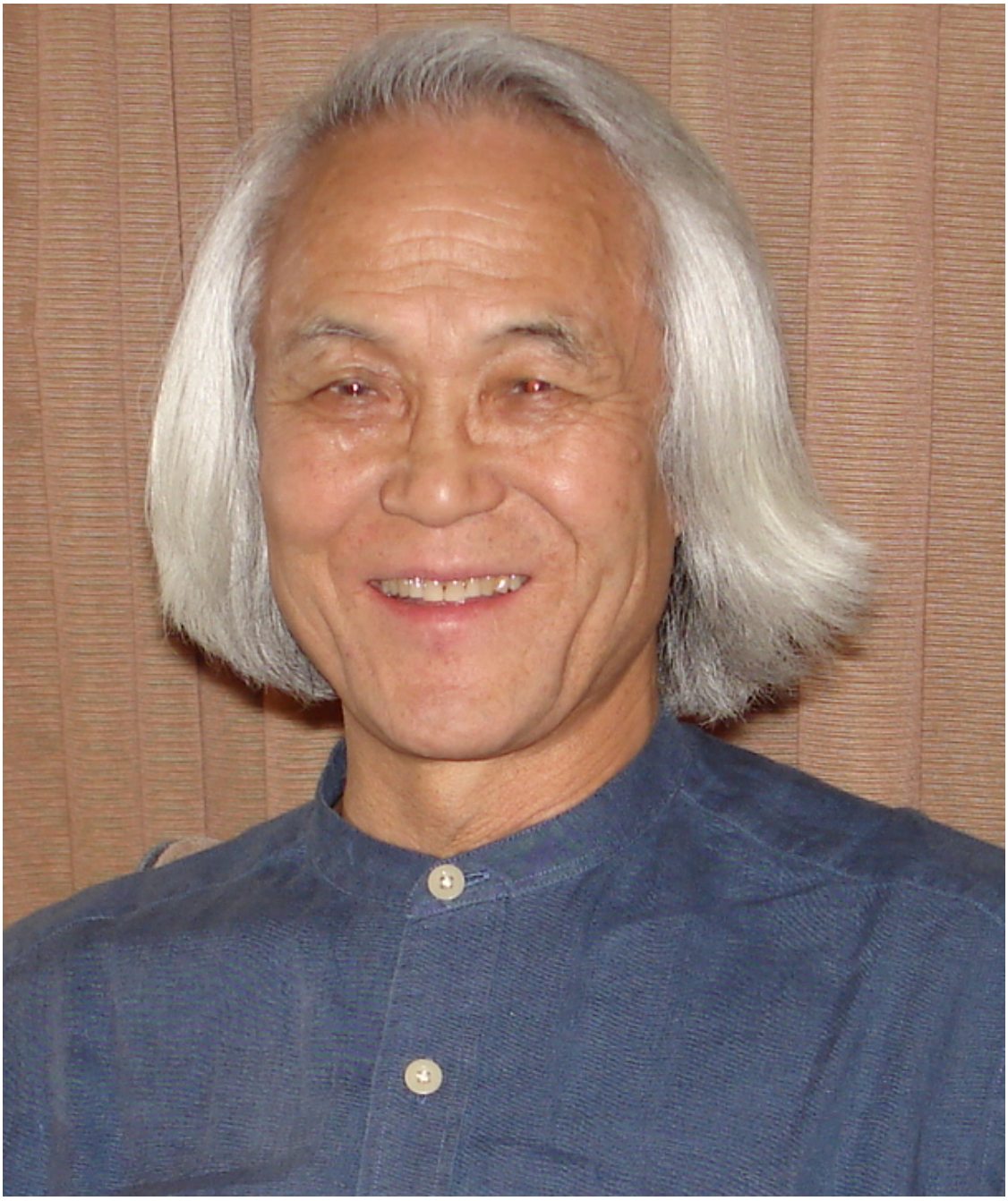

Professor K. C. Park

See:
http://www.colorado.edu/aerospace/park_kc.html
http://www.colorado.edu/engineering/CAS/KCPark.d/KCParkHome.d/KCPark.html
http://www.worldcat.org/identities/lccn-n78-83617
http://www.journalogy.net/Author/12600852/kyu-cheol-park

Department of Aerospace Engineering Sciences
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Focus Area: Structural & Material Systems

Education:
Ph.D., Applied Mechanics and System Analysis, Clarkson College, 1974
M.S., Controls, Stanford University, 1970
BSME, Inha Institute of Technology, Inchon, Korea, 1966

Professional Experience:
1987-present, Professor, Aerospace Engineering Sciences, University of Colorado
1987-1996, Director, Center for Aerospace Structures, University of Colorado
1974-1985, Senior Staff Scientist, Lockheed Palo Alto Research Laboratory
1979-1980, Visiting Scientist, NASA/Langley Research Center
1992-1993, Visiting Professor, MIT; Institute of Space and Astronautical Science, Japan;
1998-present, Visiting Professor, Conservatoire des Arts et metiers, Paris, France.
1999-2000, Visiting Professor, MIT, Department of Aeronautics and Astronautics.
2003-present, Visiting Professor, Korean Advanced Institute of Science and Technology, Department of Mechanical Engineering, Daejeon, South Korea.

Research Interests: Dynamics, computational algorithms, mutiphysics modeling, contact problems, MEMS/microsystems.

Professional Activities:
Fellow, American Society of Mechanical Engineers, Committee on Computing in Applied Mechanics (1976-present), Adaptive Structures and Materials Committee (1991-present).
Technical Program Chairman, 1990 AIAA Dynamics Specialist Conference
Member, NASA/OAST Space Systems and Technology Advisory Committee (1985–1993)
Editorial Board, Communications in Applied Numerical Methods (1980-2004).
Editorial Board, Int'l Journal of Numerical Methods in Engineering (1978-present)
Editorial Board, Computers & Structures: An International Journal (1998-2004)
Editorial Board, International Journal of Computational Engineering Science (IJCES) (1996-2003)
Editorial Board, Computer Methods in Engineering Sciences (CMES) (1996-2002)

Current Research Activities:
1. Computational multiphysics: Modeling and algorithms development for high-fidelity simulation of structure-medium interaction problems, interface characterization issues, and elasto-electro-acoustic problems. It is being sponsored by NSF, NASA, DOE, and CNAM (France).
2. Design of membrnanous structures: This research is aimed at designing membranes free of wrinkles for space applications. It is being supported by NASA in collaboration with University of Cambridge (U.K.) and ISAS (Japan).
3. Mechanical characterization of microelectro-mechanical systems (MEMS): Characterization of mechanical elements used in MEMS is the objective of this relatively new research thrust. At present, energy loss mechanisms in integrated MEMS devices such as switches, gyroscopes and resonators are the main thrusts. It is being supported by Coventor, Raychem, and Sandia National National Laboratories.
4. Contact-impact problems for heterogeneous systems: Accurate computations of impact-contact forces are the main focus of this research when the impacting structures are highly heterogeneous, being sponsored by Lawrence

Livermore National Laboratory.
5. Structural system identification: This project involves the development of theory for system theory-based construction of structural models from experiments, the objective extraction of normal modes and mode shapes, non-proportional damping coefficients, and correlations with the finite element models for simultaneous design of structures for acoustics or controls. It is being sponsored by Sandia National Laboratory and Shimizu Corp (Japan).

Consulting Activities:

1994–present: Sandia National Laboratories, Alburquerque, NM on pyroshock techniques for satellite separation from the launcher and GM engine mount design.
1985–1994: Lockheed Missiles and Space Co., Inc., Palo Alto, Ca. on shell structural analysis by finite element methods and structural acoustics.
1993–present: Avery Corp., Cleveland, OH on control of emulsion and drying processes for paper products.
1992–1994: Samsung Aerospace Co., Seoul, Korea on satellite business development and technology assessment of military fighter jet airplanes.
1986–1994: Jet Propulsion Laboratory, California Institute of Technology, Pasadena, Ca. on dynamics of large space structures.
1990–1993: Charles Draper Laboratories, Cambridge, Ma. on real-time simulation of space station attitude keeping and space robots.
1991–1994: Laboratorie de Mechanique et Technologie, Ecole Normale Supérieure de Cachan, Paris, France on parallel computations and transient nonlinear analysis techniques.

Books Edited:

Computational Techniques for Interface Problems(with D. K. Gartling), ASME Applied Mechanics Symposia, vol.29, 1978, ASME, New York.
Computer Analysis of Large Scale Structures(with R. Jones), ASME Applied Mechanics Symposia Series, AMD-Vol.49, ASME, New York, 1981.
Innovative Methods for Nonlinear Problems(with W. K. Liu and T. Belytschko), Pineridge Press, Swansea, U. K., 1984.

Publications: A list of 216 publications can be found on the website: www.colorado.edu/aerospace/park_kc.html .