

Associate Professor Tan Beng Kiang (Dr.) 陳鳴鵬

DDes (Harvard), MArch II (UCLA), BArch Hons.(NUS), Registered Architect

**Department of Architecture, College of Design and Engineering
National University of Singapore**

Associate Professor Tan Beng Kiang is an educator and a registered architect in Singapore with rich practice experience in both the public and private sectors prior to joining academia. She is the former Deputy Head of the National University of Singapore, Department of Architecture and leader of Community and Housing Section. She served as a council member of the Singapore Institute of Architects and currently sits on various technical and advisory committees. She is a recipient of several design and teaching awards including the Pacific Rim Award for Excellence in Public Interest Design for Smile Village project in 2018, the inaugural Most Energy-Efficient Building in ASEAN Award for Revenue House in 2000. In recognition of her teaching contribution she was inducted as Fellow to the National University of Singapore Teaching Academy in 2021.

Her teaching and research interests are in Participatory Community Design & Planning, Service Learning, Social Housing, Design for Aging and Learning Environments. She conducts professional and continuing education course on Participatory Community Design. As a strong advocate of participatory community design, she leads community centric Design Studio projects and service learning projects in Singapore and ASEAN. The projects have been exhibited in Archifest and Design for the Common Good International Exhibition at Denver, USA in 2022. She has been invited to speak at various conferences and her publications are in journals, books and conference proceedings.

She holds a Doctoral degree from Harvard University, Master of Architecture from UCLA and Bachelor of Architecture (Honours) from the National University of Singapore.

Dr. TAN Beng Kiang 陳鳴鵬

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<http://www.tanbengkiang.com>

<https://cde.nus.edu.sg/arch/staffs/tan-beng-kiang-dr/>



ACADEMIC/PROFESSIONAL QUALIFICATIONS

B.Arch (Honours), National University of Singapore (NUS)

MArch II (post-professional degree), University of California, Los Angeles, USA

Doctor of Design, Harvard University, USA

Registered Architect, Singapore Board of Architects

Member, Singapore Institute of Architects

PROFESSIONAL APPOINTMENTS/POSITIONS

Pre NUS

Senior Architect, Public Works Department, Singapore.

General Manager, Cyreach Pte Ltd.

Senior Architect, Consortium 168 Architects

Since NUS

Council member, Singapore Institute of Architects

Fellow, National University of Singapore Teaching Academy

Member, Pacific Rim Community Design Network

Academic Appointments/Positions

Associate Professor, Department of Architecture, NUS

2007 – 2011 Joint appointment at Interactive & Digital Media Institute, NUS

2003 July Visiting fellow, Changing Places/House_n group of MIT Media Lab, USA

2002 Fall Research member, Harvard Center for Design Informatics, USA

EDUCATIONAL LEADERSHIP

2004 – 2008 BA(Arch) Year 2 leader

2003 – 2017 Coordinator AR5421 Architectural Practice 1 (graduate)

2007 – 2017 Coordinator AR5422 Architectural Practice 2 (graduate)

2007 – 2009 Chairperson, Department IT committee

2009 – 2013 Coordinator, Community Design Studio

2010 – 2013 Deputy Head (Academic)

2013 – 2015 Deputy Head (Admin & Finance)

2013 - 2017 Leader, Community & Housing Design Section

2013 - 2017 Leader, BA(Arch) Year 4 leader

2018 Leader, BA(Arch) Year 2 Semester 1

2018 – 2020 Leader, Urban Commons & Wellness MArch Thesis Panel

2019 Co-leader, BA(Arch) Year 1 Semester 2

2020 – 2021 Unit Leader, Design 2

TEACHING

Graduate

2020 to present	Options Design Research Studio (MArch module)
2018 – present	Elective (Housing)
2017 - present	Elective (Participatory Community Design)
2018 – present	AR4421- Architectural Internship Programme
2017 - 2019	Design 8 (MArch module)
2009 - 2017	Design 7 and Design 8
2004 - present	MA(Arch) and PhD supervisor
2003 - present	MArch Design Thesis supervisor
2003 - 2017	MArch Dissertation supervisor
2003 - 2006	AR5421 Architectural Practice 1

Undergraduate

2022	Design 4
2020 to 2021	Design 2
2017 - 2019	Design 3
2013 - 2017	Introduction to Architectural Practice
2009 - 2011	Digital Design Media
2012	Digital Modeling and Simulation
1999, 2003-2012	Design 3 and Design 4

Continuing Education/Outreach

Executive Course for Urban Redevelopment Authority (URA) – Planning 101 (Public Participation module)
Executive Course for SportsSG – Public Participation
People’s Association – Introduction to Participatory Design and Planning Workshop
Housing and Development Board – The Lively Challenge (Participatory Design Workshop)
Design Thinking Workshop for Junior College and Polytechnic students

RESEARCH AREAS/SPECIALISATIONS

1. Community Design (Participatory Design/Planning, Community Engagement)
2. Social Housing
3. Sustainable design
4. Learning Environments

APPOINTMENTS/POSITIONS (OTHERS)

Academic

2021 - present	Fellow, National University of Singapore Teaching Academy
2021	Organising Committee for Workshop Back to the Field: Community Design After COVID-19, by the Pacific Rim Community Design Network and APRU Sustainable Cities & Landscapes Network, Live Webinar Series 2021
2021 - 2022	Guest Critic, School of Built Environment, UNSW
2020	Organiser, Building Lives Forum
2020 – present	Member, Advisory Board, Architecture Asia Magazine, the official magazine of ARCASIA
2019 – present	Member, Learning Community on Project-Based Learning & Mentoring

2018	Co-chair, Great Asian Streets Symposium (GASS)/Pacific Rim Community Design Network/Structures and Inclusion 2018 Conference
2018	Scientific Committee Member, Great Asian Streets Symposium (GASS)/Pacific Rim Community Design Network/Structures and Inclusion 2018 Conference
2018	Reviewer, 3rd RSU National and International Research Conference on Science and Technology, Social Science, and Humanities
2016	Convenor, Organiser, Participatory Community Planning and Design: Asian Perspectives Symposium
2016 – 2017	Planning Committee, Learning Environments Australasia 17 th Annual Conference
2014 - 2017	Editorial Board Member, International Journal of Architectural Computing
2014 – 2016	Consultant, SDE4 Net Zero Energy building
2014 – 2018	Department representative, SDE3 renovation
2014	External Reviewer, National Cheng Kung University, Thesis Exam, Taiwan
2012 - 2016	Chair, New SDE Building User Group (Department level)
2013	Chair organizing committee, CAADRIA (Association for Computer Aided Architectural Design Research in Asia) 2013 Conference
2007	Conference & Technical Committee member, Passive Low Energy Architecture (PLEA) International Conference
2005, 2010	Editor, International Journal of Architectural Computing
2006 - 2009	Reviewer, CAADRIA (The Association for Computer Aided Architectural Design Research In Asia) Conference & CAAD Futures (Computer Aided Architectural Design Futures) Conference
2008 – 2013	Educational Space Committee, University Town
2008 – 2013	Educational Technology Committee, University Town

Practice

2020 - present	National Building and Construction Standards Committee (BCSC)
2018 - 2020	National Technical Committee on Architectural Works (TCAW)
2017	Instructor, Executive Training Programme, SportSG
2016 - 2020	Instructor, Executive Training Programme for the Urban Redevelopment Authority, Singapore
2017 - present	Member, Pacific Rim Community Design Network
2012 - present	People's Association Development Committee
2013 - 2015	National Environment Agency Design Advisory Panel
2016	Member, Singapore Institute of Architects Education Committee
2012 - 2019	Raffles Girls' Secondary School Building Development Committee
2004	Consultant to National Arts Council for Singapore Arts School
2006 – 2011	Council member, Singapore Institute of Architects
2006 – 2011	Deputy Chair, Singapore Institute of Architects Board of Architectural Education
1999 – 2000	Examination Panel, Board of Architects
2013	Jury, Eco Design Challenge
2012 – 2016	Jury, URA CUBE (Challenge for the Urban & Built Environment)

RESEARCH PROJECTS

2021 - 2023	Co-PI, A Participatory Translational Study to Foster Positive Community Behaviour (SSHR Co-creation Grant)
2020 - 2022	Co-PI, Research and Design Investigation of the Redevelopment of the Paya Lebar Airbase (URA funded)
2016 – 2018	Co-PI, Arts and Culture Nodes in the Heartlands of Singapore: Exploring Strategies, Spatial Opportunities and Impacts (Phase 2), National Arts Council Funded.
2012 – 2014	Co-PI, Study on Impact of the Built Environment on Community Bonding (Research Collaboration with HDB)
2009 – 2012	Team member, Post Occupancy Evaluation of Green Mark Rated Buildings in Singapore (MND Research Fund for Built Environment)
2009 – 2012	Collaborator, High Density Threshold Studies at Centre for Sustainable Asian Cities (MND Research Fund)
2008 – 2011	Co-Principal Investigator, Life Spaces POEM (NRF funded)
2007	Co-investigator, Green Design of Schools (funded research)
2005 – 2007	Principal Investigator, Immersive Virtual Visualisation of Tropical Architecture: Unbuilt and Altered Masterpieces of Geoffrey Bawa (funded research)

AWARDS, PRIZES AND OTHER FORMS OF RECOGNITION

2022	Ah Ma Drink Stall exhibiting at Design for the Common Good International Exhibition, Center for Visual Art, Metropolitan State University of Denver, USA
2020	Building Lives projects exhibited at Archifest
2018	Pacific Rim Award for Excellence in Public Interest Design for Smile Village Project
2015	SDE Teaching Excellence Award 2014/15
2014	SDE Teaching Excellence Award 2013/14
2013	SDE Teaching Excellence Award 2012/11
2012	SDE Teaching Excellence Award 2011/12
2014	HDB Quality Partners Award 2014 for research project
2012	“Journey of Possibilities” Ideas for the Rail Corridor – 2nd, 3rd & Honourable Mention
2010	SIA-Hunter Douglas Eco Friend Merit Award for Wallace Environmental Learning Lab (built work)
2010	Best paper award, CAADRIA (Computer Aided Architectural Design Research in Asia) Conference
2000 – 2003	NUS Overseas Graduate Scholarship, Singapore
2000	Most Energy-Efficient Building in ASEAN Award for Revenue House
1997	Construction Industry Development Board (CIDB) Merit Award for Best Buildable Design for Revenue House.

COMMUNITY PROJECTS

<https://tanbengkiang.com/community-projects/>

DESIGN STUDIO PROJECTS

<https://tanbengkiang.com/studio-projects/>

PUBLICATIONS

Books

- 2014 Tan, B. K., Kong, K. H. T., Tse, S. L., & Lim, C. K. (2014). Reimagine SDE3: Design Studio Futures
- 2013 Tan, B K “Rail Ideas: Visions for the Rail Corridor”. Singapore: Centre of Advanced Studies in Architecture, 2013. 196pp (*Book*)
- 2012 Tan, B K, Building Lives: Designing Gawad Kalinga Enchanted Farm, Singapore: Centre of Advanced Studies in Architecture. 111pp (*Book*)
- 2011 MacPherson 21st Century Estate, Singapore: CASA, 2011. 310 pp (*Book*)
- 2010 Tan, B K, Building Lives: A Community Project with Gawad Kalinga in Manila, Singapore: CASA, 2010. 190 pp (*Book*)
- 2007 Wittkopf, S K and B K Tan (eds), Sun, Wind and Architecture: Proceedings of the 24th International Conference on Passive Low Energy and Architecture 2007, Singapore: Department of Architecture, National University of Singapore, 2007. 867 pp.
- 2007 Tan, BK (2007). Virtual Bawa [electronic resource] : Unbuilt masterpieces of Geoffrey Bawa, Singapore: CASA (*CD ROM*).
- 2006 Tan, B K & Casteels, R, “Sound Journey from Architecture to Music”, NUS Department of Architecture, 2006. 32 pp (*Book*)

Papers in Journal and Conferences

Design Education

- 2021 Tan BK, Gan M et al (2021) “An Investigation of Design Students’ Remote Online Learning Experiences During Covid-19 Pandemic” – in progress
- 2020 Tan BK, Gan M et al (2020) "Technology acceptance model and the perception of learning quality in online design studio environments" in Higher Education Campus Conference (e-HECC).
- 2016 Tan, B K, “Building Lives: A case of academia’s involvement in the Community Development of Smile Village, Cambodia”, 10th Conference of The Pacific Rim Community Design Network: Agency and Resilience 2016, Hong Kong (2016): 635 – 650.
- 2013 Tan, B K, “Community Projects at NUS”. In RUMAH50 Review of Urbanism, Modern Architecture & Housing, 182–188. Singapore: Singapore Institute of Architects.
- 2007 Tan, B K, “Experiential Journey through Sound”. Innovation, 7, no. 2 (Design Innovation) (2007): 58-59. (Singapore). (*Journal*)
- 2007 Tan, B K (ed), Singapore Architect. no. 241 Thinking the New LearningScapes, Singapore. (*Journal*)
- 2006 Tan, B K, “Breaking Out of the Box”. Singapore Architect, no. 236 (2006): 92-99. (Singapore). (*Journal*)
- 2006 Tan, B K, “From 1:100 to 1:1 A Collaborative Design Studio Experience with Digital Modeling and Full-Scale Construction”. In Re-Imaging Architectural Design Studios. Taipei: Archidata Co. Ltd., 2006. (*Book Chapter*)

Community and Housing

- 2018 Tan, B.K., (2018). “Revitalising Ubin Kampung Life: One Structure at a Time” in Emerging Urbanism/Designing for Social Impact, Great Asian Street Symposium/Pacific Rim Community Design Network/Structure for Inclusion 2018 proceedings.
- 2017 Trivic, Z., Tan, B. K., Padawangi, R., Mascarenhas, N. & Duong, Q. (2017). “Activating Urban Spaces and Communities through Arts and Culture: Boosting Local Identity and Social Bonding in Singapore’s Housing Neighbourhoods”. Paper presented at the UIA 2017 Seoul World Architects Congress: Soul of City, 3-10 September 2017, Seoul, South Korea. UIA 2017 Seoul Proceedings, Seoul: UIA 2017 Seoul, pp.1-8, ISBN 979-11-961666-1-8 (Outstanding Paper Award)
http://www.uia2017seoul.org/P/papers/Full_paper/Paper/Oral/PS1-42/O-0558.pdf
- 2017 Trivic, Z., Tan, B. K., Mascarenhas, N., Duong, Q. & Padawangi, R. (2017). “Arts and Culture Strategies for Activating Neighbourhood Public Spaces: Bringing Arts to the Heartlands of Singapore”. Paper presented at the AESOP Annual Congress: Spaces of Dialog for Places of Dignity - Fostering the European Dimension of Planning, 11–14 July 2017, Lisbon, Portugal. AESOP 2017 Book of Proceedings, Lisboa: Universidade de Lisboa, pp. 744-756, ISBN 978-4989-99801-3-6
<http://aesop2017.pt/images/Congresso/proceedings/Book of Proceedings 20171215.pdf>
- 2016 Tan, B K & Lee, A, “Development of Neighbourhood Centers In Singapore A Comparative Study Of Public Spaces And Its Impact On Public Life”, In Crossroads: Asian Streets In The Dynamics of Change (pp. 93-108)
- 2014 Tan, B K, “Evolution of Public Housing Policy and Housing Design in Singapore”. Taiwan Architect, 2014/01, no. 469 (Housing in Asia) (2014). (Taiwan). (In Chinese).
- 2014 Cho, I S, B K Tan, T Devasari I and M B R Noor, “Measuring Community Bonding in Public Housing Estates in Singapore”. Proceedings of the 12th International Congress of Asian Planning Schools Association (2013). Taipei

Sustainable Design

- 2016 R B Stamenovic, Kishnani, N, B K Tan, D Prasad and F Faizal, “Assessment of awareness of Green Mark (GM) rating tool by occupants of GM Buildings and general public”. In Energy and Buildings Journal. (2016): 115, 55-62 (*Journal*)
- 2014 Kishnani, N, B K Tan, R B Stamenovic, D Prasad and F Faizal, “Post-Occupancy Evaluation of Green Mark-Rated Buildings in Singapore”. World Sustainable Building Conference 2014 (Barcelona, Spain)
- 2012 Zhang, J., Heng, C. K., Malone-Lee, L. C., Hii, D. J. C., Janssen, P., Leung, K. S., & Tan, B. K. (2012). Evaluating environmental implications of density: A comparative case study on the relationship between density, urban block typology and sky exposure. *Automation in Construction*, 22, 90-101.
[doi:10.1016/j.autcon.2011.06.011](https://doi.org/10.1016/j.autcon.2011.06.011) (*Journal*)
- 2011 Saadon, N and B K Tan (2011). “GREEN SCHOOLS: Environmental Performance and Perception – A post occupancy evaluation of two Singapore schools”. *Architecture & Sustainable Development*, 27th International

- Conference on Passive & Low Energy Architecture Proceedings, ed. Bodart, Magali & Evrad, Arnaud (2011): 499–504. Louvain-la-Neuve: UCL Presses.
- 2010 Tan, B K, “A Tale of Two Office Buildings”. *FuturArc*, 16 (2010): 84-87. (Singapore). (*Journal*)
- 2007 Tan, B. K., Cr, U. M., & Hong, S. (2007). Naturally ventilated tall office building in the tropics - Learning from Bawa. In Sun, Wind and Architecture - The Proceedings of the 24th International Conference on Passive and Low Energy Architecture, PLEA 2007 (pp. 245-251).
- 2007 Wittkopf, S. K., & Tan, B. K. (eds) (2007). Sun, Wind and Architecture The Proceedings of the 24th International Conference on Passive and Low Energy Architecture: PLEA2007, 22-24 November 2007, National University of Singapore, Singapore. Research Publishing Services.
- 2007 Tan, B. K. (2007). Singapore's Lost Pyramid: Re living Geoffrey Bawa's Cloud Forest Centre. *Singapore Architect*, (238), 136-141. (journal)
- 2006 Tan, B K, “Bioclimatic Skyscraper - Learning from Bawa”. *Clever Design, Affordable Comfort – 23rd International Conference on Passive and Low Energy Architecture Proceedings*, ed. Raphael Compagnon, Peter Haefeli And Willi Weber (2006): 1753–1757. Geneva: Universite de Geneve. (*Paper*)

Architecture and New Media

- 2015 Rahaman, H and B K Tan, "Interpreting Digital Heritage: A Conceptual Model of End-Users' Perspective". *International Journal of Architectural Computing*, 9, no. 1 (New Frontiers) (2011): 99–113. (United Kingdom) [doi:10.1260/1478-0771.9.1.99](https://doi.org/10.1260/1478-0771.9.1.99)
- 2011 Tan, B K and J Yeom, “Mirrored Message Wall: Bridging the Real and Virtual community”. *Circuit Bending, Breaking and Mending: Proceedings of the 16th International Conference on Computer-Aided Architectural Design Research in Asia*, ed. C.M. Herr, N. Gu, S. Roudavski, M.A. Schnabel (2011): 311–320. Newcastle: CAADRIA
- 2011 Nguyen, T L T and B K Tan (2011). “Shared Space at a Distance – A Model of Integrated Shared Space for Supporting Informal Interaction at a Distance”. *Designing Together, Proceedings of the 14th International Conference on Computer Aided Architectural Design (CAAD Futures) 2011*, ed. Leclercq, Pierre; Heylighen, Ann; Martin, Genevieve (2011): 41–54. Belgium: Les Editions de l’Universite de Liege.
- 2011 Nguyen, T L T and B K Tan (2011). “Understanding and Constructing Shared Spaces for Supporting Informal Interaction at a Distance”. *Circuit Bending, Breaking and Mending: Proceedings of the 16th International Conference on Computer-Aided Architectural Design Research in Asia*, ed. C.M. Herr, N. Gu, S. Roudavski, M.A. Schnabel (2011): 189–198. Newcastle: CAADRIA
- 2010 Yeom, J. H., & Tan, B. K. (2010). Mirrored message wall: Sharing between real and virtual space. In *Conference on Human Factors in Computing Systems - Proceedings* (pp. 4783-4788). doi:10.1145/1753846.1754231
- 2010 Tan, B K and J H Yeom (2010). “Interactive message wall: a public display for collective sharing in public place”. *New Frontiers Proceedings of the 15th International Conference on Computer-Aided Architectural Design Research in Asia CAADRIA 2010*, ed. B. Dave, A. I. Li, N. Gu, H. J. Park (2010): 487496. Hong Kong: CAADRIA (Paper).

- 2010 Tan, B K and T Y S T E Lim (2010). “Place and Placelessness in 3D Online Virtual World”. New Frontiers Proceedings of the 15th International Conference on Computer-Aided Architectural Design Research in Asia CAADRIA 2010, ed. B. Dave, A.I. Li, N. Gu & H.J. Park (2010): 103112. Hong Kong: CAADRIA (Paper).
- 2008 Tan, B K and Z L Tan (2008). “Hybrid urban public space to enrich public life: Inspirations for seamless integration”. 5th Great Asian Streets Symposium: A Public Forum of Asian Urban Design Future Asian Space Proceedings, ed. Boontharm, Davisi et al (2008). Singapore: Centre for Advanced Studies in Architecture (CASA) (paper)
- 2008 Tan, B. K., & Hii, D. J. C. (2008). The acceptable visual quality of stereoscopic virtual reality architectural visualisation. In CAADRIA 2008 - The Association for Computer-Aided Architectural Design Research in Asia: Beyond Computer-Aided Design (pp. 579-586).
- 2007 Tan, B K and J C Hii (2007). “Integrating advanced shader technology for realistic architectural virtual reality visualisation”. In Computer Aided Architectural Design Futures 2007, ed. Dong A, Moere A.V. and Gero J., 431–443. Netherlands: Springer, 2007. (Book Chapter)
- 2002 Maynes-Aminzade, D., Tan, B. -K., Goulding, K., & Vaucelle, C. (2002). Hover: conveying remote presence.. In T. Appolloni (Ed.), SIGGRAPH Abstracts and Applications (pp. 194). ACM. [doi:10.1145/1242073.1242207](https://doi.org/10.1145/1242073.1242207)

INVITED TO SPEAK (CONFERENCES AND WORKSHOPS)

<https://tanbengkiang.com/presentations/>

- 2022 Online Conversations, Design For the Common Good
- 2021 “The Role and Transformation of Public Housing in Singapore” at The Institution, Architecture and the City (virtual) Symposium, November 01, Seoul, Korea by DAAE at Seoul National University and Asian Culture Center
- 2021 Back to the Field: Community Design After COVID-19, by the Pacific Rim Community Design Network and APRU Sustainable Cities & Landscapes Network, Live Webinar Series 2021
- 2020 Bottom-Up Resilience - Civil Society Responses under COVID-19, organised by the Pacific Rim Community Design Network and Association of Pacific Rim Universities (APRU) Sustainable Cities and Landscapes Hub, Live webinar series
- 2019 Social Connex Series – Moving beyond good intentions: How can we do good and make impact for our youths and the communities we engage with?
- 2017 14th Sino-Singapore Undergraduate Exchange Programme
- 2016 2nd Architecture Educator Forum

CONFERENCES ORGANISED

<https://tanbengkiang.com/conference-organised/>

WORKSHOPS CONDUCTED

<https://tanbengkiang.com/exhibitions/>

EXHIBITIONS

<https://tanbengkiang.com/exhibitions/>

GRADUATE THESIS SUPERVISED

<https://tanbengkiang.com/thesis/>

DISSERTATIONS SUPERVISED

<https://tanbengkiang.com/dissertations/>

FEATURED IN MEDIA

<https://tanbengkiang.com/featured/>