



JINGJUAN (DOVE) FENG, PH.D., P.E.

SENIOR ENGINEER

Dove Feng is a Senior Engineer at Taylor Engineering. Ms. Feng has over 10 years of experience in building science and mechanical systems. During her Ph.D. studies at UC Berkeley, Ms. Feng was intensively involved in research projects on integrated building energy systems and she has published several journal articles to improve radiant system design analysis methods, including the cooling load/cooling capacity prediction methods and modeling approach. She has also studied the control of heavyweight radiant slab systems through both field measurements and energy simulations.

At Taylor Engineering, Ms. Feng leverages her extensive research and practical experience to design and analyze innovative and environmentally conscious mechanical systems. She has worked on a wide variety of design projects, including commercial office buildings, laboratories, schools, and parking garages. She has also worked on several analysis and research projects, such as campus central plant control optimization, data center design options analysis, and radiant system design cost analysis.

EDUCATION

M.S. Architectural Engineering, University of Nebraska, Lincoln, 2009

Ph.D. Architecture, University of California, Berkeley, 2014

REGISTRATIONS

Mechanical Engineer
California #M38846

AFFILIATIONS

American Society of Heating, Refrigeration, and Air-Conditioning Engineers

International Building Performance Simulation Association

YEARS OF EXPERIENCE

3 years with Taylor



PREVIOUS EXPERIENCE

- 2014 Lawrence Berkeley National Laboratory, Berkeley, CA
Participated in the development, implementation, and test of methods to measure in-situ window thermal and optic properties in the field for the APAR-E Rapid Building Energy Modeler project
- 2009–2013 Center for the Built Environment, University of California, Berkeley, Berkeley, CA
Graduate student researcher. Primary work included: 1) identified research needs and developed methods for improving the performance of low energy HVAC technologies, with a focus on radiant cooling systems; 2) developed and conducted laboratory experiments to test research hypothesis; and 3) conducted energy simulation studies and field measurements of low-energy buildings to provide performance data and lessons-learned.
- 2006–2009 Energy Systems Lab, University of Nebraska, Lincoln, Omaha, NE
Research assistant. Performed energy audits and conducted detailed building energy assessments

SELECTED PUBLICATIONS

- J.Feng, S. Schiavon, F. Bauman. *New method for the design of radiant floor cooling systems with solar radiation. Energy and Buildings 125 (2016) 9-18.* Available at: <http://escholarship.org/uc/item/5sj3h2s5>
- J. Feng. Design and control of hydronic radiant cooling systems. Ph.D. Dissertation. University of California, Berkeley, Available at: <http://escholarship.org/uc/item/6qc4p0fr>
- J. Feng, F. Chuang, F. Borrelli, F. Bauman, Model predictive control of radiant slab systems with evaporative cooling sources. *Energy and Buildings 87 (2015) 199-210.*
- J. Feng, F. Bauman, S. Schiavon, Experimental comparison of zone cooling load between radiant and air systems. *Energy and Buildings, 84 (2014), doi: 10.1016/j.enbuild.2014.07.080.* Available at: <http://escholarship.org/uc/item/9dq6p2j7>.
- J. Feng, S. Schiavon, F. Bauman, Cooling load differences between radiant and air systems, *Energy and Buildings, 65 (2013) 310-321.* Available at <http://escholarship.org/uc/item/7jh6m9sx>
- J. Feng, F. Bauman, S. Schiavon. Critical review of water based radiant cooling system design methods. In: *Proceedings of IndoorAir 2014, Hong Kong, 2014.* Available at: <http://escholarship.org/uc/item/2s00x6ns>
- J. Feng, S. Schiavon, F. Bauman, Impact of solar heat gain on radiant floor cooling system design, in: *Proceedings of the 11th REHVA World Congress-CLIMA 2013, (2013), Prague, Czech Republic, 2013.* Available at: <http://escholarship.org/uc/item/2913930b>



REPRESENTATIVE PROJECTS

455 County Center	Redwood City, CA, 116,000 ft ² , TI HVAC design and Cx
North First Street Assembly	San Jose, CA, 290,000 ft ² , Title 24 modeling
Smith College chilled water plant	Northampton, MA, Control optimization and Cx
Oceanwide Tower	San Francisco, CA, 2,100,000 ft ² , Title 24 modeling
100 California	San Francisco, CA, 288,000 ft ² , HVAC and control retrofit
Wright Institute	Berkeley, CA, 15,000 ft ² , HVAC design and Cx
Occidental College Norris Chemistry	Los Angeles, CA, 38,000 ft ² , Laboratory retrofit
SDSU Aztec Student Unit	San Diego, CA, 175,000 ft ² , Cx and Re-Cx
Center Street Parking Structure	Berkeley, CA, HVAC design and Cx
Pathline Park Parking Structure	Sunnyvale, CA, Plumbing design

Research Projects:

EPIC Optimizing Radiant Systems for Energy Efficiency and Comfort-Design Stage Cost Comparison Between Radiant and VAV System