



eldon.caldwell@ucr.ac.cr



aapia.cfia.or.cr

ID ORCHID

<https://orcid.org/0000-0003-0853-2469>



ELDON GLEN CADWELL MARÍN

Ph.D., Sc.D., Ed.D._ Industrial Engineer

Industrial Engineer, Full Professor and Researcher at Universidad de Costa Rica, with more than 30 years of experience as a consultant, trainer, and advisor to companies and organizations at the national and international levels in the Americas and Europe. He is President and distinguished member of the IIEM Mobility Society (IEE.UU.), an international conference reviewer, author of books and scientific articles, and editor of the international journals *Acta Científica* and *Relaciones Industriales LATAM*. His professional interests include Education 4.0, Manufacturing 4.0, Engineering Education, and Industry 4.0. A pioneer in the implementation of flexible manufacturing models in Latin America, he is currently developing the Theory of Exergy, Anergy, and Socioeducational Entropy.

ACADEMIC BACKGROUND

- Doctorate (Ph.D./Dr.Ed.) in Education, Universidad de Costa Rica.
- Doctorate (Sc.D.) in Robotics and Automation, Universidad de Alicante, Spain.
- Doctorate (Ph.D.) in Industrial Engineering, Universidad Autónoma de Centro América (UACA), Heredia, Costa Rica.
- Master's Degree (M.A.) in Industrial Engineering, Universidad de Costa Rica (UCR).
- Master's Degree (M.Sc.) in Sustainable Health Services Management, UNED-CR.
- Master's Degree (MBA) in International Business Management, Servicios, Universidad Interamericana, Costa Rica.
- Master's Degree (MBA) in Engineering Management, Universidad Interamericana, Costa Rica.
- Diploma in Statistical Analysis for Quality, Universidad de Veracruz, Mexico.
- Licentiate Degree in Industrial Engineering, Universidad de Costa Rica (UCR).

PROFESSIONAL EXPERIENCE

- **[2024–2028]** Director, Master's Program in Industrial Engineering, Universidad de Costa Rica.
- **[2023–2025]** President, Manufacturing and Operations Management Society (USA).
- **[2023–2025]** President, IEEE Industry Applications Society, Costa Rica.
- **[2020–2024]** Representative of the Knowledge Area on the Council for Graduate Studies, UCR.
- **[2018–2021]** Assessor, Industry 4.0 Standard Validation Committee, Smart Automation Certification Alliance (USA).
- **[2011–2024]** Director, International Robotics and Automation Competition, Alicante, Spain.
- **[2013–2021]** Director, School of Industrial Engineering, Universidad de Costa Rica.
- **[2015–2021]** Coordinator for the design, management, and installation of Manufacturing and Logistics 4.0 Laboratories, Intelligent Cyber-Physical Systems, and other laboratories, School of Industrial Engineering, UCR.
- **[2018–2021]** Advisor to the Industry 4.0 Standard Validation Committee, Smart Automation Certification Alliance, USA.
- **[2013–2016]** Academic Coordinator General, Universidad de Costa Rica, Interuniversity Campus of Alajuela.
- **[2013–2016]** Coordinator, Bachelor's Degree Program in Industrial Engineering, Interuniversity Campus of Alajuela, Universidad de Costa Rica.
- **[2014–2015]** Coordinator, International Commission of the Interuniversity Campus of Alajuela.
- **[2012–2014]** Coordinator, Commission for the Foundation and Launch of the Doctoral Program in Engineering (UCRTEC), Universidad de Costa Rica.
- **[2008–2014]** Coordinator for the installation and management of the Robotics and Automation Laboratory, Interuniversity Campus of Alajuela, UCR.
- **[2008–2013]** Coordinator, Department of Value Chain and Operations Management, School of Industrial Engineering, Universidad de Costa Rica.
- **[2008–2012]** Coordinator, Department of Robotics and Automated Manufacturing, and Manufacturing and Logistics 4.0, School of Industrial Engineering, Universidad de Costa Rica.

TEACHING EXPERIENCE

- **[2010–Present]** Full Professor, Universidad de Costa Rica.
- **[1990–Present]** Professor, School of Industrial Engineering, Universidad de Costa Rica.
- **[2022–2024]** Visiting Professor and doctoral thesis advisor, Ph.D. programs at UCR.
- **[2020–2023]** Distinguished Visiting Professor (DVP), IEEE Computer Society, USA.
- **[2024–2025]** Distinguished Visiting Professor, IEEE Education Society, USA, in Industrial Engineering and Education 4.0.