

Gang (Gary) Qi, PhD  
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#### **EDUCATION**

PhD in mechanical Engineering: Texas Tech University, Lubbock, TX, 1996;  
MS in mathematics: West Texas A&M University, Canyon, TX, 1993;  
MS in Bioenvironmental engineering: China Agricultural University, 1987;  
BSc in Mechanical engineering: Inner Mongolia University of Technology, 1982.

#### **PROFESSIONAL POSITIONS**

Full/Associate/Assistant Professor, 98 – present, the Department of Mechanical Engineering, University of Memphis;  
and Adjunct positions of the Department of Biomedical Engineering, Memphis Joint Graduate Program in  
Biomedical Engineering, The University of Memphis and University of Tennessee Health Science Center, Memphis,  
TN. Director of Material Reliability Lab (06 – present).  
Endowed Visiting Chair professorship, Tianjin University of Science and Technology, Tianjin, China, 2011 - 2015  
Stress/Design Engineer, Weber Aircraft, Gainesville, TX (96 – 98).  
Associate Director, Natural Energy Institute, Inner Mongolia University of Technology, China (89 – 91);  
Lecturer - Assistant Professor, Power Engineering Department, Inner Mongolia University of Technology, China (87  
– 91).

#### **REWARDS, HONORS, REVIEWERS, AND VARIOUS ACADEMIC ACTIVITIES**

Endowed Ring professorship (2010-2013);  
Herff Outstanding Faculty Research Award 08;  
Featured engineer, Memphis Area Joint Engineers Council for Excellence in Research and Service to the Engineering  
Community 05.  
Chairman/Vice Chairman/Secretary, Acoustic Emission Working Group (08 – 2015), Fellow of AEWG.  
Vice President, International Society on Acoustic Emission (2013 – present).  
Editorial Board Members of SAE Transaction Selection Committee and SAE Transactions (97 – 03); MERLOT  
Engineering Editorial Board (06 – present).  
Reviewers of Dutch Technology Foundation STW, National Institute of Standards and Technology (06 – present),  
Queensland University of Technology PhD theses; Journal of Composite Materials; Composites Science and  
Technology; International Journal of Solids and Structures, ASME Journal of Mechanical Design, ASME Journal of  
Dynamic Systems, Measurement, and Control; Medical Engineering Physics; Journal of Orthopaedic Research;  
Biomaterials, Journal of Biomedical Materials Research B, Sensor & Actuator, A Physical; Journal of  
Nondestructive Evaluation, Applied Physics Letters, etc.  
Conference organizers/session chairs: First International Symposium on Data Science and Engineering, Shenzhen,  
China 2014; World Conference on Acoustic Emission bi-annual conferences, 2011 Beijing and 2013 Shanghai;  
Acoustic Emission Working Group (AEWG) meetings and Judges of student paper competition; Chinese Society on  
Nondestructive Evaluation conferences; European Working Group on Acoustic Emission conferences; Japanese  
Society for Non-Destructive Inspection Conferences; Japan International Acoustic Emission Symposium;  
IEEE/EMBS/BMES annual conferences; ASEE conferences, etc.

#### **RESEARCH AND PUBLICATIONS**

Research project completed (PI):

- Nondestructive evaluation of spot-weld quality, MTD Products, Inc. Brownsville, TN.
- Use of the Acoustic Emission Technique to Study Cement Failure in Loaded Hip Prostheses, NIH.
- Study of the effects of velocity on the image quality of prototype kinestatic charge detector; St. Jude Children's Research Hospital.
- Micro-mechanical Failure in Total Hip Arthroplasty Investigation Using Acoustic Emission, Whitaker Foundation.
- Life Prediction of Machines by Condition Monitoring, Kellogg Corporation.
- Influence of random damage to materials addressed by an innovative concept of acoustic information entropy, University of Memphis.
- Innovative Unified Damage Mechanisms-Based Model to Predict Remaining Useful Life for Rotorcraft Structures (DoD/US Navy STTR).
- An innovative approach of multi-variate to challenge the complex interactions in hierarchical microstructures and multi- and trans-scale problems in experimental mechanics, Chinese National Natural Science Foundation.

#### Publications

Dr. Qi is first and or communication authors of over 30 peer reviewed journal articles, over 70 peer reviewed national and international conferences, and 121 technical reports prepared for FAA.

#### Invited keynote speakers/presentations

Dr. Qi has been invited as keynote speakers on a number of national and international conferences, and an invited speaker to a large number of institutions and organizations.

#### Textbook

Dr. Qi published one textbook by Delmar Learning, Thomson.

#### Patents

Dr. Qi is the inventor of 14 US and 1 Chinese patents.

### TEACHING

#### Courses taught

Materials, Statics, Mechanics of Materials, Fracture Materials, Engineering design communications (CAD), Engineering Mathematics (Linear Algebra, Numerical Analysis, Statistics, and Complex Analysis), Machine Design, Data-enabled engineering methods, in graduate and ort undergraduate levels.

#### Graduate students advising

Over the years in UM, Dr. Qi is the major advisor for 6 PhD students, 15 MS students, and served on graduate student advisory committees of 23 students from both UM and UT campus.

#### Undergraduate student advising

Dr. Qi has supervised 7 undergraduate students from both the University of Memphis and other US universities.