

Name: **Michael KOUNDOUROS** **MEng, ACGI, ARAeS, DIC, PhD**

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Work Experience

Nov.2006 - Nov.2007 **Stress Engineer – Saab Aerosystems, Linköping, Sweden**

- Project Horizon – Saab 2000 AEW&C
 - Re-design of outboard stringers
 - Creation of Wing Tip Rib FE model using PATRAN
 - Update Global FE model with new equipment loads
 - Stability check of aft cabin fuselage panels

Jul.2005 – Nov.2006 **Stress Team Lead – GKN Aerospace, UK (Contractor)**

- Airbus A380 Fixed Trailing Edge Structural Repair Manual
 - Damage Tolerance Analysis of Composite Panels
 - Classical Laminate theory
 - Failure criteria – Hoffman, Tsai-Hill, Max Stress/strain
 - Bearing By-pass
 - Bearing
 - Open-hole strength
 - Monolithic & Sandwich structures
 - Patran/Nastran
- Westland EH101 Merlin Multivariant Checkstress Y350 Shear Webs
 - Stiffener crippling
 - Stiffener column strength
 - Panel shear buckling
 - Inter-rivet buckling
 - Bath-tub analysis of fittings
 - Cutouts – Brute Force, ESDU
 - Fastener strength check including postbuckled panel load redistribution.

Dec.2004 – Jun.2005 **Stress Engineer – Magellan Aerospace Corp. Filton, UK**

- Airbus A380 Freighter Inner Fixed Trailing Edge
 - Aft ribs – Castellations, Strut & Cleat Analysis
 - Spoiler Hinge Ribs Loads Review
 - Flap Track 2 FWD Fitting Static Strength FEA
 - Concessions
 - Airbus collection programs

Feb.2004 – Dec.2004 **Project Engineer – DC White & Partners Ltd. UK**

- Stress analysis – hand calculations, finite element modelling
- Eigenvalue analyses (frequency & buckling)
- Steady state and transient thermal analyses
- Explosion venting analyses
- Fatigue hand calculations to BS7608
- Project Management & Quality Assurance

Education & Qualifications

- Oct.2000 – Jan.2004 • **PhD** sponsored by Qinetiq entitled:
In-Plane Compressive Behaviour of Stiffened Thin-Skinned Composite Panels with a Stress Concentrator
Department of Aeronautics
Imperial College of Science, Technology & Medicine, U.K.
<http://thesis.mkoundouros.com>
- Oct.1996 – Jun.2000 • **Aeronautical Engineering**
Master of Engineering (MEng)
Department of Aeronautics
Imperial College of Science, Technology & Medicine, U.K.
2.1 with Honours
- Sep.1986 – Jun.1995 The Falcon School, Nicosia, Cyprus
GCE A'Levels – Maths-A, Further Maths-A, Physics-A

CAE & Computing Skills

- Finite Element Codes: ABAQUS (2 years), Lusas (6 months), TNO Diana (8 months), FE77 (1 year), MSC Patran/Nastran (SOL101, SOL105, SOL106, 2.5 years), COSMOSWorks (2 months), FEMAP (1 month)
- Software: LAP, MathCAD, Excel, AutoCAD, Rhino3D, Solidworks & Microsoft Office
- Programming Languages: Fortran
- Operating Systems: Linux, Unix, Windows 98/NT/2000/XP

Analytical Experience & Skills

- Feb.2004 – Dec.2004 • Project Engineer – DC White & Partners Ltd.
- 1) Finite element modelling (TNO DIANA & COSMOSworks):
 - Coupled thermal-stress steady state and transient analyses.
 - Linear & nonlinear (material, geometry) stress analysis.
 - 2) Hand-calculations in MathCAD for design substantiation.
- Oct.2000 – Jan.2004 • PhD – Aeronautics, Imperial College
Research Interests and Skills developed:-
- 1) Finite element modelling (ABAQUS & FE77):
 - Analyses including geometric and material nonlinearities.
 - Buckling and postbuckling of laminated composite structures.
 - Mode-jumping in stiffened panels using the arc-length method.
 - Stress Analysis of laminated composite structures.
 - Modelling delamination growth with interface elements.
 - Compression after impact strength prediction of composite stiffened panels (Damage Tolerance).
 - 2) Experience with composite laminate preparation and mechanical testing including non-destructive testing (AND-scan, C-scan).
- Sep.2003 – Oct.2003 • Imperial College Consulting – Stress Analysis of a Seal
- 1) Analysis of static axial water seal in contact with its container.
 - 2) Contact pressure analysis with hyperelastic material using ABAQUS.
- Jul.2003 – Aug.2003 • Imperial College Consulting – Deformation of a Stent
- 1) Novel design of cardiovascular stent.
 - 2) Quasi-static analysis using explicit solver to model Nitinol (shape memory alloy).

Languages

- English Fluent written and spoken – GCE O'LEVEL Grade A & Medallion for Excellence, 1993, University of London
- Greek Conversational