



Professor Joseph Loughlan

J. Loughlan (editor), Thin-walled structures: Advances in research, design and manufacturing technology, CRC Press, 2004, 970 pages

See:

<http://www.lboro.ac.uk/departments/aae/about/staff/professor-joseph-loughlan.html>

Head, Lightweight Structures Group
Aeronautical and Automotive Engineering
Loughborough University, Leicestershire, UK

Biography:

BSc, MSc, PhD, Mechanical Engineering, University of Strathclyde, 1971-1979.
Lecturer, Senior Lecturer, Reader, Structural Mechanics and Aerospace Vehicle Design, Cranfield University, 1979-2002.
Professor of Aerospace Structures, Department of Aeronautical and Automotive Engineering, Loughborough University, 2002-
Editor-in-Chief, International Journal of Thin-Walled Structures, Elsevier Science
Fellow of the Royal Aeronautical Society (FRAeS)

Research Interests and Activities:

Thin-Walled metal and composite structural systems, Lightweight aerospace and automotive structural components, Buckling and post-buckling behaviour of structures, Elasto-plastic collapse of metallic construction, Impact mechanics of metal and composite structures, Damage tolerance in composite structures, Composite material failure mechanics, Delamination and failure propagation, Smart sensing-adaptive structures technology, Finite element numerical modeling, Finite strip numerical modeling, The manufacturing and testing of composite structures.

Selected Publications:

BOOK: J. Loughlan (editor), Thin-walled structures: Advances in research, design and manufacturing technology, CRC Press, 2004, 970 pages

J. Loughlan, J. M. Delaunoy, The buckling of composite stiffened plates with some emphasis on the effects of fiber orientation and so on loading configuration, *Composite structures* 25 (1993) 485-494.

J. Loughlan, The buckling performance of composite stiffened panel structures subjected to combined in-plane compression and shear loading, *Composite Structure* 29 (1994) 197-212

J. Loughlan, "A finite strip analysis of the buckling characteristics of some composite stiffened shear panels", *Composite Structures*, Vol. 27, No. 3, 1994, pp. 283-294

Thomson S.P., Loughlan J.: The active buckling control of some composite column using piezoceramic actuators. *Compos. Struct.* 32, 59–67 (1995)

Loughlan, J., and Ata, M., 1995. The restrained torsional response of open section carbon fiber composite beams. *Composite Structures* 32:13-31.

Loughlan, J, and Ata, M., 1997. The behavior of open and closed section carbon fiber composite beams subjected to constrained torsion. *Composite Structures* 38:609-22.

J. Loughlan, "The influence of bend–twist coupling on the shear buckling response of thin laminated composite plates", *Thin-Walled Structures*, Vol. 34, No. 2, June 1999, pp. 97-114

Thompson, S. P., and Loughlan, J., 2000, "The control of the post-buckling response in thin composite plates using smart technology," *Thin-walled Struct.*, 36, pp. 231-263.

S. P. Thompson, J. Loughlan, 'Enhancing the post-buckling response of a composite panel structure utilising shape memory alloy actuator – a smart structural concept' *Compos. Struct.* 51 1 (2001): 21-36

J. Loughlan, "The influence of mechanical couplings on the compressive stability of anti-symmetric angle-ply laminates", *Composite Structures*, Vol. 57, Nos. 1-4, July 2002, pp. 473-482

J. Loughlan, S. P. Thompson and H. Smith, "Buckling control using embedded shape memory actuators and the utilisation of smart technology in future aerospace platforms", *Composite Structures*, Vol. 58, No. 3, November-December 2002, pp. 319-347

Ovesy HR, Loughlan J, Ghannadpour SAM (2010) An investigation on the post-local-buckling analysis of I-section struts using finite strip method. *Adv Steel Constr* 6(1):662–677

Loughlan J, Yidris N, Cunningham PR (2011) The effects of local buckling and material yielding on the axial stiffness and failure of uniformly compressed I-section and box-section struts. *Thin-Walled Struct* 49(2):264–279

Loughlan J, Yidris N, Jones K (2012) The failure of thin-walled lipped channel compression members due to coupled local-distortional interactions and material yielding. *Thin-Walled Struct* 61:14–21