



**1. Name and Academic Rank:** Mohamad Kanaan, Assistant Professor, full time

**2. Education: Degrees, Discipline, Institution and Date:**

- 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. Work experience**

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

**4. Service activities**

- Member of the Student Activities Committee in the Faculty of Engineering at BAU for the academic year 2015-2016.
- Member of the National Lebanese Technical committee (NLTC 180) for Solar Energy Standards in Lebanon, Libnor, 2016
- Advisor of the ASHRAE student branch at Beirut Arab University for the academic year 2016-2017.
- Member of the Engineering Webpage Committee in the Faculty of Engineering at BAU for the academic year 2017-2018.
- Member of the Student Affairs committee in the Faculty of Engineering at BAU for the academic years 2016-2017 and 2017-2018.
- Member of the Educational Operations committee in the Faculty of Engineering at BAU for the academic years 2016-2017 and 2017-2018.

**5. Research Interests**

- HVAC and thermal comfort
- Indoor air quality and UVGI systems
- Energy efficiency in buildings
- CFD applications

**6. Principal publications and presentations:**

**6.1 Journal Publications**

- 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., 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.

## 6.2 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.
- **Conference 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 4<sup>th</sup> 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"