- MainPage
- About College
- Files
- Researches
- Courses
- Favorite Links
- Our Contacts

Visits Of this Page: 12

Research Details :

Research Title	: *Stresses in cross-ply laminated circular cylinders of axially variable thickness*
	Stresses in cross-ply laminated circular cylinders of axially variable thickness
Descriptipn	: This paper presents the results from an analytical investigation of the behavior of composite circular cylinders subjected to internal and external surface loading. The present cylinder consists of a number of homogeneous ply groups of axially variable thickness. Each ply group forming a layer is treated as an individual thin elastic cylinder of generally orthotropic material with interfacial stresses on the inner and outer surfaces of the layer as boundary loading. The deformation and stresses in each layer can be expressed in terms of interfacial stresses along the exterior surfaces of each layer. All displacement and stresses throughout the composite cylinder can be determined subsequently after satisfying boundary conditions at the inside and outside surfaces of the cylinder in conjunction with the recurrence relationship among interfacial stresses. Numerical results are presented for different values of the inner-to-outer ratio, number of layers, stacking sequence, axially-variable-thickness parameter, and load factor. Based on the presented results, conclusions can be drawn concerning the cylinder behavior and its sensitivity to different parameter variations.
Research Type	: Article
Research Year	: 2006
Publisher	: ACTA MECHANICA Volume: 187 Issue: 1-4 Pages: 85-102
Added Date	: Tuesday, June 17, 2008

Researchers :

Researcher Name (Arabic)	Researcher Name (English)	Researcher Type	Degree	Email
أشرف مبارز زنقور	Zenkour, A. M	Researcher	أستاذ	zenkour@kau.edu.sa