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PUBLICATIONS

- “The ASHRAE Environmental Tobacco Smoke Design Guide”.
Submitted for presentation at an ASHRAE Annual or Winter Meeting and publication in *ASHRAE Transactions*, in review, August 2005.
- “Natural Ventilation as Air-Conditioning in Various U.S. Climates: Cases and Findings,” with Ming Chiang. Submitted for presentation at an ASHRAE Annual or Winter Meeting and publication in *ASHRAE Transactions*, in revision, September 2004.
- “Natural Ventilation as Air-Conditioning in Various U.S. Climates: Background and Method,” with Ming Chiang. Submitted for presentation at an ASHRAE Annual or Winter Meeting and publication in *ASHRAE Transactions*, in revision, September 2004.
- “ASHRAE Headquarters Building Example,” a new 3000+ word addition submitted for the Ventilation and Infiltration chapter of the *ASHRAE Handbook*, August 2004, in review. This example was the vanguard of a Society-wide initiative.
- “A User-Friendly Model and Coefficients for Slab-on-Grade Load and Energy Calculations.” Presented at the 2005 ASHRAE Annual Meeting and to be published in *ASHRAE Transactions*.
- “Authors and Revisers Guide,” *ASHRAE Handbook*. A major revision of this fundamental ASHRAE document; July 2003.
- “Room Air Distribution Equipment,” *Chapter 17 of the 2004 Systems & Equipment volume of the ASHRAE Handbook*. Substantial revisions made, July 2004.
- “Sensitivity Study of Slab-on-Grade Transient Heat Transfer Model Parameters”. *ASHRAE Transactions*, vol. 100(1), pp. 177-184, 2004.
- "Development of a Room Air Diffusion Design Guide (RP-1065)," with Dandan Zhu. *ASHRAE Transactions*, Vol. 108(1), pp. 77-85, 2002.
- "Ventilation and Infiltration," *Chapter 26 of the 2001 Fundamentals volume of the ASHRAE Handbook*. Relatively minor revisions of Ch. 25 of the 1997 Fundamentals, July 2001.
- "Slab-on-Grade Heating Load Factors for Wood-Framed Buildings," with Lilia Ochs. *Energy and Buildings*, Vol. 33/8, pp. 759-768, Sept. 2001.
- "Placement of Ventilation Air Intakes for Improved IAQ (RP-806)," with Kelly A. Moylan. *ASHRAE Transactions*, Vol. 105(1), pp. 71-79, 1999.
- "A Designer's Guide to Placement of Ventilation Air Intake Louvers," with Kelly A. Moylan. Prepared for ASHRAE, February 1998.
- "Performance of Fixed, Air-Side Economizer, and Neural-Network Demand Control Ventilation in CAV Systems," with Chung-Tai Wu. *ASHRAE Transactions*, Vol. 104(2), pp. 234-245, 1998.

- "Impact of Daylight Saving Time on Residential Energy Consumption and Cost." *Energy and Buildings*, Vol. 25, Issue 1, pp. 63-68, 1997.
- "Ventilation and Infiltration," *Chapter 25 of the 1997 Fundamentals volume of the ASHRAE Handbook*. A major revision of Ch. 23 of the 1993 Fundamentals, May 1997.
- "A Sensitivity Study of Floor and Ceiling Plenum Energy Model Parameters (RP-787)," with Don Wolfe. *ASHRAE Transactions*, Vol. 103(1), pp. 16-30, 1997.
- "Post-Occupancy Indoor Environmental Quality Evaluation of an Institutional Building," with Craig A. Hillman. *The ASCE Journal of Architectural Engineering*, Vol. 2, No. 3, pp. 88-94, Sept. 1996.
- "Toward a Simplified Design Method for Determining the Air Change Effectiveness," with Michael J. Brandemuehl and Ren S. Anderson. *ASHRAE Transactions*, Vol. 100, Part 1, pp. 217-227, 1995. A revised version of an NREL paper.
- "Hands-on Energy Audit Experience for Engineering Students," with M. Clay Belcher. *1994 Midwest Section ASEE Meeting Proceedings*.
- "Survey of Heating, Ventilation, and Air-Conditioning Education in Various Countries," with Branislav Todorovic. *Proceedings of the 1993 REHVA Assembly*, London.
- "Tobacco Smoking Policy and Indoor Air Quality: A Case Study," with M. Jadud. *Energy and Buildings*, Vol. 20, No. 2, pp. 143-150, 1993.
- "Influence of Plate Absorber Gaps on the Interception of Direct Beam Radiation," with Fu Yu. *International Communications in Heat and Mass Transfer*, Vol. 20, No. 2, pp. 235-243, 1993.
- "Simplified Air Change Effectiveness Modeling," with Ren Anderson and Michael J. Brandemuehl. *NREL Technical Paper 432-4737*, June 1992.
- "Characterization of Transient Pollutant Transport, Dilution, and Removal *University of Colorado at Boulder*, May 1992.
- "Transfer Efficiency Measures for the Study of Indoor Air Quality," with Michael J. Brandemuehl and Ren Anderson. *ASHRAE Transactions*, Vol. 96, Part 2, pp. 140-147, 1992.
- "Modeling of Ventilation System Performance Using Laplace Transform Techniques; Part 1: Method," with Ren Anderson and Michael J. Brandemuehl. *ASHRAE/CIB Healthy Buildings -- IAQ '91 Conference Proceedings*, pp. 241-244, 1991.
- "Modeling of Ventilation System Performance Using Laplace Transform Techniques; Part 2: Applications," with Ren Anderson and Michael J. Brandemuehl. *ASHRAE/CIB Healthy Buildings -- IAQ '91 Conference Proceedings*, pp. 245-248, 1991.
- "Use of Laplace Transforms and Block Diagrams for Indoor Air Quality Problems with Perfectly Mixed Zones," with Ren Anderson. *Int. Comm. in Heat and Mass Transfer*, Vol. 17, No. 6, pp. 771-780, 1990.

BOOKS

Environmental Tobacco Smoke Design Guide. For ASHRAE; V4.1 of the manuscript approved for publication in June 2005.

Designer's Guide to Ceiling-Based Air Diffusion, with Dandan Zhu.
Published by ASHRAE, ISBN 1-931862-11-7, 2002.

Introduction to HVAC Engineering. 408 page draft manuscript prepared and submitted to publishers; was accepted by one, but was not pursued by the author due to growing ASHRAE time commitments.

ARTICLES

"Architectural Engineering," for use in various College Board books and other publications. Known to appear in at least the *Book of Majors*, first edition, the College Board, 2005, ISBN 0-87447-701-8.

"Improved Design Techniques for Providing Proper Indoor Air Quality," *NSAE Times*, Spring 1996.

"Why You Should Start an Architectural Engineering Program," *The Connector*, Spring 1996.

"University of Kansas Focus on Architectural Acoustics," with R. Coffeen, *R. B. Newman Newsletter*, 1996.

COURSES TAUGHT

At the University of Kansas:

ARCE 103, Introduction to Architectural Engineering

ARCE 357, Engineering Economics

ARCE 561, Principles of Building Mechanical Systems

ARCE 660, Building Thermal Science

ARCE 661, HVAC&R Systems Design

ARCE 662, Building Mechanical Systems (now 660 & 661)

ARCE 664, Fire Protection Engineering

ARCE 665, Solar Energy Systems Design

ARCE 680, Architectural Engineering Design I (capstone course)

ARCE 681, Architectural Engineering Design II (capstone course)

ARCE 690, Fire Protection Engineering (now 664)

ARCE 760, Automatic Controls for Building Mechanical Systems

ARCE 764, Advanced Thermal Analysis of Buildings

ARCE 895, Master's Report

ARCE 899, Master's Thesis

At the University of Colorado at Boulder:

AREN 4050, Environmental Systems I

AREN 4060, Environmental Systems II