

ANDREA SANCHO-SALAS

ARCHITECT

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San José, Costa Rica

Architect specializing in the research and application of daylight in the built environment. She holds a Master's degree in Tropical Architecture and postgraduate certifications in Lighting Design and BIM Management. As a lecturer, her work focuses on the impact of climate on buildings, passive design strategies, indoor comfort, and adaptive building use. She has authored articles on energy simulation, solar geometry in architectural education, and lighting simulation validation. Additionally, she consults in lighting design and energy analysis, with a strong focus on daylight, its interaction with materials, and its role in human health and well-being. In 2021, she founded LINEA, a consulting firm dedicated to lighting, environmental analysis, and sustainable design, creating healthy and efficient spaces through innovative and advanced solutions.

ACADEMIC BACKGROUND

1. EDUCATION

2022 Master's Degree in Tropical Architecture.

University of Costa Rica. Graduated with Honors

2020 Postgraduate Certificate in BIM Management.

University of Barcelona

2014 Posgraduate Certificate in Lighting Design.

LCI Veritas University

2013 Bachelor's Degree in Architecture, University of Costa Rica. Graduated with distinction and recommendation for publication.

2. ADDITIONAL TRAINING

2024 Measuring Light and Illumination. Daylight Academy, Chexbres

TEACHING EXPERIENCE

1. UNIVERSITY OF COSTA RICA

1.1 Postgraduate Courses

2022/2024 Design Workshop on Advanced Materials and Techniques. Master's in Tropical Architecture

1.2 Undergraduate Courses

2025 Elective: Radical Climate.

2024 Elective: Panama City.

2023 Elective: Light and Color in Architecture.

2022-2025 Design Studio IX-X: INLab.

2021 -2024 Building Installations.

2020-2022 Design Studio III-IV-V.

2016-2019 Design Studio IX-X: Tropical Architecture.

2023 Digital Competencies for Teaching.

University of Costa Rica

2020 Advanced Autodesk Revit.

LCI Veritas University

2019 Energy Simulation in Building Course.

University of Barcelona

2017 Academic Internship in the Master's Program in Technological Innovation in Building. Polytechnic University of Madrid

2015 DesignBuilder Software Simulation.

Pacific Energy Center

2015 Lighting Analysis with DIALux EVO.

Darko Lighting Uruguay

2013- Ongoing Climate-Responsive Design.

1.3 Other activities

2023-Ongoing Member of the Research Commission, School of Architecture.

2021-Ongoing Head of International Affairs, School of Architecture.

2015-2019 Administrative Coordinator of the Tropical Architecture Laboratory

2. LCI VERITAS UNIVERSITY

2.1 Postgraduate Courses in Architecture

2015 Postgraduate in Lighting Design.

2.2 Undergraduate courses

2018-2022 Light Treatment, Materials, and Finishes.

2015-2022 Lighting.

2020-2021 Design Studio X

2020-2021 Technological Elective: BIM.

2017-2018 Design with the Environment

2.3 Other activities

2016-2018 Academic Coordinator, School of

Architecture and Interior Space Design.

3. CHAMBER OF INDUSTRIES COSTA RICA

2018-2019 DIALux evo Course: Design, Simulation, and Evaluation.

2016-2018 Energy Administrator Course, Daylighting Module.

PUBLICATIONS

1. Sancho-Salas, A., Flor, J. F., & Fishel, D. (2024). Rethinking solar geometry and design education in tropical environments. *Advances in Building Education*.

2. Sancho-Salas, A., Porras-Chaverri, M. (2023). Física para estudiantes de Arquitectura: una experiencia didáctica lúdica en un curso de diseño con materiales y técnicas avanzadas. *Innovacesal*.

3. Sancho-Salas, A., Flor, J.F., Muñoz, S. (2022). Predicting reality within the virtual: Experimental validation of daylight simulation tools for architectural spaces in the tropics. *Journal of Engineering Science & Technology (JESTEC)*.

4. Sancho-Salas, A. et al. (2021). Architecture adaptation to climate change: Data projection and energy simulation of two scenarios for public buildings in Costa Rica. *DYNA*, 96(4). 347-350. <https://doi.org/10.6036/95816>.

5. Sancho-Salas, A. et al. (2020). Analysis of natural and artificial luminance and illuminance in an interior space of the U-Cowork district academic project. *Anales de Edificación*, 6(1), 33-43. <https://doi.org/10.20868/ade.2020.4452>

6. Sancho Salas, A. (2017). Digital simulation as a tool for bioclimatic re-conditioning of buildings. *Anales de Edificación*, 3(1), 32-43. <https://doi.org/10.20868/ade.2017.3533>

7. Sancho-Salas, A. (2016). Reacondicionamiento bioclimático de edificaciones existentes mediante el uso de simulación energética. Cristina Engel; Luis Bragança (Ed.), Comunidades Urbanas Energéticamente Eficientes, (1 ed., Vol. 1, pp. 234-249). *EDUFES*.

SCHOLARSHIP AND AWARDS

2023 Winner of the PUBLICARE I-2023 call, Vice-Rector's Office for Teaching, University of Costa Rica.

2022 Award for Best Presentation and Best Paper at the THINKSPACE Conference, Taylor's University, Malaysia.

PROFESSIONAL EXPERIENCE

2025 Kaiko Sushi Bar, Pinares - Artificial lighting design proposal

2024 Judiciary Building, Guanacaste – Bioclimatic performance analysis

2023 221 Residence, Curridabat – Artificial lighting design proposal

2023 345 Residence, Papagayo – Façade reflectivity, luminance, and illuminance analysis

2022 Hotel in Punta Cacique – Ventilation analysis and bioclimatic design recommendations

2021 Food Pavilion at ALESTE – Lighting performance analysis for adaptive design

2019 González-Del Valle Residence – Comprehensive thermal, lighting, and wind performance study

2018 Casa Luz – Lighting design with calculations using DIALux EVO

2018 Construction Link Offices – Lighting analysis and recommendations

2016 ICODER Sports Pavilion – Bioclimatic performance analysis and recommendations

2016 Belén Business Center – Analysis and optimization of corporate building energy performance

2015 Escazú Village Residences – Diagnosis and sun protection proposal

LANGUAGES

Spanish Mother tongue

English Advanced level

Italian A2

German B2C

SOFTWARE

BIM and 3D modelling

AutoCAD

Autodesk Revit

Sketchup

Environmental analysis

Design Builder

Climate Consultant

Dialux Evo

Velux Daylight Visualizer