

## HONGBING LU

Associate Professor  
School of Mechanical and Aerospace Engineering  
Oklahoma State University  
Stillwater, OK74078

Phone: (405) 744-5900  
FAX: (405) 744-7873  
Email: hongbin@ceat.okstate.edu

### ACADEMIC BACKGROUND

- Ph.D. Aeronautics, California Institute of Technology, April 1997  
Thesis Research: Non-linear thermo-mechanical behavior of polymers  
Thesis advisor: Dr. W.G. Knauss
- M.S. Solid Mechanics, Tsinghua University, China, 1988
- B.S. Engineering Mechanics, Huazhong University of Science and Technology, China, 1986

### APPOINTMENTS

#### **Oklahoma State University, August 1996—Present**

Associate Professor (July 2001-Present), Assistant Professor (August 1996-July 2001)

#### **The Highway Design Institute of Guangdong Province, China, Dec. 1988—August 1991.**

Design Engineer

### SELECTED PUBLICATIONS

- “Measurement of Creep Compliance of Solid Polymers by Nanoindentation,” H. Lu, B. Wang, J. Ma, G. Huang and H. Viswanathan, to appear in *Mechanics of Time-Dependent Materials*, 2003
- “Deformation Measurements by Digital Image Correlation: Implementation of Second Order Deformation Gradient.” H. Lu and P.D. Cary, **40** (4), 393-400. *Experimental Mechanics*, 2000
- “Surface Deformation Measurements of a Cylindrical Specimen by Digital Image Correlation,” H. Lu, G. Vendroux and W.G. Knauss, *Experimental Mechanics*, **37**(4), 433-439, 1997
- “Modeling Nonlinear Behavior in a Piezoelectric Actuator, ” H. Richter, E. Misawa, D. Lucca and H. Lu, *Precision Engineering*, **25**, 128-137, 2000
- “A Damage Model for the Fatigue Life of Elastomeric Materials,” B. Wang, H. Lu and G. Kim, *Mechanics of Materials*, **34**(8), 475-483, 2002
- “Modeling of Constitutive Behavior for Epon 828/T-403 at High Strain Rates,” H. Lu, G. Tan and W. Chen, *Mechanics of Time-Dependent Materials*, **5**(2), 119-130 2001
- “Accelerated Life Prediction and Testing of Structural Polymers under Cyclic Loading,” H. Lu, B. Wang, G. Tan and W. Chen, *Long Term Durability of Structural Materials*, Edited by P.J.M. Monteiro, K.P. Chong, J. Larsen-Basse and K. Kompoulos, Elsevier, 2001
- “Strength of Damaged Polycarbonate after Fatigue,” B. Wang, H. Lu, G. Tan and W. Chen, *Theoretical and Applied Fracture Mechanics*, **39**(2), pp. 163-169, 2003
- “The Role of Dilatation in the Nonlinearly Viscoelastic Behavior of PMMA under Multiaxial Stress States, ” H. Lu and W.G. Knauss, *Mechanics of Time Dependent Materials*, **2**(4), 307-334, 1999
- “Uniaxial, Shear and Poisson Relaxation and their Conversion to Bulk Relaxation: A Study on Poly(Methyl Methacrylate),” H. Lu, X. Zhang and W.G. Knauss, *Polymer Engineering and Science*, **37**(6), 1053-1064, 1997

## **PROFESSIONAL ASSOCIATIONS**

- Society of Experimental Mechanics, Chair of the Division of Time-Dependent Materials (TDM), 6/1999-6/2003; Vice-Chair (TDM), 6/1998-6/1999; Secretary (TDM), 6/1997-6/1998.
- Sigma Xi Research Society
- American Society of Mechanical Engineers (ASME), Currently the faculty advisor of ASME Student Section in the School of Mechanical and Aerospace Engineering.
- American Institute of Aeronautics and Astronautics (AIAA)

## **FELLOWSHIPS AND AWARDS**

2001, Haliburton Outstanding Young Faculty Award, Oklahoma State University  
2000, NSF Career Award  
1998, 1999, 2000, 3M Non-Tenured Faculty Award  
1993, 1995, Li Ming Scholarship Award (Caltech)  
1991, Charles Lee Powell Foundation Graduate Fellowship (Caltech)

## **MAJOR AREAS OF INTEREST**

- Thermo-mechanical Behavior, fracture and fatigue of polymers and their composites
- Film and sheet cutting processes
- Experimental stress analysis

## **FORMER STUDENTS (Among 9 M.S., 1 Ph.D.)**

Paul D. Cary (M.S., Cessna Aircraft)  
Javed Iqbal (M.S., Ford Motor)  
Balaji Ganesan (M.S., LSI Logic)  
Gyu-ho Kim (Ph.D., Air Force of Korea)

Santosh Menon (M.S., Fuji Film)  
Justin Patterson (M.S., Boeing)  
Guixiang Tan (M.S., Intel)