

SOTIRIA D. CHOULIARA (HOULIARA), PhD

SHORT CURRICULUM VITAE

PERSONAL DATA

Date of Birth: 11th April, 1979

Professional status: Teaching Personnel at the Mechanical Engineering Department of the University of Thessaly, Volos, Greece

Address: Mechanical Engineering Department, University of Thessaly, Pedion Areos Volos 38334, Greece

Phones: +30-2421074087 Fax: +30-2421074050

Emails: schoul@uth.gr

EDUCATION

March 2005-March 2008: Doctor of Philosophy in Mechanical Engineering (Ph.D.), Department of Mechanical and Industrial Engineering, University of Thessaly, Greece. Thesis Title: "*Computational Techniques in Structural Stability of Thin-Walled Cylindrical Shells*". Grade "Excellent"

September 2002-March 2005: Postgraduate Diploma in Mechanical Engineering (M.Sc.), Department of Mechanical and Industrial Engineering, University of Thessaly, Greece. Thesis Title: "*Structural Stability of Cylindrical Elastic Shells under Pressurized Bending*". Grade 9.24/10.0

September 1997-September 2002: Diploma in Mechanical Engineering (5-year professional degree), Department of Mechanical and Industrial Engineering, University of Thessaly, Greece. Grade 8.32/10.0

ACADEMIC AND PROFESSIONAL HISTORY

2014-now: Teaching Personnel at the Mechanical Engineering Department of the University of Thessaly, Volos, Greece

Teaching Courses: **Machine Elements, Dynamics, Finite Elements**

Teaching Assistant at the Mechanical Engineering Department of the University of Thessaly, Volos, Greece, Teaching Courses: **Mechanics of Materials I & II.**

2009-2014: Mechanical Engineer at the Technical Infrastructure Directorate of the University of Thessaly, Volos, Greece, Energy Supervisor for the facilities of the University of Thessaly.

2006-2010: Research Associate at the Laboratory of Mechanics and Strength of Materials, Department of

Mechanical and Industrial Engineering, University of Thessaly, Volos, Greece.

2005-2006: Mechanical and Structural Engineer, involved in Structural Steel Design and Construction. Thekamet Ltd. Thermal Treatments and Metal Constructions Industry, Volos, Greece

ACADEMIC HONORS

2008-2010: Post-Doctoral Fellowship, Special Grant and Support Programme of the Scholars' Association Members, Public Benefit Foundation "Alexander S. Onassis".

2005-2008: Fellowship, Public Benefit Foundation "Alexander S. Onassis", for postgraduate studies at Ph.D. level.

2004: Fellowship, Public Benefit Foundation "Alexander S. Onassis" for postgraduate studies equivalent to M.Sc. level.

2002-2004: Departmental Scholarship (merit-based), Department of Mechanical and Industrial Engineering, University of Thessaly, Greece.

AREAS OF INTEREST

Professional Interests

- Computational Mechanics, Structural Stability, Analysis and Design of Shells (Tubes, Tubular Members), Finite Elements (Fortran Codes and Abaqus), Stress Analysis, Inelastic Behaviour of Materials and Structures.
- Energy Consumption Consultancy, Projects for Energy Conservation and the Development of Renewable Energy Systems, Supervision of Maintenance and Repairs Projects for the building of the University of Thessaly.

Participation in applied research projects:

- 1. Project for Energy Conservation at the Premises of the University of Thessaly.** Funded by the University of Thessaly, duration: September 2010 – May 2013.
- 2. Structural safety of industrial steel tanks, pressure vessels and piping systems under seismic loading – INDUSE.** Funded by RFCS (European Union), contract number: RFSR- CT-2009-00022, duration: July 2009–December 2012. (participation until June 2010)
- 3. Structural assessment of a crane.** Funded by Larco SA, Greece, duration: June 2009-January 2010.

4. **Structural assessment of liquid storage tanks with shell distortions**, Funded by Hellenic Petroleum Industry, Greece, duration: September 2008-March 2009.
5. **Performance-based approaches for high strength tubular columns and connections under earthquake and fire loadings-ATTEL**. Funded by RFCS (European Union), contract number: RFSR-CT-2008-00037, duration: July 2008–December 2011. (participation until July 2009)
6. **Design and integrity assessment of high strength tubular structures for extreme loading conditions - HITUBES**. Funded by RFCS (European Union), contract number: RFSR-CT-2008-00035, duration: July 2008–December 2011. (participation until July 2009)
7. **Fatigue behaviour of high strength steels welded joints in offshore and marine systems-FATHOMS**. Funded by RFCS (European Union), contract number: RFSR-CT-2005-00042, duration: July 2005 - June 2008.

ACADEMIC PUBLICATIONS

International Journals

- **Houliara, S.** and Karamanos, S. A., “*Buckling and Post-Buckling of Pressurized Thin-Walled Elastic Tubes Under In-Plane Bending*”, International Journal of Nonlinear Mechanics, Vol. 41, No. 4, pp. 491-511, May 2006.
- **Houliara, S.** and Karamanos, S. A., “*Stability of Long Transversely Isotropic Elastic Cylinders*”, International Journal of Solids and Structures, Vol. 47, No. 4, pp. 10-24, Jan 2010.
- **Houliara, S.** and Karamanos, S. A., “*Buckling of Thin-Walled Steel Cylinders Under Bending Loads*”, Journal of Pressure Vessel Technology, Vol. 133, No. 1, pp. 011201, Febr. 2011.

Conferences

- Houliara, S. and Karamanos, S. A., “*Bending Instabilities of Pressurized Long Elastic Cylindrical Shells.*”, International Conference on Computational and Experimental Engineering and Sciences, ICCES 2003, Corfu, Greece, July 2003.
- Houliara, S. and Karamanos, S. A., “*Buckling of Thin-Walled Steel Cylinders under Bending Loads.*”, 5th International Colloquium on Computation of Shell and Spatial Structures, IASS-IACM 2005, Salzburg, Austria, June 2005.
- Houliara, S. and Karamanos, S. A., “*Bending Buckling of Long Elastic Anisotropic Cylindrical Shells*”, ASME

Congress of Applied Mechanics and Materials, MCMAT 2007, Austin, Texas, June 2007 (presentation based on abstract).

- Houliara, S. and Karamanos, S. A., "*Buckling of Pressurized Long Elastic Anisotropic Cylindrical Shells*", 8th International Congress on Mechanics, HSTAM 2007, Patras, Greece, July 2007.
- Houliara, S. and Karamanos, S. A., "*Hypo-elastic and Hyper-elastic Models for the Stability Analysis of Anisotropic Cylindrical Shells*", 6th GRACM International Congress on Computational Mechanics, GRACM 2008, Thessaloniki, Greece, June 2008.
- Pappa, P., Tsouvalas, D., Karamanos S. A. and Houliara, S., "*Ultimate Capacity of Pipe Bends under Bending and Pressure.*", ASME 27th International Conference on Offshore Mechanics and Arctic Engineering, OMAE2008-57637, Portugal, June 2008.
- Perdikaris, P.C., Papachristou, K., Zervaki, A., Houliara, S., A. Karamanos, S. A. and Haidemenopoulos, G.N., "*Fatigue Behavior of High-Strength-Steel Welded Plate Connections.*", 6th National Conference of Steel Structures, Ioannina, Greece, October 2008.
- Varelis, G., Vathi, G., Houliara, S., Karamanos, S.A., "*Effect of UOE Manufacturing Process on Pressure Buckling of Thick-walled Pipes.*", 2nd South East European Conference on Computational Mechanics, Special Interest Conference of ECCOMAS and IACM. Rhodes Island, Greece, June 2009.
- Houliara, S. and Karamanos, S. A., "*Buckling of Thin-Walled Steel Cylinders Under Bending Loads*", ASME Pressure Vessels and Piping Conference, PVP2009-77979, Czech Republic, July 2009. This paper received the "*Outstanding Technical Paper*" award from the respective Technical Committee for PVP2009.