

EDDY SANTOSA

AIA, LEED Fellow, CBCP, BEMP, LEED AP BD+C
BSc.(Arch), MSc.(Bldg. Sc.), MS (Arch)

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EDUCATION

University of Pennsylvania, Philadelphia, Pennsylvania
Master of Science (M.S.) in Architecture, 2006 – 2007

National University of Singapore, Singapore
Master of Science (MSc.) in Building Science, 2002-2003

Universitas Tarumanagara, Jakarta, Indonesia
Bachelor of Science (B.Sc.) in Architecture, 1994-1998

Certification: Business Foundations Specialization - The Wharton School, University of Pennsylvania

INVITED GUEST CRITIC AND SCHOLARLY SERVICE

- A Juror for 2024 National AIA COTE Award
- A Building Performance Knowledge Community Leader with (BPKC) Chair with >10,000 members at AIA National (February 2022-Present)
- A Project Committee Voting Member at ASHRAE SPC 209 (Energy Sim. Aided Design) (June 2021-Present)
- A Board Director (Jan 2020-Present) & An Education Committee Member IBPSA USA (March 2012-Present)
- A Solar Decathlon Mentor (2022) and a Solar Decathlon Build Challenge Juror (2023)
- A Co-Chair for Sub Committee Energy Reporting - AIA LFRT Sustainability (June 2015-2017)
- An USGBC Energy & Atmosphere Technical Advisory Group (EA TAG) Member (Jan 2016-Dec 2019)
- A Guest Expert for Daylight credit at www.LEEDuser.com (July 2010-Jan 2016)
- An Education Reviewer/USGBC Pro Reviewer for Education Review Team for National USGBC (May 2010-March 2014 and March,2015-Present)
- A reviewer for Murray Milne's Building Energy Performance Modeling, May 2012, University of Southern California
- A paper reviewer for UIA 2011 Tokyo the 24th World Congress of Architecture
- A reviewer for Dr Pablo LaRoche's Design Studio, November 2011, California State Polytechnic University-Pomona (Architecture)
- A proposal reviewer for 2010 and 2014 GreenBuild Program
- A technical paper reviewer for ASES (Association Solar Energy Society) National Solar Conference, Phoenix-Arizona, 2010
- A reviewer for Dr Hofu Wu's Integrated Sustainable Design Studio, February 2009, December 2009, March 2011, California State Polytechnic University-Pomona (Architecture)

TEACHING AND RESEARCH EXPERIENCE.

TC Chan Center Building Simulation and Energy Studies, University of Pennsylvania
Research Associate – Sustainability plan
Fall 2006

- Collected data for energy audit and sustainability plan at University of Pennsylvania including 150 buildings

Department of Building - National University of Singapore
Graduate Researcher – Urban Heat Island, May – June 2003

- Surveyed to the urban environment and made physical models for wind tunnel tests

Department of Architecture - Universitas Tarumanagara, Indonesia

Student assistant of Technique of Communication Architecture and Building Physics I, 1997

- Assisted first year students to solve assignments in Technique of Communication Architecture studio and to carry out experiment in Building Physics I assignment

Department of Architecture - Universitas Tarumanagara, Indonesia

Student assistant of Technical drawing, 1996

- Assisted first year students to solve assignments in Technical drawing studio

INDUSTRY EXPERIENCE.

Mott MacDonald, Los Angeles, CA

Climate and Nature Based Design Lead - US West/North America Building Performance Discipline Leader

July 2022 - Present

- Assisted marketing, and proposal West Region related to sustainability and decarbonization.
- Develop practice strategy for building performance in North America
- Conducted and review building performance, energy analysis and life cycle assessment for a building or a campus

IMEG, Pasadena, CA - www.imegcorp.com

Senior Building Performance

February 2021 - July 2022

- Assisted marketing, proposal and presentations for internal and clients and led West Coast Region Sustainability efforts.
- Conducted building performance, energy analysis and life cycle assessment for different buildings including central plant projects, net zero/LEED building and decarbonization strategies.

Self Employed, Houston, TX

Independent Contractor

March 2020 - January 2020

- Designed residential projects and branding for a restaurant
- Developed a net zero assessment for a residential project

DBR Engineering Consultants, Houston, TX - www.dbrinc.com

Director of Sustainability

November 2017 - February 2020

- Managed and led sustainability group
- Assisted marketing, proposal and presentations for clients
- Provided education for internal and external outreach

CallisonRTKL, Seattle, WA - www.callisonrtkl.com

Building and Energy Modeling Lead

July 2013 - November 2017

- Managed and led building and energy modeling group
- Provided training, education and external presentations about energy and sustainability
- Brought more than \$170k utility funding in the first year
- Conducted QA and QC in energy compliance for all projects
- Developed LEED management, energy strategies for buildings and master plan levels located around the world for more than 300 projects that have construction costs from \$300k to \$3.2B; plus provided sustainability for retail stores for one of top 10 Fortune 500 companies.

HMC Architects, Ontario, CA - www.hmcarchitects.com

Environmental Analyst III - Project Manager

Nov 2007 – June 2013

- Managed and coordinate green building certification from RFP process to post occupancy evaluations
- Develop fee worksheet and review the contract document for the green building certifications
- Provided sustainability strategies that suit to client's needs and coordinated the implementation of the strategies
- Brought \$1M incentive funding for clients and project teams from utility companies
- Assisted in design process and technical supports for building projects to campus level projects,
- Conducted QA and QC in energy compliance for big projects

SWA Architects, Pasadena, CA - www.swaarch.com

Intermediate designer – health care and commercial projects

May 2005 – August 2006

- Managed and performed drawing document production (SD, DD and CD)
- Assisted in design process, value engineering, construction administration management and supervised intern architects

Kitcor, Sun Valley, CA

Assistant project manager – Kitchen Equipment Contractor

August 2004 – May 2005

- Revised and provided shop drawings, and rough-ins.
- Managed projects and coordinated with vendors, subcontractors and General Contractor.

J.U. Construction Inc., South El Monte, CA

Assistant project manager - Millwork Contractor

March 2004 – August 2004

- Revised drawings from designer to fulfill W.I.C. and ADA requirement
- Prepared shop drawing of case work and wood work

SYS Development, Inc., Rosemead, CA

Junior designer – residential projects

August 2003 – February 2004 (full time) and February 2005 – May 2005 (part time)

- Designed and prepared drawing document for submission

Laras Desain, Jakarta, Indonesia

Principal – residential projects

1998-2002

- Designed for private residential and interior design
- Planned and supervised construction process

SELECTED RECENT SPEAKING ENGAGEMENTS.

2022

- An Expert Interview for "The Road to Net Zero" at Circular Shift Summit. October 10th, 2023. New York
- A Speaker at "Green Infrastructure for a Carbon Free Future." at APTA Sustainability/Operations, Planning and Scheduling. July 31st, 2023. Anaheim, California

2022

- A Speaker for "Zero Net Carbon Building: Challenges and Difficulties in Design" at Swiss US Energy Innovation Days Conference. August 1st, 2022. Bern, Switzerland.
- A Keynote Speaker for "The Future of the Built Environment." at 2022 BCxA Annual Conference, September 21st, 2022

2021

- A Speaker for "Houston, We Have a Problem" at Performance Huddle 2021. October 8th, 2021. Houston, TX

2019

- A Speaker for "Managing Your Energy Modeler in Early Design: High-Performance Buildings" at AIA Conference at Architecture 2019. June 8th, 2019. Las Vegas, NV
- A Speaker for "LEED V4.1 : What's New and How It Will Affect Your Design" at USGBC Texas Events. March-April 2019. Texas (Multiple Cities)

2018

- A Speaker for "Low Carbon Building: a Road Map to Regenerative Design" at Eco El Paso 2018. October 25th, 2018. El Paso, TX
- A Speaker for "Redefining Metrics and Methods for a Low Carbon Future" at Building Performance Analysis Conference and Simbuild. September 28th 2018. Chicago, IL.
- A Speaker for "Low Carbon Buildings, The Future of Energy Metrics in Buildings." at Swiss US Energy Innovation Days Conference. August 21st, 2018. Fribourg, Switzerland.
- A Speaker for "Designing and Constructing High Performance Envelope for Schools" at A4LE Southern Region Conference. April 5th, 2018. Waco, TX

2017

- A Speaker for "Low Carbon High Rise Construction with Mass Timber" at Greenbuild 2017. November 10th, 2017. Boston, MA
- A Speaker for "Are You Still Using Rules of Thumb for Sustainable Design?" at Green Coast Green Symposium. March 27th, 2017. Houston, TX

2016

- A Speaker for "Your Shading Device on West Facade May Increase Energy Usage". Sustainability Slam w/ COTE - AIA Seattle. October 20th, 2016. Seattle, WA
- A Speaker for "Demystify a Rule of Thumb in Sustainable Design: Assessing Shading Strategy on West Facade". ASHRAE and IBPSA-USA SimBuild 2016: Building Performance Modeling Conference
- A Speaker for "BIM to BEM: Early Design Process Collaboration and Application". ASHRAE Winter Conference 2016, January 24th, 2016. Orlando, FL

2015

- A Speaker for "Greening Your Buildings by Implementing Performance Simulations in Early Design". Autodesk University 2015, December 2nd, 2015. Las Vegas, NV
- A Speaker for "Applying Building Performance Simulation in Early Design at an Architecture Firm". ASHRAE Energy Modeling Conference, September 30th, 2015. Atlanta, GA
- A Speaker for "Designing with Daylight: Implementation Top Daylighting in Retail Space". Solar 2015 Conference, July 29th, 2015. State College, PA
- A Speaker for "Designing Top Daylighting in Retail Space". AIA Seattle Sustainability Slam, April 22nd, 2015. Seattle, WA

2014

- A Speaker for "Daylight Simulation at Four Architecture Firms". Greenbuild 2014, October 22, 2014. New Orleans, LA
- A Panel Speaker for "Daylight and LEED". DIVA DAY, October 2, 2014. Seattle, WA
- A Speaker for "Designing with Nature: Applying Daylight Design in Retail Environments". IRDC 2014 September 5th, 2014. Miami Beach, FL
- A Speaker for "High Performance Building in Design Process: An Implementation of Early Building Performance Models" at 32th West Coast Energy Management Congress June 25th, 2014. Seattle, WA
- A Speaker for "Building and Energy Modeling Workshop" at Seattle, WA. April 1st - April 4th, 2014.
- A Speaker for "Title 24 part 6 California Energy Code for Architects" at CalU. Seattle WA. March 18th, 2014.

- A Speaker for “Designing Energy Efficient Building for Architects: Understanding Envelope Requirement on ASHRAE 90.1” at CalU. Seattle WA. March 3rd, 2014.

PUBLICATIONS.

- Santosa, Eddy (2018). How to Design Zero Energy Buildings for School Projects. Prism – Sustainability in Built Environment
- Santosa, Eddy (2017). Five Ways to High-Performance Buildings Using Energy Modeling. AIA.org
- Santosa, Eddy and Taylor, Mark (2015). Designing with Daylight: Implementation of Top Lighting in Retail Space. Solar Conference. ASES National. 44th 2015. (Solar 2015) Expanding Horizons: Shaping the New Energy Economy. Page 62-70
- Santosa, Eddy. (2013). Thermal, Visual and Energy Performance in LEED buildings: Two Case Studies. Proceedings: BESS-SB13, Building Enclosure Sustainability Symposium Sustainable Buildings Conference 2013 Advancing Toward Net Zero, Pages 231-238.
http://www.irbnet.de/daten/iconda/CIB_DC26227.pdf
- Works featured at page 163, Carbon-Neutral Architectural Design by Pablo La Roche, CRC Press Taylor Francis Group 2012
- Srinivasan, R.S., J. Lakshmanan, E. Santosa, and D. Srivastav (2011). “Plug-load Densities for Energy Analysis: K-12 Schools.” Energy and Buildings Journal, Vol. 43, Issue 11, November 2011, Pages 3289-3294.
- Srinivasan, R. S., Lakshmanan, J., Srivastav D., Santosa, E. Benchmarking Plug-Load Densities for K-12 Schools. Building Simulation 2011. Sydney, Australia.
- Santosa, Eddy. A Dialogue between a Sustainability Metric and Building Performance. UIA Tokyo, Japan. 2011 (Poster Presentation).
- LaRoche, P, Carbonier, E, Santosa, E & Babiwale E. High Performance Building Design Process. UIA Tokyo, Japan 2011. (Poster Presentation).
- Works featured at page 53-56, Meander, Variegating Architecture by Kolatan and Sabin, a book on parametric design strategies in research, teaching and practice, Bentley Publications & RIBA Press, Exton, PA, USA.
- Santosa, Eddy. (2009). An Understanding of Process, Tools and Performance in Green Building Design. US Green Building Council - Los Angeles Newsletter, 2009 issue01_2009
- Santosa, Eddy. (2007). LEED: A Real Green Building Guide. Penn-Tsinghua TC Chan Center Building Simulation and Energy Studies