



Professor Felipe Teixeira-Dias

See:

<https://www.eng.ed.ac.uk/about/people/dr-filipe-teixeira-dias>

<https://scholar.google.com/citations?user=AaxIT9MAAAAJ&hl=sv>

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Structural Engineering, Infrastructure and Environment, Mechanical Engineering
The University of Edinburgh

Education:

Hab, University of Aveiro (Portugal), 2009

MEng, University of Coimbra (Portugal), 1995

BEng, University of Coimbra (Portugal), 1992

PhD, University of Coimbra (Portugal), 2000

Research Interests:

Computational mechanics; Numerical modeling and finite element technology, Structural dynamics, Structural impact and crashworthiness



F. Teixeira-Dias, et al, Finite Element Method, Numerical Simulation Techniques in Engineering (in Portuguese), ETEP, 2010, 488 pages

Selected Publications:

Book:

F. Teixeira-Dias, et al, Finite Element Method, Numerical Simulation Techniques in Engineering (in Portuguese), ETEP, 2010, 488 pages

Journal Articles, etc.:

M. Paulino and F. Teixeira-Dias, An energy absorption performance index for cellular materials – development of a side-impact cork padding, *Int. J. Crashworthiness* 16(2) (2011), pp. 135–153

R.M. Coelho, R.J. Alves de Sousa, F.A.O. Fernandes, and F. Teixeira-Dias, New composite liners for energy absorption purposes, *Mater. Design* 43 (2012), pp. 384–392.

J. Sousa-Martins, D. Kakogiannis, F. Coghe, B. Reymen and F. Teixeira-Dias, “Behaviour of sandwich structures with cork compound cores subjected to blast waves”, *Engineering Structures*, Vol. 46, pp 140-156, January 2013

R.M. Paulo, F. Teixeira-Dias, R.A.F. Valente, Numerical simulation of aluminium stiffened panels subjected to axial compression: Sensitivity analyses to initial geometrical imperfections and material properties, *Thin-Walled Structures* 62 (2013) 65-74

R. M. F. Paulo, P. Carlone, R.A.F. Valente, F. Teixeira-Dias, G. S. Palazzo, "Integrated Design and Numerical Simulation of Stiffened Panels Including Friction Stir Welding Effects", *Key Engineering Materials*, Vols. 554-557, pp. 2237-2242, 2013

R.M.F. Paulo, P. Carlone, R.A.F. Valente, F. Teixeira-Dias and G.S. Palazzo, “Influence of friction stir welding residual stresses on the compressive strength of aluminium alloy plates”, *Thin-Walled Structures*, Vol. 74, pp 184-190, January 2014

R.M.F. Paulo, P. Carlone, R. Valente, F. Teixeira-Dias, G.S. Palazzo, Buckling analysis of aluminium alloy structures accounting for friction stir welding effect, *Proceedings of the Ninth International Conference on Engineering Computational Technology*, (2014)

R.M.F. Paulo, P. Carlone, V. Paradiso, R.A.F. Valente and F. Teixeira-Dias, “Prediction of friction stir welding effects on AA2024-T3 plates and stiffened panels using a shell-based finite element model”, *Thin-Walled Structures*, Vol. 120, pp 297-306, November 2017

J. Paz, J. Diaz, L. Romera and Felipe Teixeira-Dias, “Crashworthiness study on hybrid energy absorbers as vertical struts in civil aircraft fuselage designs”, *International Journal of Crashworthiness*, April 2019, <https://doi.org/10.1080/13588265.2019.1605723>

R.M.F. Paulo, P. Carlone, R.A.F. Valente, F. Teixeira-Dias, F. Rubino, “Numerical simulation of the buckling behaviour of stiffened panels: Benchmarks for assessment of distinct modelling strategies”, *International Journal of Mechanical Science*, Vol. 157-158, pp 439-445, July 2019

J. Paz, J. Diaz, L. Romera and Felipe Teixeira-Dias, “Optimisation of thin-walled hybrid vertical struts for crashworthy aircraft designs”, *Structural and Multidisciplinary Optimization*, 16 July 2019, <https://doi.org/10.1007/s00158-019-02350-3>