

Kwang J. (Jin) Kim, Ph.D., ASME Fellow

Professor and Chair of Mechanical Engineering Department

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Areas of Technical Expertise: "Energy Systems" and Active Materials/Sensors"

(A) Professional Experience:

July 2007-present	Chair, Mechanical Engineering Department, University of Nevada, Reno, NV
July 2007-present	Professor, Mechanical Engineering Department, University of Nevada, Reno, NV
March 2007-June 2007	Interim Chair, Mechanical Engineering Department, University of Nevada, Reno, NV
July 2002-February 2007	Director, Graduate Program, Mechanical Engineering Department, University of Nevada, Reno, NV
July 2002-June 2007	Associate Professor, Mechanical Engineering Department, University of Nevada, Reno, NV
Aug. 2004-Dec. 2006	Graduate Faculty, Biomedical Engineering Program, University of Nevada, Reno, NV
July 2001-June 2002	Assistant Professor, Mechanical Engineering Department, the University of Nevada, Reno, NV
Dec. 2001-August 2004	Interim Director, Nevada Ventures Nanoscience Program, University of Nevada, Reno, NV
July 1997-June 2001	Chief Scientist, Environmental Robots, Inc., Albuquerque, NM
July 1996-June 2001	Adjunct Professor, Department of Mechanical Engineering and Artificial Muscle Research Institute, School of Medicine and School of Engineering, The University of New Mexico, Albuquerque, NM
May 1995-June 1997	Senior Research Engineer, Thermal Electric Devices, Inc., Albuquerque, NM
March 1993-April 1995	Postdoctoral Faculty Associate, Mechanical Engineering Department, University of Maryland, College Park, MD
Sept. 1989-Mar. 1993:	Research Associate, Department of Mechanical Engineering & Center for Energy Systems Research (CESR), College of Engineering, Arizona State University, Tempe, AZ.

(B) Professional Preparation:

B.E., 1987	Yonsei University, Seoul, S. Korea (Chemical Engineering)
M.S., 1989	Arizona State University, Tempe, AZ (Chemical Engineering)
Ph.D., 1992	Arizona State University, Tempe, AZ (Chemical Engineering)
Post Doc., 1993-1995	University of Maryland, College Park, MD (Mechanical Engineering)

(C) Graduate Advisors and Postdoctoral Mentor:

Ph.D. Advisors:	Drs. Neil S. Berman and Byard D. Wood (Co-Advisor), Arizona State University
M.S. Advisor:	Dr. Neil S. Berman, Arizona State University
PostDoc Mentor:	Dr. Keith Herold, Univ. of Maryland-College Park

(D) Publications: over 230 publications

104 refereed journal papers, 117 conf. papers, 3 books (1 pending), 15 book chapters/ed. volumes, 3 U.S. patents (1 pending)

(E) Awards and Honors:

Fellow, American Society of Mechanical Engineers (ASME) (elected in 2007)

The "*Lemelson*" Award for Innovation and Entrepreneur in Teaching and Research, COE/Univ. of Nevada, Reno (2006)

"*Yang-Song*" Poster Award, Spring 2005 Korea Ceramic Society Conf. (D.Y. Lee, M.H. Lee, K. J. Kim, S.J. Lee, 2005)

International Research Fellow, Artificial Muscle Research Center, Konkuk University, S. Korea (2004-2006)

Ralph E. Powe Junior Faculty Enhancement Award, Oak Ridge Associated Universities (2002)

The Best Paper Award, ASME International, AES/HPD (w/ G. Lloyd, A. Razani, K. Kim, and T. Feldman, 1997)

(F) Teaching Portfolios:

Undergraduate: Heat Transfer, Manufacturing Processes, Thermodynamics-I, Thermodynamics-II, Mechanical Eng. Laboratory

Graduate: Advanced Thermodynamics, Refrigeration, Active Materials and Devices, Small Systems

(G) Research Support:

After joining UNR in July 2001: about \$8M as the PI and Co-PI

Sponsors: National Science Foundation, Office of Naval Research, DOE/National Renewable Energy Laboratory, DOE/NN-22, DOE/National Energy Technology Laboratory, NASA/Johnson Space Center, NASA/Space Grants, Regional Transportation Commission, NIST, U.S. Army, U.S. Air Force, U.S. Missile Defense Agency, and private industries

(H) Graduate Students and Research Advisees: over 50 advisees last 8 years

Currently 5 PhD, 2 MS, 3 postdoc., 2 visiting scholars, and 1 undergraduate researcher

(I) University/College Committee/Activities:

Chair, a new building committee, 2009-present
Member, UNR lab safety committee, 2009-present
Member, UNR conflict of interest committee, 2009-present
Member, Tech Transfer Office review committee, 2008-present
Member, research committee, Faculty Senate, 2008-present

Interim Director, NV Ventures Nanoscience Prog., 2001-2004
Member, search committee, the director of SPO, 2002
Member, energy and environment committee, 2003-2005
Reviewer, junior faculty research award committee, 2004-2005

(J) Department Committees:

Member, faculty search committee, 2006, 2007, 2008
Chair, graduate program committee, 2002-2007

Member, development technician search committee, 2006

(K) State-Level Committees/Boards:

Member, Nevada Southwest Energy Program Board (<http://energy.state.nv.us/inside/nswep.htm>), 2003-2007

(L) Professional Conference/Society Activities:

Technical and organizing committees:

Member, international advisory committee, Int. Conf. on Solid State Hydrogen Storage, Hyderabad, India (2005)
Member, technical committee, International Absorption Heat Pump Conference(s), (2006-present)
Member, technical program committee, the SPIE SMS Conference on Electroactive Polymer (2004-present)
Member, technical program committee, the SPIE SMS Conference on Behavior/Mechanics of MMC III (2007-present)
Member, technical/organizing committee, Biomimetics, Artificial Muscles & Nano-Bio (2002-present)
Member, organizing committee/Mining Smartness from Nature, CIMTEC (2007-2008)
Member, organizing committee, ASME, Smart Materials, Adaptive Structures and Intelligent Systems/Multifunctional Materials Symposium (2007-present)
Co-Chair, Electromechanics of Ionic Polymer Metal Composites (IPMCs) Symposium, USNCTAM 2010

Tutorial organizer and instructor:

"Electroactive Polymers for Use in Robotics," IROS 2004, Sendai, Japan, September 2004 (with S. Tadokoro and W. Yim)
"Electroactive Polymers for Use in Robotics," IROS 2006, Beijing, China, October 2006 (with H.R. Choi and M. Yamakita)

(M) Editorships:

Guest editor

Special Issue (w. Lyle Isaacs) on "Molecular Biomimetics and Materials Design," *Int. J. Materials Science* (2010)
A special issue (w. M. Shahinpoor) on "Biomimetic Actuators, Sensors and Devices," *J. of Intelligent Material Systems and Structures* (2007)
A special issue (w. Y. Bar-Cohen, H.R. Choi, and J. Madden) on "Electroactive Polymers," *Smart Materials and Structures* (2007)
Executive editor, *International Journal of Environmentally Conscious Design and Manufacturing*, 2000-2004
Member, editorial board, *Smart Materials, Structures and Systems* (Book Series), ARTECH HOUSE, 2008-present

(N) Proposal Review:

National Science Foundation; U.S. Civilian Research & Development Foundation; California Energy Commission, Department of Energy, NASA, KORUS

(O) Journal Review (Frequent):

For energy systems:

International Journal of Hydrogen Energy; Journal of Thermophysics and Heat Transfer; International Journal of Refrigeration; International Journal of Heat and Mass Transfer

For active materials/sensors:

Sensors and Actuators: A. Physical; Journal of Intelligent Materials Systems and Structures; Smart Materials and Structures; Journal of Applied Physics; Electrochemical ACTA; Journal of Chemical Engineering Data, Mechanics of Materials

(P) Invited Talks: over 30 times

Recent talks:

5th World Cong. Biomimetics & Artificial Muscles (Nov 2009)
Alfred University (Sept. 2009)
Int. Symp. on Nature-Inspired Technology (June 2009)
2nd Int Conf on Smart Materials and Nanotech (July 2009)
MRS Fall (Dec. 2008)
SAMPE (Sept 2008, Featured Lecture)
FM2008 (Oct. 2008, Keynote)
CIMTEC 2008 (June 2008)
SMSST'07, China (June 2007, Keynote)

Michigan State University (September 2006)
3rd World Cong. Biomimetics & Artificial Muscles (May 2006)
University of Nevada, Las Vegas (Feb 2006)
SPIE Smart Materials and Structures (March 2005)
ASME Nanomechanics Conference (June 2004)
Fall MRS Symposium (Dec. 2003)
3rd World Cong. Biomimetics & Artificial Muscles (Dec. 2004)
Hydrocolloquium Series, Navy (NSWC) (July 2003)