESEARCH STUDENTS

2006-2007

Children Anthropometry and Posture Project: Juan Lopez, Armando Menéndez, Jarek Cintrón, Lourdes Varela, Edgardo Rodríguez Bonilla (Volunteer), and Carlos Isaac Romero (volunteer)

User perceptions of Web-based distance learning interface design: Angel Lopez

2007-2008

Assessment of quality of a distance learning program: Diana Chamoun

Exam seat arrangement problem in collaboration with Dr. Hector J. Carlo: Tanya Ramos Ortiz

2008-2009

Ergonomic evaluation and re-design of the Formula SAE (Society of Automotive Engineers) car: Erick Muñoz, Awilda Gutierrez, José A. Melendez

Usability game protocols for game design: Desirée A. Rodríguez Villanueva

2009-2010

Study of Work Allowances in Puerto Rican Manufacturing Industries: Linda Freytes

2010-2011

IE Gaming: Effectiveness of playing a puzzle type computer game in the development of knowledge and understanding of basic Industrial Engineering concepts for IE students:

María Jose Perez Canals (Sponsored by REU Project)

2011-2012

Comparative analysis of student reflections on ergonomics and work measurement course projects: Kenneth Cortes (Sponsored by REU Project)

Study of Work Allowances in Puerto Rican Manufacturing Industries: Alexandra Pimentel

Statistics Concept Inventory as a tool to enhance teaching and learning in Industrial Engineering: Yadianna Acosta (Sponsored by PR-LSAMP 2011-2012)

2012-2013

Automated Kinect Based Time Studies: Yeiram Martinez

Statistics Concept Inventory as a tool to enhance teaching and learning in Industrial Engineering: Yadianna Acosta

2013-2014

Real-Time Dock Door Monitoring System using Kinect: Yeiram Martinez

Can gaming provide context and increase motivation of IE first year students?: Naret Trevino

2014-2015

CREST Phase II Assessment: Laresa Acevedo and Frances Ginard

Can gaming provide context and increase motivation of IE students across the curriculum?:

Naret Trevino

2015-2016

CREST Phase II Assessment: Zairelys Reyes; Johanna Mercado; Luzmariel Durant

2016-2017

CREST Phase II Assessment: Zairelys Reyes; Johanna Mercado

Design of Coffee Basket for Harvesting Process: Iraida Martinez; Amanda D. Moreno

2017-2018

CREST Phase II Assessment: Zairelys Reyes; Johanna Mercado

Characterization of Health Issues amongst Latino Agricultural and Non-agricultural

Workers: Zairelys Reyes

Discomfort, Pain, Posture and Level of Risk in a Coffee Harvesting Task: Johana Mercado-

Colón

2018-2019

CREST Phase II Assessment: Mariana Trogolo, Valeria Centeno, Gabriela Martinez, Gabriela Flores

Case study of night club noise exposure in Mayagüez: Dayanna Aymat-Liaño

Characterization of Health Issues amongst Latino Agricultural and Non-agricultural

Workers: Zairelys Reyes

2019-2020

CONTINUOUS IMPROVEMENT

Webinar: New Guidelines for Designing Safe Pushing and Pulling Tasks, January 9, 2020, Presenter: Gary Allread, Ph.D., CPE, Program Director, SRI-Ergonomics, Ohio State University.