

WONG NYUK HIEN (Dr)

PhD (Building Performance and Diagnostics) Carnegie Mellon University, MSc(Building Science) NUS, BSc(Building)(Hons), NUS



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CURRICULUM VITAE

ACADEMIC QUALIFICATIONS:

- BSc (Building)(Hons, 2nd Upper), National University of Singapore, Singapore
- MSc (Building Science), National University of Singapore, Singapore
- PhD (Building Performance and Diagnostics), Carnegie Mellon University, USA

EMPLOYMENT RECORD:

- Senior Tutor (1993 - 1998)
- Assistant Professor (1998 – 2004)
- Associate Professor (2005 – 2011)
- Professor (2011 – Present)

ADMINISTRATIVE LEADERSHIP:

- Vice Dean (Research), School of Design and Environment (2016 - Present)
- Deputy Head (Academic), Department of Building (2013 – 2016)
- Programme Director, B.Sc (PFM), Department of Building (2011 – 2013)
- Deputy Head (Research), Department of Building (2007 – 2009)
- Deputy Head (Academic), Department of Building (2006 – 2007)
- Program Director, Master of Science (Building Science), Department of Building (2004 – 2007)
- Course Leader, Part Time Programme in Bachelor of Building (Construction Management) and Bachelor of Building (Construction Economics), Department of Building (1998 - 2000)

PROFESSIONAL/CONSULTING ACTIVITIES:

- Chairman of Green Mark Subcommittee on Natural Ventilation Simulation, appointed by BCA (September 2009 – Present)
- Chairman of the CFD specialist committee for non-residential buildings, Green Mark Development of Building and Construction Authority (2013 – Present)
- Appointed as Board Director of BCA Centre for Sustainable Buildings Ltd (1 April 2016 to 31 March 2019)

- Programme External Examiner for the Bachelor of Science (Facilities and Events Management), SIM university (July 2014 – Present)
- Specialist consultants to industry and government agencies on Urban Heat Island study and mitigation measures

UNDERGRADUATE TEACHING:

- FMD1202 Freshman Seminar – Green Building Technologies for Sustainable Cities
- PF4305 Green Development

GRADUATE TEACHING:

- BPS5221 Microclimate Design

RESEARCH INTEREST:

- Urban Heat Island and the mitigation measures
- Outdoor Thermal Comfort and Indoor Thermal Comfort for Naturally Ventilated spaces
- Thermal Performance of Façade for Non Air conditioned buildings
- Thermal Performance of Urban Greenery including Green Roofs and Vertical Green Walls
- Climate Change and the impact on Built Environment

SELECTED PUBLICATIONS:

- Wong, N H, "Grand Challenges in Sustainable Design and Construction". *Frontiers in Built Environment*, (2015).
- MARCEL, I, N H Wong and S K Jusuf, "The significance of using local predicted temperature for cooling load simulation in the tropics". *Energy and Buildings*, 118 (2016): 57-69.
- TAN, C L, N H Wong, P.Y. TAN, S K Jusuf and Z Q CHIAM, "Impact of plant evapotranspiration rate and shrub albedo on temperature reduction in the tropical outdoor environment". *Building and Environment*, 94, part. 1 (2015).
- Yang, w, N H Wong and C Li, "Effect of Street Design on Outdoor Thermal Comfort in an Urban Street in Singapore". *Journal of Urban Planning and Development -ASCE*,10, no. 1061(2015).
- TAN, C L, N H Wong* and S K Jusuf*, "Effects of vertical greenery on mean radiant temperature in tropical built environment". *Landscape and Urban Planning*, 127(2014): 52-64. (Netherlands).

AWARDS:

ACADEMIC AWARDS

- Local Merit Scholarship, Public Service Commission, Singapore (1982 – 1985)
- Building Science Gold Medal, National University of Singapore (1991)
- Oversea Graduate Scholarship, National University of Singapore (1993 -1998)
- NUS Excellent Teachers award (2001/2002, 2004/2005, 2006/2007, 2014/2015, 2015/2016)
- NUS Teaching Honour Roll (2008)

RESEARCH AWARDS

- Hong Kong Institute of Architects Special Architectural Research Awards in 2005 (team)
- Grand Award from Professional Green Building Council (PGBC) in 2006 (team)
- Best Paper Award, iNTA (International Network for Tropical Architecture) -SEGA 2009 Conference, Building Innovation, Technology and Tradition, 2 - 4 Dec 2009, Kasetsart University, Bangkok, Thailand.
- Distinguished award, MND Research and Development Award 2013 for the HDB My Waterway@ Punggol (team)
- Zero Energy Building - Minister for National Development's R&D Award 2011 (Distinguished Award) (team)
- National R&D Award (For Zero-Energy Building) (team)
- Research Study Project Merit Award, Green Building Award 2010, HKGBC (team)
- Engineering Achievement Award (For Zero-Energy Building) 2010 (team)
- Zero Energy Building, IES Prestigious Engineering Achievement Awards, 2010 (team)