

RAVI SRINIVASAN PhD, CEM, LEED AP, GGP, USIBD

Associate Dean for Research and Strategic Initiatives

Ph.D. in Architecture, University of Pennsylvania

Tenured Full Professor, Construction Management

Co-Instructor, Terminal Architecture Design 8 (D8) Comprehensive Studio, School of Architecture

Director, Urban Building Energy, Sensing, Controls, Big Data Analysis, and Viz. (UrbSys) Lab

College of Design, Construction and Planning

University of Florida

Gainesville, Florida 32611, United States of America

<https://built-ecologist.com/>

<https://dcp.ufl.edu/research/about/>

<https://www.linkedin.com/in/ravisrinivasan/>

Other Affiliations

At University Institute/ Center – Affiliate Faculty Status

- Fixel Institute of Neurological Diseases, University of Florida
- Center for Environmental Building + Design, Weitzman School of Design, University of Pennsylvania

At External Board/ Organization

- Chair, American Society for Heating, Refrigeration and Airconditioning Engineers (ASHRAE) Technical Committee (TC) 4.5 Fenestration Handbook Subcommittee
- Chair, Research Subcommittee, National Fenestration Rating Council (NFRC)

July 2026

Biography

Dr. Ravi Srinivasan is an architect-scholar. Trained first in the design studio, he earned his B.Arch (First Class with Distinction) from the National Institute of Technology, India, and practiced architecture and interior design in India and Singapore (1996–2000) before earning his M.S. and Ph.D. in Architecture at the University of Pennsylvania; he has since co-taught the terminal Architecture Design 8 (D8) comprehensive studio in the University of Florida (UF) School of Architecture for several years. He has juried for Harvard GSD and presented seminars at Penn. He pairs that design lineage with technology and administrative leadership as the Associate Dean for Research and Strategic Initiatives in the College of Design, Construction & Planning (DCP) at the UF. In this executive capacity, he directs the creation and execution of college-wide strategic initiatives alongside the comprehensive governance of graduate, faculty, and research affairs across five academic departments and schools (architecture, construction management, interior design, landscape architecture, and urban & regional planning) serving more than 1,200 students and 150 faculty and staff, with direct executive reporting lines for the college's multidisciplinary academic programs (Sustainability and the Built Environment; Historic Preservation) and the college-wide Ph.D. program. A tenured Full Professor, Dr. Srinivasan serves at the university level as the Co-Chair of the UF Council for Research Associate Deans (CORAD) and as a steering member of the UF Graduate School Advisory Council, shaping institutional policy across all 16 academic colleges.

A dedicated practitioner-scholar bridging design theory, spatial human factors, and advanced technology, Dr. Srinivasan has served as the Interim Director of the interdisciplinary SBE program—with 150 active students—and is an external faculty collaborator with the Center for Environmental Building & Design at the University of Pennsylvania's Weitzman School of Design. He is the Director of the UrbSys (Urban Building Energy, Sensing, Controls, Big Data Analysis, and Visualization) Lab, where his research centers on computational design and design automation, leveraging Artificial Intelligence (AI), the Internet of Things (IoT), and digital twins to advance Net Zero Carbon buildings, human-centered interior environments, smart product systems, and resilient Smart Cities.

Dr. Srinivasan's work reaches directly into interior and industrial design: virtual reality co-design methods that enable people with Parkinson's disease to personalize their own residential interiors (with the UF Fixel Institute of Neurological Diseases), and IoT-enabled smart products — including a patented multisensory air-quality system integrated into asthma-inhaler carrying cases — that join product design with sensing and human factors. This portfolio engages the defining pressures on the built environment — the energy transition, climate adaptation and flood resilience, affordable and post-disaster housing, and health across the lifespan.

Dr. Srinivasan has driven \$10M in total research and strategic funding for his research lab, including \$3M personally raised through foundation awards, corporate research gifts, and technology-transfer and venture agreements, alongside competitive extramural awards as PI and Co-PI from federal agencies such as the National Science Foundation, U.S. Housing and Urban Development, U.S. Veterans Affairs, and international foundations. Widely published, he has authored or co-authored 120 peer-reviewed journal articles, conference papers, and book chapters, accumulating ~7,500 citations with an h-index of 33 and i10-index of 71. He is the lead author of *The Hierarchy of Energy in Architecture: Emergy Analysis* (Routledge) and co-editor of *Smart Cities: Foundations, Principles, and Applications* (John Wiley & Sons). An active innovator in design automation, Dr. Srinivasan holds 11 patent filings with the U.S. Patent & Trademark Office, including four granted utility patents and provisional applications that automate core workflows of architectural practice — building-code compliance checking, zoning review, and construction inspection — alongside bi-directional NVIDIA™ Omniverse connectors linking building design models to real-time energy simulation.

As an administrative leader, he has chaired national executive search committees for core school and department chairs (architecture; urban and regional planning units in DCP), while leading comprehensive faculty onboarding initiatives and maintaining a 94% success rate (16 out of 17 faculty) in steering candidates through the promotion and tenure process. His commitment to student success and mentorship includes chairing 10 completed master's theses and 10 completed Ph.D. dissertations, with graduates placing at top-tier academic institutions and industry leaders such as NVIDIA™ and McKinsey & Company.

In the professional arena, Dr. Srinivasan currently chairs the Handbook Subcommittee (TC 4.5, Fenestration) for the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), leading standard updates for the ASHRAE Handbook of Fundamentals. He previously served on the Board of Directors for the National Fenestration Rating Council (NFRC) and acts as an Expert Witness to the U.S. Department of Justice (DOJ). He holds a B.Arch (First Class with Distinction) from the National Institute of Technology (NIT), Trichy, India; an M.S. in Civil Engineering from the University of Florida; and an M.S. and Ph.D. in Architecture (Building Technology) from the University of Pennsylvania. He maintains a suite of advanced industry certifications, including CEM, LEED AP, GGP, and USIBD Level of Accuracy v3.0, and is an FAA-certified Remote Pilot, and a student Private Pilot.

Academic Preparation

Ph.D. in Architecture (Building Technology), 2011
University of Pennsylvania, Philadelphia, PA, USA

Advisors:

Dr. William Braham, Professor of Architecture, School of Design, University of Pennsylvania
Dr. Daniel Campbell, Sr. Systems Ecologist, Atlantic Ecology Division, US Env. Protection Agency
Dr. Charlie Curcija, Deputy Director, Windows & Daylighting Group, LBNL, US Dept. of Energy

Courses taken at Penn in addition to Building Technology courses: Undergraduate course in Computer Science: Computer Graphics (Dr. Norman Badler); Graduate-level courses in Computer Science Dept.: AI, Advanced AI, Computer Vision (Dr. Jianbo Shi); Electrical Engg. Dept.: Human Behavior Modeling (Dr. Barry Silverman).

M.S. in Architecture (Building Technology), 2004
University of Pennsylvania, Philadelphia, PA, USA

Advisor: Dr. Ali Malkawi, Director of Harvard Center for Green Buildings and Cities, Harvard University

M.S. in Civil Engineering, 4.0 GPA, 2002
University of Florida, Gainesville, FL, USA

B. Architecture, *First Class with Distinction*, 1996
National Institute of Technology, Trichy, Tamil Nadu, India

Professional Certifications & Licenses

2021	Certified Level of Accuracy v3.0, US Inst. of Bldg. Documentation (USIBD) USA.
2020	Student Pilot (Private), Federal Aviation Administration, USA.
2019	FAA Remote Pilot (UAV), Federal Aviation Administration, USA.
2015	OSHA Certification, Occupational Safety & Health Administration, USA.
2012	Green Globes Professional (GGP), Green Building Initiative, USA.
2008	Certified Energy Manager (CEM), Association of Energy Engineers, USA.
2008	Certified Instructor for C.E.M., Association of Energy Engineers, USA.
2004	LEED Accredited Professional (LEED AP), US Green Building Council, USA.
1996	Licensed Architect, Council of Architecture, India.
1996	Licensed Architect, Indian Institute of Architects, India.

Professional Positions

2024 – Present	Associate Dean for Research and Strategic Initiatives College of Design, Construction & Planning, University of Florida, Gainesville, FL, USA.
2025 - 2026	Interim Director, Sustainability and the Built Environment Program
2023 - Present	Full Professor (Tenured), University of Florida, Gainesville, FL, USA.
2021 – 2024	Director of Graduate Programs & Research Rinker School of Construction Management, University of Florida, Gainesville, FL, USA.
2018 – 2023	Associate Professor (Tenured), University of Florida, Gainesville, FL, USA.
2011 – 2018	Assistant Professor (Tenure-track), University of Florida, Gainesville, FL, USA.
2009 – 2010	Director, Technology & Innovation, The Green Roundtable, Boston, MA, USA.
2002	Associate Engineer, Chen Moore & Associates, Ft. Lauderdale, FL, USA.
1998 – 2000	Principal, RSA Architects & Engineers, India.
1997 – 1998	Architect & Project Manager, Kennedy Bowen Associates, Singapore.
1996 – 1997	Architect, Bharath & Associates, India.

Administrative & Leadership Roles Held at the University of Florida

2024 – Present: Associate Dean for Research and Strategic Initiatives (ADR + SI), [link](#)

Budget & Fiscal Authority: • Executive oversight of the college's \$10M external sponsored-research portfolio • \$50M annual pre-award proposal volume across five departments and schools.

Executive Scope: Senior member of the Dean's executive leadership team for a five-discipline college — architecture, landscape architecture, construction management, interior design, and urban and regional planning — serving a research ecosystem of 100+ doctoral students and 10+ postdoctoral associates. During my tenure as ADR + SI, the college crossed the \$10M threshold in external sponsored research for the first time in the college's 100-year history and accelerated institutional innovation metrics, and under the leadership of Dean Chimay Anumba. Direct reports: the directors of the two college-wide academic programs (Sustainability and the Built Environment; Historic Preservation) and the director of the college-wide Ph.D. program. Chaired national searches for two of the college's five academic-unit leadership positions (School of Architecture Director; Department of Urban and Regional Planning Chair). Governance responsibilities span all five units, including research, faculty, and graduate affairs.

Overall, my executive portfolio encompasses both the creation and execution of new strategic initiatives for the college, as well as the comprehensive oversight of research, faculty, and graduate affairs.

RESEARCH AFFAIRS

- Research Expansion: Direct administrative oversight of a multi-departmental research enterprise spanning five distinct design and construction disciplines; successfully steered the college to cross the \$10M external sponsored research threshold under Dean's leadership.
- Growth in Institutional Intellectual Property (IP): Cultivated an entrepreneurial research culture resulting in an active faculty portfolio of 59 patents, 27 provisional patents, 17 trademarks, and 28 invention disclosures within a single academic year.
- University-Wide Research Governance: Co-chaired the university-wide Council for Research Associate Deans (CORAD), leading multi-college working groups tasked with reshaping the Strategic Funding Ecosystem and Shared Assets for non-STEM fields.
- Seed Funding Program: Established competitive internal peer proposal review panels that directly generated an active Research Opportunity Seed Fund (ROSF) award and led a comprehensive Funding Opportunities Study mapping peer-institution investment strategies.
- Interdisciplinary Infrastructure & Teaming: Launched targeted faculty-matching summits to drive multi-million-dollar proposal teams, including anchoring the Energy Grid Security & Resilience Summit and the Public Utility Research Center (PURC) energy grid session.
- Corporate & Global Research Infrastructure: Organized the inaugural college-wide Industry Innovation Summit on AI-enabled Smart Cities (backed by a \$0.5M fundraised internally) and negotiated over eight international Memoranda of Understanding (MoUs) across the UK, South Korea, Turkey, Saudi Arabia, Indonesia, Japan, China, and India.
- Pre-Award and Post-Award Operations Modernization: Streamlined pre-award management workflows, authoring standardized guidance documents and updating systemic compliance protocols for Cost Accounting Standards (CAS) exemptions, cost-shares, late submissions, monthly cashflow reports, final project reports, and closeout.

FACULTY AFFAIRS

- **Tenure, Promotion and System Governance:**
 - Strategic Promotion Success Rates: Maintained a 94% success rate (16 out of 17 candidates) across consecutive academic years (AY2024-25 and AY2025-26) by implementing early diagnostic dossier reviews, structured candidate milestones, and continuous iterative feedback.

- Post-Tenure & Activity Report Streamlining: Structured the administrative evaluation workflows for Post-Tenure Reviews (PTR) and Faculty Annual Activity Reports (FAAR) to ensure clarity, consistency, and discipline-specific evaluation criteria.
- College PTR Committee Governance: Served as a core steering member responsible for developing discipline-specific review criteria, collaborating with unit administrators and university executive leaders to draft college dossiers.
- Enterprise System Rollout Leadership: Supported the college-wide integration of the Faculty Excellence & Advancement (FEA) online tracking system for the college; co-developed institutional training programs for the college and established dedicated digital support communication channels via Microsoft Teams for chairs, directors, and faculty.
- **Faculty Advancement, Onboarding, and Mentoring:**
 - Led the "Mentoring Matters 2.0" Initiative: Designed and executed a structured, multi-phase mosaic mentoring framework tailored for tenure-track, instructional assistant, and mid-career associate professors to maximize long-term faculty retention and academic success across the college's five disciplines; maintains ongoing advisory relationships with mentored faculty through tenure and promotion milestones.
 - CORAD Working Group Leader: Appointed by the CORAD to lead the university-wide initiative on Onboarding & Mentoring New Research Faculty, scaling administrative best practices across all 16 colleges.
 - Junior Faculty Development Infrastructure: Selected as one of five college representatives for the Provost's Junior Faculty Mentorship Program; co-authored and co-presented an academic success guide and conducted ongoing workshops to onboard new hires on navigating teacher-researcher dynamics.
 - Faculty Awards, Sabbaticals, and Professional Development Leave: Standardized administrative workflows for faculty awards, sabbaticals, and professional development leaves.
- **Academic Leadership Recruitment**: Chaired national searches for unit-level academic leadership — two of the college's five departments and schools:
 - Chair, School of Architecture (SoA) Director Search Committee (AY2024–25): Led the comprehensive national recruitment, vetting, and evaluation process for senior institutional leadership, aligning unit governance with college-wide strategic plans.
 - Chair, Department of Urban and Regional Planning (URP) Chair Search Committee (AY2025–26): Managed the comprehensive recruitment lifecycle, multi-stakeholder consensus building, and final candidate evaluation for departmental executive leadership.

GRADUATE AFFAIRS

- **Graduate Program Strategy & Enrollment:**
 - Unified Admissions Campaign: Conceived and executed the "OneDCP OneDeadline" strategic marketing campaign, establishing the college's first unified graduate admissions timeline to increase baseline competitiveness.
 - Data-Driven Enrollment Analytics: Developed and deployed an integrated tracking pipeline to analyze graduate applications (including applications from the "countries of concern"), acceptance yields, and matriculation data, substantially mitigating student attrition while optimizing target enrollment profiles.
 - Curriculum Modernization & Teaching-Load Balance: Led a comprehensive overhaul of the undergraduate Sustainability and the Built Environment and Master in Integrated Sustainable Design curricula; structural revisions successfully balanced faculty teaching loads, expanded high-demand electives, and mandated core course instruction by dedicated program faculty.
 - Institutional Bridge Building & Collaboration: Selected as a core steering member of the university-wide Graduate School Advisory Council to consult on institutional processes, strategic goals, benchmarks, and advanced student care systems.

- Strategic Admissions Governance: Streamlined the master's and doctoral recruitment pipelines to attract top-tier global applicants; condensed degree prerequisites to improve competitiveness against national construction management Peer 7 institutions.
- Grievance Resolution & Academic Advocacy: Served as the primary executive resource for all departmental graduate programs, proactively mediating student grievances and partnering with central admissions to expedite problem-solving before institutional escalation.

2025 – 2026: Interim Director, Sustainability and the Built Environment Program, [link](#)

The Sustainability and the Built Environment Program at DCP offers pre-collegiate camps, undergraduate and graduate degrees, and global experiential learning. Through a unique interdisciplinary approach, SBE synthesizes the diverse disciplines of the college into a cohesive, versatile framework. The program has over 150 active students with three core teaching faculty and seven affiliate faculty. As Interim Director, I held unit-head responsibility for the program's budget, curriculum, faculty teaching assignments, and external Professional Advisory Board.

- Program Governance & Growth: Directed executive operations, fiscal management, and programmatic strategic planning for a high-growth interdisciplinary program tracking over 150 active students across pre-collegiate, undergraduate, and graduate curricula.
- Curricular Restructuring & Hybrid Innovation: Led a major curriculum overhaul ahead of schedule, transitioning core courses to hybrid delivery and expanding elective tracks while establishing an equitable, data-driven distribution of faculty teaching loads.
- Access & Pipeline Expansion: Supported pathways into the program through hybrid delivery of core courses, a campus-wide 15-credit minor open to majors across the university, pre-collegiate summer camps introducing high-school students to the built-environment disciplines, and four accelerated 4+1/4+2 combined-degree pathways that shorten students' time-to-degree.
- Disciplinary Synthesis: Capitalized on SBE's unique structural framework to synthesize core methodologies from across the college's distinct design and construction disciplines into a unified generalist model.
- Executive Board Leadership: Maintained direct administrative governance and oversight over the program's internal Faculty Governance Committee (6 members) and the external Professional Advisory Board (25+ members) to align academic tracks with industry needs.
- Fiscal Accountability & Asset Management: Maintained comprehensive oversight of the program's budget specifically strategically allocating resources for student initiatives, academic events, and all faculty and staff travel requests to ensure strict compliance and optimization.

2025 – Present: Co-Chair, UF Council for Research Associate Deans (CORAD), [link](#)

- Pan-University Leadership & Governance: Co-chair the university-wide administrative council representing the research executive leadership across all 16 academic colleges to unify institutional research strategies and advance enterprise-wide benchmarks.
- Strategic Working Group Leadership: Direct multi-college executive task forces charged with developing the university's Strategic Funding Ecosystem, optimizing Shared Assets for non-STEM disciplines, and institutionalizing a standardized Research Faculty Onboarding blueprint.
- Executive-Level Reporting: Partner directly with the University Vice President for Research Dr. David Norton to formulate, review, and execute institutional research policies and infrastructure deployments across the entire R1 enterprise.

2023 – Present: Member, University of Florida Graduate School Advisory Council

- Selective Institutional Appointment: Selected as one of a limited cohort of university leaders appointed to the newly established Graduate School Advisory Council to provide high-level strategic counsel to central Graduate School executive leadership led by Graduate School Dean Nicole Steadman.

- Strategic Advisory & Governance: Formulate institutional recommendations and provide targeted consultation regarding pan-university unit functions, administrative process optimization, innovative strategic goals, and performance benchmarks.
- Advocacy & Ecosystem Expansion: Advise on systemic graduate student care, wellness infrastructures, and the cultivation of high-impact university-wide and external academic partnerships.

2024: Member, Post-Tenure Review (PTR) Committee, UF DCP

I am one of the four members of the College PTR Committee where we will develop the criteria for review that is discipline-specific, collaborate with the unit administrators and university leaders, and draft procedures for DCP for evaluating the faculty dossiers as applicable.

2023 - Present: Member, University of Florida Smart City Initiatives

I am one of the few members of the university-wide Smart City Initiatives team. In April 2025, we travelled to Japan to visit top universities including (1) Tokyo University, (2) Kyoto University, (3) Osaka University, (4) Osaka Electro-Communication University, and (5) Shiga University as part of this new UF initiative. Later in December 2025, we travelled to South Korea and visited top universities as well. The Universities we visited include (1) Yonsei University, (2) Korea Advanced Institute of Science & Technology (KAIST), (3) Seoul National University (SNL), and (4) Korea University.

The then- UF Provost Scott Angle, Dean Nicole Stedman of the Graduate School, Dean Marta Wayne of the UF International Center, Director David Reed of the AI² Initiative, and a few others joined me on this trip, which included signing collaborative agreements with two reputed universities in Japan (Tokyo and Osaka Universities) and two universities in South Korea (Yonsei and Korea University).

2021 - 2024: Director, Graduate Programs & Research, School of Construction Management, [link](#)

Budget Authority: Assistantship and fellowship allocations for a selective cohort of approximately 40 active doctoral students.

Executed day-to-day operational management and personnel oversight to fulfill the school's approved 2021–2025 Strategic Plan across graduate education and research portfolios. Directed the comprehensive administration of the Ph.D. program, managing a selective cohort of approximately 40 active doctoral students. Mediated and resolved graduate student grievances before escalation to the college and the Graduate School.

Curriculum Reform & Market Competitiveness

- Peer-7 Benchmarking: Led the first comprehensive, multi-decade curriculum overhaul of the master's degree programs in over 25 years; developed a condensed prerequisite framework for both M.S. and Ph.D. tracks to compete with Peer-7 institutions¹.
- Faculty-Approved Restructuring: Formulated a strategic alignment framework—overwhelmingly approved by faculty vote—reducing non-thesis credit hours to position the Master of Construction Management (MCM) as a competitive three-semester degree model.
- Program Review & Closure: Conducted extensive quantitative and qualitative performance audits to initiate a successful strategic pause and ultimate elimination of the self-funded online Master of International Construction Management (MICM) program.

¹ The Rinker School of Construction Management is one of the PEER 7 Group for Construction Management Programs; the other six include Texas A&M University, Virginia Tech, Arizona State University, Colorado State University, Auburn University, and Purdue University.

Enrollment Management & Legislative Compliance

- Domestic Enrollment Growth: Developed targeted recruitment initiatives to expand domestic master's student enrollment, successfully stabilizing total graduate metrics against complex state "countries of concern" legislation impacting traditional doctoral pathways.
- Master's-to-Doctoral Pipeline: Standardized master's and doctoral admission structures to publish comprehensive institutional handbooks; streamlined recruitment and retention pipelines to accelerate the placement of top-tier master's students directly into doctoral tracks.

Institutional Governance, Faculty Mentorship & Industry Alliances

- Central Administration Collaboration: Cultivated direct, high-level reporting channels with central Graduate School leadership to expedite grievance mediations and navigate university-wide systemic policy rollouts.
- Pre-Award Faculty Development: Mentored junior faculty on navigating advanced pre-award research operations, structural budget building, university tracking systems, and cost-share compliance.
- Industry Advisory Board Partnership: Partnered with the Rinker School Industry Advisory Board (RSIAB) to design and execute a co-sponsored funding architecture, securing critical corporate data-sharing assets and dedicated external research dollars.

2018 - 2022: Member, UF DCP Junior Faculty Mentorship Program

- Associate Provost-Level Initiative: Initiative by the Associate Provost of Academic and Faculty Affairs, I was selected by the College as one of five foundational representatives to engineer a newly launched junior faculty onboarding framework, "Mentoring Matters 1.0." Served as the sole member appointed to this task force based on merit as a teacher-researcher, rather than an existing chair or director designation.
- Mosaic Mentoring Framework: Co-developed an innovative, multidisciplinary "mosaic mentoring" ecosystem designed to streamline the onboarding, integration, and long-term retention of tenure-track hires across diverse design, construction, and planning fields.
- Pedagogical Leadership & Knowledge Transfer: Served as a three-time invited keynote presenter to deliver core operational strategies on balanced teacher-researcher navigation to newly arriving faculty cohorts.
- Strategic Success Infrastructure: Authored and deployed a pocketbook-sized academic success guide detailing institutional navigation best practices, tenure-track benchmarks, and programmatic pitfalls.
- Sustained Career Mentorship: Maintain ongoing advisory relationships and structured consultations with mentored faculty to review early-career academic progress and dossier development milestones.

2018 - 2022: Member (Senator), University of Florida Faculty Senate

- Consecutive Peer-Elected Leadership: Jointly selected by the College of Design, Construction & Planning faculty across two back-to-back democratic elections to serve as their primary representative to the central university legislative body.
- Academic Governance: Partnered with pan-university senate leadership to review, debate, and vote on institutional policies, curriculum standards, and faculty welfare initiatives across the entire R1 enterprise.

Administrative & Leadership Roles Held in the Industry

2021 – Present: Chair, ASHRAE TC 4.5 Fenestration, Handbook Subcommittee, Atlanta, GA.

- National Standard-Setting Leadership: Direct the comprehensive updates and technical revisions for Chapter 15 ("Fenestration") of the ASHRAE Handbook of Fundamentals, the definitive international regulatory and design standard utilized globally by architects and engineers.
- Cross-Sector Consensus Building: Convene and lead expert technical panels comprising senior scientists from the U.S. Department of Energy national laboratories, principal product engineers, and manufacturing executives to identify, debate, and codify emerging building technologies.
- Regulatory & Technical Optimization: Lead the modernization of fenestration design methodologies, integrating advanced material technologies, automated performance metrics, and strict code compliance corrections into the published global manual.

2019 – 2024: Member, Board of Directors, National Fenestration Rating Council (NFRC), Washington DC.

- Fiduciary & Strategic Governance: Executed comprehensive fiscal oversight, long-range strategic planning, and policy governance for the nation's leading independent, non-profit organization certifying energy performance standards for the built environment.
- Consecutive Peer-Elected Leadership: Selected by international voting members across two back-to-back, consecutive terms to guide the organizational vision and ensure alignment with global energy-efficiency benchmarks.
- Enterprise Mission Alignment: Codified structural standards and consumer-facing certification programs to advance sustainable building product transparency across North American manufacturing and architectural sectors.

2019: Founder and Organizer, The First International Workshop on Building Energy Sensing, Controls, Big Data Analysis, and Visualization (UrbSys), ACM BuildSys, Nov 10, 2019, New York, NY.

<https://dl.acm.org/doi/proceedings/10.1145/3363459>

2009 – 2010: Director, Technology & Innovation, The Green Roundtable, Boston MA.

- National Curriculum & Pedagogical Innovation: Conceived and launched the award-winning "Nexus Net Zero Energy™ Training Series" (18+ courses), delivering the nation's first comprehensive Net Zero curriculum for practicing professionals; earned the USGBC Massachusetts "Innovation in Green Design" Award.
- Professional Education & Accreditation: Developed and delivered USGBC-, AIA-, and IES-approved continuing education modules in advanced building energy simulation, daylighting, and LEED AP exam preparation, training over 175 industry practitioners.
- Consulting, Simulation & Verification: Led building energy performance, daylighting, and renewable energy modeling for high-profile institutional and commercial projects, including the Boston Housing Authority, Nassau Community College Life Sciences Building (75k SF), Bourne Mills (187k SF), and the Modern Theatre (12k SF).

1998 – 2000: Principal, RSA Architects & Engineers, India.

- Design & Construction Oversight: Directed multidisciplinary architectural, engineering, and construction operations across a diverse portfolio of residential, commercial, and industrial building developments.
- Project Administration & Governance: Led full lifecycle project management, cross-functional team leadership, contract appraisals, and building code compliance reviews.
- Value Engineering & Design Optimization: Executed value engineering (VE) and value analysis (VA) protocols to optimize prototypical building designs, balancing cost, structural performance, and constructability.

1997 – 1998: Architect & Project Manager, Kennedy Bowen Associates, Singapore.

- Architectural & Interior Design Integration: Led spatial conceptualization, architectural planning, and detailed interior design execution across diverse building projects.
- Full-Lifecycle Project Delivery: Directed end-to-end project management workflows spanning initial project identification, scope definition, design development, construction implementation, and post-occupancy evaluation.

Design Practice & Creative Work

Architectural Licensure & Professional Practice

1996 – Present: Licensed Architect, Council of Architecture; Indian Institute of Architects, India.

1998 – 2000: Principal, RSA Architects & Engineers, India.

- Design Leadership: Directed multidisciplinary architectural, engineering, and construction operations across residential, commercial, and industrial developments; executed value engineering and value analysis protocols to optimize prototypical building designs.

1997 – 1998: Architect & Project Manager, Kennedy Bowen Associates, Singapore.

- Architecture + Interiors: Led spatial conceptualization, architectural planning, and detailed interior design execution across diverse building typologies.

1996 – 1997: Architect, Bharath & Associates, India.

Built Work & Design Consulting (Selected)

2009 – 2010: Director, Technology & Innovation, The Green Roundtable, Boston, MA.

- Building Performance Design: Led building energy performance, daylighting, and renewable energy design consulting for high-profile institutional and commercial projects, including the Boston Housing Authority, the Nassau Community College Life Sciences Building (75,000 SF), Bourne Mills (187,000 SF), and the Modern Theatre (12,000 SF).
- Industry Design Analytics: Conducted roofing thermal analysis for Walt Disney Imagineering (2016) and delivered EnergyPlus™ training for South African national buildings in partnership with WinBuild Inc. and the U.S. Department of Energy (2016).

Community-Engaged & Climate-Resilient Design

- Post-Disaster & Affordable Housing: Led U.S. Department of Housing and Urban Development research as Principal Investigator on rapid, resilient housing recovery for disaster-affected communities, including Project Re-Envision (\$531,539) and Advanced Technologies for Rapid Manufacturing of Post-Disaster Housing (\$249,837).
- Coastal Flood Resilience: Deployed the drone-based Lowest Floor Elevation system (US Patent 12,561,973) across hurricane-prone coastal Florida communities under community-partnered National Science Foundation Smart & Connected Communities awards, automating flood-hazard classification for pre-disaster planning and post-disaster mitigation — methods directly applicable across flood-vulnerable Gulf and Atlantic coastal regions.
- Global Cooling & Housing Equity: Co-led the Million Cool Roofs Challenge team with the University of Pendidikan, Indonesia (\$875,000 in international prize funding, with ClimateWorks Foundation awards continuing through 2027); conducted energy-efficiency analysis of RDP low-income housing for the Republic of South Africa and advised the South African Board of Standards (SABS) on building codes and benchmarking.
- Health-Supportive & Accessible Design: Developed assistive technology for U.S. Department of Veterans Affairs Specially Adapted Housing assessments (CODY, \$200,000) and co-created virtual reality co-design methods for personalizing residential interiors for people with Parkinson's disease and mobility impairments, with the UF Fixel Institute of Neurological Diseases.

- Environmental Health & Citizen Science: Co-designed the patented smart air-quality system integrated into asthma-inhaler carrying cases (WIPO PCT/US2021/041757) with and for vulnerable populations — a participatory, citizen-science platform whose community-gathered data streams generate high-density, neighborhood-scale urban air-quality maps linking individual environmental exposure to public-health research and policy.

Design Pedagogy & Studio Culture

- Comprehensive Design Studios: Co-taught the terminal Architecture Design 8 (D8) comprehensive studio in the UF School of Architecture for several years, grounded in traditional design pedagogy and studio culture.
- Global Design Education: Developed and delivered a 2-credit graduate short course, "Architecture and Systems Ecology," at Southeast University, Nanjing (16 graduate students), based on the authored Routledge textbook.
- Design Juries & Reviews: Invited external reviewer for graduate theses at the Harvard University Graduate School of Design (2014); annual invited graduate seminar presenter, Department of Architecture, University of Pennsylvania (2011 – 2019).

Design Scholarship & Creative Technology

- Computational Design & Design Automation: Directs a research and patent program that automates design and project-delivery workflows — AI/ML-based building-code conformance checking within BIM authoring tools, automated zoning review, LiDAR- and VR-based construction inspection, and digital twin/NVIDIA™ Omniverse simulation pipelines — addressing the implications of artificial intelligence for both the practice and pedagogy of architecture and design.
- Design-Theory Authorship: Lead author, *The Hierarchy of Energy in Architecture: Energy Analysis* (Routledge, PocketArchitecture: Technical Design Series, 2015), co-authored with Kiel Moe; co-editor, *Smart Cities: Foundations, Principles, and Applications* (John Wiley & Sons, 2017).
- Immersive Design Media: Developed augmented reality, immersive visualization, and human-building interaction methods for building performance and design evolution (*Automation in Construction*, 2005; *International Journal of Architectural Computing*, 2005, 2006).
- Applied Interior Design Research: Co-created virtual reality-based co-design methods that enable people with Parkinson's disease and mobility impairments to modify and personalize their own residential interiors — participatory, health-centered interior design research with the UF Fixel Institute of Neurological Diseases (*Experimental Gerontology*, 2022).
- Smart Product Systems & Industrial Design: Develops IoT-enabled smart products at the intersection of industrial design, sensing, and human factors — including the patented Portable Smart Air Quality Multisensory System integrated into asthma-inhaler carrying cases (WIPO PCT/US2021/041757), UAV multi-sensor payloads for building diagnostics, and the hybrid VAVRF climate-control system — research that connects product experience, prototyping, and data-driven human factors with the pedagogy of industrial design.
- Real-Time Design Visualization: Directs the UrbSys Lab's creative work integrating digital twins and bi-directional NVIDIA™ Omniverse connectors for near real-time building energy simulation and visualization.

Development, Fundraising & External Relations

\$10M total research & strategic funding portfolio for my lab • \$3M personally raised (venture, corporate & foundation) • \$1.375M ClimateWorks Foundation challenge awards (through 2027) • \$0.5M industry-summit sponsorship • \$0.5M UF Presidential strategic investment • \$0.2M Jeld-Wen corporate gift

Secured more than \$3M in private funding — through corporate technology-transfer and venture agreements, foundation challenge awards, and corporate research gifts — within a \$10M total research and strategic funding portfolio for my lab. Funding is itemized below by type, distinguishing philanthropic and foundation support from competitive grants, corporate contracts, and internal university awards.

Endowment, Advisory Boards & External Constituencies

- Endowment Governance: Member, College Endowment Committee, UF DCP (2020–2021), participating in the governance and stewardship of the college's endowed funds in accordance with donor intent; complemented by multi-year national fiduciary board service with the National Fenestration Rating Council (Board of Directors, 2015–2016 and 2019–2024; Secretary, Executive Board; Audit Committee) spanning fiscal oversight and long-range strategic planning.
- Corporate Donor Cultivation & Stewardship: Personally fundraised and stewards multi-year corporate gift relationships, most recently the Jeld-Wen, Inc. gift for Envelope Test Buildings (\$0.2M, 2025–2029), aligning corporate support with laboratory infrastructure and student research needs.
- Advisory-Board Philanthropy & Partnerships: Partnered with the Rinker School Industry Advisory Board to design and execute a co-sponsored funding architecture, securing corporate data-sharing assets and dedicated external research dollars; maintained executive oversight of the SBE external Professional Advisory Board to align academic tracks with industry needs.
- Global Partnership Development: Negotiated more than eight international Memoranda of Understanding across the UK, South Korea, Turkey, Saudi Arabia, Indonesia, Japan, China, and India, anchoring faculty exchange pipelines and joint research collaborations.

Foundation Challenge Prizes & Awards

- Global Challenge Prizes: Co-led the team awarded the ClimateWorks Foundation's global Million Cool Roofs Challenge with the University of Pendidikan Indonesia – a \$125,000 phase-one award (2019) followed by the \$0.75M global grand prize – with successive ClimateWorks Foundation awards continuing through 2027 (\$0.875M in 2023–2025; \$0.5M in 2025–2027).

Competitive Sponsored Research (Federal & Foundation Grants)

- Federal & Foundation Portfolio: Sustained competitive extramural awards as PI and Co-PI from the National Science Foundation, U.S. Housing and Urban Development, U.S. Veterans Affairs, U.S. Department of Energy, U.S. Department of State, NOAA, and international foundations.

Corporate Development & Technology Transfer

- Venture & Commercialization Funding: Fundraised \$3M through Virtual Review Assist (startup) and the VRA Foundation (2021–2023: \$2M and \$0.75M; 2022–2023: \$250,000) to commercialize the automated permit-review patent portfolio, including software deployment and plan-review contracts with division offices of two national home builders and a commercial agreement with a national site/civil/structural engineering firm.
- Corporate Research Gifts & Contracts: Secured Jeld-Wen, Inc. funding for Envelope Test Buildings (\$0.2M, 2025–2029, fundraised); Daikin USA Open Innovation Lab AI-based HVAC analysis; and additional industry-sponsored projects with Walt Disney Imagineering, WinBuild Inc./U.S. Department of Energy, and the National Research Council Canada.

University Strategic Funding (Internal Competitive Awards)

- Industry Innovation Summit: Organized the inaugural college-wide Industry Innovation Summit on AI-enabled Smart Cities.
- Presidential Strategic Investment: Secured \$0.5M from the UF President's Strategic Funds for the AI-Enabled Smart Cities Initiative (2025–2028) and \$0.25M from the UF Research Equipment Seed Fund for a Fenestration Testing Lab (2025–2027).

- College Research Growth: Directed administrative oversight of the multi-departmental research enterprise as it crossed the \$10M external sponsored research threshold; established competitive internal seed-fund review panels and led a comprehensive Funding Opportunities Study mapping peer-institution investment strategies.

Fiscal & Resource Management

Budgetary and administrative stewardship spanning interdisciplinary academic program budgets, a \$10M college research portfolio, national nonprofit fiduciary governance, and private-sector practice.

Academic Program Budget Oversight

- SBE Program Fiscal Governance: As Interim Director, maintained comprehensive oversight of the Sustainability and the Built Environment program budget, strategically allocating resources for student initiatives, academic events, and all faculty and staff travel to ensure strict compliance and optimization, across a portfolio spanning pre-collegiate camps, the 120-credit BSSBE major and campus-wide minor, the Master of Integrated Sustainable Development (MISD, launched Fall 2022), four combined-degree (4+1/4+2) pathways, and global experiential learning serving over 150 active students.
- Program Review & Closure: Conducted extensive quantitative and qualitative performance audits to initiate the strategic pause and ultimate elimination of the self-funded online Master of International Construction Management (MICM) program.
- Compensation Governance: Chair, Merit Pay Committee, Rinker School of Construction Management (2021 – Present).

Research Finance & Pre-Award Operations

- Sponsored Research Administration: Direct administrative oversight of a multi-departmental research enterprise as it crossed the \$10M external sponsored research threshold; streamlined pre-award management workflows, authored standardized guidance documents, and updated systemic compliance protocols for Cost Accounting Standards (CAS) exemptions, cost-shares, and late submissions for \$50M worth of projects annually.
- Seed Fund Allocation & Investment Strategy: Established competitive internal peer proposal review panels that generated an active Research Opportunity Seed Fund (ROSF) award; led a comprehensive Funding Opportunities Study mapping peer-institution investment strategies.
- Faculty Budget Mentorship: Mentored junior faculty on advanced pre-award research operations, structural budget building, university tracking systems, and cost-share compliance.

Fiduciary & Nonprofit Financial Governance

- National Board Fiduciary Oversight: Member, Board of Directors, National Fenestration Rating Council (2015 – 2016; 2019 – 2024): executed comprehensive fiscal oversight, long-range strategic planning, and policy governance for the nation's leading 501(c)(3) energy-rating standards developer; Secretary, Executive Board (2019 – 2021); Member, Audit Committee (2015 – 2016).

Private-Sector & Lab Fiscal Leadership

- Firm Principalship: Principal, RSA Architects & Engineers, India (1998 – 2000): directed business operations, full-lifecycle project management, and contract appraisals; executed value engineering and value analysis protocols balancing cost, structural performance, and constructability.
- Laboratory & Capital Investment: Directs the UrbSys Lab enterprise, administering doctoral fellowship funding and capital equipment investments including the Fenestration Testing Lab (\$0.25M, UF Research Equipment Seed Fund) and envelope test buildings (\$0.2M, Jeld-Wen, Inc.).

Undergraduate Education & Student Success

Executive leadership of undergraduate education spanning program direction, curricular modernization, terminal design studio teaching, and pre-collegiate pipeline development for one of the college's signature interdisciplinary undergraduate programs.

Undergraduate Program Direction

- Interdisciplinary Program Leadership: As Interim Director of the Sustainability and the Built Environment (SBE) program, directed executive operations and strategic planning for a program serving over 150 active students, anchored by the four-year, 120-credit Bachelor of Science in Sustainability and the Built Environment (BSSBE) with two specializations (Interdisciplinary; Geodesign) and a 15-credit minor open to majors across campus.
- Accelerated Degree Pathways: Oversaw four combined bachelor's-to-master's (4+1/4+2) pathways linking the BSSBE to graduate degrees in Historic Preservation (MHP), Integrated Sustainable Development (MISD), Landscape Architecture (MLA), and Urban and Regional Planning (MURP).
- Pre-Collegiate Pipeline: Administered SBE pre-collegiate camps introducing high-school students to sustainability and built-environment disciplines, strengthening the undergraduate recruitment pipeline.

Undergraduate Curriculum Modernization & Experiential Learning

- Comprehensive Curriculum Overhaul: Led a major overhaul of the undergraduate SBE curriculum ahead of schedule, transitioning core courses to hybrid delivery, expanding high-demand elective tracks, mandating core course instruction by dedicated program faculty, and establishing an equitable, data-driven distribution of faculty teaching loads.
- Experiential & Global Learning: Directed a program model integrating field experiences, senior capstone projects, and global experiential learning that connects undergraduates to professional practice.

Undergraduate Teaching, Mentorship & Engagement

- Terminal Design Studio Instruction: Co-taught the terminal Architecture Design 8 (D8) comprehensive studio in the UF School of Architecture for several years, rooted in traditional design pedagogy and studio culture.
- Teaching Excellence Recognition: Mentor/Teacher of the Year Award, University of Florida (2017), celebrating pedagogical innovation, student advocacy, and classroom leadership; Nancy Perry Teaching Excellence Award, University of Florida (2014).
- Career Pathways & Industry Connection: Maintained executive oversight of the SBE external Professional Advisory Board, connecting undergraduates to practicing sustainability professionals across planning, design, engineering, construction, and management industries.
- Student Advocacy & Care: Served as the primary executive resource for student grievance resolution across the college's graduate programs, mediating concerns before institutional escalation; advises the UF Graduate School Advisory Council on systemic student care and wellness infrastructures; and oversaw four accelerated 4+1/4+2 combined-degree pathways that shorten students' time-to-degree.
- Student Competition Service: Member, Witters Competition Committee, College of Design, Construction and Planning (2017 – 2021).

Research: Summary of Publications and Patents

Patent Portfolio

I maintain an intellectual property and technology transfer portfolio comprising 11 USPTO patent filings and 4 non-provisional patent submissions. The portfolio applies computational design and design automation to the core workflows of architecture and design practice — code compliance, zoning, permitting, inspection, and building performance simulation. My portfolio features 4 granted U.S. utility patents (US Patents 12,020,339, 12,572,992, 12,344,408, and 12,561,973) establishing foundational architecture and broad AI/ML protections for automated building code conformance, UAV-based non-intrusive envelope thermal mapping, and aerial flood hazard elevation systems. Commercially backed and venture-ready, my active intellectual property includes 2 published international and non-provisional applications spanning HVAC innovations (VAVRF) and smart air quality sensing, alongside 5 approved provisional and active applications in review focused on virtual zoning, LiDAR-based building inspections, and BIM code-checking plug-ins. I also submitted 4 non-provisional patents to the USPTO covering bi-directional NVIDIA™ Omniverse connectors, unified digital twin frameworks, BIM transformation, and double-glazing thermal analytics.

Granted Utility Patents (4 Total)

US Patent 12,020,339 – *Systems and Methods for Automated Building Code Conformance* (Issued 2024) – Establishes foundational system architecture and core code-checking rulesets.
US Patent 12,572,992 – *Automated Building Code Conformance Continuation* (Issued 2026) – Expands legal protection to automated verification pipelines and broader AI/ML processing models.
US Patent 12,344,408 – *UAV based Non-Intrusive Building Envelope Measurement Systems* (Issued 2025)
US Patent 12,561,973 – *Drone based Lowest Floor Elevation System* (Issued 2026)

Published International Patents & Non-Provisional Applications (2 Total)

WIPO PCT/US2021/041757 (WO2022015937) – *Portable Smart Air Quality Multisensory System Equipped Carrying Case for Asthma Inhalers*
US Patent Application 19/104,268 – *Variable Air Variable Refrigerant Flow System (VAVRF)*

Approved Provisional & Non-Provisional Applications in Review (5 Total)

US Provisional 63/292,113 – *Virtual Zoning Review*
US Provisional 63/231,078 – *Virtual Building Construction Inspection for Permitting*
US Docket T18924US001 – *Streamlined Single Software Workflow with ML-based Point Cloud Clustering for Virtual Reality Building Inspection*
US Patent Application 18/408,124 – *Form Generation for Building Construction Add-In*
US Patent Application 18/538,958 – *Building Code Check Plug-In*

Non-Provisional Patents Submitted to USPTO (4 Total)

Non-Invasive Method to Determine the Argon Gas Content and Thermal Properties of Double-Glazing Systems and Methods for Transforming Building Information Models (BIM) into Digital Twins
Unified Digital Twins
Bi-directional NVIDIA™ Omniverse Connector for EnergyPlus™

Detailed Description of Granted Patents and Approved Provisional & Non-Provisional

1 & 2. Systems and Methods for Automated Building Code Conformance

- Patent Status: Granted — US Patent 12,020,339 (Issued 2024); Continuation US Patent 12,572,992 (Issued 2026);
- Commercialization & Deployment: Executed software deployment and plan-review contracts with division offices of two national home builders.

- Description: Novel systems and methods that parse building permit application files against relevant municipal, state, and international building codes, ordinances, and regulations for automated code conformance checking and verification reporting. Integrates rule-based reasoning, Artificial Intelligence / Machine Learning (AI/ML), and advanced image processing/computer vision workflows.
 - Significance & Impact: (1) Substantially accelerates building permit review durations while removing human subjectivity; (2) significantly expands the breadth and precision of automated code section evaluations; and (3) provides an enterprise-scalable technology platform adaptable across U.S., North American, and European regulatory frameworks.
3. Virtual Zoning Review - Winner of the UF Innovate "Innovation of the Year" Award (2022)
- Patent Status: Approved Provisional — US Provisional App. 63/292,113 (Filed 12/21/2021).
 - Commercialization & Deployment: Executed commercial agreement with a national site/civil/structural engineering firm to deploy software for automated municipal zoning plan reviews.
 - Description: Advanced software systems and methods that check land development codes, local zoning provisions, and land-use regulations using rule-based algorithms, AI/ML, and image processing.
 - Significance & Impact: (1) Enhances accuracy and consistency for site zoning conformance reviews; (2) substantially reduces manual labor hours and plan-review cycle times; and (3) offers a highly scalable solution adaptable to municipal regulations nationwide.
4. Virtual Building Construction Inspection for Permitting
- Patent Status: Approved Provisional — US Provisional App. 63/231,078 (Filed 08/09/2021).
 - Commercialization & Deployment: In-house software development integrating proprietary algorithms to streamline LiDAR point-cloud transfer directly into BIM design software.
 - Description: Systems and methods for virtual building construction inspection during permitting, featuring automated workflows to convert 3D LiDAR point-cloud data into meshed models for seamless BIM software import.
 - Significance & Impact: (1) Captures as-built construction inaccuracies in real-time via LiDAR spatial scanning; and (2) bridges physical spatial capture with digital building information models to automate remote permitting inspections.
5. Portable Smart Air Quality Multisensory System Equipped Carrying Case for Asthma Inhalers
- Patent Status: Published International Patent — WIPO PCT/US2021/041757 (WO2022015937, Filed 07/15/2021).
 - Commercialization & Deployment: Sensor attachment prototypes developed for real-time mobile WAN spatial mapping and citizen-science data aggregation.
 - Description: A portable, low-power multisensory system attached to asthma inhaler carrying cases. Employs auto-calibrating low-cost environmental sensors (Ozone, PM_{2.5}, NO₂ temperature, humidity, airflow, GPS) and low-power WAN data transmission to aggregate real-time atmospheric pollutant mapping.
 - Significance & Impact: (1) Monitors personal, high-resolution environmental exposure in real-time for vulnerable populations; and (2) leverages citizen-gathered data streams to generate high-density, urban-scale air quality heatmaps for public health research.
6. Unmanned Aerial Vehicle (UAV)-Based Non-Intrusive Building Envelope Measurement System for Community-Wide Energy Mapping
- Patent Status: Granted — US Patent 12,344,408 (Issued 2025); Continuation Application Pending (US App. 19/220,810). Published International Patent: PCT/US2021/044945 (WO2022032097).
 - Commercialization & Deployment: Deployed via UAV sensing payloads for non-intrusive thermal mapping of high-rise structures and urban building stock.

- Description: UAV-enabled multi-sensor measurement system that computes thermal performance, surface temperatures, air velocity, emissivity, and thermal reflectance across non-operable external building envelopes (roofs, walls, windows).
- Significance & Impact: (1) Provides a non-intrusive diagnostic mechanism to identify structural thermal degradation in high-rise buildings; and (2) enables rapid, drone-based aerial mapping of energy leakage across entire urban communities.

7. Drone-Based Lowest Floor Elevation System

- Patent Status: Granted — US Patent 12,561,973 (Issued 2026). International Patent System Filing: PCT/US2021/072286.
- Commercialization & Deployment: Deployed across coastal Florida communities under NSF Smart & Connected Communities grant awards to automate flood hazard classifications.
- Description: A computing system that processes aligned aerial thermal IR and visible RGB imagery to identify structural foundation transitions, place automated bounding geometry around floor plates, and calculate exact lowest floor elevations using pixel-to-distance spatial algorithms.
- Significance & Impact: (1) Enables rapid, autonomous flood hazard classification for pre-disaster planning and post-disaster mitigation; and (2) extracts structural attributes and envelope energy performance signatures simultaneously during aerial passes.

8. Variable Air Variable Refrigerant Flow System (VAVRF)

- Patent Status: Published Non-Provisional Application — US Patent App. 19/104,268 (UF Docket No. T1865US; Non-Provisional in Review).
- Commercialization & Deployment: Advanced HVAC technology disclosure developed for centralized commercial building climate control.
- Description: A hybrid HVAC system combining Variable Air Volume (VAV) and Variable Refrigerant Flow (VRF) architectures. Features a centralized air handling unit paired with pressure-independent indoor VAVRF units, electronic expansion valves, and automated damper control managed by a master VAVRF controller.
- Significance & Impact: (1) Delivers significant operational energy savings and lower installation costs; and (2) centralizes indoor air filtration and conditioning for superior indoor air quality control.

9. Streamlined Single Software Workflow with ML-Based Point Cloud Clustering for Virtual Reality Building Inspection

- Patent Status: In Review — UF Docket No. T18924US001.
- Commercialization & Deployment: Integrated machine learning VR inspection tool designed for AECO industry applications.
- Description: A unified software workflow leveraging machine learning point-cloud clustering to allow users to co-visualize and compare as-built spatial scans with as-planned BIM geometries inside immersive VR environments.
- Significance & Impact: (1) Streamlines remote VR-based construction quality control and compliance inspections; and (2) lowers technological barriers to adopting 3D point-cloud assets across the broader AECO sector.

10. Form Generation for Building Construction Add-In

- Patent Status: In Review — US Patent App. 18/408,124 (Filed 2024).
- Commercialization & Deployment: BIM design software add-in developed to automate administrative compliance documentation.
- Description: A software extension that extracts building information modeling (BIM) data to automatically populate standardized construction permit, inspection, and code compliance forms directly within design authoring tools.

- **Significance & Impact:** (1) Eliminates manual data entry errors in permit documentation; and (2) integrates regulatory compliance directly into early-stage architectural design workflows.

11. Building Code Check Plug-In

- **Patent Status:** In Review — US Patent App. 18/538,958 (Filed 2025).
- **Commercialization & Deployment:** In-editor plug-in software expanding automated code checking capabilities directly into active BIM design spaces.
- **Description:** A software plug-in that performs real-time regulatory code checks against active BIM spatial datasets directly inside the modeling environment, building upon core automated code conformance algorithms.
- **Significance & Impact:** (1) Enables real-time, interactive code conformance feedback during the active design phase; and (2) reduces municipal plan-review rejection rates by verifying compliance before permit submission.

Honors & Awards

University-Level Recognition Across Research, Teaching, and Service

Recognized with university-level awards in each of the three pillars of academic life:

- **Excellence in Research:** Awarded the *Excellence Award for Assistant Professor* (2016), recognizing early-career scholarly distinction and foundational research trajectory.
- **Excellence in Teaching:** Awarded the *Mentor / Teacher of the Year Award* (2017), celebrating pedagogical innovation, student advocacy, and classroom leadership.
- **Excellence in Service:** Awarded the *Senior Faculty International Educator of the Year Award* (2022), honoring high-impact global collaborations and institutional bridge-building.

Institutional Professorships & Innovation Awards

- **UF Innovate "Innovation of the Year" Award² (2022):** Received top institutional honors for a co-invented utility patent. This highly competitive distinction was awarded to only 6 inventions out of more than 300 total disclosures submitted by university faculty across all disciplines university-wide.
- **University of Florida Term Professorship³ (2017–2021):** Maintained a dual, consecutive appointment awarded by the UF Office of the President in recognition of significant scholarly achievements and contributions within the faculty ranks.
- **M.E. Rinker Sr. School Holland Professorship⁴ (2019–2021):** Appointed to the endowed professorship in recognition of sustained research excellence, programmatic quality, and technological innovation.

Research, Teaching, & Service

2022	\$1.375 million Cool Roofs Challenge Award, UK (ClimateWorks Foundation)
2022	Senior Faculty International Educator of the Year Award, University of Florida
2019 – 2021	Holland Professor, University of Florida
2017 – 2021	University Term Professor, University of Florida (selected twice consecutively)
2021	DCP Service Award, University of Florida
2020	Best Paper Award, <i>UAV-based Estimation of Lowest Floor Elevation</i> , Indonesia
2017	Mentor/ Teacher of the Year Award, University of Florida
2016	Excellence Award for Assistant Professor Award, University of Florida
2016	Finalist, Energy Project of the Year Award, South African Assoc. of Energy Eff.

² UF Innovate awarded six out of over 300 inventions by UF faculty across all disciplines.

³ This award recognizes my scholarly achievement within the faculty ranks across DCP.

⁴ This award recognizes my research excellence particularly the quality and innovativeness of the research.

2014	Nancy Perry Teaching Excellence Award, University of Florida
2014	#1 Reviewer and Certificate of Excellence, Building and Environmental Journal
2013	Best Paper – Runner up, Intl. Society of Mgmt. Science and Engg. Mgmt. Conf.
2011	Invited Session Chair (Limitations of Simulations), Building Sim. Conf., Australia
2011	Sustainability Fellow, Prairie Creek Project, University of Florida, FL
2010	Innovation in Green Design Award, USGBC Massachusetts Chapter, Boston MA
2007	Top 24 Emerging Environmental Leader, Environmental Leadership Program, PA
2007	Chartered Legend in Energy Award, Association of Energy Engineers, Atlanta, GA
2006	Young CAADRIA Award, CAD Design Research in Asia Conf., New Delhi, India

Professional Board Memberships

2025 – Present	Member, Technical & Education Working Group, Cool Roof Rating Council (CRRC)
2022 – 2024	Member, Board of Directors, NFRC, Washington DC
2021 – Present	Chair, ASHRAE TC 4.5 Fenestration, Handbook, Atlanta, GA
2019 – 2021	Secretary, Executive Board & Member, Board of Directors, NFRC, Washington
2015 – 2016	Member, Board of Directors, NFRC, Washington DC
2015 – 2016	Member, Audit Committee, NFRC, Washington DC
2017 – 2024	Member, American National Standards (ANS) Com., NFRC, Washington DC
2012 – 2014	Member, American National Standards (ANS) Com., NFRC, Washington DC
2010	Member, Certification Board, Building Energy Simulation Analyst (BESA), AEEE
2006	Member, Board of Directors, Delaware Valley Green Building Council, PA

Academic Journal Editorial Boards

2016 – Present	Member, Editorial Board, Buildings MDPI
2016 – 2022	Member, Editorial Board, Journal of Power & Energy Engineering
2019	Guest Editor, Sustainability: Building Energy Prediction & Sus., Buildings MDPI

International: Founder Of Organization

2019, Founder and Organizer, The First International Workshop on Building Energy Sensing, Controls, Big Data Analysis, and Visualization (UrbSys), ACM BuildSys, Nov 10, 2019, New York.

International: Keynote & Plenary Speaker

- 2025, Invited Keynote Speaker, International Symposium and Workshop on Sustainable Buildings, Cities, and Communities, Dec 15.
- 2023, Invited Keynote Speaker, Importance of Research in Architecture, Built Environment and Technology, Chitkara University Doctoral Consortium, Nov 4.
- 2020, Invited Plenary Speaker. Micro- and Macro-scale Modeling, Simulation and Visualization of Low/ Net Zero Energy Buildings and Cities. The 20th International Conference on Sustainable Environment & Architecture, Urban Retrofitting: Building, Cities and Communities in the Disruptive Era. Univ. of Pendidikan, Indonesia. Nov 11.
- 2018, Invited Keynote Speaker. Advanced Modeling, Simulation and Visualization of Energy Use at Urban scale. Workshop on Improving Building Energy Efficiency, The Indo-US Science and Technology Forum (IUSSTF), Indian Institute of Technology (IIT), Roorkee and Central Building Research Institute (CBRI), India. Dec 20 – Dec 21.
- 2018, Invited Keynote Speaker, Intl. Conference on SMART CITY Innovation, Bandung, Indonesia, Oct 25-26.

International: Invited Speaker

- 2026, Invited Presenter, "Cooling Communities Research at UF," Cool Roof Rating Council (CRRC) Annual Meeting.
- 2020, Best Paper Award, "Preliminary Research in UAV-based Estimation of Lowest Floor Elevation for Flood Hazard Pre-Disaster Management," The 20th International Conference on Sustainable Environment & Architecture, Urban Retrofitting: Building, Cities and Communities in the Disruptive

Era, University of Pendidikan, Bandung, Indonesia, Nov 10.
 2020, Invited Session Chair – Cities and COVID-19, BuildSys'20, November 19-20, Yokohama, Japan.
 2020, Invited Technical Program Committee, The 7th ACM BuildSys Conference, Yokohama, Japan, Nov 16-19.
 2015, Invited Program Committee Member, Empirical Modeling Conference, Brussels, Belgium.

National: Invited Speaker

2023, Invited Speaker, National Renewable Energy Laboratory (NREL), US DOE, Denver CO.
 2021, Invited Speaker, Energy, Energy + Carbon. Wood and Everything After, A Virtual Symposium. Littoral Urbanism Lab, University of Miami, Florida. Feb 25 – Feb 26, 2021.
 2019, Invited Speaker, Micro- and Macro-scale modeling, simulation, and visualization of Net Zero Energy Buildings/ Cities. Department of Architecture, School of Design, University of Pennsylvania, Philadelphia, PA. Nov 7, 2019.
 2016, Invited Speaker, Web-based Dynamic-Sustainability Information Modeling (D-SIM) Data Analytics Platform for Urban Sustainability. US Environmental Protection Agency, Urban Sustainability Assessment & Management Workshop. Chicago, IL. Jul 20, 2016 - Jul 21, 2016.
 2016, Invited Speaker, 47th Winter Simulation Conference, Washington, DC.
 2016, Invited Speaker, Smart Audio Sensing-based HVAC Maintenance (SASEM). National Science Foundation (NSF) CPS PI Meeting. Washington, DC. Nov 1, 2016 - Nov 2, 2016.
 2016, Invited Presenter, Global Health + Megacities, UF Innovations in Global Health Workshop Series, Theme: Information + Technology as Agents of Change.
 2015, Invited Speaker, Soundscaping Urban Infrastructure for Predictive Maintenance. National Science Foundation (NSF) Early Career Investigator Workshop on Smart City and CPS. Seattle, WA. Apr 13, 2015 - Apr 17, 2015.
 2015-2019, Invited Graduate Seminar Presenter, Department of Architecture, University of Pennsylvania, Philadelphia, PA (presented since 2011 every year)
 2015, Invited Presenter & Poster, NIST Global City Challenge Festival, Washington, DC
 2015, Invited Presenter and Track Coordinator (Project Management and Construction), 46th Winter Simulation Conference, Huntington Beach, CA
 2014, Invited Presenter and Track Coordinator (Project Management and Construction) and Session Chair (Energy, Water & Crowd Simulations), 45th Winter Simulation Conference, Savannah, GA
 2011, Invited Presenter & Session Chair (Construction Project Process Modeling & Simulation), 42nd Winter Simulation Conference, Phoenix, AZ.
 2011, Invited Presenter, National Health and Environmental Effects Research Laboratory, US Environmental Protection Agency, Narragansett, RI. Title: “Re(de)fining Net Zero Energy: Renewable Energy Balance of Environmental Building Design.”
 2010, Invited Panelist. State of MA Building Stretch Code Appendix 120 AA Adoption for Town of Brookline
 2010, Invited Presenter, Net Zero Energy Design – Engineering, at ASHRAE Boston Product Show.
 2010, Invited Presenter, Net Zero Energy Building Design, at AIA MetroWest, Needham, MA.
 2010, Invited Presenter, Introduction to NZE Buildings, at Wentworth Institute of Technology, Boston, MA.
 2010, Invited Presenter, Q&A session – NESEA Net Zero Energy Competition, Boston, MA.
 2009, Invited Presenter, Net Zero Energy Building Studies, to the Leading By Example Program Team, Office of Energy and Environmental Affairs, State of Massachusetts, Boston, MA.
 2009, Invited Panelist, State of MA Bldg. Stretch Code Appendix 120 AA for City of Cambridge, MA.
 2009, Invited Presenter, LEED and its Impact on Civil Engineering, at ASCE, FL.

National: Invited Panel Reviewer, Session Chair, Subject Matter Expert

2015 & 2016, NSF Panel Reviewer, National Science Foundation Division of Computer and Network Systems, Cyber-Physical Systems in Smart Cities.

2015, NSF Early-Career Investigators Stipend & Position Paper Presenter, National Science Foundation Division of Computer and Network Systems, Cyber-Physical Systems in Smart Cities Workshop, Seattle, WA

2014, Invited External Reviewer for Graduate Theses, Graduate School of Design, Harvard University, Boston

2014, Co-Organizer and Session Chair, iiSBE Net Zero Built Environment Symposium and 17th Rinker International Conference, University of Florida, Gainesville, FL

2011, Invited Subject Matter Expert, National Renewable Energy Laboratory (NREL) Commercial Workforce Development, Boulder, CO

2011, Sustainability Fellow, Praire Creek Project, 2011.

Graduate Student Advising - Summary

I have successfully advised a total of 73 graduate students. I also advised Postdocs and exchange PhD students and collaborated with invited Fulbright Scholars and international faculty visitors to the UrbSys Lab, UF. I have graduated 10 PhD students and 10 masters students as Committee Chair.

PhD students: Committee Chair 12 Co-Chair 1 Member 19
Masters students: Committee Chair 10 Co-Chair 10 Member 22

List of PhD student committees that I have chaired, dissertation titles, and their current place of employment:

1. Ali Komeily (2017)
Title: Towards Context-Aware Socioeconomic Benchmarking of Neighborhoods.
Employed at McKinsey & Company, Boston, MA, USA.
2. Zeyu Wang (2017)
Title: AI-based ensemble model for energy prediction of educational buildings.
Employed at Associate Professor, Guangzhou University, China.
3. Dongsoo Kim (2018)
Title: Forecasting Env. Impact Ass. of Resi. Buildings in FL under Future Climate Change
Employed at Project Manager, Yates Construction, TX, USA.
4. Mengda Jia (2018)
Title: Occupant Behavior Modeling for Improving Comm. Building Energy Use Simulation.
Employed at NVIDIA™, Seattle, WA, USA.
5. Soheil Fathi (2019)
Title: Campus Energy Use Prediction for Assessing the Effects of Climate Change Using AI.
Employed at Technical Product Manager, Coda, CA, USA.
6. He Zhang (2021)
Title: Factors Influencing Indoor Air Pollution in University Buildings.
Employed at Assistant Professor, Xiamen University, China.
7. Haekyung Im (2022)
Title: ML Learning Based Prediction of Urban Building Energy Use owing to Climate Change
Employed at Faithful + Gould, Phoenix, AZ, USA.
8. Rahul Aggarwal (2025)
Title: Non-Invasive Spectral Analysis of IGU Using Full-Spectrum Camera Technology
Employed at AEI Engineers
9. Damilola Onatayo (2025)
Title: Understanding the Photo-Optics' Spatial and Temporal Changes of a Solar Spectrum
Employed in Atlanta GA
10. Deepak Balakrishnan (2026)
Title: Powering Digital Twins: Development of an Nvidia™ Omniverse Connector
Employed at University of Florida (postdoctoral associate with UrbSys Lab)

Research Funding

Note: Asterisks (*) indicate competitive sponsored research awards secured as Principal Investigator (PI). Listed Ph.D. fellowship awards encompass full graduate tuition waivers and monthly stipends, calculated using institutional cost-of-education standards. Commercialized Intellectual Property (IP) and related awards are noted where direct contract values apply.

Date(s)	Sponsor	Project
2012	UF Opportunity Seed Fund	A Dynamic-BIM Workbench for Low/ Net Zero Energy Buildings*
2013	Green Building Initiative (GBI)	Energy Assessment & Building Energy Performance Options of Green Globes for New Construction*
2013 – 2017	Rinker School - Supported by US Dept of Energy (DOE)	PhD Fellowships (Zeyu Wang, Ali Komeily)*
2013 – 2016	Rinker School	GW Robinson Award for Master's student*
2014 – 2018	Rinker School	Rinker PhD Fellowship (Soheil Fathi)*
2015	Florida Energy Systems Consortium	Buildings and Energy: Design and Operation vs. Sustainability*
2015	National Science Foundation (CPS Early Career Workshop)	Dynamic Sustainability Information Modeling (dSIM) Platform: Towards Integrative Environmentalism of Smart Cities (position paper award)*
2015 – 2017	US Dept. of State (DOS)	A Critical Regionalist Approach to Sustainable Urban Development
2015 – 2019	Rinker School	Rinker PhD Fellowship (Mengda Jia, Haekyung Yi, Dongsoo Kim)*
2016	WinBuild Inc./ US. Dept of Energy (DOE)	EnergyPlus Training of South African National Buildings*
2016	Walt Disney Imagineering	Roofing Thermal Analysis using HEAT3*
2016 – 2018	National Science Foundation	EAGER: Preventive Maintenance of HVAC Systems using Audio-Sensing*
2017	National Research Council Canada	Impact of Thermal Bridging Climate Resilient Roofs*
2017 – 2018	UF – City of Gainesville	Urban Energy Model for Smart City Informatics*
2017 – 2021	US Dept. of Housing and Urban Development (HUD)	Project Re-Envision* link
2018 – 2020	US Dept. of Veterans Affairs (VA)	CODY: Assistive Technology for SAH Assessments
2018 - 2022	City of Gainesville	BIM-based Automated Code Review*
2018 – 2022	Rinker School	PhD Fellowships (He Zhang, Rahul Aggarwal, Damilola Onatayo)*
2019 – 2021	US Dept. of Housing and Urban Development (HUD)	Advanced Technologies for Rapid Manufacturing of Post-Disaster Housing*

2019 – 2021	Daikin USA, Silicon Valley	AI-based HVAC Analysis for Daikin Open Innovation Lab*
2020 – 2021	UF Innovate	Health Impact Indoor Environmental Quality Smart Air Multi-Sensor Device* <i>Intellectual Property:</i> US Patent Application: <i>Portable Smart Air Quality Multisensory System Equipped Carrying Case for Asthma Inhalers.</i>
2020 – 2021	ClimateWorks Foundation	Million Cool Roofs Challenge – University of Pendidikan Indonesia*
2020 – 2022	NSF	SCC-PG: Flood Hazard Management & Practitioner Information Network for Florida* link <i>Intellectual Property:</i> US Patent 12,561,973 (<i>Drone-Based Lowest Floor Elevation System</i>)
2021 – 2022	UF Innovate	Semi-automated BIM-based Building Permit Code Checking Software*
2021 – 2022	National Oceanic & Atmospheric Admin. (NOAA)	Southeastern Health + Housing Network
2021 – 2023	Virtual Review Assist (startup)	Semi-automated Permit* (fundraised) <i>Intellectual Property:</i> US Patent 12,572,992 (<i>Automated Building Code Conformance Continuation</i>) US Patent 12,020,339 (<i>Systems and Methods for Automated Building Code Conformance</i>) US Patent Application (<i>Virtual Zoning Review</i>) US Patent Application (<i>Virtual Building Construction Inspection for Permitting</i>) US Patent Application (<i>Streamlined Single Software Workflow with ML-based Point Cloud Clustering for Virtual Reality Building Inspection</i>) US Patent Application (<i>Form Generation for Building Construction Add-in</i>) US Patent Application (<i>Building Code Check Plug-in</i>) <i>Award:</i> UF Innovate "Innovation of the Year" Award (2022) : Received top institutional honors for a co-invented utility patent titled, “ <i>Virtual Zoning Review.</i> ” This highly competitive distinction was awarded to only 6 inventions out of more than 300 total disclosures submitted by university faculty across all disciplines university-wide.

		Link (award from UF President Fuchs)
2021 – 2023	Virtual Review Assist	Semi-automated Permit* (fundraised)
2022 – 2023	UF Innovate	Solar and Thermally Insulating Coating*
2022 – 2023	VRA Foundation	Semi-automated Permit* (fundraised)
2022 – 2023	US Dept. of Energy (DOE)	Low-cost Exterior Window Attachments
2022 – 2023	ClimateWorks Foundation	Million Cool Roofs Challenge – University of Pendidikan Indonesia, link
2023 – 2025	ClimateWorks Foundation	Million Cool Roofs Challenge – University of Pendidikan Indonesia, link
2023 - 2026	UF Office of Information Technology	Transforming BIM into Digital Twin: From Architectural Design to Construction and Maintenance
2025 – 2027	ClimateWorks Foundation	Million Cool Roofs Challenge – University of Pendidikan Indonesia
2025 – 2028	UF President's Strategic Funds	AI-Enabled Smart Cities Initiative*
2025 – 2029	DCP College	PhD Fellowships* (Xinxin Yan, New PhD student)
2025 – 2027	UF Office of Research	Fenestration Testing Lab (UF Research Equipment Seed Fund)
2025 – 2029	Jeld-Wen, Inc.	Envelope Test Buildings* link (fundraised)
2025 – 2027	UF 653 Project	Reflectometer* (fundraised)

Publications

Summary of Scholarly Publications & Citation Impact

- Authored 120 peer-reviewed journal articles, refereed conference papers, and book chapters spanning computational design, design automation, and building performance — the intersection of architectural design and advanced technology.
- Accumulated around 7,500 citations⁵ with an institutional h-index of 33 and an i10-index of 71, demonstrating sustained global impact and scholarly leadership within the discipline.
- Maintained a consistent publication track record across the field's highest-impact scholarly journals, including:
 - *Renewable and Sustainable Energy Reviews* (Impact Factor: 16.3)
 - *Sustainable Cities and Society* (Impact Factor: 11.7)
 - *Applied Energy* (Impact Factor: 11.0)
 - *Automation in Construction* (Impact Factor: 10.3)
 - *Journal of Cleaner Production* (Impact Factor: 10.0)
 - *Building and Environment* (Impact Factor: 7.4)

Books, Co-Authored

1. **Srinivasan R S**, and Moe K. 2015. *The Hierarchy of Energy in Architecture: Energy Analysis. PocketArchitecture: Technical Design Series*. Routledge. London, United Kingdom. 152. <https://www.routledge.com/products/9781138803534>
ISBN Paperback: 9781138803534, ISBN Hardback: 9781138803527, ISBN eBook: 9781315753676

⁵ https://scholar.google.com/citations?hl=en&user=yz0UIBoAAAAJ&view_op=list_works

Books, Edited

1. 2019. *UrbSys '19: Proceedings of the 1st ACM International Workshop on urban Building Energy Sensing, Controls, Big Data Analysis, and Visualization*; **Srinivasan R S**, and Bhandari M (Eds.). ACM. New York, US.
<https://dl.acm.org/doi/proceedings/10.1145/3363459>
2. 2017. *Smart Cities: Foundations, Principles, and Applications*. Song H, **Srinivasan R S**, Sookoor T, and Jeschke S (Eds.). John Wiley & Sons Inc. Hoboken, New Jersey. 912.
<http://www.wiley.com/WileyCDA/WileyTitle/productCd-1119226392.html> ISBN-13: 978-1119226390, ISBN-10: 1119226392

Book Chapters

1. Ochoa K.S., Delavar, Y., Balakrishnan, D., Elias, C., **Srinivasan, R.S.**, Issa, R.J., and Anumba, C.J. 2025. A Theoretical Framework for Integrating Digital Twins in Building Life Cycle Management. Handbook of Smart Built Environment. Routledge. <https://www.routledge.com/Routledge-Handbook-of-Smart-Built-Environment/Lu-Anumba/p/book/9781032462080?srsId=AfmBOoqogFn96bt05lGnpwafrYVE9nCzrpN45PdNYxwrN53pbSIBs4lk>
2. **Srinivasan, R.S.** 2022. *Research Companion to Building Information Modeling*. Dynamic-BIM Workbench for Low/ Net Zero Energy Buildings. Edward Elgar Publishing. Cheltenham, UK.
<https://www.e-elgar.com/shop/usd/research-companion-to-building-information-modeling-9781839105517.html>
3. **Srinivasan R S**, Manoharan B, and Issa R R. 2020. *CPS in the Built Environment*. Urban Building Energy CPS (UBE-CPS): Realtime Demand Response using Digital Twin. Springer.
<https://link.springer.com/book/10.1007/978-3-030-41560-0>
ISBN 978-3-030-41560-0
4. Komeily A, and **Srinivasan R S**. 2017. *Smart Cities: Foundations, Principles, and Applications*. Smart Cities Sustainability Assessment: Balancing Social, Economic, and Environmental Performance. John Wiley & Sons Inc. Hoboken, New Jersey. 503-540.
<http://www.wiley.com/WileyCDA/WileyTitle/productCd-1119226392.html>
ISBN-13: 978-1119226390, ISBN-10: 1119226392
5. Nirjon S, **Srinivasan R S**, and Sookoor T. 2017. *Smart Cities: Foundations, Principles, and Applications*. Smart Audio Sensing Based Heating, Ventilation, and Air-Conditioning (HVAC) Monitoring. John Wiley & Sons Inc. Hoboken, New Jersey. 673-700.
<http://www.wiley.com/WileyCDA/WileyTitle/productCd-1119226392.html>
ISBN-13: 978-1119226390, ISBN-10: 1119226392
6. Morrison M, **Srinivasan R S**, and Dobbs C. 2017. *Smart Cities: Foundations, Principles, and Applications*. Smart Ecology of Cities: Integrating Development Impacts on Ecosystem Services. John Wiley & Sons. Hoboken, New Jersey. 209-242.
<http://www.wiley.com/WileyCDA/WileyTitle/productCd-1119226392.html>
ISBN-13: 978-1119226390, ISBN-10: 1119226392
7. Kibert C J, and **Srinivasan R. S.** 2015. *Analytics for Building-Scale Sustainable Ecosystems*. Sustainable Construction: The Cutting Edge and Emerging Challenges. Begell House. New York. 115-138. <http://www.dl.begellhouse.com/buynow/journal/68910b986de95724.html>
ISBN Print: 978-1-56700-279-9 , ISBN Online: 978-1-56700-288-1

Refereed Publications (53 journal articles and 58 referred conference papers)

1. Balakrishnan D, **Srinivasan R S**, Anumba C, Issa R, Ochoa K, and Villanueva I. A Robust, Generic Bi-Directional Connector to Integrate NVIDIA™ Omniverse and EnergyPlus™ for Near Real-time Building

- Energy Simulation and Visualization. International Conference on Industrialized Construction 2026.
2. Paramita B and **Srinivasan R S**. Scaling RAFLESIA® through Industrialized Construction and Regulatory Integration in Indonesia. International Conference on Industrialized Construction 2026.
 3. Shivam R and **Srinivasan R S**. Rethinking Data Center Delivery in the UK: A Systems Approach to Planning, Infrastructure and Construction Constraints. International Conference on Industrialized Construction 2026.
 4. Amoyaw-Brown, Anumba C, Kio P, and **Srinivasan R S**. Configure-to-Order HVAC Strategies for Energy-Efficient Modular K-12 Schools. International Conference on Industrialized Construction 2026.
 5. Wang D, Balakrishnan D, **Srinivasan R S**, and Wang S. Built Environment Reasoning from Remote Sensing Imagery using Large Vision-Language Models. International Conference on Industrialized Construction 2026.
 6. Zhang H, **Srinivasan R S**, Chen C, Yang X, Ganesan V, and Chen M. 2026. Multi-scenario Assessment of Living-wall Effects on Building Air Purification, Noise Attenuation, and Thermal Insulation using Quantum Machine Learning. *Building and Environment*, 114492.
<https://doi.org/10.1016/j.buildenv.2026.114492>
 7. Luo Y, Gopinadhan J, Grimaldi N S, Lu X, Ahrentzen S, **Srinivasan R S**, and Hu B. 2026. Evaluation of Home Modifications for Individuals with Mobility Impairments using Virtual Reality and Wearable Sensors. *Disability and Rehabilitation: Assistive Technology*, 21 (1), 309-324.
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<https://arxiv.org/abs/2605.08404>
 9. Zhang H, **Srinivasan R S**, Yang X, Ganesan V, Zhang J, and Zhang H. 2025. Quantifying Indoor Air Quality Determinants in Green-Certified Buildings using a Hybrid Machine Learning Method: A Case Study in Florida. *Indoor Air*, 2025 (1), 2150075. <https://doi.org/10.1155/ina/2150075>
 10. Kakade S, Nalawala Q, **Srinivasan R S**, and Rinker M. 2025. Preliminary Research in UAV-based Estimation of the Lowest Floor Elevation for Flood Hazard Pre-Disaster Management. SENVAR 20. The 20th International Conference on Sustainable Environment & Architecture.
 11. Arbulu M, Oregi X, Etxepare L, Fuster A, and **Srinivasan R S**. Decarbonisation of the Basque Country Residential Stock by a Holistic Enviro-economic Assessment of Renovation Strategies under the Life Cycle Thinking for Climate Risk Mitigation. *Sustainable Cities and Society*, Vol 117.
<https://doi.org/10.1016/j.scs.2024.105963>
 12. Zhang H, **Srinivasan R S**, Yang X, Ganesan V, Zhang H. Diurnal Variation of Indoor Air Pollutants and their Influencing Factors in Educational Buildings: A Case Study using LASSO-based ANNs. *Atmospheric Environment*, vol 333. <https://doi.org/10.1016/j.atmosenv.2024.120673>
 13. Zhang H, **Srinivasan R S**, Yang X, Ganesan V, Chen H, Zhang H. An Attention Temporal Convolutional Network-based Hybrid Approach to Simulating Indoor Air Pollutants and their Determinants in Classroom and Office Spaces. *Journal of Building Engineering*, vol 93.
<https://doi.org/10.1016/j.jobbe.2024.109873>
 14. Onatayo D A, Aggarwal R, **Srinivasan R S**, Shah B. A Data-driven Approach to Thermal Transmittance (U-factor) Calculation of Double-glazed with or without Inert Gases between the Panes. *Energy & Buildings Journal*, Vol. 305, Feb 2024. <https://doi.org/10.1016/j.enbuild.2024.113907>
 15. Onatayo D A, **Srinivasan R S**, and Shah B. 2023. Ultraviolet Radiation Transmission in Buildings' Fenestration: Part II, Exploring Digital Imaging, UV Photography, Image Processing, and Computer Vision Techniques. *Buildings* 13 (8), 1922. <https://doi.org/10.3390/buildings13081922>
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 17. Wang Z, Liang Z, Zeng R, Yuan H, and **Srinivasan R S**. 2023. Identifying the Optimal Heterogenous Ensemble Learning Model for Building Energy Prediction using the Exhaustive Search Method. *Energy and Buildings* 281, 112763. <https://doi.org/10.1016/j.enbuild.2022.112763>
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21. Wang Z, Xia L, Yuan H, **Srinivasan R S**, and Song X. 2022. Principles, Research Status, and Prospects of Feature Engineering for Data-driven Building Energy Prediction: A Comprehensive Review. *Journal of Building Engineering* 105028. <https://doi.org/10.1016/j.jobbe.2022.105028>
22. Kumar T, **Srinivasan R S**, and Mani M. 2022. An Emergy-based Approach to Evaluating the Effectiveness of Integrating IoT-based Sensing Systems in Smart Buildings. *Sustainable Energy Technologies and Assessments*. 52(102225). <https://doi.org/10.1016/j.seta.2022.102225>
23. Valipoor S, Ahrentzen S, **Srinivasan R S**, Akiely F, Gopinadhan J, Okun M, Ramirez-Zamora A, and Shukla A. 2022. The Use of Virtual Reality to Modify and Personalize Interior Home Features in Parkinson's Disease. *Experimental Gerontology*. 159 (111702). <https://doi.org/10.1016/j.exger.2022.111702>
24. Im H, **Srinivasan R S**, Maxwell D, Steiner R, and Karmakar S. 2022. The Impact of Climate Change on a University Campus Energy Use: Use of Machine Learning and Building Characteristics. *Buildings*. 12(2): <https://doi.org/10.3390/buildings12020108>
25. Woo J, Fatima R, Kibert C J, Newman R E, Tian Y, and **Srinivasan R S**. 2021. Applying Blockchain Technology for Building Energy Performance Measurement, Reporting, and Verification (MRV) and the Carbon Credit Market: A Review of the Literature. *Building and Environment* 205, 108199. <https://doi.org/10.1016/j.buildenv.2021.108199>
26. Zhang H, Yang X, and **Srinivasan R S**. 2021. Simulation and Analysis of Indoor Air Quality in Florida Using Time Series Regression (TSR) and Artificial Neural Networks (ANN) Models. *Symmetry*. 13(6): 952. <https://doi.org/10.3390/sym13060952>
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<https://doi.org/10.3390/buildings5020581>
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72. Wang Z and **Srinivasan R S**. 2015. A Review of Artificial Intelligence-based Building Energy Prediction with a Focus on Ensemble Prediction Models. *Forty Seventh Winter Simulation Conference (WSC)*. 3438-3448.
73. Jia M and **Srinivasan R S**. 2015. Occupant Behavior Modeling for Smart Buildings: A Critical Review of Data Acquisition Technologies and Modeling Methodologies. *Forty Sixth Winter Simulation Conference (WSC)*. 3345-3355.
74. Fathi S and **Srinivasan R S**. 2015. Critical Analysis of Energy Performance of Educational Buildings in a University Campus Setting using Statistical and Energy Modeling Approaches. *Forty Sixth Winter Simulation Conference (WSC)*. 3356-3366.
75. Wang Z and **Srinivasan R S**. 2015. Artificial Intelligence- based Prediction of Residential Space Heating: Use of Dynamic Human Behaviors for Improving Prediction Accuracy. *ASCE International Workshop on Computing in Civil Engineering*.
76. Komeily A and **Srinivasan R S**. 2015. Geographic Information Systems (GIS)- based Decision Support System for Smart Project Location. *ASCE International Workshop on Computing in Civil Engineering*.
77. **Srinivasan R S**, Ingwersen W, Trucco C, Ries R J, and Campbell D E. 2014. Comparing Energy-based Indicators used in Life Cycle Assessment Tools for Buildings. *Building and Environment*. 79: 138-151. <https://doi:10.1016/j.buildenv.2014.05.006>
78. **Srinivasan R S**, Thakur S Parmar M, and Ahmed I. 2014. Towards the Implementation of a 3D Heat Transfer Analysis in Dynamic-BIM Workbench. *Forty Fifth inter Simulation Conference (WSC)*. 3224-3235.
79. Pasunuru R, Hakim H, Sakhalkar A, Kibert C J, and **Srinivasan R S**. 2014. Towards New Zero Energy Schools – A Case Study Approach. *Forty Fifth inter Simulation Conference (WSC)*. 3248-3259.
80. Agdas D and **Srinivasan R S**. 2014. Parallel Computing in Building Energy Simulation. *Forty Fifth Winter Simulation Conference (WSC)*. 3167-3175.
81. Kibert C J and **Srinivasan R S**. 2013. Net Zero: Rational Performance Targets for High Performance Buildings. *Seventh International Conference on Management Science and Engineering Management; Lecture Notes in Electrical Engineering*. 242: 971-986. https://link.springer.com/chapter/10.1007/978-3-642-40081-0_82
82. Kibert C J and **Srinivasan R S**. 2013. Net Zero: A Novel Approach for Setting Sustainability Targets for the Built Environment. *Advances in Building Sciences Conference*.
83. **Srinivasan R S**, Kibert C J, Fishwick P, Thakur S, Lakshmanan J, Ezzell Z, Parmar M, and Ahmed I. 2013. Dynamic-BIM (D-BIM) Workbench for Integrated Building Performance Assessments. *Advances in Building Sciences Conference*.
84. **Srinivasan R S**, Campbell D E, Lakshmanan J, Trucco C, and Acosta P. 2013. Emergy-LCA Synthesis Models for Built Environments: Challenges and Opportunities. *Advances in Building Sciences Conference*.
85. **Srinivasan R S**, Braham W W, Campbell D E, and Curcija C D. 2012. Re(de)fining Net Zero Energy: Renewable Emergy Balance of Environmental Building Design. *Building and Environment*. 47: 300-315. <https://doi:10.1016/j.buildenv.2014.05.006>
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87. Bhandari M and **Srinivasan R S**. 2012. Window-Wall Interface Correction Factors: Thermal Modeling of Integrated Fenestration and Opaque Envelope Systems for Improved Prediction of Energy Use. *SimBuild Conference*. 71-74.
88. **Srinivasan R S**, Lakshmanan J, Santosa E, and Srivastav D. 2011. Plug Load Densities for Energy Analysis: K-12 Schools. *Energy and Buildings*. 43 (11): 3289-3294. <https://doi:10.1016/j.enbuild.2011.08.030>
89. **Srinivasan R S**, Braham W W, Campbell D E, and Curcija D C. 2011. Re(de)fining Net Zero Energy: Renewable Emergy Balance of Environmental Building Design. *International Building Performance Simulation Association (IBSPA) Conference*.
90. **Srinivasan R S**, Braham W W, Campbell D E, and Curcija D C. 2011. Building Envelope Optimization

using Energy Analysis in Environmental Building Design. *International Building Performance Simulation Association (IBPSA) Conference*.

91. **Srinivasan R S**, Braham W W, Campbell D E, and Curcija D C. 2011. Sustainability Assessment Frameworks, Evaluation Tools and Metrics for Building and Environment – A Review. *International Building Performance Simulation Association (IBPSA) Conference*.
92. **Srinivasan R S**, Lakshmanan J, and Srivastav D. 2011. Calibrated Simulation of an Existing Convention Center Building: The Role of Event Calendar and Energy Modeling Software. *International Building Performance Simulation Association (IBPSA) Conference*.
93. **Srinivasan R S**, Lakshmanan J, Srivastav D, and Santosa E. 2011. Benchmarking Plug-load Density for K-12 Schools. In *Proceedings of the Twelfth International Building Performance Simulation Association Conference, November 14-16, 2011, Sydney, Australia*.
94. **Srinivasan R S**, Braham W W, Campbell D E, and Curcija D C. 2011. Energy Balance Verification Protocol for Net Zero Energy Buildings. *Forty Second Winter Simulation Conference (WSC)*. 3365-3377.
95. **Srinivasan R S**, and Malkawi A M. 2007. An Approach to Real-Time Airflow Simulation and Immersive Visualization. *International Conference on Computer Graphics and Vision*.
96. Malkawi A M and **Srinivasan R S**. 2007. Energy Based Decision Support System for Facilities Management: Integration of Data/Web Mining, Knowledge Base and Thermal Simulation. *International Building Performance Simulation Association (IBPSA) Conference*.
97. **Srinivasan R S**, and Malkawi A M. 2007. Toward Real-Time Airflow Simulations for Immersive Visualization using Adaptive Localization Method. *International Building Performance Simulation Association (IBPSA) Conference*.
98. **Srinivasan R S**, and Malkawi A M. 2006. Real-time Simulations using Learning Algorithms for Immersive Data Visualization in Buildings. *International Journal of Architectural Computing*. 3 (3): 256-280. <http://cuminacad.architexturez.net/doc/oai-cuminacadworks.id-ijac20053301>
99. Lakaemper R, Malkawi A M, **Srinivasan R S**, and Latecki L J. 2006. Mobile Robot Mapping and Immersive Building Simulation. *International Conference on Computer Graphics*.
100. Malkawi A M and **Srinivasan R S**. 2005. A New Paradigm for Human-Building Interactions: The Use of CFD and Augmented Reality. *Automation in Construction*. 14(1): 71-84. <https://doi.org/10.1016/j.autcon.2004.08.001>
101. Malkawi A M and **Srinivasan R S**. 2005. Interfacing with the Real Space and its Performance. *International Journal of Architectural Computing*. 3(1): 43-56. <http://cuminacad.architexturez.net/system/files/pdf/ijac20053103.pdf>
102. Malkawi A M, **Srinivasan R S**, Yi Y, and Choudhary R. 2005. Decision Support and Design Evolution: Integrating Genetic Algorithms, CFD and Visualization. *Automation in Construction*. 14(1): 33-44. <https://doi.org/10.1016/j.autcon.2004.06.004>
103. **Srinivasan R S**, and Malkawi A M. 2005. Reinforcement Learning and Real-time Thermal Performance Visualization in Buildings. *Association for CAADRIA*.
104. Malkawi A M, **Srinivasan R S**, and Veer V J. 2005. Interfacing with Building Data: Toward an Integrated Mobile Augmented Environment. *International Building Performance Simulation Association Conference*.
105. **Srinivasan R S**, and Malkawi A M. 2004. The Use of Learning Algorithms for Real-time Immersive Data Visualization in Buildings. *Iberoamerican Congress of Digital Graphic (SIGRADI) Conference*.
106. Malkawi A M, **Srinivasan R S**, Jackson B, Chan K H, and Angelov S. 2004. Interactive, Immersive Visualization for Indoor Environments: Use of Augmented Reality, Human-Computer Interaction and Building Simulation. *International Conference on Information Visualization*.
107. Malkawi A M and **Srinivasan R S**. 2004. Multimodal Human-Computer Interaction for Immersive Visualization: Integrating Speech-Gesture Recognitions and Augmented Reality for Indoor Environments. *IASTED Conference on Computer Graphics and Imaging*.
108. Malkawi A M and **Srinivasan R S**. 2004. Building Performance Visualization Using Augmented Reality. *International Conference on Computer Graphics and Vision*.
109. Malkawi A M, **Srinivasan R S**, Yi Y, and Choudhary R. 2003. Performance-based Design Evolution: The Use of Genetic Algorithms and CFD. *Eight IBPSA Conference Held in Eindhoven, The Netherlands*.

793-798.

110. Fukai D and **Srinivasan R S**. 2001. A Visual Decision Tool for Design and Construction Management. *Sixth International Conference on Information Visualization*. 376-381.
111. Fukai D and **Srinivasan R S**. 2001. Piece-based Construction Information System (PCIS) Revisited: A Visual Database for Design and Construction. *Twenty First Annual Conference of the Association for Computer-Aided Design in Architecture*. 372-379.

Non-refereed Publications

1. Valipoor S, **Srinivasan R S**, and Ahrentzen S. 2020. Virtual Reality for Older Adults with Movement Disorders: A Tool for Co-Designing Homes. *IAPS Conference, Québec City, Canada. June 2020*.
2. Ahrentzen S, **Srinivasan R S**, and Valipoor S. 2020. CODY: Using Virtual Reality for Co-Designing Residential Interiors for People with Parkinson's Disease. *AMPS Conference, Tallahassee, FL*.
3. Pasunuru R, Hakim H, Sakhalkar A, Kibert C J, and **Srinivasan R S**. 2014. Analysis of Meadowbrook Elementary School Energy Performance: Towards Net Zero. *In Proceedings of the iiSBE Net Zero Built Environment Symposium and Seventeenth Rinker International Conference, March 6-7, 2014, Gainesville, FL, USA*.
4. Kim D and **Srinivasan R S**. 2014. Urban Performance Simulations – A Review. *In Proceedings of the iiSBE Net Zero Built Environment Symposium and Seventeenth Rinker International Conference, March 6-7, 2014, Gainesville, FL, USA*.

Abstracts

1. **Srinivasan R S**, Parakh U, Campbell D E, Burgett J, Li J, Braham W W, and Nagi J. 2016. Build-Em: An Integrated Emery and Environmental Accounting Tool for Buildings. *In Proceedings of the Ninth Biennial Emery Conference, January 7-9, 2016, Gainesville, FL*.
2. **Srinivasan R S**, Ingwersen W, Trucco C, Ries R J, and Campbell D E. 2014. A Review of Integrated Environmental Assessment Methodologies in the Built Environment using a Case Study Building. *In Proceedings of the Eighth Biennial Emery Research Conference, Gainesville, FL*.
3. **Srinivasan R S**, Campbell D E, and Wang W. 2012. Renewable Substitutability Index for Built Environments. *In Proceedings of the Seventh Biennial Emery Research Conference, Gainesville*.
4. **Srinivasan R S**, Campbell D E, and Wei W. 2012. Emery-LCA Synthesis for Built Environment: Challenges and Opportunities. *In Proceedings of Fourth International EcoSummit Symposium, September 30 - October 5, 2012, Columbus, Ohio, USA*.

Miscellaneous

1. **Srinivasan R S**. 2013. *Energy Assessment and Building Energy Performance Options for Green Globes for New Construction*. Green Building Initiative. 1-7. <https://www.thegbi.org/training/green-resource-library/17/>
2. **Srinivasan R S**. 2012. *Building Energy Analysis: The Present and Future*. Sustainable Construction, 3rd Edition.

University Governance and Service

a. University

- a. Co-Chair, CORAD (Council of Research Associate Deans), 2026
- b. Faculty Senator, 2019 – 2022; 2016 – 2019
I was elected to represent College of Design, Construction and Planning a second term after my promotion to Associate Professor.
- c. Sustainability Committee, 2013 - 2019
- d. Carbon Action Plan Committee, 2021 - 2022

b. College

- a. Chair, Search Committee, Chair of Dept. of Urban and Regional Planning, 2025 - 2026
- b. Chair, Search Committee, Director of School of Architecture (SoA), 2024-2025
- c. College-wide Mentor Program for Junior Faculty, 2021 – 2022
I was one of the five faculty from the College of Design, Construction and Planning to be selected to be part of the college-wide mentor program for junior faculty.
- d. Witters Competition Committee, 2017 - 2021
- e. Faculty Council, 2017 - 2020
- f. Administrative Council, 2017 – 2019

c. Department/ School

- a. Director, Graduate Programs & Research, 2021 – Present
Among other things, I am proud to note that I led the effort of eliminating the credit discrepancies between the thesis and non-thesis master's degree programs at the Rinker School.
- b. Chair, Merit Pay Committee, 2021 - Present
- c. Member, Graduate Research Committee, 2011 – 2020
- d. Member, Merit Pay Committee, 2020 – 2021
- e. Member, Endowment Committee, 2020 – 2021
- f. Member, Faculty Advisory Committee, 2014 – Present
- g. Member, Computing Committee, 2013 – 2018

Membership Activities in the Profession

American Society of Heating, Refrigeration and Airconditioning Engineers (ASHRAE)

2020 - Present

United States Institute of Building Documentation (USIBD)

2021 - Present

Emergy Society

2012 - 2022

Association of Computing Machinery (ACM)

2011 – 2023

Association of Energy Engineers (AEE)

2007 – Present

International Building Performance Simulation Association (IBPSA)

2003 – 2020

Green Building Initiative

2012 – Present

Activities in the Profession

a. International

Chair, Handbook Subcommittee, Technical Committee 4.5 Fenestration

ASHRAE Handbook - Fundamentals, ASHRAE, Atlanta, GA⁶

ASHRAE Handbook—Fundamentals covers basic principles and data used in the HVAC&R industry. The ASHRAE Technical Committees that prepare these chapters provide new information, clarify existing content, delete obsolete materials, and reorganize chapters to make the Handbook more understandable and easier to use. I chair the subcommittee (Technical Committee 4.5⁷) to update Chapter 15 – Fenestration. The next edition of ASHRAE Handbook – Fundamentals, to be published in 2025, will reflect the updates, among others, in Chapter 15.

Founder and Organizer

The First International ACM Workshop on Building Energy Sensing, Controls, Big Data Analysis, and Visualization (UrbSys '19), BuildSys 2019 Conference, Columbia University, New York, NY. Nov 12, 2019.

UrbSys '19 brought together experts from both U.S. national labs (ORNL, PNNL, ANL, LBNL) and academia. This workshop captured recent exciting work by research experts, from U.S. universities and U.S. national laboratories, at this nexus that supports sustainable urban systems' design and engineering through state-of-the-art sensing, controls, modeling, and visualization. Three plenary speakers (Teja Kuruganti, ORNL; Mary Ann Piette, LBNL, and Carol Menassa, UMich) shared their work. A lightning round of presentations from UrbSys '19 paper authors was followed by two discussion topics (see agenda for details⁸).

Technical Program Committee Member

BuildSys 2017 Conference,

November 8-9, 2017, Delft, The Netherlands.

BuildSys is a selective forum for the presentation of research results on systems' issues in the area of building controls, energy management, embedded, and networked sensors. The conference provides an ideal convergence venue for the Sensor, Building and Energy research communities to address the research challenges facing the design, deployment, use, and fundamental limits of these systems.

Program Committee Member

The International Symposium on Empirical Modeling. June 21-26, 2015, Brussels, Belgium.

This symposium is aimed at determining the current state of development of Empirical Modeling and its potential in all of these respects.

International Scientific and Organizing Committee

Advances in Building Simulation Conference, Indian Institute of Technology (IIT-Madras), Chennai, India. 2013

International Organizing Committee

43rd Winter Simulation Conference, Berlin, Germany. 2012

⁶ List of chapters in ASHRAE Handbook – Fundamentals is provided here: [Table of Contents 2021 ASHRAE Handbook—Fundamentals](#)

⁷ ASHRAE Technical Committee 4.5 Fenestration is comprised of scientific/ technical experts from several US National Labs including NREL, ORNL, etc., as well as fenestration industry; [Membership | ASHRAE 4.5 Fenestration](#)

⁸ More information (CFP, TPC) is available at: <https://dcp.ufl.edu/rinker/acm/> . UrbSys '19 Workshop Proceedings is available @ ACM Digital Library; [Proceedings of the 1st ACM International Workshop on Urban Building Energy Sensing, Controls, Big Data Analysis, and Visualization | ACM Other conferences](#)

Session Chair – “Limitations of Simulations in Practice, III & IV,”
International Building Performance Simulation Association (IBPSA) Conference, Sydney, Australia. 2011

b. National

Professional Board Membership, Committees:

Board Member

National Fenestration Rating Council (NFRC), 2015- 2016; 2019 – 2022.

Committee Member – American National Standards (ANS)

Among others, I oversaw the review of rating procedures for recognition under ANS requirements, 2013 – Present National Fenestration Rating Council (NFRC) , a not-for-profit 501(c)(3) organization, is an American National Standard Institute (ANSI) Accredited Standards Developer (ASD) and develops and administers comparative energy and related rating programs for fenestration products. As an ANSI ASD, NFRC submits designated NFRC rating procedures for recognition as American National Standards under ANSI’s Essential Requirements.

Conferences:

Technical Program Committee Member, BuildSys 2016 Conference, November 16-17, 2016, Stanford, CA, USA

Track Coordinator – Project Management & Construction, 6th Winter Simulation Conference, Huntington Beach, CA. 2015

The Winter Simulation Conference (WSC) is the premier international forum for disseminating recent advances in the field of system simulation. In addition to a technical program of unsurpassed scope and quality, WSC provides the central meeting place for simulation practitioners, researchers, and vendors working in all disciplines in industry, service, government, military and academic sectors.

Conference Co-Organizer, iiSBE Net Zero Built Environment Symposium and 17th Rinker International Conference, University of Florida, Gainesville, FL. 2014.

iiSBE is International Initiative for a Sustainable Built Environment. iiSBE is an international non-profit organization whose overall aim is to actively facilitate and promote the adoption of policies, methods and tools to accelerate the movement towards a global sustainable built environment.

Track Coordinator – Project Management & Construction, 45th Winter Simulation Conference, Savannah, GA. 2014

Session Chair, iiSBE Net Zero Built Environment Symposium and 17th Rinker International Conference, University of Florida, Gainesville, FL. 2014

Session Chair – “Energy, Water & Crowd Simulations,” 45th Winter Simulation Conference, Savannah, GA. 2014

Session Chair – “Energy Simulations,” 43rd Winter Simulation Conference, Berlin, Germany. 2012

Session Chair – “Construction Project Process Modeling & Simulation,” 42nd Winter Simulation Conference, Phoenix, AZ. 2011

The International Building Performance Simulation Association, is a non-profit international society of building performance simulation researchers, developers and practitioners, dedicated to improving the built environment. Building Simulation is the premier international event in the field of building performance simulation.

Editorial Boards and Service

Editorial Advisory Boards

Buildings (ISSN: 2075-5309)

Date of Service: Since Jan 2015 to-date

Journal of Power and Energy Engineering
(ISSN Print: 2327-588X ISSN Online: 2327-5901)
Date of Service: Since Jan 2015 to-date

Reviewer for Scholarly Journals:

Building and Environment, Elsevier
Reviewer since 2011
Owing to my thorough review work, I was awarded “#1 Reviewer + Certificate of Excellence.”

Energy and Building, Elsevier
Reviewer since 2013

Buildings, MDPI
Reviewer since 2015

Energy, Elsevier
Reviewer since 2013

Applied Energy, Elsevier
Reviewer since 2012

Building Research & Information
Reviewer since 2014

Intl. J. of Strategic Property & Management, Taylor & Francis
Reviewer since 2012

International Activities & Global Partnerships

A news article at University of Florida highlighted my active international activities; link provided in the footnote⁹. Serve as the primary institutional architect and university faculty representative leading formal academic, curricular, and research agreements with top-tier global institutions:

- **Indonesia | University of Pendidikan (UPI), Bandung:** Orchestrated and signed a multi-institutional Collaborative Agreement centered on building energy, sustainability, and smart city architectures.
 - Co-secured \$1.375M in total international prize funding via the global *Million Cool Roofs Challenge*, securing a \$125,000 phase-one award¹⁰ in 2019 followed by the \$0.75M global grand prize¹¹, and later \$0.5M.
 - Established an international exchange pipeline, hosting Associate Professor Dr. Beta Paramita and Dr. Try Ramadhan at the *UrbSys Lab* via the UPI World Class University Faculty Exchange award.

⁹ [Srinivasan Improves Lives Around the World with Global Partnerships in Indonesia, South Africa, and China | International Center University of Florida \(ufl.edu\)](#)

¹⁰ An article was published in UF College of Design, Construction and Planning online news; [Million Cool Roofs Challenge – UF College of Design, Construction and Planning \(ufl.edu\)](#)

¹¹ An article was published by the Challenge organizers; <https://challenges.org/prizes/million-cool-roofs-challenge/>

- **South Africa | University of Pretoria:** Formulated and executed a comprehensive partnership with the Faculty of Engineering, Built Environment and Information Technology, successfully negotiating its strategic four-year renewal in 2021. Core operational milestones include:
 - SABS Standards Advising: Presented "*Development of Building Codes and Benchmarking Buildings, and Analysis of Cool Walls, Roofs, and Windows*" to the South African Board of Standards (SABS) Codes Technical Committee (June 23, 2016).
 - National Award Finalist: Recognized as an Energy Project of the Year Finalist by the South African Association of Energy Efficiency (November 8–9, 2016, Gauteng) for the project "*Energy Modeling Project for the Development of Energy Performance Levels in Buildings in the Republic of South Africa*" alongside team members Howard Harris (SP Energy) and Bipin Shah (WinBuild).
 - Technical Workshops & Summits: Conducted intensive building energy modeling training (June 13–15, 2016, Johannesburg) and presented at both the Smart Energy Technology Meeting ("*Analysis of RDP Housing: Energy Efficiency Opportunities*") and the Powering South Africa with Cleaner & Smarter Energy Conference ("*Energy Analysis to Identify Energy Efficiency Opportunities for RDP Houses in South Africa*").
- **China | Southeast University, Nanjing:** Established a formal partnership with China's #2-ranked Department of Architecture to anchor joint research initiatives and host long-term doctoral visiting scholars.
 - Developed and delivered a 2-credit-hour graduate short course titled "*Architecture and Systems Ecology*," attended by 16 graduate students, utilizing personal authored textbook *The Hierarchy of Energy in Architecture: Energy Analysis* (Routledge).
 - Collaborated on the joint development of a research proposal for the National Science Foundation of China (NSFC) and hosted doctoral student Mr. Jerry Zhang as an International Visiting Scholar at the *UrbSys Lab* for 12 months.
- **South Korea | Korea University, Seoul:** Invited by executive leadership in 2025 to establish a formal university-wide Memorandum of Understanding (MoU) to launch collaborative faculty research initiatives and transnational student exchange programs.
- **Turkiye | OSTIM Technical University:** This new MoU will focus on potential collaborative research, opportunities for faculty and student development and exchange, exchange of academic publications and reports, sharing of experiences in innovative teaching methods and course design, and organization of joint symposia, workshops, and conferences.
- **India | Indian Institute of Technology (IIT) Roorkee:** Structuring an active collaborative institutional agreement bridging architecture and construction management disciplines.
 - Hosted an IIT Roorkee Assistant Professor as a Visiting Faculty for a three-month residency under the prestigious BHAVAN Fellowship, and hosted Ph.D. student Mr. Tarun Kumar from the Indian Institute of Science (IISc) as an International Visiting Scholar for 6 months.
 - Submitted a bilateral workshop proposal titled "*Bilateral Workshop on Embodied Energy Assessment in Built Environment*" to the Indo-US Science and Technology Forum and co-supervised a Master of Science thesis focusing on comparative high-rise residential embodied energy in the US and India (graduate student: Mr. Chundawat).
- **Brazil | University of Campinas (UNICAMP):** Partnered with Professor Vanessa Gomes to co-supervise Ms. Giseli Colleta's Ph.D. dissertation titled "*BIM Mediation for Life Cycle Optimization*," hosting her at the *UrbSys Lab* under a prestigious Santander Scholarship award.