

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)
- Member of the Advisory Board to Building and Construction Authority (2019 – present)
- Appointed as Board Director of BCA Centre for Sustainable Buildings Ltd (1 April 2016 to 31 March 2019)

- Specialist consultants to industry and government agencies on Urban Heat Island study and mitigation measures

UNDERGRADUATE TEACHING: •

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 NH; He Y; Nguyen NS; Raghavan SV; Martin M; Hii DJC; Yu Z; Deng J (2021), *An integrated multiscale urban microclimate model for the urban thermal environment*, **Urban Climate** Vol. 35
- Wong NH; Tan CL; Kolokotsa DD; Takebayashi H (2021), *Greenery as a mitigation and adaptation strategy to urban heat*, **Nature Reviews Earth & Environment** Vol. 2 (3) pp. 166 – 181
- Huang Z; Tan CL; Lu Y; Wong NH (2021), *Holistic analysis and prediction of life cycle cost for vertical greenery systems in Singapore*, **BUILDING AND ENVIRONMENT** Vol. 196
- Tong S; Wen J; Wong NH; Tan E (2021), *Impact of façade design on indoor air temperatures and cooling loads in residential buildings in the tropical climate*, **Energy and Buildings** Vol. 243
- Chen S; Zhang W; Wong NH; Ignatius M (2020), *Combining CityGML files and data-driven models for microclimate simulations in a tropical city*, **Building and Environment** Vol. 185

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)

SERVICE AWARDS

- National Day Long Service Award, 2018