STUDY ON LAMINATED COMPOSITE MATERIAL USING NUMERICAL APPROACH

By

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DECLARATION

I (Ayurahani Binti Che Lah ,2003350364) confirm that the work is my own and the appropriate credit has been given where reference has been made to the work of others.

(...)
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15 November 2006

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ABSTRACT

This study is focus on the analysis of the composite materials by using the developed program. The purposes of this study are to determine the capability and the accuracy of the program in solving the analysis that related with the laminate materials. This study also can provide an understanding of the underlying principles and techniques associated with the stress analysis and strength predictions of composite material structures There are six examples that are going to be analyzing by using the FORTRAN program, each of the examples has their own problem statement. The FORTRAN results from the examples will be compared with the theory calculation. This study also contains the LUSAS model that is going to validate the accuracy of the program.At the end of this study a user friendly computer program is produced with the intention to assist the lecturer for teaching or learning purpose and designer in order to improve the time consumption and to reduce the calculation mistakes done by theirs. This study will provide an understanding of the underlying principal and techniques associate with the stress analysis and strength prediction.