

## **Professor Tan, Puay Yok**

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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/APPOINTMENTS**

<b>07/2024</b>	Executive Director, National Parks and Gardens, National Parks Board
<b>07/2022-</b>	Professor, Department of Architecture, National University of Singapore
<b>2020-2024</b>	Dean's Chair, School of Design and Environment
<b>02/2020-</b>	Chief Science and Technology Officer, National Parks Board
<b>12/2019-</b>	Group Director, Singapore Botanic Gardens
<b>2015-2022</b>	Programme Director, Master of Landscape Architecture, NUS
<b>2014-2016</b>	Co-Programme Director, Master of Science in Environmental Management. School of Design and Environment, National University of Singapore
<b>2014-</b>	Leader for Research and Teaching Group in Landscape Studies, Department of Architecture
<b>2017-2022</b>	Associate Professor (tenured), Department of Architecture, National University of Singapore
<b>2012-2017</b>	Associate Professor, Department of Architecture, National University of Singapore
<b>2009-2011</b>	Deputy Director (Research), Centre for Urban Greenery and Ecology, Singapore
<b>2002-2008</b>	Assistant Director (Research), National Parks Board, Singapore
<b>1998-2002</b>	PhD Candidate, Cornell University Graduate Teaching Assistant, Cornell University Research Officer, Cornell University
<b>1996-1998</b>	Assistant Director (Ag) (Horticulture), Singapore Botanic Gardens Concurrently, Plant Records Manager, Singapore Botanic Gardens
<b>1995-1996</b>	Curator, Parks and Recreation Department, Singapore

## C. RESEARCH AREAS

Urban Ecology: Application of ecology of city paradigm to characterize socio-ecological-technological interactions and shape urban development

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.

## D. DPROFESSIONAL MEMBERSHIPS

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

## E. RESEARCH GRANTS

### Principal Investigator

Comparative Ecology of Cities: Understanding Patterns, Processes and Properties of Cities to Improve Urban Conditions (2022-2025) (pending award documentation) <i>Future Cities Lab Global, NUS, ETH Zurich</i>	\$2,120,000
Assessment of Urban Ecosystem Services in Residential Neighbourhoods in Singapore (2021-2024) <i>National Research Foundation City of Tomorrow Grant</i>	\$1,500,000
Benefits of Greenery (2019-2022) ( <i>with other PIs</i> ) <i>MND Research Fund (National Parks Board), Yale-NUS</i>	\$655,200 my share: \$279,540
Assessing Singapore's Natural Capital (2018-2021) ( <i>with other PIs</i> ) <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 AcRFT1</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 PC</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 (2015-2017) <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
Characterization of photosynthetically active radiation in the built environment (2012-2014) <i>NUS Start-up grant</i>	\$149,973
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
<u>Co-Principal Investigator/ Collaborator</u>	
Assessment of the Visual Quality of Urban Landscapes in Health Promotion <i>Academic Research Fund Tier 2, Ministry of Education</i>	\$931,592
Design and Evaluation of Novel Bioretention Systems for Applications in the Tropics (2020-2023) <i>Cities of Tomorrow Grant. National Research Foundation, Ministry of National Development</i>	\$1,936,532
Developing a Species-level Building Information Modelling (BIM) Vegetation Library (2018-2021) <i>National Parks Board, NUS</i>	\$1,171,560

Socio-ecological Assessment of Urban Landscapes: a Comparative Study (2016-2017) <i>Politecnico di Torino, NUS</i>	\$€ 50,000 my share: \$€ 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: \$100,000
Ecosystem Services in Urban Landscapes (2016-2020) <i>National Research Foundation to Singapore, ETH Centre for Future Cities Laboratory</i>	\$2,256,550 my share: \$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. VISITING SCHOLARS HOSTED

- Kim Yujin, Yale University Fox International Fellow, 2021-2022
- Chen Bingjing, Tsinghua University, 2019-2020

- Dr. Bianca Rinaldi, Dr. Marta Bottero, Dr. Marco Santagelo, Politecnico di Torino, 2017
- Dr. Anna Solcerova, TU Delft, 2016
- Dr. Ayako Nagase, Chiba University, 2012

## **G. GRADUATE STUDENTS SUPERVISED**

### Current – Main Supervisor

- Zhang Yeshan (PhD). With Mark McDonnell
- Zhou Zuyuan (PhD). With Eddie Lau

### Graduated - Main Supervisor

- Angelia Sia (PhD) (Dept of Psychology Medicine), Thesis Advisory Committee Member
- Zhang Xudong (PhD). Visual quality of Landscapes and Health (tbc), with Co-supervisor Dr. Ervine Lin
- Rosita Samsudin (PhD) – Assessment of the Role of Urban Green Spaces in Social Capital Formation (NUS Research Scholarship)
- Song Xiao Ping (PhD) – Exploring big data applications for urban greening (SEC-NUS Research Scholarship)
- Sylvia Augusta (PhD) – The role of urban nature in fostering environmentally responsible behaviour (NUS Research Scholarship)
- Zhang Liqing (PhD) – Assessment of dose-response relationships between urban green spaces and self-reported health (NUS Research Scholarship)
- 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 Thesis Committee Member/ Co-Supervisor

- Angelia Sia (PhD). Enhancing health and well-being of adults and elderly in Singapore through nature-based interventions; Main supervisor: Assoc. Prof Roger Ho Chun Man, School of Psychology Medicine, NUS
- Wang Wei James (PhD) - The Spatio-Temporal Dynamics of Vegetation Cover in Singapore, Main Supervisor: A/P Dr. Wang Yi-Chien (Department of Geography, NUS)
- Lin, Ervine (PhD) - Point Clouds as a Representative and Performative Format for Landscape Architecture - A Case Study of the Ciliwung River in Jakarta, Indonesia (Department of Architecture, ETH Zurich).

### 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)

#### Graduated – Master Dissertation as Main Supervisor

##### *Master of Environmental Management*

- Mark Teo Shan Chian (2019) – Agriculture integrated with public housing – providing 100% of Singapore’s leafy green vegetables demand through plant factor with artificial lighting (PFLA)
- Veron Kho (2016) – Biogenic volatile organic compounds (BVOCs) emissions by selected street trees in Singapore, Master of Environmental Management.
- Supriyanto (2016) – The challenges of urban forest development (a case study of urban forest in Jakarta, Indonesia), Master of Environmental Management.
- Jaztin Robert Altea (2016) - Enhancing Ecosystem Services and Biodiversity through establishment of Green Spaces: A concept design for Puerto Princesa City, Palawan Province, Philippines.

##### *Master of Landscape Architecture*

- Zhang Bingyi (2020) - Study on the Perception of Biodiversity and Aesthetics of Urban Landscapes in Singapore Residential Communities
- Carissa Chin (2020) - Assessing the Performance of Landscape Design in Neighbourhood Spaces to Support Biodiversity
- Ekta Takholiya (2020) - GIS-Based Landscape Planning Decision Support Methodology: Multi-criteria Decision Support Approach for Urban River Naturalization
- Mamiko Tanaka (2020) - Why Urban Farmland Still Remains in Tokyo? A Study of Takamatsu District in Nerima Ward
- Dai Yuke (2019) – The Analysis of Modern Vicissitude of Beijing-Hangzhou Grand Canal
- Liu Ye (2019) – Assessment of the Urban Design Quality to Enhance Walkability in Chinatown
- Dong Yitong (2019) – Effect of Soundscape on Human Perception in Garden Spaces
- Elsa Sim (2019) – Hybrid Solutions for a Multi-functional Coastal Landscape in Singapore
- Wang Hanfeng (2018) - The Importance of Smellscape in Defining the Sense of Place
- Xu Yuexin (2018) - An Integrated Method for Landscape Assessment of Industrial Town Development – Combining the Landscape Approach and Conventional Suitability Assessment Method
- Liu Xiaolei (2018) - Does the Increased Focus on Landscapes in HDB Estates Lead to Higher Level of Urban Ecosystem Services
- Yan Ran (2017) - Assessing the Visibility of Urban Greenery
- Bai Zhuhui (2017) - Richer Gets More Greenery? A Study of Bayannur City
- Liu Yuehua (2016) - A Framework to Guide the Use of Space Underneath Singapore’s Elevated Transport Infrastructure
- Chen Wei (2016) - Assessment of Spatial Changes of Rural Settlements Arising from Airport Development
- Chen Jumin (2016) - An Exploration of Village-in-City in China – A Case Study of Qilong Village
- 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

## H. AWARDS

- Visiting Professor, Shanghai Jiaotong University, 2024
- Minister for National Development's R&D Awards 2019 (Merit)
- 2019 Smith Group JJR Lecture, School of Environment and Sustainability, University of Michigan, Jan 2019
- Visiting Professor, College of Architecture and Urban Planning, 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), WO2011014124A1, 26 Apr 2010
- 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 for Horticulture Science Prize
  - DG Bowler Prize
  - John Salinger Prize (2 consecutive years for best paper in floriculture)
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- 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

## **I. ACADEMIC SERVICE**

### Editorial Board of Journals and Periodicals

- Co-Editor-in-Chief, Landscape and Urban Planning (Elsevier) (06/2021-)
- Editorial Board, npj Urban Sustainability (Nature Partner Journals) (2019-)
- Guest Editor, Journal of Landscape Architecture (Taylor and Francis). Special Issue on “Landscapes for Compact Cities” (2019)
- Associate Editor, Landscape and Urban Planning (Elsevier) (2018-2021)
- Associate Editor, Journal of Urban Ecology (Oxford University Press) (2015-)
- Editorial Advisory Board, Landscape and Urban Planning (Elsevier) (2013-2018)
- Advisory Board, CITYGREEN (Centre for Urban Greenery and Ecology) (2014-2017)
- Founding co-Editor, CITYGREEN (Centre for Urban Greenery and Ecology) (2010-2011)
- Assistant Editor, The Gardens Bulletin (Singapore Botanic Gardens) (2004-2010)

### Reviewer of Research Grants

- Dutch Research Council. Open Competition Domain Science – M Round 2021-2022. (2022)
- Dutch Research Council. Cooperation China-The Netherlands (CAS) Programme’s Call for Proposals on Green Cities (2020)
- 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) (2013 - 2015)
- 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

- One Earth
- Preventive Medicine Reports
- Land Use Policy
- 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
- Buildings
- Urban Forestry and Urban Greening; Cities
- Sustainable Cities and Societies

- Land Degradation and Development
- Science of the Total Environment
- Ecological Complexity
- 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, Master in Landscape Architecture, NUS (2015-2021)
- Research and Teaching Group Leader for Landscape Studies, Department of Architecture, NUS (2014-)
- PhD admission review panel, Department of Architecture (2014-)
- Department Evaluation Committee, P&T (2018-)
- Co-Director, Master of Science in Environmental Management, NUS (2014-2016)
- Search Committee Chair. MLA Faculty. Department of Architecture, NUS (2016-)

### External Reviewer/ Examiner/ Advisory Board Member of Institutions

- Management Board, Asia Research Institute, NUS (2024 - )
- Chairperson, Landscape Design & Horticulture Advisory Committee (LDHAC), Ngee Ann Polytechnic Singapore (2021- )
- External Examiner: School of Ecosystem and Forest Sciences, Faculty of Science, The University of Melbourne, PhD Defence (2020)
- External Examiner: Department of Geography, The University of Hong Kong, PhD Defence (2020)
- External Examiner: Faculty of Design and Architecture, Universiti Putra Malaysia, PhD Defence (2020)
- External Examiner: Monash Art Design and Architecture School, Monash University, PhD Defence (2020)
- External Examiner Diploma in Landscape Architecture Programme, Singapore Polytechnic (Apr 2018-2020)
- 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, Master of Architecture Oral Defence (2013).

## **J. 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
- International jury member for International Landscape Design Competition for HAN River, Organized by Da Nang City, Socialist Republic of Vietnam (2016)
- Jury member 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

- International Expert Resource Panel, UN Convention of Biological Diversity for development of City Biodiversity Index. 10-year review (2019), (2009-2011)
- International Expert Advisory Panel for “CONEXUS” (EU funded Research and Innovation Action under Horizon 2020) (2020)
- 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)

## **K. CONSULTING**

- Centre for International Postgraduate Studies of Environmental Management, UNEP/UNESCO/BMU Course Programme, TU Dresden (Aug-Sep 2022)
- Ad Hoc services for Morrow Architects & Planners Pte Ltd (2018 - )

- International Forum on Planning for Central Yunnan Urban Cluster. 3 December 2016. Kunming, Yunnan, China
- Consultancy services for School of Design and Environment Net-Zero Energy Building SDE4 (2014-2019)
- Study visit by China Construction Culture and Art Association (29 May 2014)
- Commissioned book “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 – 2017)
- Provision of advisory services for rail landscape planning and design for city of Zhuhai, with RSP Architects Planners & Engineers (2013 – 2014)

## L. PUBLICATIONS

### Peer-Reviewed Journals

1. Zhu, Y., Burlando, P., **Tan, P. Y.**, Blagojevic, J., & Fatichi, S. (2024). Investigating the influence of urban morphology on pluvial flooding: Insights from urban catchments in England (UK). *Science of The Total Environment*, 953, 176139.
2. Rahman, M. A., Arndt, S., Bravo, F., Cheung, P. K., van Doorn, N., Franceschi, E., del Río, M., Livesley, S. J., Moser-Reischl, A., Pattnaik, N., Rötzer, T., Paeth, H., Pauleit, S., Preisler, Y., Pretzsch, H., **Tan, P. Y.**, Cohen, S., Szota, C., & Torquato, P. R. (2024). More than a canopy cover metric: Influence of canopy quality, water-use strategies and site climate on urban forest cooling potential. *Landscape and Urban Planning*, 248, 105089.
3. Zhang, X., Lin, E. S., **Tan, P. Y.**, Qi, J., Ho, R., Sia, A., Waykool, R., Song, X. P., Olszewska-Guizzo, A., Meng, L., & Cao, Y. (2024). Beyond just green: Explaining and predicting restorative potential of urban landscapes using panorama-based metrics. *Landscape and Urban Planning*, 247, 105044.
4. Masoudi, M., Richards, D.R. & **Tan, P.Y.** Assessment of the Influence of Spatial Scale and Type of Land Cover on Urban Landscape Pattern Analysis Using Landscape Metrics. *J geovis spat anal* 8, 8 (2024). <https://doi.org/10.1007/s41651-024-00170-8>
5. Qi, J., Lin, SW, **Tan, P. Y.**, Zhang X.D., Ho. R., Sia. A., Olszewska-Guizzo, A., Waykool. R. et al. (2024). "Applying 3D spatial metrics for landscape planning: Creating and measuring landscape scenarios by a point cloud-based approach." *Ecological Informatics* 79: 102436.
6. Neo, L., Chong, K. Y., Lindsay, S., Middleton, D. J., **Tan, P. Y.**, & Er, K. B. H. (2024). A botanical oasis rather than a biological desert: Rediscoveries, new species and new records in a tropical city. *Plants, People, Planet*, 1–13
7. Meili N, Zheng X, Chi D, Zhu Y, Qiu Y, Wang J, Manoli G, Burlando P, **Tan P. Y.**, Fatichi S. Quantifying Vegetation Effects on Climate and Building Energy Demand in Cities. AGU23. 2023 Dec 14.
8. Qi, J., E. S. Lin, **P. Y. Tan**, X. Zhang, R. Ho, A. Sia, A. Olszewska-Guizzo and R. Waykool (2023). "Representing the landscape visual quality of residential green spaces in Singapore with 3D spatial metrics." *Urban Forestry & Urban Greening* 90: 128132.
9. Zhang, X., E. S. Lin, **P. Y. Tan**, J. Qi and R. Waykool (2023). "Assessment of visual landscape quality of urban green spaces using image-based metrics derived from perceived sensory dimensions." *Environmental Impact Assessment Review* 102: 107200.

10. Sia, A., **P. Y. Tan** and K. B. H. Er (2023). "The contributions of urban horticulture to cities' liveability and resilience: Insights from Singapore." *PLANTS, PEOPLE, PLANET* n/a(n/a).
11. Sia, A., **P. Y. Tan**, Y. J. Kim and K. B. H. Er (2023). "Use and non-use of parks are dictated by nature orientation, perceived accessibility and social norm which manifest in a continuum." *Landscape and Urban Planning* 235: 104758.
12. Zhang, J.\* and **Tan, P.Y.** (2023). "Assessment of spatial equity of urban park distribution from the perspective of supply-demand interactions." *Urban Forestry & Urban Greening* 80: 127827.
13. Qi, J., E. S. Lin, **P.Y. Tan**, R. Chun Man Ho, A. Sia, A. Olszewska-Guizzo, X. Zhang and R. Waykool (2022). "Development and application of 3D spatial metrics using point clouds for landscape visual quality assessment." *Landscape and Urban Planning* 228: 104585.
14. Samsudin, R.\*, **Tan, P.Y.** and V. Chua (2022). "Social capital formation in high density urban environments: Perceived attributes of neighborhood green space shape social capital more directly than physical ones." *Landscape and Urban Planning* 227: 104527.
15. Zhang, L.\*, **P. Y. Tan**, D. R. Y. Gan and R. Samsudin (2022). "Assessment of mediators in the associations between urban green spaces and self-reported health." *Landscape and Urban Planning* 226: 104503.
16. Diehl, J. A., K. Asahiro, Y. H. Hwang, T. Hirashima, L. Kong, Z. Wang, H. Yao and **P. Y. Tan** (2022). "A CHANS Approach to Investigating Post-Disaster Recovery Potential in Rural Japan." *Journal of Disaster Research* 17(3): 453-463.
17. He, Y., E. S. Lin, C. L. Tan, W. Zhang, **P. Y. Tan** and N. H. Wong (2022, accepted). Local microclimate above shrub and grass in tropical city: A case study in Singapore. *Urban Climate* 43: 101142
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25. 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.
26. 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.
27. 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.
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29. 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.
30. 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.
31. 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.
32. 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.

33. 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
34. 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.
35. 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).
36. 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.
37. 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.
38. 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.
39. 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. Sivakumanan, 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).

## **M. PRESENTATIONS AND RESEARCH MEETINGS**

### Presentations in Universities and Institutions

1. [Invited Lecture]. Tan, P. Y. 2023. "The Salubrity of Nature: From Patterns to Mechanisms and Actions", Urban Solutions & Sustainability R&D Congress 2023, 5 Oct 2023.
2. [Invited Lecture]. Tan, P.Y. 2023. "Urban Ecosystem Services – Insights for Greening Cities", Department of Architecture, Harbin Institute of Technology (Shenzhen), 20 Jun 2023.
3. [Invited Keynote Speaker]. Tan, P. Y., 2023. "Greening Singapore: A Look at the Past with an Eye for the Future", in Symposium on Urban Greening and Water Sustainability for Improve Urban Liveability. NUS Environment Research Institute, 26 Apr 2023
4. [Invited Lecture]. Tan, P. Y., 2023. "Greenery as Nature-Based Solution for Heat Mitigation". Technical Deep Dive on Urban Heat, World Bank, Singapore, 25 Apr 2023
5. [Invited Lecture]. Tan, P. Y., 2023. "Urban Ecology Lab @SDE", National Taiwan University, 24 Mar 2023.
6. [Invited Lecture - online]. Tan, P. Y., 2021. "Greening Singapore – A Look at the Past with an Eye towards the Future". School of Design, Shanghai Jiao Tong. 19 Oct 2021.
7. [Invited Lecture - online]. Tan, P. Y., 2021. "Designing Neighbourhood Landscapes for Urban Ecosystem Services". Division of Landscape Architecture, The University of Hong Kong, 21 April 2021
8. [Invited Lecture]. Tan, P. Y. 2019. Nature-Place-People and the Role of Buildings. The Future of Buildings Seminar Series - Green Inside Out, Singapore Green Building Council, 11 July 2019
9. [Invited Lecture – online]. Tan, P. Y. 2019. "Advanced Landscape Architect Education in the Tropical City-State of Singapore", Universidad de Costa Rica, 14 March 2019.

10. [Invited Lecture]. Smith Group JJR Lecture: Tan, P. Y. 2019. “Development of Neighbourhood Landscapes with ecosystem Services: A Transdisciplinary Approach”, University of Michigan, School of Environment and Sustainability, 17 Jan 2019.
11. [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.
12. [Invited Lecture]. Tan, P.Y. 2018. “Designing Neighbourhood Landscapes with Ecosystem Services”, East China Normal University, 27 Sep 2018
13. [Invited Lecture]. Tan, P. Y. 2018. “Greening Singapore: Past Successes and Emerging Challenges”, College of Architecture and Urban Planning, Tongji University, 28 Sep 2018
14. [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.
15. 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.
16. Tan, P.Y. 2018. “Greening the Urban Environment – The Ecological Imperative”, School of Architecture, Tsinghua University, 28 Jun 2018.
17. [Invited Lecture]. Tan, P.Y. 2018. “Ecological Network for Biodiversity Conservation in Singapore”, Centre for Urban Greenery and Ecology Research Seminar, 8 May 2018.
18. [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.
19. Tan, P.Y. 2017. Overview of Master of Landscape Architecture programme at NUS. Faculty of Design, Kyushu University, 19 October 2017.
20. 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.
21. [Invited Lecture]. Tan, P.Y. 2017. “Improving the Performance of Green Roofs”, in Urban Vertical Green Innovation Forum, Tongji University, 9 July 2017

22. [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.
23. [Invited Lecture]. Tan, P.Y. 2017. “Greening Cities – Being Green AND Ecological”. Tongji University. 18 April 2017.
24. [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.
25. Tan, P.Y. 2016. “Advanced Landscape Architecture Education in Singapore”. 16 February 2016. Bogor Agriculture University.
26. [Invited Lecture]. Tan, P.Y. 2015. “Greening Singapore – Past Successes and Emerging Challenges”. Lecture at Singapore University of Technology and Design. 6 August 2015.
27. [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.
28. [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.
29. [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.
30. [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.
31. [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
32. Tan, P.Y. 2009. “Developing an Urban Ecology Research Program in Singapore”. Australian Research Centre for Urban Ecology, 23 March 2009.

33. 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 Speaker]. Tan, P. Y., 2023. “City in Nature and the Built Environment of Singapore”, in Building a City in Nature – Greening the Built Environment and Communities by CDL, 28 Jun 2023.
2. [Invited Workshop]. Tan, P. Y. 2019. “A Systems Approach to Flower Trials”, Workshop got Gardens by the Bay, 23 May 2019
3. [Invited Lecture]. Tan, P.Y. 2018. “Assessment of Urban Landscapes – Tools and Considerations”. National Parks Board, 18 January 2018.
4. Tan, P.Y. 2017. “Parks and Greenery Management in Singapore”. Administration Centre of Parks, Shanghai, Shanghai Municipal People’s Government, 19 April 2017.
5. [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.
6. [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.
7. [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.
8. [Invited Lecture]. Tan, P.Y. 2013. “A Look at Urban Landscapes through an Ecological Lens”. CPG Corporation, 24 October 2013.
9. [Invited Lecture]. Tan, P.Y. 2013. “Green spaces in high-density townships from an ecosystem perspective”. Housing Development Board, 30 August 2013.
10. [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 Keynote Speaker]. Tan, P. Y., 2023. “Role of the Singapore Botanic Gardens in Biodiversity Conservation”, in International Conference on Biodiversity 2023. Biodiversity: Key to Better Life Bangkok, 12 Dec 2023
2. [Invited Plenary Speaker]. Tan, P. Y., 2023. “Bridging the action gap between landscape science and landscape governance: insights from Singapore”, in 8<sup>th</sup> Landscape Sustainability Science Forum, Nanchang, 17-18 Jun 2023
3. [Invited Presentation]. Tan, P. Y., 2023. “Contributions of the Singapore Botanic Gardens to Biodiversity Conservation”, in Conference on Plant for Future Green, Taipei Botanic Garden, 21 Mar 2023.
4. [Invited Keynote speaker]. Tan, P. Y., 2022. “Perspectives on Enhancing Biodiversity in the City State of Singapore”. Dresden Nexus Conference 2022 – Biodiversity Stewardship for Vital Resources, 23-25 May 2022. <http://2022.dresden-nexus-conference.org/keynotes>
5. [Invited Expert Panel member] Tan, P. Y., 2022. “Greening Singapore – Policies and Programmes”, in Conference on Urban Forestry, Forest Urbanism and Global Warming, KU Leuven, Belgium, 27-29 Jun 2022.
6. [Invited Panelist], Tan, P.Y. 2022, Invited Panel member for International Day of Forests Panel Discussion, 22 March 2022. Organized by the Global Development Hub at Imperial College London (online).
7. [Invited Plenary Speaker] Tan, P. Y., 2021. “The Science and Technology behind Managing Singapore’s Urban Forest, in International Conference on Forest Resources Management, 11 Dec 2021.
8. Tan, P. Y., 2021. Session Chair/Moderator for “Nature in Cities for Urban Sustainability”, in World Cities Summit (<https://www.worldcitysummit.com.sg/>), 22 June 2021.
9. [Invited Speaker]. Tan, P.Y., 2020. Greening Singapore: Challenges and Prospects. Hong Kong 2020 International Urban Forestry Conference. Challenges and Opportunities of Urban Greening in High-Density Cities, 16-17 Jan 2020, Hong Kong.
10. [Invited Speaker]. Tan, P. Y., 2019. Seminar on Arboriculture and Practice in Hong Kong. Technological and Higher Education Institute of Hong Kong, 2 Nov 2019, Hong Kong.
11. [Invited Speaker]. Tan, P.Y. 2019. Urban Ecosystem Services – Roles and Relevance for High-Density Cities. Urban Sustainability R&D Congress, 23 July 2019, Singapore.

12. Masoudi, M., Tan, P. Y., Richards, D. 2019. Multivariate approach for the classification of landscape typologies in a compact city. International Association of Landscape Ecology World Congress, Milan, 1-5 July 2019.
13. [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.
14. 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.
15. Tan, P.Y. 2018. Design of Neighbourhood Landscapes with Landscape Services symposium, IFLA World Congress, Singapore, 18-19 Jul 2018.
16. [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.
17. [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
18. [Invited Panelist]. Tan, P.Y. 2017. Future Agenda for Design Education. International Symposium on Quality Assurance in Design Education, Kyushu University, 20 October 2017.
19. 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
20. 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 Landscape Ecology, 21-24 August 2017, Beijing,
21. 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
22. 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.

23. [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
24. 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.
25. [Invited Lecture]. Tan, P.Y., 2017. Nature, Place, People – Forging Connections through Neighbourhood Landscapes. Urban Sustainability R&D Congress, 29 June 2017, Singapore.
26. [Invited Presentation]. Tan, P.Y. 2017. “Greening the Urban Environment – the Ecological Imperative”. 7th Yuan Ye Summit. 8-10 April 2017, Beijing, China.
27. [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.
28. 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].
29. 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
30. 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
31. [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.
32. [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.

33. 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.
34. [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.
35. [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.
36. 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
37. 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
38. [Invited Keynote Speaker]. First East Africa Green Building Conference, Arusha Tanzania, 19-20 March 2015. (Unable to attend)
39. [Keynote Presentation]. Tan, P.Y. 2014. "More than a green city". Centre for Urban Greenery and Ecology Research Seminar, 19 November 2014
40. [Keynote Presentation]. Tan, P.Y. 2014. "Singapore – Towards a Vertical Garden City". World Green Infrastructure Congress, Sydney, 8-10 October 2014.
41. [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.
42. [Invited Lecture]. Tan, P.Y. 2014. "Vertical Garden City, Singapore", incorporating book launch of same title. Yaesu Book Centre, Tokyo, 18 February 2014.
43. [Invited Presentation]. Tan, P.Y. 2013. "Urban green spaces in high-density townships: challenges and opportunities". Urban Sustainability R&D Congress, 27 June 2013.
44. [Invited Presentation]. Tan, P.Y. 2013. "Nature and the City: Perspectives on dealing with a wicked problem". Urban Redevelopment Authority, 7 June 2013.
45. [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.

46. [Invited Presentation]. Tan, P.Y. 2012. “Perspectives on five decades of the greening of Singapore”. International Tropical Architecture Conference. Singapore, 12-13 Dec 2012.
47. [Invited Presentation]. Tan, P.Y. 2012. “Putting Landscapes First in Urban Development”. Urban Renewal Seminar, Singapore. 23-24 May 2012.
48. [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.
49. Tan, P.Y. 2010. The Greening of the Highrise Environment in Singapore – Motivations, Policies and Programmes. International Skyrise Greening Conference, Singapore. 1 November 2010
50. [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
51. [Invited Presentation] Tan, P.Y. 2009. Greening of Cities. Environmental and Socio-economic Considerations and Possibilities. The Sustainable City Seminar, Singapore. 18 September 2009
52. [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
53. [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
54. [Invited Presentation] Tan, P.Y. 2008. Research Directions and Efforts in Arboriculture in Singapore. Second Regional Arboriculture Seminar, Singapore. 8 Dec 08
55. [Invited Presentation] Tan, P.Y. Skyrise Greenery – Why we need more of it in Singapore. Skyrise Greenery Seminar, Singapore. 23 Oct 2008
56. [Invited Presentation] Tan, P.Y. Plant Selection for Green Roofs in the Tropics. Skyrise Greenery Seminar, Singapore. 23 Oct 2008.

*2007 - 2003*

57. [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.
58. [Invited Presentation] Tan, P.Y. 2006. Forms and Functions of Skyrise Greenery. Green Building Seminar. Singapore, 4 Oct 2006.
59. [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.
60. 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.
61. [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
62. Tan, P.Y. 2005. Plant selection for green roof in the tropics, in Seminar on Skyrise Greening. 24 Mar 05, Singapore
63. [Invited Presentation] Tan, P.Y. 2004. Enhancing the Garden city through Skyrise Greenery, in Institute of Parks and Recreation Forum. 28 Feb 2004, Singapore
64. [Invited Presentation] Tan, P.Y. 2002. Plants, the Green Lungs of the City, in Seminar on Skyrise Greening. 7 Sep 02, Singapore
65. Tan, P.Y., N.H. Wong, Y. Chen, C.L. Ong, A. Sia. 2003. Thermal benefits of rooftop gardens in Singapore, in Greening Rooftops for Sustainable Communities Conference, Chicago, USA, 29-30 May 2003.

## **N. MEDIA INTERVIEWS**

2018

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