

### Shortlist of Design-Research Projects

#### Completed

- 2022-23 Conceptual Designs for Sultan Shoal Bridge Project
- 2016-18 Air rights structures at Ayer Rajah Crescent (JTC iCube)
- 2017 Oilrig Conversions
- 2017 Water Settlements
- 2016 Linear City Urban proposal for Jurong 2030 (URA)
- 2015 Mixed-use developments for 320-hectares Tuas Port 2030 (MPA)
- 2014 Megaflloat applications for near-shore housing prototypes (MES Services)
- 2014 Considerations in the Planning of Underground Habitats Singapore (ISES)
- 2010-14 Kinetic Screen (MND)
- 2008-10 New industrial prototypes, Singapore (JTC)
- 2007 Redevelopment of Shenzhen urban village (Archurban Architects)
- 2006 Industrial redevelopment of 5-hectares Kolkata town (Kolkata Planning Agency)
- 2005 Autonomous post-tsunami settlement plan for 1000 inhabitants in Aceh Sumatra (Mercy Relief and Red Cross)
- 2002 Water infrastructure master plan for public housing Punggol neighborhood (NRF)

### Shortlist of Publications and Design Projects

- 2020 Lim, J, Oil Rig and Superbarge Floating Settlements (Lecture Notes in Civil Engineering), Springer
- Lim, J, Designing a Kinetic Screen from an Origami Fold, chapter in Automating Cities, Wang, C.M. and Wang, B. T. (eds.), Springer
- Lim, J, Bio-structural Analogues in Architecture, Analogic: Studio Architecture and Urbanism Magazine, Issue 18, Italy
- 2018 Lim, J, Skybridge 1: Air Rights Structure, Singapore
- 2014 Lim J E M, Sheikh Hakim, Scarcity, control and negotiations: an interpretation of form in urban informal settlements, Planum Journal of Urbanism n.29 Volume 2
- 2013 Lim J E M, et al., Planning for an Open Pit Underground Habitat, Asian Pacific Conference on Structural Engineering
- 2011 Lim J E M, Eccentric Structures in Architecture, BIS Publisher, Amsterdam
- 2009 Lim J E M, Bio-structural Analogues in Architecture, BIS Publisher, Amsterdam
- 2008 Lim J E M, Sung-woo Shin and Byum-seok Han, "Symbol and Structure in the Architecture of the Korean World Cup Stadiums, Basheer Graphics Publications (2008)
- 2005 Lim J E M, Design Generation of High-Density Forms in Asia-Pacific Network for Housing Research Conference – Housing and Globalization, Kobe University, Osaka, Japan, September 2005
- 2004 Lim J E M and A K H Lee, CFD Simulation in the Architectural Strategy for the Ventilation of Public Podium Spaces in a Local Hospital Building, in CIB2004 World Building Congress, Toronto, Canada, May 2004
- 2002 Lim J E M and V Kallianpur, The Integration of SBR Treatment in Hypothetical Urban Housing Master Plan, Proceedings of the 12th Joint Kaist-Kyoto-NTU-NUS Symposium in Environmental Engineering, pp.299-308, Taipei, Taiwan, June 2002
- Lim J E M and V Kallianpur, Architecture as Water Instrument, IAHS World Congress on Housing - An Interdisciplinary Task, pp. 1155-1162, Coimbra, Portugal, Sep 2002
- 2001 Lim J E M, W J Ng, L C Koh and V Kallianpur, A Model for Decentralised Grey Waste Water Treatment System in Singapore Public Housing, The International Water Association Conference on Waste Water Management for Developing Countries, Vol.1, pp.489-497, University Teknologi Malaysia, Malaysia, 29-31 Oct 2001
- Lim J E M and V Kallianpur, Urban Housing Strategies in the Spatial Incorporation of Infrastructure – A Study using Punggol Site in Singapore, Proceedings of the 11th Joint Kaist-Kyoto-NTU-NUS Symposium in Environmental Engineering, pp.1-14, Osaka, Japan, June 2001

### Shortlist of Awards and Prizes

- 2024 College of Design and Engineering, Teaching Excellence Award
- 2023 Best Mentor Award, Nippon Paint Designer Award
- 2014 National Day Awards, the Long Service Medal, PMO Singapore
- 2012 Ministry of National Development Award for Dedicated Service to the Singapore Board of Architects
- 2005 Honourable Mention for *Post-Tsunami Housing* in Institute for Advanced Architecture of Catalonia, Spain, (*published in a research publication entitled "Self-Sufficient Housing" by ACTAR, Loft Publications in 2006*)
- 2004 Merit Win for *Dragon Bridge* in Urban and Redevelopment Authority (URA) Southern Ridges Bridge International Design Competition
- 2003 Honourable Mention for *Lee Treehouse* Singapore in Kenneth Brown Asia Pacific Culture & Architecture Design Award 2002
- 2001 Two Honourable Mentions for *NUS Core Curriculum Office & Ban Patai Village School* in Singapore Institute of Architects (SIA) Architectural Design Awards

### Awards won by students under my tutelage

- 2024 Winner, Lee Kuan Yew Medal for Graduating M.Arch Thesis (Ryan Quah)
- 2023 Winner, Lee Kip Lin Medal for Undergraduate B.Arch (Ryan Quah)
- 2023 NUS Achievement Award with distinction (Ryan Quah)
- 2023 Nippon Paint Asia Young Designer Award (Ryan Quah)
- 2017 Winner, Architecture Drawing Prize (Christopher Wijatno), World Architecture Festival
- 2017 Winners, Lim Chong Keat Award for pioneering thesis (Chris Wijatno, Chen Qisen, Wang Yigeng, Bek Tai Keng, Sakinah Halim, Roy Tay, Davis Wong)
- 2013 Winner, Best Project in 5 top Asian Universities Graduation Project Review (Teo Zitong)
- 2012 First prize, 2<sup>nd</sup> International Tropical Architecture Design Competition (Teo Weiling)
- 2008 Third prize, 6<sup>th</sup> International Association for Humane Habitat Student Design Competition (Fourth Year Studio Project)
- 2008 Winner, Hunter Douglas Award (Liew Kok Fong)
- 2008 Honourable Mention, Present Architecture's Challenge Ion Minchu Bucharest (Liew Kok Fong)
- 2007 Winner, Hunter Douglas Award (Innovative Use of Technology) (Foo Yuet Yee)

Joseph Lim PhD (Heriot-Watt), MSc (Strathclyde)  
Associate Professor (Dr.)



Dr Joseph Lim has a special interest in prototypical structures addressing emergent spatial and environmental need. His architectural and engineering research investigations on repurposing oil rigs for habitable applications was published by Springer in 2020, titled *Oil Rig and Superbarge Floating Settlements*, and receiving interest in the Middle-East. It was also selected for exhibition at the recent UABBHK Bi-City Biennale of Urbanism\Architecture held in Hong Kong and Shenzhen from December 2019 to March 2020.

Joseph's focus in Industry and Infrastructure explores land intensification through architectural investigations, which have significant implications on the planning of future settlements, townships and infrastructure. In 2008, he pioneered corporation-funded design research studios, collaborating with JTC in 2008-10. MPA-funded research studio followed in 2014, which explored an urban design study for Tuas Port 2027 and was exhibited at the Singapore Maritime Week Exhibition and SG50 NUS Exhibition in 2015. The research studio was also featured in a Channel News Asia documentary - Futuropolis Episode 2: Keeping Afloat televised in 2017 - on the effects of rising sea levels and the viability of floating settlements. In 2016, he completed a Kinetic Sun Screen prototype capable of generating multiple programmed formations from a system with eight degrees of movement. It forms the basis for further research in the area of kinetic facades and other applications such as acoustic and wind diverting structure. Design research investigations in cellular facade geometries mediating light quality and intensity are published online at Form follows Light ([www.josephlimdesigns.com](http://www.josephlimdesigns.com)). Joseph is often invited to speak at international conferences, and also served as Visiting Professor and external examiner internationally.

Joseph was appointed leading architect by Mercy Relief for the post-Tsunami rebuilding efforts in Aceh Indonesia, and his self-sufficient housing proposal won an Honorable Mention at the Institute of Advanced Architecture of Catalonia in 2005. His earlier design projects are published in various media and have won SIA Design Awards and international awards including an Honorable Mention for Lee Treehouse at the Kenneth F. Brown Asia Pacific Culture and Architecture Design Award in 2003; and a Merit Win for Dragon Bridge in URA Southern Ridges Bridge International Design Competition in 2004.

In 2024, Joseph was awarded College of Design and Engineering's Teaching Excellence Award. As educator, he has applied his design research work for studio learning. He is the author of *Bio-structural Analogues in Architecture* (2010) and *Eccentric Structures in Architecture* (2012); both publications are in their third reprint and have been translated in Korean and Chinese languages. His publication, *Skybridge I* investigates forms of air rights structures built over Ayer Rajah Crescent and the research conclusions were presented at the JTC i3C Symposium on Industrial Infrastructure Research in 2017. His latest publication, *Oil Rig and Superbarge Settlements Floating Settlements* researched into repurposing three types of vessels in the marine industry, viz the jack-up platforms, the semi-submersibles and the superbarges, into alternative settlements to existing floating cities. This Springer publication is reference for researchers, industry and engineering coursework.

Students' projects under Joseph's tutelage are distinguished in several regional and international competitions. These include Hannover Expo, International Association for Humane Habitat, International Tropical Architecture Design, Hunter Douglas Awards, Nippon Paint Designer Award, Best Project in 5 Universities Graduation Project Review and the Architecture Drawing Prize in the World Architecture Festival.

In administrative leadership, Joseph was awarded both National Day Award and Ministry of National Development Award for his dedicated and outstanding service in both the university (as former Vice Dean and Program Director for both undergraduate and graduate programs) and the Singapore Architects Board.