MOHAMAD KANAAN

1. **Name and academic rank**

   Mohamad Kanaan, Associate professor, full time.

2. **Education – degree, discipline, institution, year**

   - Ph.D., Mechanical Engineering, AUB, 2015
   - M.E., Mechanical Engineering, AUB, 2010
   - M.S., Applied Mathematics, USJ, 2008
   - B.E., Mechanical Engineering, Lebanese University, 2003

3. **Academic and Professional experience**

   - Beirut Arab University, Associate Professor, Fall 2020 - present, full time
   - Beirut Arab University, Assistant Professor, Spring 2015- Spring 2020, full time
   - Global University, Lecturer, 2007-2015, part time

4. **Professional credentials, certificates, or licensing**

   - Short course on Passive Building Design, KTH University, Stockholm – Sweden, January 2010
   - ASHRAE Associate member, 2016

5. **Contribution to the discipline**

   5.1. Service activities

   - Member of the Student Affairs Committee at BAU for academic year 2023-2024.
   - Academic Coordinator for the undergraduate level at the Faculty of Engineering for academic years 2022-2023 and 2023-2024
   - Member of Scheduling Committee at the Faculty of Engineering since academic year 2017-2018
   - Reviewer for the International Journal of Heat and Technology since 2017.
   - Advisor of the ASHRAE Student Branch at BAU for academic year 2016-2017.
   - Member of the National Lebanese Technical committee (NLTC 180) for Solar Energy Standards in Lebanon, Libnor, 2016

5.2. Publications

5.2.1. Journal publications

- Kanaan, M. 2019. CFD optimization of return air ratio and use of upper room UVGI in combined HVAC and heat recovery system. Case Studies in Thermal Engineering, 15, 100535.
- Kanaan, M. 2019. Modelling of contaminant dispersion in underfloor air distribution systems: comparison of analytical and CFD methods. Journal of Building Performance Simulation, 12: 759-769.
- Kanaan, M., K. Chahine, 2018. CFD study of ventilation for indoor multi-zone transformer substation. International Journal of Heat and Technology, 36: 88-94.
- Kanaan, M., A. Abou Moughlbay, 2018. Comparative CFD Investigation of Upper Room UVGI Efficacy with Three Different Ventilation Systems. International Journal of Applied Engineering Research, 21: 14897-14902.
- Kanaan, M., N. Ghaddar, K. Ghali. 2016. Localized air-conditioning with upper-room UVGI to reduce airborne bacteria cross-infection. Building Simulation 9: 63-74.
- Kanaan, M., N. Ghaddar, K. Ghali, G. Araj. 2015. Upper room UVGI effectiveness with dispersed pathogens at different droplet sizes in spaces conditioned by chilled ceiling and mixed displacement ventilation system. Building and Environment, 87: 117-128.
- Kanaan, M., N. Ghaddar, K. Ghali, G. Araj. 2014. New airborne pathogen transport model for upper-room UVGI spaces conditioned by chilled ceiling and mixed displacement ventilation: Enhancing air Quality and energy Performance. Energy Conversion and Management 85: 50-61.
- Kanaan, M., N. Ghaddar, K. Ghali. 2012. Quality of inhaled air in displacement ventilation systems assisted by personalized ventilation. HVAC&R Research 18(3): 500-514.
- Kanaan, M., N. Ghaddar, K. Ghali. 2010. Simplified model of contaminant dispersion in rooms conditioned by chilled-ceiling displacement ventilation system. HVAC&R Research 16(6): 765-783.

5.2.2. Conference Proceedings

- **Conference paper, October 2-3, 2014, Beirut, Lebanon**
  M. Kanaan, N. Ghaddar, K. Ghali , G. Araj. CFD Investigation of the Performance of Localized Air-Conditioning with Upper-Room Ultraviolet Germicidal Irradiation in Reducing Cross-Infection. First International ASHRAE Conference and Exhibition on Efficient Building Design, Materials and HVAC equipment technologies.
- **Conference paper, February 24-26, 2014, Doha, Qatar**
  M. Kanaan, N. Ghaddar, K. Ghali, G. Araj, W. Chakroun, M. Darwish. Upper Room UV-Disinfected Mixed Air Use for Chilled Ceiling Displacement Ventilation System to

Enhance Air Quality and Performance. First International Conference on Energy, Indoor Environment in Hot Climates.

- **Poster, February 15, 2014, Beirut, Lebanon**
  M. Kanaan, N. Ghaddar, K. Ghali, G. Araj. The use of Upper-Room Ultraviolet Germicidal Irradiation for Chilled Ceiling Mixed Displacement Ventilation System to Reduce Disease Transmission. The 4th Annual AUB Biomedical Research Day.
- **Conference paper, June 16-19, 2013, Prague, Czech Republic**
  Kanaan M., Ghaddar N., Ghali K. Localized Air-Conditioning with Upper-Room Ultraviolet Germicidal Irradiation for Energy Conservation and Reduction of Disease Transmission. Proceedings of CLIMA 2013 11th REHVA World Congress & 8th International Conference on IAQVEC "Energy Efficient, Smart & Healthy Buildings"