

Ramsay Maunder Associates Limited

60 Devondale Court, Dawlish Warren, Devon, EX7 0PN | Office: 01626 867 591; Mobile: 07917 833 234
Email: angus_ramsay@ramsay-maunder.co.uk | Web Site: ramsay-maunder.co.uk

ANGUS RAMSAY PhD, CEng, FIMechE (RE3 & SC Cleared)

PROFILE

I am a senior engineering consultant with over 30 years' experience specialising in finite element stress analysis. I have long experience of undertaking and managing the delivery of fully verified and suitably optimised finite element models for the assessment of the structural integrity of safety critical components and structures. I possess excellent communication skills and have a highly developed ability to organise data and to write clear and concise technical reports that will pass the scrutiny or review/audit. I am able to work independently or in a team and enjoy opportunities for mentoring less experienced colleagues.

OBJECTIVES

I am always interested to hear of new and interesting opportunities where my specialist skills and experience can help an organisation achieve their design analysis goals.

KEY SKILLS

- Thorough understanding of stress analysis, finite element theory and its limitations
- Managing and undertaking design analysis projects
- Verification and Validation of finite element models
- Writing effective proposals and reports and presenting these to clients
- Structural Integrity Assessment to ASME, EC3, BS2573 etc.
- Mentoring colleagues in the understanding of stress analysis and application of finite elements
- Developing and implementing innovative methodologies for design analysis of structural systems
- Extensive and recent experience: ANSYS, ABAQUS, MathCAD and Python
- Development of engineering software in FORTRAN

QUALIFICATIONS AND MEMBERSHIPS

- 2017 Technical Expert at Cadogans
- 2016 NAFEMS Assessor for their PSE Scheme
- 2015 Reviewer for ASCE Journal of Structural Engineering
- 2014 NAFEMS – Independent Technical Editor (Benchmark Challenge)
- 2014 NAFEMS – Member of the Education & Training Working Group
- 2013 Fellow of the Institution of Mechanical Engineers
- 2013 Frazer Nash Consultancy - Associate
- 2001 NAFEMS Registered Analyst (Advanced)
- 2000 Honorary Research Fellow (University of Exeter)
- 1997 Visiting Research Fellow (Nottingham Trent University)
- 1994 PhD Civil Engineering (University of Exeter) – SERC CASE Award (Nuclear Electric)
- 1988 MEng Mechanical Engineering (Liverpool Polytechnic)

EMPLOYMENT HISTORY

Ramsay Maunder Associates (RMA)

2007 – Present

This company was formed to deliver engineering consultancy as specialists in finite element analysis, I function as the Technical Director for RMA:

RMA – SIBELCO UK

November 2016 – January 2017

RMA provided engineering consultancy in assessing the failure in the drums of a china clay pelletiser machine and in suggesting a design modification to extend the life of the machine.

RMA – Nirvana Engineering

September 2016

Seismic assessment was conducted for two battery racks for a French nuclear power station. Both the equivalent static method and response spectra analyses were conducted and the results were used to assess the structure's integrity to Eurocode EC3.

RMA – SCX

April 2015 – December 2015

RMA provided engineering consultancy to this company who were new to finite element analysis. A finite element analysis of a gantry crane for an AWE project was conducted to develop and document a verified methodology for the analysis of such structures when subject to static and seismic loading.

RMA – Cold Harbour Marine

November 2014

RMA is an *approved supplier* of engineering consultancy to this company. I undertook a PD5500 conformity check on the pressurised members of an Inert Gas Generator.

RMA – SIBELCO UK

October 2014

RMA is an *approved* supplier of engineering consultancy to this company and provided advice on the repair of the side-arm of a china clay press which had suffered from a fatigue crack.

RMA - AMEC, (Knutsford)

June 2012 – March 2014

A full-time security cleared (SC) contract as an engineering consultant with Responsible Engineer (RE3) status working with, and mentoring, a team of staff and contract engineers in the development of finite element models of nuclear mechanical handling equipment for the Atomic Weapons Establishment (AWE).

RMA - Babcock Marine (Devonport)

July 2010 – January 2011

A full-time contract for which I was a member of a team of four engineers conducting verification of FE for designs of the new nuclear submarine dry dock de-fuelling facility (FNF) to be constructed at Devonport.

RMA - University of Exeter (Honorary University Fellow) 2008 – January 2010

I undertook lecturing and supervision of students on undergraduate and master level engineering courses including managing individual and group projects using RMA's finite element software.

RMA – Obvis

2008 (One month)

A short research project aimed at establishing how loads diffuse through the fill to the extrados of the arch.

PCA Engineers Limited (Consultant Engineer)

1997 – 2007

This engineering consultancy specialises in turbomachinery design and turbomachinery design software. My work involved a range of analyses including plasticity, creep and contact – all non-linear phenomena.

The Nottingham Trent University (Research Fellow)

1996 - 1997

Technical University of Lisbon (Research Fellow)

1994 – 1995


GKN Technology Limited (Design Analyst)

1989 - 1990

Imperial Chemical Industries (Craft Apprentice)

1979 - 1984

CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

I have a longstanding research interest in equilibrium finite elements. A recent direction has been to write short articles to assist the practising engineer in understanding finite element methods and the sort of approximations the software can produce. These have been published in the UK and the US: 

I have, amongst others, attended the following industrial training courses:

- Pressure Vessel Design: Concepts and Principles, University of Strathclyde (2001)
- Genetic Algorithms for Optimisation in Aeronautics and Turbomachinery, VKI (2000)
- Non-linear FEA of Plasticity and Creep, University of Nottingham (1998)
- Robinson FEM Institute – Understanding Finite Element Stress Analysis I and II (1989)

LEISURE

I am a Volunteer Pianist (DipABRSM) for the National Trust and Musical Director and Organist for St Mary's Church, in Cofton. I have also undertaken charity work for the Samaritans (1993/4) and for St Petrock's (2007/9), a charity providing help and support for homeless people in Exeter.