

Tan, Puay Yok

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Tel: (65) 65163531; Fax: (65) 6779 3078; Email: akitpy@nus.edu.sg<http://www.arch.nus.edu.sg/people/faculty.html>**SCOPUS ID:** 56050968700; **ORCID:** orcid.org/0000-0003-0378-590X;**GOOGLE SCHOLAR:** Puay Yok Tan**A. EDUCATIONAL QUALIFICATIONS**

PhD. Floriculture and Ornamental Horticulture, Cornell University, Ithaca, New York, USA
First Class Honours, Bachelor of Horticulture (double concentration in Science and Technology),
Massey University, New Zealand

B. CAREER HISTORY

2015 - Current Programme Director, Masters in Landscape Architecture, NUS
2014 - 2016 Co-Programme Director, Masters of Science in Environmental Management.
School of Design and Environment, National University of Singapore
2014 - Current Leader for Research and Teaching Group in Landscape Studies, Department of
Architecture
2017 - Current Associate Professor (tenured), Department of Architecture, National University
of Singapore
2012 - 2017 Associate Professor, Department of Architecture, National University of
Singapore
2009 - 2011 Deputy Director (Research), Centre for Urban Greenery and Ecology, Singapore
2002 - 2008 Assistant Director (Research), National Parks Board, Singapore
1998 - 2002 PhD Candidate, Cornell University
Graduate Teaching Assistant, Cornell University
Research Officer, Cornell University
1996- 1998 Assistant Director (Ag) (Horticulture), Singapore Botanic Gardens
Concurrently, Plant Records Manager, Singapore Botanic Gardens
1995 - 1996 Curator, Parks and Recreation Department, Singapore

C. RESEARCH INTERESTS

Functional Performance of Urban Landscapes: Optimizing the performance of urban landscapes as a medium to deliver ecosystem services for enhancing the built environment through manipulation of landscape pattern, composition and design.

Urban Greenery Solutions for the Built Environment: Development of urban solutions to integrate urban greenery with the built environment in compact cities.

Urban Ecology: Using the framework of a city as a socio-ecological system to understand the interactions and roles of multiple actors in determining landscape values

D. PROFESSIONAL MEMBERSHIPS

- International Association for Landscape Ecology
- US Regional Association for International Association for Landscape Ecology

E. RESEARCH GRANTS AND PROJECTS

Principal Investigator

Assessing Singapore's Natural Capital (2018-2021) <i>National Research Foundation to Singapore, ETH Centre for Future Cities Laboratory, NUS, NTU</i>	\$4.8 m my share: \$480,000
Assessment of Dose-Response Relationships between Green Spaces and Health (2016-2018) <i>HSS Seed Fund and AcRFTI</i>	\$78,100
Development of Ecological Networks for Singapore (2015-2017) <i>National Parks Board and Urban Redevelopment Authority</i>	\$418,589
Green Roof Research in Singapore (2015-2016) <i>NUS and Kajima Technical Research Institute</i>	\$384,000 (in-kind)
Selection of Trees for Enhanced Cooling of the Built Environment (2015-2017) <i>NUS-JTC P³C</i>	\$270,828
Biophilic Town: A framework for landscapes to enhance the environment of high density towns (2014-2018) <i>National Research Foundation Land and Liveability Grant</i>	\$1,284,000
Study of Evapotranspiration in the Tropical Urban Environment of Singapore (2014-2019) <i>Economic Development Board IPP and DHI Water and Environment</i>	\$100,000
Study of Parks Distribution in Singapore (2013-2015) <i>Academic Research Fund Tier 1 MOE</i>	\$145,713
Assessment of photosynthetically active radiation under viaducts and flyovers (2014-2015) <i>National Parks Board</i>	\$98,620
Development of specialized container technology for the growing of street trees in Singapore (2007-2011) <i>Ministry for National Development Research Fund for the Built Environment</i>	\$1,045,150
Pilot study of green roofs in Singapore (2002-2004) <i>Ministry for National Development Innovation Fund</i>	\$700,000

Co-Principal Investigator/ Collaborator

Socio-ecological Assessment of Urban Landscapes: a Comparative Study (2016-2017) <i>Politecnico di Torino, NUS</i>	\$€50,000 my share: about \$€ 11,000
Enhancing Blue-Green and Social Performance in High Density Urban Environments (2014-2015) <i>Ramboll Foundation, NUS, Harvard University, MIT, Zeppelin University</i>	\$DKK, 4.0 m my share: about \$100,000
Ecosystem Services in Urban Landscapes <i>National Research Foundation to Singapore, ETH Centre for Future Cities Laboratory</i>	\$2,256,550 my share: about \$300,000
Effects of rainfall on tree stability <i>National Parks Board, Nanyang Technological University</i>	\$451,112
Enhancing the urban native biodiversity of Singapore <i>Ministry for National Development Research Fund for the Built Environment</i>	\$1,796,256
Sustainable high density living: urban greenery studies <i>Ministry for National Development Research Fund for the Built Environment</i>	\$605,282
Quantifying vegetation biomass using remote sensing techniques <i>Ministry for National Development Research Fund for the Built Environment</i>	\$600,000
Development of guidelines for the application Green Plot Ratio <i>Ministry for National Development Research Fund for the Built Environment</i>	\$335,500
Research and Demonstration Project for Vertical Greenery Systems in Singapore (2006-2008) <i>NUS, National Parks Board, Building and Construction Authority</i>	\$180,000
Soil Improvement for Tree Stability (2004-2006) <i>National Parks Board, Nanyang Technological University</i>	\$100,000
Study of Tree Root Systems (2006-2010) <i>National Parks Board, Nanyang Technological University</i>	\$205,000
Study of Urban Heat Island in Singapore (2001-2004) <i>NUS, National Parks Board</i>	\$446,000

F. GRADUATE STUDENTS SUPERVISED

Current - Main Supervisor

- Sylvia Augusta (PhD) – topic to be finalized (NUS Research Scholarship)

- Zhang Liqing (PhD) – topic to be finalized (NUS Research Scholarship)
- Rosita Samsudin (PhD) - topic to be finalized (NUS Research Scholarship)
- Song Xiao Ping (PhD) - topic to be finalized (SEC-NUS Research Scholarship)
- Lee Jihye (PhD) – topic to be finalized (NUS Research Scholarship)

Current - PhD as Thesis Committee Member/ Co-Supervisor

- Wang Wei James - The Spatio-Temporal Dynamics of Vegetation Cover in Singapore
Main Supervisor: A/P Dr. Wang Yi-Chien (Department of Geography, NUS)

Graduated – PhD Main Supervisor

- Mahyar Masoudi (PhD) - Effects of land use planning on vegetation structure and distribution in compact cities (NUS Research Scholarship)
- Zhang Jingyuan (PhD) - Assessment of park distribution and accessibility in Singapore (NUS Research Scholarship)
- Abdul Rahim bin Abdul Rahman (PhD) - Development of ecological network for Singapore (NUS Research Scholarship)

Graduated - Honours Students

- Song Xiao Ping - Photosynthetically Active Radiation for Urban Agriculture at Public Housing Apartment Blocks in Singapore” (Department of Biological Sciences, NUS)
Main Supervisor: A/P Dr. Hugh Tan (NUS)
- Goh Siew Yin - Food Productive Urban Landscapes in Singapore (Department of Biological Sciences, NUS)
Main Supervisor: A/P Dr. Hugh Tan (NUS)

Graduated – PhD as Thesis Committee Member

- Tan Chun Liang (PhD) - Effects of Vertical and Rooftop Greenery on Outdoor Mean Radiant Temperature in the Tropical Urban Environment
Main Supervisor: Prof. Dr. Wong Nyuk Hien (Department of Building, NUS)
- Ervine Lin Shengwei (PhD, ETH Zurich) - Point Clouds as a Representative and Performative Format for Landscape Architecture - A Case Study of the Ciliwung River in Jakarta, Indonesia
Main Supervisor: Prof Dr. Christophe Girot (Chair of Landscape Architecture, ETH Zurich)
- Religina Hendarti (PhD-2014) The influence of the evapotranspiration process of green roof tops in PV modules in the tropics
Main Supervisor: Prof. Dr. Wong Nyuk Hien (Department of Building, NUS)

Graduated – Masters Dissertation as Main Supervisor

- Veron Kho (2016) – Biogenic volatile organic compounds (BVOCs) emissions by selected street trees in Singapore
- Supriyanto (2016) – The challenges of urban forest development (a case study of urban forest in Jakarta, Indonesia)
- Chen Anzhuo (2016) - Green roof plant selection for urban cooling and drought tolerance
- Ashley Tan (2016) – An assessment of socio-ecological factors that affect the formation of novel coral ecosystems in Singapore

- Sun Yunzi (2016) - Spatial and structure of green space distribution in new developing residential district and their relation to spatial equity
- Tao Yibei (2016) - The role of vegetation in mitigating urban land surface temperatures in Singapore
- Cheok Zhining (2016) - The ability and efficiency of public parks in engaging social activities at night
- Goh Weixiang (2015) – Potential of domestic gardening in public housing to contribute to biodiversity conservation in Singapore.
- Wan Jing (2015) – The effects of thermal comfort and shading level on different park-based activities in Singapore community parks
- Hu Zhijie (2015) – The spatial and temporal change of green space in response to urbanization process in Singapore during the last two decades
- Xu Haohui (2015) – Comparative assessment of spatial structure or urban green space distribution and urban parks accessibility in cities
- Atreyee Sandilya (2014) - Spatial distribution of urban green spaces in cities and its role in the ecology of cities: Case of Delhi.
- Li Jinmu (2014) - An assessment of the potential of spaces underneath flyovers and nearby traffic islands to deliver urban ecosystem services in Singapore
- Zhang Rong (2013) - A study of urban green spaces in Singapore’s residential towns
- Pham Le Ahn (2013) - Green walls in Singapore – an evaluation and selection of plants that are suitable for outdoor green walls and are able to attract fauna

G. AWARDS

- Visiting Professor, Tongji University, April 2017, Sep 2018
- Visiting Scholar, Politecnico di Torino, June-July 2017
- Institution of Engineers of Singapore Prestigious Engineering Achievement Award 2008
- Patent: A plant housing device (200905150-9)
- National Day Award, Singapore: Commendation Medal
- Scholarships:
 - 1998: National Parks Board Postgraduate Scholarship
 - 1992: Massey Scholar
 - 1990: Singapore Government Overseas Scholarship
- Academic Honours:
 - Daisy Yen Wu Memorial Award (Cornell University)
 - Sir James Wilson Prize (leading student for second, third and fourth years)
 - Lord Bledisloe Prize
 - New Zealand Society Prize for Horticulture Science
 - DG Bowler Prize
 - John Salinger Prize (2 consecutive years for best paper in floriculture)

- National (Military) Service: Outstanding contribution

Awards to Students Supervised

- “ESRI Young Scholar Award 2016” Zhang Jingyuan for her PhD work
- “Best Student Oral Presentation” to Mahyar Masoudi at Second (International) Congress of the Society for Urban Ecology held in Shanghai, 8-10 July 2016. The award was for his presentation: “Masoudi, M. and Tan, P.Y. (2016). The effects of land use on the relationships between spatial pattern of urban green spaces and land surface temperature in a tropical compact city”.
- “Shell Best Dissertation Award” to Veron Kho for her dissertation submitted for fulfilment of the Master of Science in Environmental Management degree. This award was for Ms Kho’s dissertation on “Biogenic volatile organic compounds (BVOCs) emissions by selected street trees in Singapore”.
- “ESRI Young Scholar Award 2014” Abdul Rahim bin Abdul Rahman for his PhD work

H. ACADEMIC SERVICE

Editorial Board of Journals and Periodicals

- Guest Editor, Journal of Landscape Architecture. Special Issue on “Landscapes for Compact Cities” (2018)
- Associate Editor, Landscape and Urban Planning (2018-)
- Review Editor for Urban Ecology Section of Frontiers in Ecology and Evolution (2015-)
- Associate Editor, Journal of Urban Ecology (2015-)
- Editorial Advisory Board, Landscape and Urban Planning (2013-2018)
- Advisory Board, CITYGREEN (2014-2017)
- Founding co-Editor, CITYGREEN (2010-2011)
- Assistant Editor, The Gardens Bulletin (2004-2010)

Reviewer of Research Grants

- National Geographic Society Grant (2017)
- National Environmental Research Council (Valuing Nature Programme), United Kingdom (2016)
- MITACS, Canada (MITAC Accelerate research proposal) (2014)
- National Research Foundation, Singapore (Land and Liveability National Innovation Challenge Grant Call) (2014 -)
- National Research Foundation, Singapore (Competitive Requests for Proposals 6, 7)
- Ministry of National Development Research Fund for the Built Environment - Technical Evaluation Panel (2007-2010)

Reviewer for International Journals and Publications

- Social-ecological Practice Research; Urban Climate; Sustainability; Ecosystem Services; Frontiers in Ecology and Evolution; Environmental Science and Policy; Landscape and Urban Planning; Building and Environment; Landscape Research; Arboriculture and Urban Forestry; Building; Urban Forestry and Urban Greening; Cities; Sustainable Cities and Societies; Land Degradation and Development
- Reviewer of proposals for Springer Brief in Water Science and Technology

Contribution to Conferences

- Convener, Symposium on “Design of Neighbourhood Landscapes with Landscape Services” in IFLA World Congress, 18-19 July 2018, Singapore.
- Scientific Committee Member, IFLA World Congress, 18-19 July 2018, Singapore.
- Session Moderator for Green Economy, 2nd Asia-Pacific Urban Forestry Meeting organized by Food and Agriculture Organization UN and Korean Forest Service, 13-15 September 2017, Seoul, South Korea
- Review Committee Member, Urban Transitions Global Summit, 5-9 September 2016, Shanghai, China.
- Scientific Committee Member, Fourth International Conference on Countermeasure to Urban Heat Islands (4th IC2UHI), 30 May – 1 June 2016, Singapore.
- Session Chair for “What’s next in Research” track, in international conference “International Skyrise Greenery Conference”, 7-8 November 2014, Singapore.

- Session Chair for “Ecology and Wellness” track, in international conference “Sustainable Buildings 2013 – Realising Sustainability in the Tropics”, 9-10 September 2013, Singapore.
- Programme Sub-Committee, World Cities Summit 2012
- Organizing Lead, Urban Sustainability R&D Congress, Singapore (Urban Ecology Track and Exhibition (<http://www.mnd.gov.sg/urbansustainability/2011/urbanecology.html>), 27-28 Jun 2011
- Organising Committee, International Skyrise Greenery Conference, Singapore, 1-3 Nov 2010

Consultation and Input to International Studies

- Consultation with Pascom Pte Ltd for development of LED horticultural lightings, August 2015
- Consultation with Panasonic AVC Networks Singapore (PAVCSG) for plant factory, April 2015
- Consultation with Daiwa House Pte. Ltd on urban greening trends and programmes, August 2014
- Consultation with Samsung Economic Research Institute (SERI) on urban greening of Singapore, Aug 2014
- “City Leadership Initiative” expert survey, by Department of Science, Technology, Engineering and Public Policy, University College London (2014)
- Interview for “Harnessing the Potential of Biophilic Urbanism in Australia” research project, Queensland University of Technology (2013)
- Interview for “Augmenting Ecosystem Services Through Planning and Development Regimes in Hong Kong” doctoral research, University of Hong Kong (2013)
- International Expert Panel, UN Convention of Biological Diversity for development of City Biodiversity Index (2009-2011)

Teaching Service

- Programme Director, Masters in Landscape Architecture, NUS (2015 -)
- Research and Teaching Group Leader for Landscape Studies, Department of Architecture, NUS (2014-)
- PhD admission review panel, Department of Architecture (2014-)
- Co-Director, Masters of Science in Environmental Management, NUS (2014-2016)
- Search Committee Chair. MLA Faculty. Department of Architecture, NUS (2016-2017)

External Reviewer/ Examiner/ Advisory Board Member

- External Examiner Diploma in Landscape Architecture, Singapore Polytechnic (Apr 2018-)
- Landscape Design & Horticulture Advisory Committee (LDHAC) member, Ngee Ann Polytechnic Singapore (May 2015-)
- External Reviewer P & T (University of Melbourne) (2017)
- External Examiner: Department of Geography, The University of Hong Kong, MPhil Defence (2018)
- External Examiner: Department of Geography, The University of Hong Kong, PhD Defence (2017)
- Examiner: Department of Building. National University of Singapore, PhD Defence (2013)
- External Examiner: Universiti Teknologi Malaysia, Faculty of Built Environment, Masters of Architecture Oral Defence (2013).

I. PROFESSIONAL SERVICE

Public Policy Panel and Service

- Tender Evaluation Committee, Agri-Food & Veterinary Authority of Singapore Tender for Sale of Agriculture Land for Agriculture Activity (2018)
- Research Advisory Panel, Gardens by the Bay, Singapore (2017-)
- Singapore Science Centre Steering Committee: Infrastructural Sub-Committee member (2014 - 2017)
- Invited panellist on “Review of Landscaping for Urban Spaces and High Rises (LUSH) Strategies (Urban Redevelopment Authority of Singapore) (16 Jan 2014)
- Panel Member, Technology Roadmapping Workshop by Building Research Institute, Housing and Development Board, Singapore.(29 October 2013)
- Planning Appeals Inspector, Appointed by Minister for National Development (1 Aug 2013)
- Invited facilitator for dialogue on “Planning for Greenery in Singapore” (20 Jul 2013), organized by Urban Redevelopment Authority
- Resource Member, Concept Plan 2011 Subcommittee on Sustainability and Identity, Urban Redevelopment Authority

Jury for Competitions and Design Panels

- Jury member for Singapore Landscape Architecture Awards 2017
- Jury for International Landscape Design Competition for HAN River, Organized by Da Nang City, Vietnam (2016)
- Jury for 2016 Yuan Ye Award International Landscape Architecture Competition, Xi’an, China (2016)
- Advisory and Judging Panel Member for Landscape Challenge competition Singapore Garden Festival (2016)
- Chief Judge, Landscape Industry Association of Singapore Awards of Excellence (2013)
- Online Jury Panel. Singapore Landscape Architecture Awards (2013)
- Judging Panel, Green Wave Environmental Science Competition (2005-current)
- Judging Panel, Landscape Industry Association of Singapore Awards of Excellence (2007, 2009, 2011)
- Urban Redevelopment Authority Design Advisory Panel for Jurong Lakeside District (2011)

Management and Advisory Committee

- Advisory Member to NUS Concept Master Plan – Land Optimization including Underground Spaces. (2014 -)
- Management Committee for Nanyang Technological University-Delft Hydraulics Institute Centre (2009)
- Economic Development Board – JTC Corporation Technical Committee for Cleantech Park (2010)

J. CONSULTING

- International Forum on Planning for Central Yunnan Urban Cluster. 3 December 2016. Kunming, Yunnan, China
- Consultancy services for School of Design and Environment new building (2014-2015)
- Study visit by China Construction Culture and Art Association (29 May 2014)
- Authorship and Editorial work on “A Vertical Garden City, Singapore” with Urban Redevelopment Authority (2013)
- Provision of advisory services for landscape consultancy services for indoor landscape for commercial development (China), with 3fp Landscape Atelier. (2013 -)
- Provision of advisory services for rail landscape planning and design for city of Zhuhai, with RSP Architects Planners & Engineers (2013 – 2014)

K. PUBLICATIONS

Peer-Reviewed Journals

1. Masoudi, M.*, **Tan, P. Y.**, 2019, Multi-year comparison of the effects of spatial pattern of urban green spaces on urban land surface temperature, *Landscape and Urban Planning* 184:44-58.
2. Masoudi, M.*, **Tan, P. Y.**, Liew, S. C., 2019, Multi-city comparison of the relationships between spatial pattern and cooling effect of urban green spaces in four major Asian cities, *Ecological Indicators* 98:200-213.
3. Olszewska-Guizzo, A., Escoffier, N., Chan, J., **Puay Yok, Tan.**, 2018, Window View and the Brain: Effects of Floor Level and Green Cover on the Alpha and Beta Rhythms in a Passive Exposure EEG Experiment, *International Journal of Environmental Research and Public Health* 15(11):2358.
4. **Tan, P. Y.**, Wong, N. H., Tan, C. L., Jusuf, S. K., Chang, M. F., Chiam, Z. Q., 2018, A method to partition the relative effects of evaporative cooling and shading on air temperature within vegetation canopy, *Journal of Urban Ecology* 4(1):juy012-juy012.
5. Song, X. P.*, Tan, H. T. W., & **Tan, P. Y.** 2018. Assessment of light adequacy for vertical farming in a tropical city. *Urban Forestry & Urban Greening*, 29(Supplement C), 49-57. doi:<https://doi.org/10.1016/j.ufug.2017.11.004>
6. Zhang, L.*, **Tan, P. Y.**, & Diehl, J. A. 2017. A conceptual framework for studying urban green spaces effects on health. *Journal of Urban Ecology*, 3(1), jux015-jux015. doi:10.1093/jue/jux015
7. Song, X. P.*, **Tan, P. Y.**, Edwards, P., & Richards, D. 2017. The economic benefits and costs of trees in urban forest stewardship: A systematic review. *Urban Forestry & Urban Greening*. doi:<https://doi.org/10.1016/j.ufug.2017.11.017>
8. Song, X. P.*, Richards, D., Edwards, P., **Tan, P. Y.**, 2017, Benefits of trees in tropical cities, *Science* 356(6344):1241-1242.
9. Rahardjo, H., Amalia, N., Wee, J. D., Leong, E. C., Ow, L. F., **Tan, P. Y.**, 2017, Effect of soil hydraulic properties on water infiltration of containerised soil, *Landscape and Urban Planning* 165:84-92.
10. Tan, C. L., Wong, N. H., **Tan, P. Y.**, Ismail, M., Wee, L. Y., 2017, Growth light provision for indoor greenery: A case study, *Energy and Buildings* 144:207-217.
11. Tan, C. L., **Tan, P. Y.**, Wong, N. H., Takasuna, H., Kudo, T., Takemasa, Y., Lim, C. V. J., Chua, H. X. V. 2017, Impact of soil and water retention characteristics on green roof thermal performance, *Energy and Buildings*.

12. **Tan, P. Y.**, Samsudin, R. 2017. Effects of spatial scale on assessment of spatial equity of urban park provision, *Landscape and Urban Planning* 158:139-154.
13. **Tan, P.Y.**, Feng, Y.Q., Hwang, Y.H. 2016. "Deforestation in a tropical compact city part a: understanding its socio-ecological impacts." *Smart and Sustainable Built Environment* 5(1). doi:10.1108/SASBE-08-2015-0022
14. Hwang, Y.H., Feng, Y.Q., **Tan, P.Y.** 2016. "Managing deforestation in a tropical compact city part b: urban ecological approaches to landscape design." *Smart and Sustainable Built Environment* 5(1). doi:10.1108/SASBE-08-2015-0023
15. Harnas FR, Rahardjo H, Leong EC, **Tan, P. Y.**, Ow LF. 2016. Stability of containerized urban street trees. *Landscape Ecol Eng* 12 (1):13-24.
16. Tan, C.L.*, Wong, N.H., **Tan, P.Y.**, Jusuf, S.K., Chiam, Z.Q. 2015. Impact of plant evapotranspiration rate and shrub albedo on temperature reduction in the tropical outdoor environment. *Building and Environment*, 94, part. 1: 206-217.
17. **Tan, P.Y.**, Ismail, M.R.B. 2015. The effects of urban forms on photosynthetically active radiation and urban greenery in a compact city. *Urban Ecosystems* 18: 937-961
18. **Tan, P.Y.**, Ismail, M.R.B. 2015. Photosynthetically active radiation and methods for its estimation in equatorial Singapore. *Theoretical and Applied Climatology* 1-11.
19. **Tan, P.Y.**, Ismail, M.R.B. 2014. Building shade affects light environment and urban greenery in high-density residential estates in Singapore. *Urban Forestry and Urban Greening*.13, 771-874
20. **Tan, P.Y.**, Abdul Hamid, A.R. 2014. Urban ecological research in Singapore and its relevance to advancement of urban ecology and sustainability. *Landscape and Urban Planning*. 125, 271-289
21. Wang, Z.F, **Tan, P.Y.**, Zhang, T., Nassauer, J.I. 2014. Environmental science and metropolitan governance in China and the US: Landscape practice in the action gap. *Landscape and Urban Planning*. 125: 329-334
22. **Tan P.Y.**, Wang, J; Sia, A. 2013. Perspectives on five decades of the greening of Singapore. *Cities*. 32: 24-32.
23. Rahardjo, H., Harnas, F.R., Indrawan, I.G.B., Leong, E.C., **Tan, P.Y.**, Fong, Y.K., Ow, L.F. 2013. Understanding the stability of Samanea saman trees through tree pulling, analytical calculations and numerical models. *Urban Forestry and Urban Greening*.
<http://dx.doi.org/10.1016/j.ufug.2013.12.002>.
24. Indrawan, G., Rahardjo, H., Leong, E.C., **Tan, P.Y.**, Fong, Y.K., Sim, E.K. 2012. Field instrumentation for monitoring of water, heat, and gas transfers through unsaturated soils. *Engineering Geology* 151, 24–36

25. Burcham, D., Leong E.C., Fong, Y.K., **Tan, P.Y.** 2012. An evaluation of internal defects on trunk surface temperature in *Casuarina equisetifolia* L. (Casuarinaceae). *Arboriculture and Urban Forestry*, 38(6): 276–285.
26. Burcham, D., Leong E.C., Fong, Y.K., **Tan, P.Y.** 2012. Infrared camera measurements reveal diurnal variation in the effect of mechanically induced internal voids on plant stem temperatures passively heated by the sun. *Arboriculture and Urban Forestry*, 39(1): 30–40.
27. Roger, K, Trisurat, Y, Puangchit, Baguion, N, **Tan, P.Y.** 2011. Tropical street trees and climate uncertainty in Southeast Asia. *HortScience*. 24: 167-172
28. Ow, L.F, F.R. Harnas, I.G.B. Indrawan, A. Sahadewa, E.K. Sim, H. Rahardjo, E.C. Leong. Y.K. Fong, **Tan, P.Y.** 2010. Tree-pulling experiment: an analysis into the mechanical stability of Rain Trees. *Trees, Structure and Function*. 24: 1007-1015
29. Wong, N.H., Y.K. Tan, **Tan, P.Y.**, A. Sia, N.C. Wong. 2010. Perception studies of vertical greenery systems in Singapore. *Journal of Urban Planning and Development*. 136(4).
30. Wong, N.H., Y.K. Tan, **Tan, P.Y.**, N.C. Wong. 2009. Energy simulation of vertical greenery systems. *Energy and Buildings*. 141: 1401-1408
31. Rahardjo, H., F.R. Harnas, E.C. Leong. **Tan, P.Y.**, Y.K. Fong, E.K. Sim. 2009. Tree Stability in an improved soil to withstand wind loading. *Urban Forestry and Urban Greening*. 8: 237-247.
32. Wong, N.H., Y.K. Tan, Y. Chen, K. Sekar, **Tan, P.Y.**, N.C. Wong, D. Chan. K. Chiang. 2009. Thermal evaluation of vertical greenery systems for building walls. *Building and Environment*. 45: 663-672.
33. Wong, N.H, Y.K. Tan, **Tan, P.Y.**, N.C. Wong, K. Chiang. 2009. Acoustics evaluation of vertical greenery systems for building walls. *Building and Environment*. 45: 411-420
34. **Tan, P.Y.** and A. Sia. 2009. Understanding the performance of plants on non-irrigated green roofs in Singapore using a biomass yield approach. *Nature in Singapore*. 2: 149-153.
35. Wong, N H, **Tan, P.Y.** and Y Chen. 2007. Study of thermal performance of extensive rooftop greenery systems in the tropical climate. *Building and Environment*, 42: 25-54
36. **Tan, P.Y.** & T. Whitlow. 2001. Physiological responses of *Catharanthus roseus* (periwinkle) to ash yellows phytoplasmal infection. *New Phytologist*. 150: 757-769.
37. Mills, T.M., M.H. Behboudian, **P.Y. Tan** and B.E. Clothier. 1994. Plant water status and fruit quality in 'Braeburn' apple. *Hortscience*. 29: 1274-1278.

*Graduate students supervised

Peer-Reviewed Conference Proceeding

1. Zhang, L.Q., and **Tan, P.Y.** 2017. A conceptual framework to better understand the dose-response relationships between urban green spaces and health, in Proceedings of the European Conference “Biodiversity and Health in the Face of Climate Change – Challenges, Opportunities and Evidence Gaps”, Marseille, M., Stadler, J., Korn, H., Bonn, Bundesamt für Naturschutz (eds), Federal Agency for Nature Conservation Bundesamt für Naturschutz (BfN): Bonn, Germany, 27 - 29 June 2017.

2. Guizzo, A. O., Chan, Z.C., Hwang, Y.H., Liao, K.H., **Tan, P.Y.** 2017. Validating the landscape design framework for urban high-density neighbourhoods, in Proceedings of the 5th International Conference on Sustainable Development, 6 - 7 September 2017 Rome, Italy
3. Liao, K.H, Chan, J., Tchapi, M, **Tan, P.Y.** (2016). Exploring Participatory Design for Sustainable Landscape of Public Housing Neighborhoods in Singapore, in Proceedings of 10th Conference of the Pacific Rim Community Design Network: Agency and Resilience, Chinese University of Hong Kong, Hong Kong, 15-17 December 2016, p. 473-492.
4. Takasuna, H., Kudo, T., Takemasa, Y., Wong, N.H., **Tan, P.Y.**, Tan, C.L., Lim, C.V., Chua, H. 2016. "Impact of Soil and Water Retention Characteristics on Evapotranspiration Behaviour of Plants in a Green Roof", 4th International Conference on Countermeasures to Urban Heat Island, 30-31 May and 1 June 2016, National University of Singapore, Singapore.
5. Wong, N.H., **Tan, P.Y.**, Tan, C.L., Lim, C.V., Chua, H.X., Takasuna, H., Kudo, T., Takemasa, Y. 2016. "Impact of Soil and Water Retention Characteristics on Green Roof Thermal Performance", 4th International Conference on Countermeasures to Urban Heat Island, 30-31 May and 1 June 2016, National University of Singapore, Singapore
6. Samsuddin, R., **Tan, P.Y.** 2015, Assessment of Green Space Equity in Singapore's Urbanity. Proceedings of the 8th International Conference of the International Forum on Urbanism, ed. Donyun Kim, Sungah Kim, Thorsten Schuetze, Saehyung Sohn, Lorenzo Chelleri, York Ostermeyer, Hendrik Tieben, Marc Wolfram (2015): 112-124. Basel: Sciform. (8th Conference of the International Forum on Urbanism, 22 - 24 Jun 2015, Songdo Convensia, Incheon, South Korea)
7. Abdul Hamid, A.R.b., **Tan, P.Y.** 2014. Ecological networks: their application for biodiversity conservation in an urbanized environment. Proceedings of the 20th International Sustainable Development Research Conference Trondheim, Norway 18-20 June 2014.
8. **Tan, P.Y.** 2012. From being green to becoming ecological: urban ecological research in Singapore and its relevance to the advancement of urban ecology and sustainability. For international workshop in Frontiers in Urban Ecological Research and Planning: Linking Ideas from the East and West, Shanghai, 25-30 October 2012. (unpublished).
9. Behm, M., **Tan, P.Y.**, C.H. Poh, A. Sia. 2011. Safe design best practices: a summary of Singapore's rooftop greenery guidelines. Six International Conference on Construction in the 21st Century. Kuala Lumpur, Malaysia, July 5-7, 2011.
10. Hendarti, R., Wong, N.H., Reindl, T.R., **Tan, P.Y.**, Chan, W.L. (2012). Integrated Photovoltaic and greenery for roof top as a potential form for sustainable architectural element in the Tropics. Bridging between Old & New, Towards Future Sustainable Built Environment (5-7 Nov 2012, UTM, Johor Bahru, Malaysia)
11. **Tan P.Y** and Angelia Sia. 2005. A pilot green roof research project in Singapore. Proceedings of the Third Annual Greening Rooftops for Sustainable Communities Conference, Washington DC, USA, 4-6 May 2005.

12. Wong, N H, Y Chen, C.M. Teo and **Tan, P.Y.**, 2004. Preliminary study of Leaf Area Index and thermal protection of vegetation in the tropical climate. Volume 1, Built Environment and Environmental Buildings, edited by M.H. de Wit, pp. 211-216. Netherlands Antilles: Technical University of Eindhoven, 12 September 2004
13. **Tan, P.Y.**, N.H. Wong, Y. Chen, C.L. Ong, A. Sia. 2003. Thermal benefits of rooftop gardens in Singapore. Proceedings of the First Annual Greening Rooftops for Sustainable Communities Conference, Chicago, USA, 29-30 May 2003.

Book and Book Chapters

1. **Tan, P. Y.**, Liao, K. H., Hwang, Y. H., Chua, V., 2018, Nature, Place & People: Forging Connections through Neighbourhood Landscape Design, World Scientific, New Jersey.
2. **Tan, P. Y.**, Liao, K. H., Chan, J., 2018, Landscapes in Urban Areas, in: Nature, Place & People (P. Y. Tan, K. H. Liao, Y. H. Hwang, V. Chua, eds.), World Scientific, pp. 16-23.
3. **Tan, P. Y.**, Liao, K. H., Hwang, Y. H., Chua, V., Guizzo, A. O., Chan, J., 2018, Designing Neighbourhood Landscapes with Landscape Services, in: Nature, Place & People (P. Y. Tan, K. H. Liao, Y. H. Hwang, V. Chua, eds.), World Scientific, New Jersey, pp. 94-203.
4. Liao, K. H., **Tan, P. Y.**, 2018, A Conceptual Framework for Neighbourhood Landscape Design, in: Nature, Place & People (P. Y. Tan, K. H. Liao, Y. H. Hwang, V. Chua, eds.), World Scientific New Jersey, pp. 58-77.
5. Hwang, Y. H., Chan, J., Guizzo, A. O., **Tan, P. Y.**, 2018, Neighbourhood Landscapes, in: Nature, Place & People (P. Y. Tan, K. H. Liao, Y. H. Hwang, V. Chua, eds.), World Scientific, New Jersey, pp. 24-57.
6. **Tan, P.Y.** 2018. Singapore, the surprisingly green and biodiverse city, in Forests and Sustainable Cities – Inspiring stories from around the world. Food and Agriculture Organization, Rome, Italy, pp. 35-40.
7. **Tan, P. Y.**, Jim, C. Y., 2017. Greening Cities: Forms and Functions (P. Y. Tan, C. Y. Jim, eds.), Springer Singapore, Singapore, 372. pp
8. **Tan, P. Y.**, 2017, Perspectives on Greening of Cities Through an Ecological Lens, in: Greening Cities: Forms and Functions (P. Y. Tan, C. Y. Jim, eds.), Springer Singapore, Singapore, pp. 15-39.
9. **Tan, P. Y.**, Jim, C. Y., 2017, Concluding Remarks, in: Greening Cities: Forms and Functions (P. Y. Tan, C. Y. Jim, eds.), Springer Singapore, Singapore, pp. 359-366.
10. Jim, C. Y., **Tan, P. Y.**, 2017, Introduction to Green City Idea and Ideal, in: Greening Cities: Forms and Functions (P. Y. Tan, C. Y. Jim, eds.), Springer Singapore, Singapore, pp. 1-11.
11. Feng, Y., **Tan, P. Y.**, 2017, Imperatives for Greening Cities: A Historical Perspective, in: Greening Cities: Forms and Functions (P. Y. Tan, C. Y. Jim, eds.), Springer Singapore, Singapore, pp. 41-70.

12. Hamid, A. R., Tan, **P. Y.**, 2017, Urban Ecological Networks for Biodiversity Conservation in Cities, in: *Greening Cities: Forms and Functions* (P. Y. Tan, C. Y. Jim, eds.), Springer Singapore, Singapore, pp. 251-277.
13. Liao, K.-H., Deng, S., **Tan, P. Y.**, 2017, Blue-Green Infrastructure: New Frontier for Sustainable Urban Stormwater Management, in: *Greening Cities: Forms and Functions* (P. Y. Tan, C. Y. Jim, eds.), Springer Singapore, Singapore, pp. 203-226.
14. Supriyanto, & **TAN, P.-Y.** (2017). The Challenges of Urban Forest Development: A Case Study of Urban Forest in Jakarta, Indonesia, in *Sustainability Matters Environmental Management in the Anthropocene* (Lye, L.H., Neo, H., Kondepudi, S., Yew, W.S., Sng. G.K. eds.) (pp. 443-468). Singapore: World Scientific.
15. Kho, Y.M.V., & **TAN, P.-Y.** (2017). Biogenic Volatile Organic Compounds (BVOCs) Emissions by Selected Street Trees in Singapore Sustainability Matters Environmental Management in the Anthropocene (Lye, L.H., Neo, H., Kondepudi, S., Yew, W.S., Sng. G.K. eds.) (pp. 129-158). Singapore: World Scientific.
16. **Tan, P.Y.** 2016. Greening Singapore: past successes, emerging challenges, in: *Fifty Years of Urban Planning in Singapore*, ed., Heng, C.K., 177-195. Singapore: World Scientific.
17. Savage, V.R., Lye, I.L.H., Kua, H.W., Chou, L.M., **Tan, P.Y.** (2015). Introduction - Environmental and climate changes in Asia: Lessons in history and game changers in economics, politics and scientific research. In *Sustainability Matters: Environmental and Climate Changes in Asia*, eds. Lye, I.L.H., Savage, V.R., Kua, H.W., Chou, L.M., Tan, P.Y. Singapore: World Scientific. pp.xxxiii-xlvi
18. Lye, I.L.H., Savage, V.R., Kua, H.W., Chou, L.M., **Tan, P.Y.** (2015). eds., *Sustainability Matters: Environmental and Climate Changes in Asia*, Singapore: World Scientific, 2015. 555 pp.
19. Ho, W.W and **Tan, P.Y.** (2014). "Skyrise Greenery. The Singapore Story" in *Green Cities in the World - Progression, Innovation, Organization*. ed. Briz, J., Kohler, M., Felipe, I. 153-162. Editorial Agricola Espanola, S.A. 358 pp.
20. **Tan, P.Y.** (2013). *A Vertical Garden City*, Singapore. Straits Times Press, Singapore. 192 pp.
21. Lok, A. F. S. L., W. F. Ang, H. T. W. Tan, R. T. Corlett & **Tan. P.Y.** (eds.), 2012. *The Fauna of the Native Garden @ HortPark: Birds, Fishes, Amphibians, Reptiles, Butterflies, Moths, Dragonflies, and Damselflies*. Raffles Museum of Biodiversity Research, National University of Singapore, and Centre for Urban Greenery and Ecology, National Parks Board, Singapore. 148 pp.
22. **Tan, P.Y.**, R.T. Corlett, H.T.W. Tan (editors). 2010. *A Field Guide to the Native Garden @ HortPark: An Urban Oasis of the Native Flora and Fauna of Singapore*. Centre for Urban Greenery and Ecology, National Parks Board, and National University of Singapore, Singapore. 124 pp.
23. Yong, J.W.H, **Tan, P.Y.**, N.H. Hassan, S.W. Tan (editors). 2010. *A Selection of Plants for Greening of Waterways and Waterbodies in the Tropics*. Centre for Urban Greenery and Ecology, National Institute of Education, Public Utilities Board, Singapore. 480 pp.

24. **Tan, P.Y** and Sia A. 2008. A Selection of Plants for Green Roofs in Singapore. Centre for Urban Greenery and Ecology, National Parks Board, Singapore. 118 pp.
25. Chiang, K., Tan, A., **Tan, P.Y.**, Chan, D., Wong, N.H, Wong, N.C. (2009). Vertical Greenery for the Tropics. Singapore: National Parks Board, National University of Singapore, Building Construction Authority, 2009. (Overall review and contributor to book).
26. Contributor, 1001 Garden Plants of Singapore (2nd Edition), 2006. Boo C.M., K. Omar-Hor, O.Y. Chow Lin (editors). National Parks Board, 782 pp.
27. **Tan, P.Y** (2009), "Trees and the Environment". In *Trees of Our Garden City. A Guide to the Common Trees of Singapore*, 2 ed., ed. Tee, S.P., 323-328. Singapore: National Parks Board, 2009.
28. **Tan, P.Y** (2009) "Growing Trees in Rooftop Gardens". In *Trees of the Garden City. A Guide to the Common Trees of Singapore*, 2 ed., ed. Tee, S.P., 315-321. Singapore: National Parks Board.
29. Contributor (entry on skyrise greenery in Singapore), Singapore: The Encyclopaedia, 2006. T. Koh, T. Auger, J. Yap, W.C. Ng (editors) Editions Didier Millet, National Heritage Board

Professional Publications (Periodicals and Industry Publications)

1. **Tan, P.Y.** (2014). SkyPark at Marina Bay Integrated Resorts, in Green Roof News 1/2014, International Green Roof Association, 4.
2. **Tan, P.Y.** (2012). Singapore, a Vertical Garden City in the Making. A+U - Architecture and Urbanism, 6 (Singapore, the Capital City for Vertical Green) (2012): 138-141. (Japan).
3. Poh, C.H., L.T. Koh, **Tan, P.Y.**, W.W. Ho, N.C. Wong, A.C. Tan, A. Tan, S.T. Tan, P.H. Lim, R. Cole and S.M. Sivakumaran, Guidelines on irrigation for rooftop greenery. CUGE Standards, CS E06:2012. Singapore: Centre for Urban Greenery and Ecology, 2012. 24 pp. (Overview and member of Technical Committee which developed the guidelines).
4. Poh, C.H., **Tan, P.Y.**, L.T. Koh, W.W. Ho, N.C. Wong, A.C. Tay, A. Tan, S.T. Tan, P.H. Lim, R. Cole, S.M. Sivakumaran, A. Lim and B.H. Chua, Waterproofing layer for rooftop greenery. CUGE Standards, CS E05:2012. Singapore: Centre for Urban Greenery and Ecology, 2012. 32 pp. (Overview and member of Technical Committee which developed the guidelines).
5. Poh, C.H., **Tan, P.Y.**, L.T Koh, W.W. Ho, N.C. Wong, A.C. Tay, A. Tan, S.T. Tan, P.H. Lim, R. Cole and S.M. Sivakumaran, Guidelines on general maintenance for rooftop greenery. CUGE Standards, CS E07:2012. Singapore: Centre for Urban Greenery and Ecology, 2012. 36 pp. (Overview and member of Technical Committee which developed the guidelines).
6. Marcum, K, N Power, K Omar, **Tan, P.Y.**, C.H Kok, K.C Chek and M Woods, Guidelines for tropical turfgrass installation and management. CUGE Standards, CS B01:2010. Singapore: Centre for Urban Greenery and Ecology, 2010. 73 pp. (Overall review and Member of Technical Committee for development of specifications).

7. Raj, P.T, **Tan, P.Y.**, K Omar, N Power, C Chandrasekaran and P Varughese, Specifications for soil mixture for general landscaping uses. CUGE Standards, CS A01: 2009. Singapore: Centre for Urban Greenery and Ecology, 2009. 21 pp. (Overall review and Member of Technical Committee for development of specifications).
8. Raj, P.T, **Tan, P.Y.**, K Omar., N Power, C Chandrasekaran and P Varughese, Specifications for compost and mulches. CUGE Standards, CS: A02:2009. Singapore: Centre for Urban Greenery and Ecology, 2009. 13 pp. (Overall review and Member of Technical Committee for development of specifications).
9. **Tan, P.Y.** 2010. The ultimate for skyrise greening. Building like trees, cities like gardens. CITYGREEN, Issue 2, pg 98-103

Reports

1. **Tan, P.Y.**, Bryan Yeo, W.X Yip, H.K Lua. 2009. Carbon storage and sequestration of urban trees in Singapore. Centre for Urban Greenery and Ecology, 14 pp.
2. **Tan, P.Y** and Sia A. 2009. Leaf Area Index of Tropical Plants. A Guidebook on its Use for the Calculation of Green Plot Ratio. Centre for Urban Greenery and Ecology, National Parks Board, Singapore. 31 pp.

Reports (Unpublished)

1. **Tan, P.Y.** and Ng, C., Final Report on Biodiversity Enhancement as a Goal of Blue-Green Infrastructure, for Research Project "Enhancing Blue Green and Social Performance in High Density Urban Environments". Singapore, 2015, 80 pp. (Research project final report).
2. **Tan, P.Y.** and Ismail, M.R.B., Assessment of Photosynthetically Active Radiation under Viaducts and Flyovers. Singapore, 2015, 96 pp. (Research project final report).
3. **Tan, P.Y.** (with Co-PIs: Boey, F., Rahardjo, H., Leong, E.C.). 2011. Final Report for Development of Specialized Container Technology for Growing of Street Trees in Singapore (MND Research Fund for the Built Environment, GE01/07) Appendix 1: Boey, F. (NTU) Appendix 2: Rahardjo, R. and Leong, E.C. (NTU)
4. **Tan, P.Y.** 2009. Assessment of the Impact of Singapore's Greenery on the Carbon Balance in Singapore. (Internal Report for national Inter-Ministerial Committee on Climate Change, Singapore).

L. PRESENTATIONS AND RESEARCH MEETINGS

Presentations in Universities and Institutions

1. [Invited Lecture]. Tan, P. Y. 2018. "Urban Forest Management in Singapore", International Conference 2018. Introducing the Urban Forestry Concept to Hong Kong: From Planning to Action. International Society of Arboriculture, Hong Kong Chapter, 23 Nov 2018, Hong Kong.

2. [Invited Lecture]. Tan, P. Y. 2018. “Designing Neighbourhood Landscapes with Ecosystem Services”, East China Normal University, 28 Sep 2018
3. [Invited Lecture]. Tan, P. Y. 2018. “Greening Singapore: Past Successes and Emerging Challenges”, College of Architecture and Urban Planning, Tongji University, 28 Sep 2018
4. [Invited Presentation] Tan, P. Y. 2018. Research by Urban Ecology and Greenery Group at Centre for Liveable Cities, Ministry of National Development, Singapore. 21 Aug 2018.
5. Tan, P. Y. 2018. “Greening Singapore – A Look at the Past with an Eye towards the Future”, College of Architecture and Landscape Architecture, Peking University, 29 Jun 2018.
6. Tan, P.Y. 2018. “Greening the Urban Environment – The Ecological Imperative”, School of Architecture, Tsinghua University, 28 Jun 2018.
7. [Invited Lecture]. Tan, P.Y. 2018. “Ecological Network for Biodiversity Conservation in Singapore”, Centre for Urban Greenery and Ecology Research Seminar, 8 May 2018.
8. [Invited Lecture]. Tan, P.Y. 2018. Secondary Forest Loss as a Key Component of Landscape Change in Singapore”, Future Cities Lab, Singapore-ETH Centre, 23 Mar 2018.
9. Tan, P.Y. 2017. Overview of Master of Landscape Architecture programme at NUS. Faculty of Design, Kyushu University, 19 October 2017.
10. Tan, P. Y. 2017. “Biodiversity Conservation in Singapore: Half Full or Half Empty”. Sustainable Cities and Landscape Conference, Association of Pacific Rim Universities, 15-17 September 2017, Portland, USA.
11. [Invited Lecture]. Tan, P.Y. 2017. “Improving the Performance of Green Roofs”, in Urban Vertical Green Innovation Forum, Tongji University, 9 July 2017
12. [Invited Lecture]. Tan, P.Y. 2017. “Making Urban Landscapes More Ecological”, in Socio-ecological assessment of urban landscapes: a comparative study/ Politecnico Di Torino, 8 June 2017.
13. [Invited Lecture]. Tan, P.Y. 2017. “Greening Cities – Being Green AND Ecological”. Tongji University. 18 April 2017.
14. [Invited Lecture]. Tan, P.Y. 2016. “Urban Greening of Singapore – Past Successes, Emerging Challenges and Research Opportunities”. The University of Hong Kong. 5 April 2016.
15. Tan, P.Y. 2016. “Advanced Landscape Architecture Education in Singapore”. 16 February 2016. Bogor Agriculture University.

16. [Invited Lecture]. Tan, P.Y. 2016. “Perspectives in Urban Greening of Singapore”. 26 January 2016. Workshop on “Water and Coastal Livable Cities” organized by Danish Hydraulics Institute.
17. [Invited Lecture]. Tan, P.Y. 2015. “Greening Singapore – Past Successes and Emerging Challenges”. Lecture at Singapore University of Technology and Design. 6 August 2015.
18. [Invited Participant for Symposium]. Tan, P.Y. 2015. “Is there inequality in the distribution of parks in the compact city of Singapore”. Seminar on Climate Justice: Understanding Differential Exposures to Environmental Hazards, Urban Health Disparities, and Improving Equity in Planning and Design, Radcliffe Institute for Advanced Study, Harvard University, 20-12 January 2015.
19. [Lecture]. Tan, P.Y. 2014. “The Effects of Urban Forms on Photosynthetically Active Radiation and Urban Greenery in a Compact City”. East China Normal University. 14 Nov 2014.
20. [Invited Participant]. Meeting on “Synthesis to link understanding, planning, and management of urban ecosystems in China” funded by US National Science Foundation SESYNC (National Socio-Environmental Synthesis Center) Annapolis, Maryland, USA. July 2014.
21. [Invited Lecture]. Tan, P.Y. 2014. “Perspectives on five decades of the greening of Singapore”. Chiba University, Graduate School of Horticulture (Landscape Architecture), 27 February 2014.
22. [Invited Presentation]. Tan, P.Y. 2012. “From Being Green to Becoming Ecological: Urban Ecological Research in Singapore and its Relevance to Urban Sustainability”. Conference on Frontiers in Urban Ecology and Planning: Linking East and West Scholars to Advance Ecological Knowledge, Planning and Management of Urban Ecosystems, East China Normal University (ECUN), Shanghai China. 25 - 26 October 2012
23. Tan, P.Y. 2009. “Developing an Urban Ecology Research Program in Singapore”. Australian Research Centre for Urban Ecology, 23 March 2009.
24. Tan, P.Y. 2009. “Developing and Managing a Garden City”. The Ecology Centre. The University of Queensland, 25 March 2009.

Presentations to Government, Professional and Private Organizations

1. [Invited Lecture]. Tan, P.Y. 2018. “Assessment of Urban Landscapes – Tools and Considerations”. National Parks Board, 18 January 2018.
2. Tan, P.Y. 2017. “Parks and Greenery Management in Singapore”. Administration Centre of Parks, Shanghai, Shanghai Municipal People’s Government, 19 April 2017.
3. [Invited Presentation]. Tan, P.Y. (2016). “Urban Development of Yunnan and the Relevance of Urban Ecology and Greening”. International Forum on Planning for Central Yunnan Urban Cluster. 3 December 2016. Kunming, Yunnan, China.

4. [Invited Presentation]. “The Urban Greening of Singapore. Past Successes and Emerging Challenges”. Organized by Taiwan Institute of Landscape Architect and Taipei City Department of Parks (translated). 1 June 2015.
5. [Invited Lecture]. Tan, P.Y. 2014. “Keeping it green – maintaining the urban green infrastructure of Singapore”. Organization for Landscape and Urban Green Infrastructure, Tokyo, 21 February 2014.
6. [Invited Lecture]. Tan, P.Y. 2013. “A Look at Urban Landscapes through an Ecological Lens”. CPG Corporation, 24 October 2013.
7. [Invited Lecture]. Tan, P.Y. 2013. “Green spaces in high-density townships from an ecosystem perspective”. Housing Development Board, 30 August 2013.
8. [Keynote Presentation] Tan, P.Y. 2009. Perspectives on Developing the Singapore Garden City. Professional Green Building Council. Urban Climate and Urban Greenery Symposium, Hong Kong. 26 September 2009

Presentations in Conferences and Symposiums

1. [Invited Speaker and Panelist] Tan, P. Y. 2018. The Role of Urban Forests in the City-State of Singapore. The People and Forests Forum: Forests are Us – Why Forests Matter, organized by The Center for People and Forest, Bangkok, 19 August 2018.
2. Zhang, L.Q, Tan, P.Y. 2018. The Associations of Green Space at Different Spatial Scales with Mental Health in Singapore. 103rd Annual Meeting of Ecological Society of America, 5-8 Aug 2018, New Orleans.
3. Tan, P.Y. 2018. Design of Neighbourhood Landscapes with Landscape Services symposium, IFLA World Congress, Singapore, 18-19 Jul 2018.
4. [Co-convener] Tan, P.Y. 2018. Designing Neighbourhood Landscapes with Ecosystem Services. In symposium, Urban Landscapes in High Density Cities, Politecnico di Torino, 1-2 Feb 2018.
5. [Invited Panelist]. Tan, P.Y. 2017. Dealing with Variations over Space and Time in Urban Vegetation-Air Quality Assessment. Scaling and Interpreting Hot Spots and Hot Moments in Urban Atmospheric Biogeochemistry, American Geophysical Union Fall Meeting, New Orleans, 14 Dec 2017
6. [Invited Panelist]. Tan, P.Y. 2017. Future Agenda for Design Education. International Symposium on Quality Assurance in Design Education, Kyushu University, 20 October 2017.
7. Agustina, S, Tan, P.Y. 2017. A Multi-Variable and Multi-Scale Analysis to Assess Proxy for Interaction with Urban Nature, 14th International Congress of Asian Planning Schools Association, 12-14 October 2017, Tsinghua University in Beijing, China

8. Abdul, R.H., Tan, P.Y. 2017. Interdisciplinary Collaboration in a Landscape Ecological Approach to the Development of an Urban Ecological Network for a Compact City, International Congress of Ecology, 21-24 August 2017, Beijing,
9. Chan, Z.C, Guizzo, A.O., Tan, P.Y. 2017. “Biocultural values of the Singapore neighbourhood landscapes. Urban Green Infrastructure Conference” – Connecting People and Nature for Sustainable Cities, 20-21 September 2017, Malmo, Sweden
10. Guizzo, A.O., Escoffier, N., Chan, Z.C., Tan, P.Y. 2017. “Window view and brain”. 14th International Conference on Urban Health - Health Equity: The New Urban Agenda and Sustainable Development Goals. 26-29 September 2017, Coimbra, Portugal.
11. [Invited Participant] Introduction and Session Moderator for Green Economy, 2nd Asia-Pacific Urban Forestry Meeting organized by Food and Agriculture Organization UN and Korean Forest Service, 13-15 September 2017, Seoul, South Korea
12. Zhang, L.Q., Tan, P.Y. 2017. “A Conceptual Framework to Better Understand the Dose-Response Relationships between Urban Green Spaces and Health”. Biodiversity and Health in the Face of Climate Change. Challenges, Opportunities and Evidence Gap. Bonn, German, 27-29 June 2017.
13. [Invited Lecture]. Tan, P.Y., 2017. “Nature, Place, People – Forging Connections through Neighbourhood Landscapes”. Urban Sustainability R&D Congress, 29 June 2017, Singapore.
14. [Invited Presentation]. Tan, P.Y. 2017. “Greening the Urban Environment – the Ecological Imperative”. 7th Yuan Ye Summit. 8-10 April 2017, Beijing, China.
15. [Invited Presentation]. Tan, P.Y. 2016. “The role of landscapes in the City-State of Singapore”. 6th Yuan Ye Lecture, Xi’an University of Architecture and Technology, 21-23 October 2016 Xi’an, China.
16. Masoudi, M. and Tan, P.Y. (2016). “The effects of land use on the relationships between spatial pattern of urban green spaces and land surface temperature in a tropical compact city”, Second Congress of the Society for Urban Ecology held in Shanghai, 8-10 July 2016. [Best Student Oral Presentation award].
17. Takasuna, H., Kudo, T., Takemasa, Y., Wong, N.H., Tan, P.Y., Tan, C.L., Lim, C.V., Chua, H. 2016. “Impact of Soil and Water Retention Characteristics on Evapotranspiration Behaviour of Plants in a Green Roof”, 4th International Conference on Countermeasures to Urban Heat Island, 30-31 May and 1 June 2016, National University of Singapore, Singapore
18. Wong, N.H., Tan, P.Y., Tan, C.L., Lim, C.V., Chua, H.X., Takasuna, H., Kudo, T., Takemasa, Y. 2016. “Impact of Soil and Water Retention Characteristics on Green Roof Thermal Performance”, 4th International Conference on Countermeasures to Urban Heat Island, 30-31 May and 1 June 2016, National University of Singapore, Singapore
19. [Invited Participant] Tan, P.Y 2016 “Loss of Secondary Forest as an Emerging Concern for Urban Forest Management in Singapore”, 1st Asia-Pacific Urban Forestry Meeting organized by Food and

Agriculture Organization of the United Nations and Chinese Academy of Forestry, 6-8 April 2016, Zhuhai, China.

20. [Invited Participant] Tan, P.Y 2016 “Country Report - Urban Forestry Status of Singapore”, 1st Asia-Pacific Urban Forestry Meeting organized by Food and Agriculture Organization of the United Nations and Chinese Academy of Forestry, 6-8 April 2016, Zhuhai, China.
21. Zhang, J.Y., Tan, P. Y. 2016. “Assessment of Accessibility and Equity of Parks in Compact Cities: a Case Study in Singapore”, American Association of Geographers, San Francisco, 2 April, 2016.
22. [Invited Participant] Tan, P.Y., Hwang, Y.H., Feng, Y.Q. 2015. “Advanced Landscape Architecture Education in Singapore and Opportunities for Regional Collaboration”. 1st Asia-Pacific Environment-Landscape Architecture Forum – Present and Future of Asia-Pacific Landscape Architecture. Seoul National University, 23-25 Nov 2015.
23. [Invited Participant] Tan, P.Y 2015. “Socio-ecological considerations of urban greening”. Cities Roundtable, 9 November 2015, by Centre for Liveable Cities and Lee Kuan Yew Centre for Innovative Cities.
24. Tan P.Y. 2015. “The Effects of Urban Forms on Photosynthetically Active Radiation and Performance of Urban Greenery in a Compact City”, 9th International Association of Landscape Ecology World Congress, Portland, 7 July 2015
25. Liao, K.H., Tan P.Y. 2015. “The Blue in Green Infrastructure in High Density Cities: Urban Rivers and Streams in Hong Kong, Singapore and Taipei”, 9th International Association of Landscape Ecology World Congress, Portland, 7 July 2015
26. [Invited Keynote Speaker]. First East Africa Green Building Conference, Arusha Tanzania, 19-20 March 2015. (Unable to attend)
27. [Keynote Presentation]. Tan, P.Y. 2014. “More than a green city”. Centre for Urban Greenery and Ecology Research Seminar, 19 November 2014
28. [Keynote Presentation]. Tan, P.Y. 2014. “Singapore – Towards a Vertical Garden City”. World Green Infrastructure Congress, Sydney, 8-10 October 2014.
29. [Invited Lecture]. Ismail, MBR, Tan, P.Y. 2014. “Understanding the nature of light for urban greening”, in The Greening of Buildings and Urban Infrastructure in Singapore Seminar, Urban Redevelopment Authority, 11 July 2014.
30. [Invited Lecture]. Tan, P.Y. 2014. “Vertical Garden City, Singapore”, incorporating book launch of same title. Yaesu Book Centre, Tokyo, 18 February 2014.
31. [Invited Presentation]. Tan, P.Y. 2013. “Urban green spaces in high-density townships: challenges and opportunities”. Urban Sustainability R&D Congress, 27 June 2013.
32. [Invited Presentation]. Tan, P.Y. 2013. “Nature and the City: Perspectives on dealing with a wicked problem”. Urban Redevelopment Authority, 7 June 2013.

33. [Invited Panel Member]. Tan, P.Y. 2013. “The Public Realm in the Highrise Environment of Singapore Elevated Public Green Spaces” for Panel Session "Sky Parks in the Public Realm - Elevating Green Ways and Urban Connectivity Panel, in Green Roofs and Walls of the World Virtual Summit Feb – Mar 2013.
 34. [Invited Presentation]. Tan, P.Y. 2012. “Perspectives on five decades of the greening of Singapore”. International Tropical Architecture Conference. Singapore, 12-13 Dec 2012.
 35. [Invited Presentation]. Tan, P.Y. 2012. “Putting Landscapes First in Urban Development”. Urban Renewal Seminar, Singapore. 23-24 May 2012.
 36. [Invited Presentation]. Tan, P.Y. 2011. “Perspectives on the Greening of Singapore”. Smart City Expo Congress and World Congress. Smart Society for Innovative and Sustainable Cities, Barcelona, Spain. 29 Nov – 2 Dec 2011.
 37. Tan, P.Y. 2010. The Greening of the Highrise Environment in Singapore – Motivations, Policies and Programmes. International Skyrise Greening Conference, Singapore. 1 November 2010
 38. [Invited Presentation] Tan, P.Y. 2010. Skyrise Greenery in Singapore – An Overview of Policy and Projects. World Green Roof Conference Shanghai World Expo, Shanghai. 8 May 2010
 39. [Invited Presentation] Tan, P.Y. 2009. Greening of Cities. Environmental and Socio-economic Considerations and Possibilities. The Sustainable City Seminar, Singapore. 18 September 2009
 40. [Invited Presentation] Tan, P.Y. 2009. Research Directions and Efforts in Arboriculture in Singapore. International Society of Arboriculture Australian Chapter. Annual Conference, Workshops and Climbing Championships, Australia. 4 May 2009
 41. [Invited Presentation] Tan, P.Y. 2009. Minimizing Tree Failures in Singapore – An Overview of Two Arboriculture Research Projects. International Society of Arboriculture Australian Chapter. Annual Conference, Workshops and Climbing Championships, Australia. 4 May 2009
 42. [Invited Presentation] Tan, P.Y. 2008. Research Directions and Efforts in Arboriculture in Singapore. Second Regional Arboriculture Seminar, Singapore. 8 Dec 08
 43. [Invited Presentation] Tan, P.Y. Skyrise Greenery – Why we need more of it in Singapore. Skyrise Greenery Seminar, Singapore. 23 Oct 2008.
 44. [Invited Presentation] Tan, P.Y. Plant Selection for Green Roofs in the Tropics. Skyrise Greenery Seminar, Singapore. 23 Oct 2008.
- 2007 - 2003
45. [Invited Presentation] Tan, P.Y. 2007. Skyrise Greenery, a Key Element of NParks’ City in a Garden Vision for Singapore. Eco Buildings Conference 2007. Singapore, 28 Mar 2007.

46. [Invited Presentation] Tan, P.Y. 2006. Forms and Functions of Skyrise Greenery. Green Building Seminar. Singapore, 4 Oct 2006.
47. [Invited Presentation] Tan, P.Y. 2006. Rooftop greenery in urban environment, in Conference on Managing Urban Green for Sustainable Cities, Kuala Lumpur, 6-8 Jun 06.
48. Tan P.Y and Angelia Sia. 2005. A pilot green roof research project in Singapore, in Greening Rooftops for Sustainable Communities Conference, Washington DC, USA, 4-6 May 2005.
49. [Invited Presentation] Tan, P.Y. 2005. An introduction to the development of the Singapore Garden City, in Australasian Interior Plantscape Association, Gold Coast Australia, 6-7 Oct 05
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