

Luciano Guimarães Machado

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OBJECTIVES

A full-time position that will allow me to utilize my technical and interpersonal skills.

EDUCATION

Ph.D. Candidate - Aerospace Engineering 2002 - present
Texas A&M University, College Station, TX, USA
Expected graduation date: August, 2007

M.S. Mechanical Engineering 2000 - 2002
Military Institute of Engineering, Rio de Janeiro, RJ, Brazil

B.S. Industrial Engineering (emphasis in Mechanics) 1995 - 2000
Federal Center of Technological Education – Celso Suckow da Fonseca, Rio de Janeiro, RJ, Brazil

PROFESSIONAL EXPERIENCES

- Ph.D. Student / Graduate Assistant Research, *Aerospace Engineering Department, Texas A&M University* 2002 - 2006
Main Activities:
 - Conduction of a numerical and experimental investigation on the nonlinear dynamics of SMA passive vibration isolation and damping device.
 - Development of a time dependent model for polycrystalline shape memory alloys for nonlinear dynamic applications

Internship

- Trainee, Management of Industrial Installation - *Minasgás Delivery Company of Combustible Gas*. Rio de Janeiro, RJ, Brazil. 1999
Main Activities:
 - Participation in the management of Assembly, Operation of Supplying, and Security of L.P. Gas Bulk Stations.
 - Participation in the Quality Certification Process (ISO 9002) - Management of Industrial Installation.

Improvement Courses

- "Explicit Advanced Topics in ABAQUS." *ABAQUS South/Dallas*, April, 21st - 22nd, 2005. Dallas, TX. USA.
- "7 Habits of Highly Effective People." Franklin Covey, November, 2005. College Station, TX. USA.
- "Internal Auditor of Quality." *S&C Consulting*, September, 1999. Rio de Janeiro, RJ, Brazil.
- "Balanced Scorecard – Implementing Business Strategies." *Dom Cabral Foundation*, July, 1999. Rio de Janeiro, R.J., Brazil.
- "Training for Assembly, Operation of Supplying, and Security of L.P. Gas Bulk Stations." *Minasgás Delivery Company of Combustible Gas*, March, 1999. Rio de Janeiro, R.J., Brazil.

PUBLICATIONS

Books

1. Lagoudas, D.C. (Editor), Entchev, P.B., Hartl, D.J., Kiefer, B., Kumar, P. K., Machado, L. G., Popov, P. A. Introduction to Modeling and Engineering Applications of Shape Memory Alloys. *Springer Verlag*, New York, In preparation (to appear 2007).

Selected Journal Publications

1. Lagoudas, D. C., Machado, L. G., Numerical Implementation of a Time Dependent Model for Shape Memory Alloys for Nonlinear Dynamics and Vibration Applications. *In Preparation*.

2. Lagoudas, D. C., Machado, L. G., and Lagoudas, M. Z. Nonlinear Dynamics of a Shape Memory Alloy Passive Vibration Isolation and Damping Device: Numerical Simulations and Experiments. *In Preparation*.
3. Machado, L. G., Savi, M. A., Pacheco, P. M. C. L. Bifurcations and Crises in a Shape Memory Oscillator. *Shock and Vibration*, v.11, n.2, pp.67-80, 2004. ISSN 0583-1024.
4. Machado, L. G., Savi, M. A., Pacheco, P. M. C. L. Nonlinear Dynamics and Chaos in Coupled Shape Memory Oscillators. *International Journal of Solids and Structures*, v.40, n.19, pp.5139-5156, 2003. ISSN 0020-7683.
5. Machado, L. G., Savi, M. A. Medical Applications of Shape Memory Alloys. *Brazilian Journal of Medical and Biological Research*, v.36, n.6, pp.683-691, 2003. ISSN 0100-879X.

LANGUAGES

Portuguese (native), English (fluent).

COMPUTER SKILLS

- Operating Systems: DOS, Windows, UNIX.
- Languages: C / C++.
- Scientific Computing: MAPLE, MATLAB.
- Finite Elements Method Software: ABAQUS.
- Softwares: MS Office, *LaTeX*, AUTOCAD.

PROFESSIONAL MEMBERSHIP

- American Institute of Aeronautics and Astronautics (AIAA)
- Brazilian Society of Mechanical Sciences and Engineering (ABCM)

HONORS AND AWARDS

- 1st Place Student Research Week, Texas A&M University. 2006
- CAPES/Brazil scholarship for foreign studies - Ph.D. level. 2002 - 2006
- Forsyth Fellowship, Texas A&M University. 2002