

Curriculum Vitae

Chun Chen, Ph.D.

Assistant Professor, Department of Mechanical and Automation Engineering
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EDUCATION

<i>School</i>	<i>Degree</i>	<i>Date</i>
Purdue University, USA	Ph.D. in Mechanical Engineering	05/2015
Tsinghua University, China	M.Eng. in Civil Engineering	01/2012
Tsinghua University, China	B.Eng. in Building Science	07/2009

RESEARCH INTERESTS

- Indoor air quality
- Aerosol dynamics
- Energy-efficient buildings
- Airborne infectious diseases transmission

EXPERIENCE

<i>Institution</i>	<i>Position</i>	<i>Begin</i>	<i>End</i>
Department of Mechanical and Automation Engineering, The Chinese University of Hong Kong, China	Assistant Professor	08/2016	--
School of Mechanical Engineering, Purdue University, USA	Visiting Assistant Professor	08/2015	01/2016
School of Mechanical Engineering, Purdue University, USA	Research Assistant	01/2012	05/2015
Department of Building Science, Tsinghua University, China	Research Assistant	08/2009	12/2011

HONORS & AWARDS

- Dean's Exemplary Teaching Award, The Chinese University of Hong Kong, 2017
- Best Student Paper Award, the 13th International Conference on Indoor Air Quality and Climate (Indoor Air 2014), 2014
- Bilsland Dissertation Fellowship, Purdue University, 2014
- Grant-in-Aid Award, American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE), 2013
- Best Paper Award, *Building and Environment* journal, 2012
- Boeing Scholarship, Boeing Company, 2012
- Best Master's Thesis Award, Tsinghua University, 2012

- First Prize Scholarship, Tsinghua University, 2011
- Xia Anshi Scholarship, Heatcraft Company, 2011
- Top 10 papers at Department of Building Science, Tsinghua University, 2009-2011
- “12.9” Scholarship, Tsinghua University, 2010
- Best Bachelor Thesis Award, Tsinghua University, 2009
- First Prize of Academic Speech Contest, Beijing Refrigeration Association, 2009
- First Prize of Student Research Training project, Tsinghua University, 2008
- Wang Shujing and Wang Wendou Scholarship, Xiamen Education Foundation, 2008
- Jinjiang Machinery Scholarship, Tsinghua University, 2008
- Zhan Zhaoqiang Scholarship, Tsinghua University, 2007
- Academic Excellence Scholarship, Tsinghua University, 2006

PUBLICATIONS

Peer Reviewed Journal Papers

Total Citations: 1240 (Google Scholar), 852 (ResearchID@Thomson Reuters)

- 43 Liu, W.* , You, R., Chen, C.* (2019). Modeling transient particle transport by fast fluid dynamics with the Markov chain method. *Building Simulation*, Accepted.
- 42 Xia, T., Chen, C.* (2019). Differentiating between indoor exposure to PM_{2.5} of indoor and outdoor origin using time-resolved monitoring data. *Building and Environment*, 147, 528-539.
- 41 Cao, Q., Chen, C., Liu, S., Lin, C.-H., Wei, D., Chen, Q. (2018). Prediction of particle deposition around the cabin air supply nozzles of commercial airplanes using measured in-cabin particle emission rates. *Indoor Air*, 28, 852-865.
- 40 Chen, C.*, Zhao, B., Lai, D., Liu, W. (2018). A simple method for differentiating direct and indirect exposure to exhaled contaminants in mechanically ventilated rooms. *Building Simulation*, 11, 1039-1051. (*Invited paper for the special issue of the 10-year anniversary of the journal*)
- 39 Yao, C., Wang, Z., Wang, Q., Bian, Y., Chen, C., Zhang, L., Ren, W. (2018). Interband cascade laser absorption sensor for real-time monitoring of formaldehyde filtration by a nanofiber membrane. *Applied Optics*, 57, 8005-8010.
- 38 Bian, Y., Wang, R., Ting S.H., Chen, C.*, Zhang, L.* (2018). Electrospun SF/PVA nanofiber filters for highly-efficient PM_{2.5} capture. *IEEE Transactions on Nanotechnology*, 17, 934-939.
- 37 Liu, C.* , Yang, J., Ji, S., Lu, Y., Wu, P., Chen, C.* (2018). Influence of natural ventilation rate on indoor PM_{2.5} deposition. *Building and Environment*, 144, 357-364.
- 36 Bian, Y., Wang, R., Wang, S., Yao, C., Ren, W., Chen, C.*, Zhang, L.* (2018). Metal-organic frameworks-based nanofiber filters for effective indoor air quality control. *Journal of Materials Chemistry A*, 6, 15807-15814.
- 35 Bian, Y., Zhang, L.* , Chen, C.* (2018). Experimental and modeling study of pressure drop across electrospun nanofiber air filters. *Building and Environment*, 142, 244-251.
- 34 Lai, D., Chen, C., Liu, W., Shi, Y., Chen, C.* (2018). An ordered probability model for predicting outdoor thermal comfort. *Energy and Buildings*, 168, 261-271.
- 33 Xia, T., Bian, Y., Zhang, L., Chen, C.* (2018). Relationship between pressure drop and face velocity for electrospun nanofiber filters. *Energy and Buildings*, 158, 987-999.

- 32 Shi, S., Bian, Y., Zhang, L., Chen, C.* (2017). A method for assessing the performance of nanofiber films coated on window screens in reducing residential exposures to PM_{2.5} of outdoor origin in Beijing. *Indoor Air*, 27, 1190-1200. **(The journal's top 20 most downloaded papers published between July 2016 and June 2018)**
- 31 Chen, C., Lin, C.-H., Wei, D., Chen, Q. (2016). Modeling particle deposition on the surfaces around a multi-slot diffuser. *Building and Environment*, 107, 79-89.
- 30 Shi, Z., Chen, J., You, R., Chen, C., Chen, Q. (2016). Modeling of gasper-induced jet flow and its impact on cabin air quality. *Energy and Buildings*, 127, 700-713.
- 29 Chen, C., Zhang, X., Groll, E., McKibben, A., Long, N., Dexter, M., Chen, Q. (2016). A method of assessing the energy cost saving from using an effective door closer. *Energy and Buildings*, 118, 329-338.
- 28 Liu, W., Jin, M., Chen, C., You, R., Chen, Q. (2016). Implementation of a fast fluid dynamics model in Open FORM for simulating indoor airflow. *Numerical Heat Transfer, Part A: Applications*, 69, 748-762.
- 27 Liu, W., Jin, M., Chen, C., Chen, Q. (2016). Optimization of air supply location, size, and parameters in enclosed environments through using a CFD-based adjoint method. *Journal of Building Performance Simulation*, 9, 149-161.
- 26 Chen, C., Liu, W., Lin, C.-H., Chen, Q. (2015). Comparing the Markov chain model with the Eulerian and Lagrangian models for indoor transient particle transport simulations. *Aerosol Science and Technology*, 49, 857-871.
- 25 Liu, W., Duan, R., Chen, C., Lin, C.-H., Chen, Q. (2015) Inverse design of the thermal environment in an airliner cabin by use of the CFD-based adjoint method. *Energy and Buildings*, 104, 147-155.
- 24 Chen, C., Liu, W., Lin, C.-H., Chen, Q. (2015). A Markov chain model for predicting transient particle transport in enclosed environments. *Building and Environment*, 90, 30-36.
- 23 Chen, C., Liu, W., Lin, C.-H., Chen, Q. (2015). Accelerating the Lagrangian method for modeling transient particle transport in indoor environments. *Aerosol Science and Technology*, 49, 351-361.
- 22 Chen, C., Lin, C.-H., Jiang, Z., Chen, Q. (2014). Simplified models for exhaled airflow from a cough with the mouth covered. *Indoor Air*, 24, 580-591. **(Best Student Paper Award, the 13th International Conference on Indoor Air Quality and Climate, 2014)**
- 21 Chen, C., Zhu, J., Qu, Z., Lin, C.-H., Jiang, Z., Chen, Q. (2014). Systematic study of person-to-person contaminant transport in mechanically ventilated spaces (RP-1458). *HVAC&R Research*, 20, 80-91.
- 20 Chen, C., Lin, C.-H., Long, Z., Chen, Q. (2014). Predicting transient particle transport in enclosed environments with the combined computational fluid dynamics and Markov chain method. *Indoor Air*, 24, 81-92.
- 19 Li, Q., You, R., Chen, C., Yang, X. (2013). A field investigation and comparative study of indoor environmental quality in heritage Chinese rural buildings with thick rammed earth wall. *Energy and Buildings*, 62, 286-293.
- 18 You, R., Cui, W., Chen, C., Zhao, B. (2013). Measuring the short-term emission rate of particles in the “personal cloud” with different clothes and activity intensities in a sealed chamber. *Aerosol and Air Quality Research*, 13, 911-921.
- 17 Chen, C., Liu, W., Li, F., Lin, C.-H., Liu, J., Pei, J., Chen, Q. (2013). A hybrid model for investigating transient particle transport in enclosed environments. *Building and Environment*, 62, 45-54.

- 16 Chen, C., Zhao, B., Weschler, C.J. (2012). Indoor exposure to outdoor PM₁₀: assessing its influence on the relationship between PM₁₀ and short-term mortality in U.S. cities. *Epidemiology*, 23, 870-878.
- 15 You, R., Zhao, B., Chen, C. (2012). Developing an empirical equation for modeling particle deposition velocity onto inclined surfaces in indoor environments. *Aerosol Science and Technology*, 46, 1090-1099.
- 14 Li, Q., Sun, X., Chen, C., Yang, X. (2012). Characterizing the household energy consumption in heritage Nanjing Tulou buildings, China: A comparative field survey study. *Energy and Buildings*, 49, 317-326.
- 13 Chen, C., Zhao, B., Weschler, C.J. (2012). Assessing the influence of indoor exposure to "outdoor ozone" on the relationship between ozone and short-term mortality in US communities. *Environmental Health Perspectives*, 120, 235-240.
- 12 Chen, C., Zhao, B., Zhou, W., Jiang, X., Tan, Z. (2012). A methodology for predicting particle penetration factor through cracks of windows and doors for actual engineering application. *Building and Environment*, 47, 339-348. (**Best Paper Award, Building and Environment Journal, 2012**)
- 11 Zhao, B., Chen, C., Lai, A.C.K. (2011). Lagrangian stochastic particle tracking: further discussion. *Aerosol Science and Technology*, 45, 901-902.
- 10 Chen, C., Zhao, B., Yang, X., Li, Y. (2011). Role of two-way airflow owing to temperature difference in severe acute respiratory syndrome transmission: revisiting the largest nosocomial severe acute respiratory syndrome outbreak in Hong Kong. *Journal of the Royal Society Interface*, 8, 699-710.
- 9 Chen, C., Zhao, B., Yang, X. (2011). Preventing the entry of outdoor particles with the indoor positive pressure control method: Analysis of influencing factors and cost. *Building and Environment*, 46, 1167-1173.
- 8 Chen, C., Zhao, B., Yang, X. (2011). Impact of two-way air flow due to temperature difference on preventing the entry of outdoor particles using indoor positive pressure control method. *Journal of Hazardous Materials*, 186, 1290-1299.
- 7 Chen, C., Zhao, B. (2011). Review of relationship between indoor and outdoor particles: I/O ratio, infiltration factor and penetration factor. *Atmospheric Environment*, 45, 275-288. (**Highly Cited Paper, Essential Science IndicatorsSM**)
- 6 Wang, B., Zhao, B., Chen, C. (2010). A simplified methodology for the prediction of mean air velocity and particle concentration in isolation rooms with downward ventilation systems. *Building and Environment*, 45, 1847-1853.
- 5 Chen, C., Zhao, B., Cui, W., Dong, L., An, N., Ouyang, X. (2010). The effectiveness of an air cleaner in controlling droplet/aerosol particle dispersion emitted from a patient's mouth in the indoor environment of dental clinics. *Journal of the Royal Society Interface*, 7, 1105-1118.
- 4 Zhao, B., Chen, C., Yang, X., Lai, A.C.K. (2010). Comparison of three approaches to model particle penetration coefficient through a single straight crack in a building envelope. *Aerosol Science and Technology*, 44, 405-416.
- 3 Chen, C., Zhao, B. (2010). Some questions on dispersion of human exhaled droplets in ventilation room: answers from numerical investigation. *Indoor Air*, 20, 95-111.
- 2 Zhao, B., Yang, C., Chen, C., Feng, C., Yang, X., Sun, L., Gong, W., Yu, L. (2009). How many airborne particles emitted from a nurse will reach the breathing zone/body surface of the patient in ISO Class-5 single-bed hospital protective environments? - A numerical analysis. *Aerosol Science and Technology*, 43, 990-1005.

- 1 Zhao, B., Chen, C., Tan, Z. (2009). Modeling of ultrafine particle dispersion in indoor environments with an improved drift flux model. *Journal of Aerosol Science*, 40, 29-43.

Referred Conference Papers

- 14 Cao, Q., Chen, C., Lin, C.-H., Wei, D., Chen, Q. (2018). Predict particle deposition around the cabin air supply nozzles of commercial airplanes. *Proceedings of the 15th International Conference on Indoor Air Quality and Climate (Indoor Air 2018)*, July 22-27, Philadelphia, PA, USA, Paper 244.
- 13 Xia, T., Shi, S., Chen, C.* (2018). Nanofiber filters with low air resistance and the potential applications in indoor environments. *Proceedings of the 15th International Conference on Indoor Air Quality and Climate (Indoor Air 2018)*, July 22-27, Philadelphia, PA, USA, Paper 175.
- 12 Lai, D. *, Chen, C., Liu, W., Shi, Y., Chen, C.* (2018). An outdoor thermal comfort model for predicting the probability distribution of thermal sensation. *Proceedings of the 15th International Conference on Indoor Air Quality and Climate (Indoor Air 2018)*, July 22-27, Philadelphia, PA, USA, Paper 126.
- 11 Xia, T., Chen, C.* (2018). Comparison of air resistance between electrospun nanofiber filters and conventional filters. *Proceedings of the 2018 American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Annual Conference*, June 23-27, Houston, TX, USA, Paper HO-18-C010.
- 10 Shi, S., Chen, C.* (2017). Assessment of reduction in indoor PM_{2.5} of outdoor origin by using nanofiber filters as window screens. *Proceedings of the 10th International Symposium on Heating, Ventilation and Air Conditioning (ISHVAC 2017)*, October 19-22, Jinan, China, Paper 1330.
- 9 Bian, Y., Chen, C., Zhang, L. (2017). Development of nanofiber filters with high PM_{2.5} removal efficiency and low air resistance. *Proceedings of the 17th IEEE International Conference on Nanotechnology (IEEE NANO 2017)*, July 25-28, Pittsburgh, PA, USA, Paper 200.
- 8 Shi, S., Bian, Y., Zhang, L., Chen, C.* (2017). Effectiveness of nanofiber window screens in reducing indoor exposure to outdoor PM_{2.5} in Beijing. *Proceedings of Healthy Buildings Europe 2017 (HB2017 Europe)*, July 2-5, Lublin, Poland, Paper 0123.
- 7 Chen, C.*, Lin, C.-H., Wei, D., Chen, Q. (2016). Modeling particle deposition on the surfaces around a diffuser in an indoor space. *Proceedings of the 14th International Conference on Indoor Air Quality and Climate (Indoor Air 2016)*, July 3-8, Ghent, Belgium, Paper 89.
- 6 Chen, C.*, Liu, W., Lin, C.-H., Chen, Q. (2015). A Markov chain model for predicting transient particle transport in enclosed environments. *Proceedings of the 9th International Symposium on Heating, Ventilation and Air Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE)*, July 12-15, Tianjin, China, T6-612.
- 5 Chen, C.*, Liu, W., Lin, C.-H., Chen, Q. (2015). Accelerating the Lagrangian method for modeling transient particle transport in indoor environments. *Proceedings of the 9th International Symposium on Heating, Ventilation and Air Conditioning (ISHVAC) and the 3rd International Conference on Building Energy and Environment (COBEE)*, July 12-15, Tianjin, China, T6-611.
- 4 Chen, C.*, Lin, C.-H., Chen, Q. (2014). Developing simplified models for the exhaled airflow from a cough with the mouth covered. *Proceedings of the 13th International*

Conference on Indoor Air Quality and Climate (Indoor Air 2014), July 7-12, Hong Kong, China, HP0092.

- 3 Rai, A.C., Chen, C., Lin, C.-H., Chen, Q. (2014). Numerical modeling of ozone-initiated particle generations from reactions with clothing in an environmental chamber. *Proceedings of the 13th International Conference on Indoor Air Quality and Climate (Indoor Air 2014), July 7-12, Hong Kong, China, HP0108.*
- 2 Chen, C., Lin, C.-H., Chen, Q. (2013). Predicting transient particle transport in enclosed environments based on Markov chain. *Proceedings of the 13th International Conference of the International Building Performance Simulation Association (Building Simulation 2013), August 26-28, Chambéry, France, pp. 559-566.*
- 1 Chen, C., Zhao, B., Yang, X. (2011). Significance of two-way airflow effect due to temperature difference in indoor air quality. *Proceedings of the 12th International Conference on Indoor Air Quality and Climate (Indoor Air 2011), June 5-10, Austin, Texas, USA, Paper, a931-1.*

Major Research Reports

- 4 Chen, C., Pan, Y., Ting, S.H. (2018) Developing a new nozzle for reducing particle deposition in aircraft cabins. *Final Report for Center for Boeing Project Agreement No. 2017-GT-105, 37 pages, The Chinese University of Hong Kong, Hong Kong, China.*
- 3 Chen, Q. and Chen, C. (2016) Modeling particle deposition onto surfaces near diffusers in aircraft cabins. *Final Report for Center for Air Cabin Reformative Environment (CARE) Project, 41 pages, Purdue University, West Lafayette, IN, USA.*
- 2 Jiang, Z, Chen, Q., Chen, C. (2013). Modeling person-to-person contaminant transport in a mechanical ventilation space. *Final Report for ASHRAE RP-1458, 103 pages, Building Energy and Environment Engineering, Lafayette, IN, and Purdue University, West Lafayette, IN, USA.*
- 1 Chen, Q., Chen, C. (2012). Investigation of person-to-person particle transfer and risk assessment for airborne infectious disease transmission in an aircraft cabin. *Final Report for Boeing Project Agreement No. 2012-074, 64 pages, Purdue University, West Lafayette, IN, USA.*

PRESENTATIONS

Invited Seminars

- 6 Chen, C. (2018). Green technology. *Presented in the 2018 “Green Energy” - Innovation & Technology Student Club (ITSC) Summer Camp, July 18, Hong Kong, China.*
- 5 Chen, C. (2017). Indoor air quality control in smart buildings, *Presented in the NSFC-CUHK Symposium: Theory and Application of Smart City Research, September 25-29, Hong Kong, China.*
- 4 Chen, C. (2017). Introduction to green building technologies. *Presented in the 2017 “Green Energy” - Innovation & Technology Student Club (ITSC) Summer Camp, July 19, Hong Kong, China.*
- 3 Chen, C. (2015). Indoor environment and energy-efficient buildings. *Presented at the Department of Mechanical and Energy Engineering, University of North Texas, February 20, Denton, TX, USA.*
- 2 Chen, C. (2015). Indoor environment and energy-efficient buildings. *Presented at the Department of Mechanical and Automation Engineering, The Chinese University of*

Hong Kong, February 11, Hong Kong, China.

- 1 Chen, C., Chen, Q., Zhu, J., Qu, Z., Lin, C.-H., Jiang, Z., (2015). Systematic study of person-to-person contaminant transport in mechanically ventilated spaces (RP-1458). Presented in Seminar 43 of the 2015 American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Winter Conference, January 24-28, Chicago, IL, USA.

Seminar, Workshop, and Presentations

- 8 Chen, C. (2017). Green building technologies. Presented in the Student Forum of the 8th ACM International Conference on Future Energy Systems (ACM e-Energy), May 17-19, Hong Kong, China.
- 7 Chen, C., Jiang, Z., Chen, Q. (2013). A simplified method for modeling a cough with mouth coverings (RP-1458). Presented in TC 4.10 RP 1458 PMS of the 2013 American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Annual Conference, June 22-26, Denver, CO, USA.
- 6 Chen, C., Chen, Q. (2013). Modeling expiratory particles transport in a mechanical ventilation space. Presented in Seminar 39 of the 2013 American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Winter Conference, January 26-30, Dallas, TX, USA.
- 5 Chen, C., Jiang, Z., Chen, Q. (2013). Systematic study of person-to-person contaminant transport in mechanical ventilated spaces (RP-1458). Presented in TC 4.10 RP 1458 PMS of the 2013 American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Winter Conference, January 26-30, Dallas, TX, USA.
- 4 Chen, C., Jiang, Z., Chen, Q. (2012). A hybrid model for investigating transient particle transport in enclosed environments (RP-1458). Presented in TC 4.10 RP 1458 PMS of the 2012 American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) Annual Conference, June 23-27, San Antonio, TX, USA.
- 3 Chen, C., Zhao, B. (2011). Effect of outdoor inhalable particles on indoor air quality and its control strategies. Presented in the 5th Asian Symposium on Urban Environment and Energy, August 2-9, Beijing, China.
- 2 Chen, C., Zhao, B., Yang, X. (2010). Introduction of indoor air quality and rural energy group. Presented in the 4th Asian Symposium on Urban Environment and Energy, August 2-9, Sendai, Japan.
- 1 Chen, C., Zhao, B. (2010). Some questions on exhaled droplets dispersion in indoor environments. Presented in the 4th Asian Symposium on Urban Environment and Energy, August 2-9, Sendai, Japan.

GRANTS

Total Amount: HK\$5,102,000 (~US\$651,000)

- 7 Principle Investigator, HKD750,000, Investigation of the air resistance of nanofiber window screens for reducing indoor exposure to PM_{2.5} of outdoor origin. Research Grant Council (RGC) of Hong Kong, Early Career Scheme (ECS), No. 24208518, 01/2019 to 12/2021.
- 6 Principle Investigator, USD300,000 (~HKD2,351,000), Developing a new nozzle for reducing particle deposition in aircraft cabins – Phase II. The Boeing Company, Research and Development Project, No. 2018-GT-131, 10/2018 to 12/2019.

- 5 Principle Investigator, HKD756,000, Development of a novel cooling tower with free daytime radiative cooling for reducing energy consumption in buildings. *Shun Hing Institute of Advanced Engineering (SHIAE), RNE-p1-18, 07/2018 to 06/2020.*
- 4 Principle Investigator, RMB250,000 (~HKD293,000), A method for estimating indoor PM_{2.5} of both outdoor and indoor origin based on monitoring data. *National Natural Science Foundation of China (NSFC), Young Scientist Program, No. 51708474, 01/2018 to 12/2020.*
- 3 Co-Supervisor, HKD100,000, Project-based teaching and learning with hands-on experience on nanotechnology for innovation and design. *The Chinese University of Hong Kong, Teaching Development and Language Enhancement Grant (TDLEG), 11/2017 to 06/2019.*
- 2 Principle Investigator, USD90,000 (~HKD702,000), Developing a new nozzle for reducing particle deposition in aircraft cabins. *The Boeing Company, Research and Development Project, No. 2017-GT-105, 10/2017 to 09/2018.*
- 1 Principle Investigator, HKD150,000, Modeling residential infiltration of outdoor PM_{2.5} with combined physical and statistical models. *The Chinese University of Hong Kong, Direct Grant, No. 4055068, 10/2016 to 09/2018.*

SERVICES

Departmental Committees, Services, etc.

<i>Activity</i>	<i>Function</i>	<i>Begin</i>	<i>End</i>
Department Undergraduate Admissions Committee	EEEN Coordinator	2018	--
Department Seminar Coordinator	Coordinator	2018	--
Department Coordinator of New Asia College	Coordinator	2018	--
Department Graduate Panel	Member	2017	--
Department Space Allocation Committee	Member	2016	--
Department EEEN Programme Task Force	Member	2016	--
Department Undergraduate Admissions Committee	Member	2017	2018
Department Industrial Relation Committee	Member	2016	2018
Department Publicity Committee	Member	2016	2018

Professional Committees, Services, etc.

<i>Professional Society & Committee</i>	<i>Function</i>	<i>Begin</i>	<i>End</i>
American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE)	Associate Member	2016	--
International Society of Indoor Air Quality and Climate (ISIAQ)	Member	2016	--
American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE), Technical Committee 4.10 Indoor Environmental Modeling	Corresponding Member	2012	--

<i>Conference</i>	<i>Function</i>	<i>Year</i>
The 15 th International Conference on Indoor Air Quality and Climate (Indoor Air 2018), Philadelphia,	International Scientific Advisory Committee	2018

USA	Member/Session Chair	
The 3 rd International Conference on Robotics, Control and Automation (ICRCA 2018), Chengdu, China	International Technical Committee Member	2018
2018 International Conference on Aerospace Engineering and Control Technologies (CAECT 2018), Athens, Greece	International Technical Committee Member	2018
2017 International Conference on Advanced Energy Systems and Technologies (ICAEST 2017), Ho Chi Minh City, Vietnam	International Technical Committee Member	2017
The 2 nd International Conference on Robotics, Control and Automation (ICRCA 2017), Kitakyushu, Japan	International Technical Committee Member	2017
The 8 th ACM International Conference on Future Energy Systems (ACM e-Energy 2017), Hong Kong, China	Student Activity and Outreach Chair	2017
The 14 th International Conference on Indoor Air Quality and Climate (Indoor Air 2016), Ghent, Belgium	International Scientific Committee Member	2016

Thesis Committees

<i>Ph.D.</i>	<i>Thesis Title</i>	<i>Year</i>
Guangtao Cong	Organic electrode materials for next-generation energy storage systems	2018

Peer Reviewer

Funding Agency

- Environment and Conservation Fund (ECF), Hong Kong (4 proposals)
- Research Foundation – Flanders (FWO), Belgium (3 proposals)
- Netherlands Organisation of Scientific Research (NOW), Netherlands (1 proposal)

Journal

- Building and Environment (38 papers)
- Energy and Buildings (13 papers)
- Building Simulation (9 papers)
- International Journal of Environmental Research and Public Health (7 papers)
- Indoor Air (6 papers)
- Atmospheric Environment (3 papers)
- Indoor and Built Environment (2 papers)
- Journal of Royal Society Interface (2 papers)
- Science and Technology for the Built Environment (2 papers)
- Sustainability (2 papers)
- Advances in Mechanical Engineering (1 paper)
- Atmosphere (1 paper)
- Energies (1 paper)
- Environmental Science and Pollution Research (1 paper)

- Environmental Science: Processes & Impacts (1 paper)
- European Journal of Mechanics - B/Fluids (1 paper)
- International Journal of Nonlinear Sciences and Numerical Simulation (1 paper)
- Journal of Building Engineering (1 paper)
- Journal of Wind Engineering and Industrial Aerodynamics (1 paper)
- Particuology (1 paper)
- Science China Technological Sciences (1 paper)
- Sustainable Cities and Society (1 paper)

Conference

- The 15th International Conference on Indoor Air Quality and Climate, 2018 (2 papers)
- The 15th International Conference of International Building Performance Simulation Association, 2017 (3 papers)
- The 4th International High Performance Buildings Conference, 2016 (6 papers)
- The 14th International Conference on Indoor Air Quality and Climate, 2016 (6 papers)
- ASHRAE/IBPSA-USA Building Simulation Conference, 2014 (2 papers)

TEACHING & SUPERVISING RECORD

Supervised Graduate Students: 4 Ph.D., 1 M.Phil

<i>Ph.D.</i>	<i>Thesis Title</i>	<i>Year</i>
Xinxian Yu	Cooling tower with radiative cooling materials	2022 expected
Tongling Xia	Estimating and controlling indoor exposure to PM _{2.5} of outdoor origin	2021 expected
Yue Pan	Study of particle deposition in built environments	2021 expected
Ye Bian ¹	Novel air filters for effective indoor air quality control	2019 expected

¹ Co-supervised

<i>M.Phil</i>	<i>Thesis Title</i>	<i>Year</i>
Ho Kam Dai	Modeling the performance of nanofiber filters with CFD	2020 expected

Supervised Research Staff: 2 RA

<i>Research Assistant</i>	<i>Research Topic</i>	<i>Year</i>
Haiqiang Zhang	Study of liquid desiccant dehumidifiers	2018 - present
Sin Hang Ting	Engineering methods for establishing testbeds	2017 - 2018

Supervised Undergraduate Students: 19

<i>B.Eng.</i>	<i>Thesis Title</i>	<i>Year</i>
Tung Lan Kwok	Energy saving assessment for residential buildings	2019 expected
Man Yin Lam	Energy saving assessment for residential buildings	2019 expected
Yu Yu Chan	Airflow and particle deposition research for diffusers	2019 expected
Ka Leung Lo	Airflow and particle deposition research for diffusers	2019 expected

Hon Ting Lau	Outdoor PM _{2.5} monitoring for residential buildings	2019 expected
Kin Ming Lai	Nanofiber filters in split/window air conditioners	2019 expected
Ho Ting Lam	Range hood performance assessment	2019 expected
Suet Man Wong	Automated measurement robot for indoor environment	2019 expected
Yuen Chit Cheng	Energy saving assessment for residential buildings	2018
Po Ming Tsui	Energy saving assessment for residential buildings	2018
Man Chun Chan	Effectiveness of cooling devices and factors affecting thermal comfort	2018
Wing Yin Tam	Energy saving assessment for residential buildings	2018
Ho Kam Dai	Urban permeability investigation with the aid of CFD: Yasumoto International Park (YIA)	2018
Man Hin Cheung	Automated air pollution measurement robot	2018
Hoi Kit Tang	Simulation of outdoor PM _{2.5} & PM ₁₀ penetration into buildings	2017
Chi Ching Cheung	Development of portable or wearable air-conditioner	2017
Wing Ki Chow	Portable air-conditioner by thermoelectric cooler	2017
Hing Yip Leung	Personalized thermal comfort prediction	2017
Sin Hang Ting	Energy audit for residential buildings	2017

Teaching Record

<i>Term</i>	<i>School</i>	<i>Subject No.</i>	<i>Subject Title</i>	<i>Role</i>
2019 Spring	The Chinese University of Hong Kong	MAEG5150	Advanced Heat Transfer and Fluid Mechanics	Co-Instructor
2019 Spring	The Chinese University of Hong Kong	EEEN2040	Building Service Engineering and Green Building	Instructor
2018 Fall	The Chinese University of Hong Kong	EEEN3010	Building Automation and Control	Instructor
2018 Summer	The Chinese University of Hong Kong	SIME1010	Sustainable Energy Future	Co-Instructor
2018 Spring	The Chinese University of Hong Kong	EEEN2040	Building Service Engineering and Green Building	Instructor
2017 Fall	The Chinese University of Hong Kong	EEEN3010	Building Automation and Control	Instructor
2017 Spring	The Chinese University of Hong Kong	MAEG2030	Thermodynamics	Instructor
2016 Fall	The Chinese University of Hong Kong	EEEN3010	Building Automation and Control	Instructor
2016 Spring	Purdue University	ME522	Indoor Environment Analysis and Design	Guest lecturer
2015 Fall	Purdue University	ME300	Thermodynamics II	Instructor
2014	Purdue University	ME522	Indoor Environment	Guest

Spring 2010 Spring	Tsinghua University	80000752	Analysis and Design Immunized Building Technology	lecturer Guest lecturer
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