

H. DWAYNE JERRO, Ph.D.

Professor and Chair

Department of Mechanical Engineering

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EDUCATION

Ph.D. Mechanical Engineering, Louisiana State University, 1998

Certificate Inst. for Mechanics & Materials Summer School, Univ. California, San Diego, 1994

B.S. Mechanical Engineering, Southern University, Baton Rouge, 1991

PROFESSIONAL EXPERIENCE

8/13 – Pres Chair, Mechanical Engineering Department, Southern University

8/12 – 8/13 Interim Chair, Mechanical Engineering Department, Southern University

8/11 – Pres Professor, Mechanical Engineering Department, Southern University

8/06 – 8/11 Associate Professor, Mechanical Engineering Department, Southern University

8/02 – 5/07 Assistant Professor (Joint Faculty Appointment with Southern University), Mechanical Engineering Department, Louisiana State University (LSU)

8/02 – 8/06 Assistant Professor (Joint Faculty Appointment with LSU), Mechanical Engineering Department, Southern University

9/99 – 8/02 Assistant Professor, Mechanical Engineering, Louisiana Tech University

1/99 – 8/99 Research Assistant Professor, Center for Energy & Environ. Studies, Southern Univ.

HONORS/DISTINCTIONS

2012 – 13 Southern University - Mechanical Engineering Most Outstanding Faculty Member Award

2009 – 10 Southern University - Mechanical Engineering Outstanding Faculty Member Award

2008 – 09 Southern University - Mechanical Engineering Favorite Faculty Award

2004 Southern University STEM - Young Faculty Award (Hall of Fame Inductee)

2000 – 01 Louisiana Tech Mechanical Engineering's Golden Shaft Award

2000 Louisiana Tech Coll. of Engr. & Sci. Research Collaboration Award (Co-Recipient)

1999 Grant Parish (Louisiana) School Board Outstanding Citizen Resolution

1995 “Best Paper Award” ASME/ETCE Conference’s Materials & Design Technology Symp.

LIST OF RELATED REFEREED JOURNAL PAPERS

(1) Maharsia, R. R., **H. D. Jerro**, “Enhancing tensile strength and toughness in syntactic foams through nanoclay reinforcement,” *Material Science and Engineering A*, Vols. 454-455, pp. 416-422 (2007).

(2) Maharsia, R. R., N. Gupta, **H. D. Jerro**, “Investigation of flexural strength properties of rubber and nanoclay reinforced hybrid syntactic foams,” *Material Science and Engineering A*, Vol. 417, Issues 1-2, pp. 249-258 (2006).

(3) Gupta, N., E. Woldesenbet, and **H. D. Jerro**, “Effect of Microballoon Radius Ratio on Syntactic Foam Core Sandwich Composites,” *Journal of Sandwich Structures and Composites*, Vol. 7, No. 2, pp. 95-111 (2005).

(4) Gupta, N., R. R. Maharsia, **H. D. Jerro**, “Enhancement of Energy Absorption Characteristics of Hollow Glass Particle Filled Composites by Rubber Addition,” *Material Science and Engineering A*, Vol. 395, Issues 1-2, pp. 233-240 (2005).

LIST OF OTHER PUBLICATIONS

(5) Babu, S., N. Vellore, A. Raghavamenon, **H. D. Jerro**, S. Yang, R. Uppu, “Molecular Docking of Bisphenol A and its Nitrated and Chlorinated Metabolites Onto Estrogen-Related Receptor-Gamma,” *Free Radical Biology and Medicine*, Vol. 51, Supplement, Nov. 1, p. S141 (2011).

(6) Jana, A., K. Sekeroglu, **H. D. Jerro**, P. Mensah, S. Ibekwe, S. Kodiyalam, “ME Laboratories with Mechatronics Component,” *Proceedings of the 2011 ASEE Gulf-Southwest Annual Conference*, Session F2C-2, Houston University, Houston, Texas, March 9-11, 2011.

(7) Ji, G., Z. Ouyang, G. Li, **H. D. Jerro**, S. S. Pang, “Effect of Bondline Thickness on Interfacial Fracture of Laminated Composite Materials,” *The Proceeding of the ASME 2010 Pressure Vessel and Piping (PVP) Conference*, Paper #PVP2010-25714, Session 1.1.H, Bellevue, Washington, July 18-22, 2010.

(8) Jana, A., K. Sekeroglu, **H. D. Jerro**, P. Mensah, S. Ibekwe, S. Kodiyalam, “Enhancement of ME

Laboratories with Interdisciplinary Emerging Technologies,” *Proceedings of the 2010 ASEE Gulf-Southwest Annual Conference*, McNeese State University, LA, March 24-26, 2010.

(9) Li, X., M. A. Stubblefield, G. Li, **H. D. Jerro**, “Fusion and Visualization of 3D Image Elevation Data in Computer Automated Virtual Environment (CAVE), *Proceedings of the Earth and Space 2006: Engineering, Construction, and Operations in Challenging Environments Conference of the American Society of Civil Engineers (ASCE)*, League City / Houston, TX, March 5-8, 2006.

(10) U.S. Patent No. 5289794 – March 1994, Magnetically Aligned Transmission Shift Indicator, (**H. D. Jerro**, J. L. Kohler, S.G. Skiver, T. J. Candy, D. F. Wildfong, and M. D. Murphy)

SYNERGISTIC ACTIVITIES

(1) “*The LONI Institute: Advancing Biology, Materials, and Computational Sciences for Research, Education, and Economic Development*,” Louisiana Board of Regents, \$7,000,000, LSU PI: E. Seidel; Southern University (SU) PI: H.P. Mohamadian, SU Co-PIs: E. Khosravi, **H. D. Jerro**, Other Institutions: Louisiana Tech University, University of New Orleans, Tulane University, University of Louisiana-Lafayette, 07/01/2007 to 06/30/2014.

(2) “*The Enhancement of ME (Mechanical Engineering) Laboratories*,” Louisiana Board of Regents, \$73,387, Southern University (SU) PI: A. Jana, Co-PIs: **H. D. Jerro**, S. Ibekwe, P. Mensah, 06/01/2009 to 05/30/2012.

(3) “Smart Adhesively Bonded High-Performance Joint for Composite Structures” NASA EPSCoR/Louisiana Board of Regents, \$2,007,000, PI: J. Wefel; LSU-PI: G. Li, LSU Co-Is: S.S. Pang, M. Wahab, K. Lian; Southern University (SU)-PI: M. Stubblefield, SU Co-Is: S. Ibekwe, **H. D. Jerro**, 10/01/2007 to 09/30/2011.

(4) “*Scholarships Creating Opportunities for Retention in Engineering (SCPORE)*,” National Science Foundation, \$500,000, PI: K.E. Crosby, Co-PIs: E.R. Blevins, F. Lacy, **H. D. Jerro**, 01/15/2007 to 12/31/2010.

RECENT COLLABORATORS

Edgar Blevins, Southern University (SU); **Karen Crosby**, SU, **Ravinder Diwan**, SU; **Amitava Jana**, SU; **Samuel Ibekwe**, SU; **Guoqiang Li**, LSU/SU Joint Appointment; **Xiugang Li**, Texas Transportation Institute (Texas A&M); **Rahul Maharsia**, Flowserve Corporation; **Michael Stubblefield**, SU

GRADUATE/POSTGRADUATE ADVISORS

Dr. Su-Seng Pang, Professor, Louisiana State University (LSU); **Dr. Chihdar Yang**, Professor, Wichita State University; **Dr. George Z. Voyiadjis**, Professor, LSU

GRADUATE/POSTGRADUATE ADVISEES

Rahul Maharsia, M.S. (Louisiana Tech) & PhD. (LSU), **Alfred Maldonado**, M.S. (Louisiana Tech), **G. Garrick**, M.S. (LSU), **Gefu Ji**, M.S. (SU), **Sushma Manjunath**, M.S. (LSU); **Sreenivas Vulavala**, M.S. (LSU); **Amol Mudgundi**, M.S. (LSU); **Leela Madhav Gullapalli**, M.S. (SU); **Derrick Rhone**, M.S. Student (SU); **McKena Richardson**, M.S. Student (SU); **Jonathan James**, M.S. Student (SU); **Jason House**, M.S. Student (SU).

PROFILE AND ACTIVITIES

An energetic mechanical engineering professor possessing a passion for learning. He has expertise in the areas of mechanics, materials science, design, and control. He has worked on various projects involving composite materials and advanced alloys. High performance computing, robotics, and additive manufacturing have been the focus of his recent activities. The heart of his robotics work has been on increasing youth (K-12) interest and entry in the Science, Technology, Engineering, and Math (STEM) career fields. He has also worked with several of his students in the area of renewable (offshore wind) energy modeling. His research and educational activities have allowed collaboration with universities, private companies, and several federal governmental laboratories and agencies, such as, the National Science Foundation, NASA, National Geospatial-Intelligence Agency, Office of Naval Research, etc.

PROJECT EXPERIENCE AND INTERESTS

- Mechanics and Modeling of Composites and Materials
- Robotics & Additive Manufacturing
- Programming & High Performance Computing
- Renewable Energy (Offshore Wind) Modeling