

Gabriel Bugeda

Department of Strength Materials
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Current position

Full professor of Strength Materials, Universitat Politècnica de Catalunya

Education

Civil Engineering, Escola Tècnica Superior d'Enginyers de Camins, Canals i Ports de Barcelona (1985)
Ph. D. Universitat Politècnica de Catalunya (UPC) (1990)

Research interests

Shape optimization
Error estimation and adaptivity

Career

Full professor of Applied Mathematics, Universitat Politècnica de Catalunya, since 2001
Assistant Professor, Universitat Politècnica de Catalunya, 1990-2001
Associated Professor, Universitat Politècnica de Catalunya, 1988-90
FPI Fellowship, Universitat Politècnica de Catalunya, 1986-88

Professional activities

Editorial boards

Rapid prototyping journal

Community services

Executive Committee, Sociedad Española de Métodos Numéricos en Ingeniería (SEMNI) since 1994 until 2003

University services

Head of Studies of the Escola Tècnica Superior d'Enginyers de Camins, Canals i Ports de Barcelona since 1997 until 2001
Secretary of the Strength Materials department of UPC since 2004

Summary of journal publications

Journal	Impact factor	Number of papers
International Journal for Numerical Methods in Engineering	1,691	2
International Journal for Numerical Methods in Fluids	0,544	2
Communications in Numerical Methods in Engineering	0,450	2
Other indexed journals		5
Other papers in refereed journals		5

Selected publications (max. 5)

Bugeda G, Gil LI, Oñate E, "Structural shape sensitivity analysis for nonlinear material models with strain softening", Structural Optimization, 1999

Bugeda G, Oñate E, "Optimum aerodynamic shape design for fluid flow problems including mesh adaptivity", International Journal for Numerical Methods in Fluids, 1999

Bugeda G, Gil LI, "Shape sensitivity analysis for structural problems with non-linear material behaviour", International Journal for Numerical Methods in Engineering, 1999

Chiandussi G, Bugeda G, Oñate E, "A simple method for automatic update of finite element meshes", Communications in Numerical Methods in Engineering, 2000

Bugeda G, "A comparison between new adaptive remeshing strategies based on point wise error estimation and energy norm error estimation", Communications in Numerical Methods in Engineering, 2002

Other relevant information

Conference Committees

Chairman

- III, IV, V Congreso de Metodos Numericos en Ingenieria, 1996, 1998, 2002
- IV World Congress on Computational Mechanics, Buenos Aires 1998
- European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS – COMPLAS), Barcelona 2000.
- Evolutionary Methods for Design Optimization and Control with Applications to Industrial Problems (EUROGEN 2003), Barcelona 2003

Organizing Committee

- VI Congreso de Metodos Numericos en Ingenieria, 2004

Editorial Works

- Advanced computational methods in structural mechanics, Edit. M. Papadrakakis y G. Bugeda, CIMNE, 1996.
- EUROPT - A European Initiative on Optimum Design Methods in Aerodynamics, Edit. J. Periaux, G. Bugeda, P. K. Chaviaropoulos, T. Labrujere y B. Stoufflet, Vieweg Verlag, 1997.
- Optimum Aerodynamic Design & Parallel Navier-Stokes Computations. ECARP – European Computational Aerodynamics Research Project, Edit. J. Periaux, G. Bugeda, P. K. Chaviaropoulos, K. Giannakoglou, S. Lanteri and B. Mantel, Vieweg Verlag, 1998.