

Cheng-Xian Lin

Name and academic rank:

Cheng-Xian Lin, Associate Professor

Degrees with fields, institution, and date:

Ph.D. Mechanical Engineering, Chongqing University, PRC, 1992

M.S. Mechanical Engineering, Southwest Jiaotong University, PRC, 1988

M.S. Mechanical Engineering, Shandong University, PRC, 1985

Number of years service of this faculty, date of original appointments, and dates of advancement in rank:

5 years

Associate Professor, Department of Mechanical and Materials Engineering, Florida International University, Miami, FL, 2011-present

Research Associate Professor, Department of Mechanical and Materials Engineering, Florida International University, Miami, FL, 2004-2006

Other related experience:

Associate Professor, Department of Mechanical, Aerospace, and Biomedical Engineering, the University of Tennessee, Knoxville, TN, 2006-2011

Associate Director, UTK CFD Laboratory, the University of Tennessee, Knoxville, TN, 2007-2011

Summer Faculty Fellow, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH, 2007-2008

Program Manager, Applied Research Center (Previously HCET), Florida International University, Miami, FL, 1996-2006

Research Scientist, Department of Mechanical Engineering, Florida International University, Miami, FL, 1995-1996

Postdoctoral Research Fellow, Institute of Engineering Thermophysics, Chinese Academy of Sciences, 1992-1995

Consulting, patents, etc.: n/a**State in which registered: n/a****Principal publications (Last five years):**

K. Moradi, M.A. Ebadian, and C.X. Lin, A Review of PV/T Technologies: Effects of Control Parameters, Int. J. Heat Mass Transfer, vol. 64, pp. 483-500, 2013.

M. Schafer, R. Detzer, J. Hesselbach, S. Bohm, P. Shinde, and C.X. Lin, CO₂ and Thermal Gradient Based Demand-driven Stratified Ventilation-Experimental and Simulation Study, HVAC&R Research, Vol. 19, No. 6, pp. 676-692, 2013.

X. Wang, X. Wang, G. Xing, and C.X. Lin, Maximizing the Detection Probability of Overheating Server Components with Sensor Placement Based on Thermal Dynamics, Sustainable Computing: Informatics and Systems, Vol. 3, No. 3, pp. 148-160, 2013.

C.X. Lin and L. Phan, A Numerical Study of Both Internal and External Two-Phase Flows of a Rotating Disk Atomizer, Drying Technology, Vol. 31, No. 5, pp. 605-613, 2013.

C.X. Lin, D. Wang, and A. Bao, Numerical Modeling and Simulation of Condensation Heat Transfer of a Flue Gas in a Bundle of Transport Membrane Tubes, Int. J. Heat Mass Transfer, Vol. 60, pp. 41-50, 2013.

X. Wang, X. Wang, G. Xing, J. Chen, C.X. Lin, and Y. Chen, Intelligent Sensor Placement for Hot Server Detection in Data Centers, IEEE Transactions on Parallel and Distributed Systems, Vol. 24, No. 8, pp. 1577-1588, 2013.

M.A. Ebadian and C.X. Lin, A Review of High Heat-Flux Heat Removal Technologies, J. Heat Transfer, Vol. 133, No.11, 110801 (11 pages), 2011.

A.J. Baker, C.X. Lin, J.A. Orzechowski, and C. Gordon, Fully Coupled 3-D Conjugate Heat Transfer Algorithm for Borehole Heat Exchanger Performance Prediction, Numerical Heat Transfer, Part B: Fundamentals, Vol. 60, No. 3, pp. 147-167, 2011.

C.X. Lin, R.J. Holder, B. Sekar, J. Zelina, M. D. Polanka, H.J. Thornburg, and A.M. Briones, Heat Release in Turbine Cooling II: Numerical Details of Secondary Combustion Surrounding Shaped Holes, J. Propulsion and Power, Vol. 27, No.2, pp.269-281, 2011.

S. Zhang and C.X. Lin, Application of Lattice Boltzmann Method in Indoor Air Flow Simulation, HVAC&R Research, Vol. 16, No. 6, pp. 825-841, 2010.

C.X. Lin and R.J. Holder, Reacting Turbulent Flow and Thermal Field in a Channel with Inclined Bluff Body Flame Holders, J. Heat Transfer, Vol. 132, No. 9, 091203 (11 pages), 2010.

C.X. Lin, M. Sekachev, Z. Hu, and D. Dareing, A Computational DFT Analysis of OH Chemisorption on Catalytic Pt(111) Nanoparticles, J. Nanoparticle Research, Vol. 12, No.3, pp.865-876, 2010.

Memberships in scientific and professional societies:

Senior Member, the American Institute of Aeronautics and Astronautics (AIAA), 1996-present.

Member, the American Society of Mechanical Engineers (ASME), 1996-present.

Member, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), 2006-present.

Member, the International Ground Source Heat Pump Association (IGSHPA), 2011-present.

Member, the American Society for Engineering Education (ASEE), 2006-present.

Honors and awards:

Outstanding Reviewer Award, HTD, ASME, 2011.

ASEE-Air Force Summer Faculty Fellowship, Air Force Research Laboratory, Wright-Paterson Air Force Base, OH, 2007 and 2008.

Program Development Award, Hemispheric Center for Environmental Technology (HCET), Florida International University, Miami, FL, 2000.

Certificate of Recognition, Florida Georgia Louis Stokes Alliance for Minority Participation (FGLSAMP), 1999.

Listed in Who's Who in Science and Engineering, 1998-present; Who's Who in America, 2007-present; Who's Who in the World, 2008-present.

Award of Excellent Academic Paper for Young Scientists (AEAP), Institute of Engineering Thermophysics, Chinese Academy of Sciences, 1993.

Institutional and professional services (Last five years):

Committee Member, University Graduate Council, Florida International University, 2013-2014.

Co-Director, Undergraduate Program, Department of Mechanical and Material Engineering, Florida International University, 2012-present.

Vice Chair, ABET Committee, Department of Mechanical and Material Engineering, Florida International University, 2012-present.

Committee Member, Faculty Screen and Search Committee, Department of Mechanical and Material Engineering, Florida International University, 2011-2012 (Faculty).

Chair, K-19 Environmental Heat Transfer, HTD, ASME, 2013-present.

Chair, Membership Subcommittee, TC 4.10 Indoor Environmental Modeling, ASHRAE, 2013 – present.

Associate Editor, Heat Transfer Research, 2003 – present.

Editorial Board Member, International Journal on Heat and Mass Transfer – Theory and Applications, 2003 – present.

Editorial Board Member, Advances in Mechanical Engineering, 2008-present.

Editorial Board Member, Journal of Combustion, 2012-present.

Editorial Board Member, Journal of Renewable Energy, 2012-present.

Honorary Editorial Board Member, Advances in Theoretical and Applied Mechanics, 2013-present.

Associate Editor-in-Chief, International Journal of Engineering, 2009-present.

Professional Development Activities (Last five years):

Attended training on Advanced HVAC Simulation with EnergyPlus, IBPSA-USA, July 31, 2012.

Attended the Princeton-CEFRC Summer School on Combustion, Princeton University, NJ, June 26 – July 1, 2011.