E A de Souza Neto

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Current position

Lecturer

Education

PhD (University of Wales Swansea, 1994) MSc (COPPE-UFRJ, Brazil, 1989) Mec.Eng. (CEFET-CSF-RJ, Brazil, 1987)

Research interests

Computational plasticity Multi-scale methods in solid mechanics Biological tissue modelling Finite element methods Damaging and fracturing modelling

Career

1999-currently: Lecturer, School of Engineering, University of Wales Swansea.
1997-1999: Rockfield Software Research Fellow, University of Wales Swansea.
1994-1997: Post-doctoral Senior Research Assistant, University of Wales Swansea.
1990-1994: PhD Student, University of Wales Swansea.
1987-1989: MSc Student, COPPE-UFRJ, Brazil.
1985-1986: Trainee Mechanical Engineer, Cia. Cervejaria Brahma, Brazil.

Refereed papers and chapters in books

21 Journal papers, 3 book chapters.

Summary of journal publications

| Journal | Impact factor | Number of papers |
|--|---------------|------------------|
| Computer Methods in Applied Mechanics and Engineering | 1.252 | 6 |
| International Journal for Numerical methods in Engineering | 1.691 | 4 |
| Communications in Numerical Methods in Engineering | 0.374 | 4 |
| Other indexed journals | | 7 |
| Other papers in refereed journals | | |

Selected publications (max. 5)

EA de Souza Neto, FM Andrade Pires & DRJ Owen. F-bar-based triangles and tetrahedra for the finite strain analysis of nearly incompressible solids. Part I: Formulation and benchmarking. *Int. J. Num. Meth. Engng.*, 62(3):353-383, 2005.

EA de Souza Neto. The exact derivative of the exponential of an unsymmetric tensor. *Comp. Meth. Appl. Mech. Engng.*, 190:2377-2383, 2001.

EA de Souza Neto, D Peric & DRJ Owen. Continuum damage and numerical simulation of material damage at finite strains. *Arch. Comput. Meth. Engng.*, 5:311-384, 1998.

EA de Souza Neto, D Peric, M Dutko & DRJ Owen. Design of simple low order finite elements for large strain analysis of nearly incompressible solids. *Int. J. Solids and Structures*, 33:3277-3296, 1996.

EA de Souza Neto, D Peric & DRJ Owen. A phenomenological three-dimensional rate-independent continuum damage model for highly filled polymers: Formulation and computational aspects. *J. Mech. Phys. Solids*, 42(10):1533-1550, 1994.