ALBA RAMOS SANZ, PhD, MBA

BUILDING ENERGY EFFICIENCY • URBAN CLIMATE ADAPTATION • TECHNO-ECONOMIC ASSESSMENT

CONICET Research Scientist | Director, INEAA–UNSJ | San Juan, Argentina

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PROFESSIONAL PROFILE



Architect, PhD in Architecture and MBA, with experience in applied research, scientific leadership, university–industry engagement and international academic cooperation. Research Scientist at Argentina's National Scientific and Technical Research Council (CONICET) and Director of the Institute for Environmental Architecture Studies (INEAA), National University of San Juan (UNSJ). Expertise spans building physics, thermal performance of building envelopes, energy simulation, urban climate, bioclimatic design and techno-economic assessment of energy efficiency investments. Combines numerical modelling, statistical analysis, uncertainty and sensitivity assessment, and life-cycle cost evaluation to support evidence-based decisions.

COLLABORATION OBJECTIVES | 2026 MATCHMAKING

- European technology partner — jointly develop, adapt or validate methodologies and analytical tools for sustainable buildings and climate-resilient urban environments.
- First commercial collaboration — scope a pilot, feasibility study or specialist technical service in building energy modelling, climate analysis or investment assessment.
- International R&D consortium — contribute scientific expertise, research coordination and an Argentine institutional perspective to collaborative projects on sustainability and green technologies.

TECHNICAL CAPABILITIES & POTENTIAL APPLICATIONS

Building energy performance and investment analytics |

Dynamic thermal simulation, envelope performance assessment, life-cycle costs, risk and sensitivity analysis for energy-efficiency decision support.

Urban climate and adaptation |

Urban climate analysis, thermal comfort assessment and environmental indicators to inform climate-responsive urban planning.

Climate data and numerical modelling |

Meteorological data analysis, statistical methods and computational models supporting building and environmental simulations.

Energy efficiency in agroindustry |

Thermal assessment of agroindustrial facilities and building envelopes, with potential applications in reducing energy demand.

SELECTED LEADERSHIP & RESEARCH POSITIONS

Director General, INEAA — National University of San Juan | 2024–present

Leads research teams and coordinates R&D projects, researchers and graduate trainees; manages institutional engagement with public agencies, professional organisations and the private sector.

Research Scientist (Investigadora Adjunta), CONICET | 2016–present

Research in building energy efficiency, thermal modelling, urban climate, numerical simulation and financial evaluation of energy-efficiency projects.

Director, Programme for Climate Updating of the City of San Juan (PROPAC), INEAA–UNSJ | 2024–present

Programme leadership in applied urban climate research.

ADDITIONAL LEADERSHIP & INSTITUTIONAL EXPERIENCE

Alternate Coordinator, CONICET Doctoral and Postdoctoral Fellowship Evaluation Committee | 2026–2028

Scientific evaluation and research capacity assessment.

Member, CONICET Doctoral and Postdoctoral Fellowship Evaluation Committee | 2022–2024

Scientific evaluation.

Coordinator, Urban and Building Studies Area, Centro REDES (CONICET-associated unit) | 2024–present

Coordination of urban and building research activities.

Member, Doctoral Committee in Architecture and Urbanism, UNSJ | 2025–present

Doctoral programme governance.

Independent architectural professional | 2004–present

Architectural project design and construction supervision.

INTERNATIONAL ACADEMIC ENGAGEMENT

Invited Professor: Technical University of Braunschweig (Germany); Technical University of Madrid (Spain); Technical University of Lodz (Poland).

EDUCATION

MBA / Master in Business Administration — Universidad Nacional de Cuyo, Argentina | 2020

PhD in Architecture — Universidad de Mendoza, Argentina | 2013

Architect — Universidad Nacional de San Juan, Argentina | 2003

LEADERSHIP & PROFESSIONAL SKILLS

Strategic Leadership and Institutional Management • Multidisciplinary Research Team Leadership • R&D Project Management and Coordination • International Networking and Partnership Development • Stakeholder Engagement and Cross-Sector Collaboration • Strategic Decision-Making and Complex Problem-Solving • Scientific Evaluation, Mentoring and Talent Development

METHODS & SOFTWARE

Building simulation: EnergyPlus, DesignBuilder | Quantitative analysis: R, Python, IBM SPSS Statistics | Design: AutoCAD, SketchUp | Methods: numerical modelling, statistical analysis, scenario and sensitivity analysis, probabilistic simulation, life-cycle costing.

UNIVERSITY TEACHING

Course Lead, Research Methodology (UNSJ, 2024–present); Course Lead, Research in Design Disciplines (UNSJ, 2016–present).

POTENTIAL MODES OF COOPERATION

- Joint research proposals, consortium participation and international R&D cooperation.
- Collaborative technical validation, comparative case studies and pilot applications.
- Specialist consulting or subcontracted analysis, subject to institutional and contractual arrangements.

RESEARCH OUTPUTS

Scientific publications and researcher identification: https://orcid.org/0000-0003-4069-4740 ; https://bicyt.conicet.gov.ar/fichas/p/alba-ines-ramos-sanz ; https://centroredes.org.ar/index.php/category/cursos/estudios-urbanos-y-edilicios/

Selected project outcomes, quantitative results and commercial references can be added once supporting documentation is available.