

Ramsay Maunder Associates Limited

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ANGUS RAMSAY PhD, CEng, FIMechE (RE3 & SC Cleared) [Linked in](#).

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 Member of IMechE's Structural Technology & Materials Group
- 2017 Technical Expert at HKA
- 2017 Founding Member PSE Certification (NAFEMS)
- 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), Director **2007 – Present**

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

RMA, Consultancy – Stenner Ltd

November 2017

RMA undertook finite element analyses and structural assessments for the pulley wheels of a bandsaw designed for a higher than usual rotational speed.

RMA, Consultancy – HKA Technical Expert

March - December 2017

Technical advisor to the operator of a recently commissioned site where a pair of steel stacks were suffering from unacceptably large aeroelastically induced oscillations.

RMA, Consultancy – A Steam Turbine Manufacturer

May 2017

RMA provided engineering consultancy for the failure analysis of a component in a steam turbine.

RMA, Consultancy – SIBELCO UK

January 2017

RMA provided engineering consultancy in assessing the failure in the drums of a china clay pelletiser machine.

RMA, Consultancy – Nirvana Engineering

September 2016

Seismic assessment was conducted for two battery racks for a French nuclear power station to EC3.

RMA, Consultancy Contract – SCX

April 2015 – December 2015

RMA provided engineering consultancy to this company who were new to finite element analysis.

RMA, Consultancy – Cold Harbour Marine

November 2014

RMA undertook a PD5500 conformity check on the pressurised members of an Inert Gas Generator.

RMA, Consultancy – SIBELCO UK

October 2014

RMA provided advice on the repair of a china clay press which had suffered from a fatigue crack.

RMA, Consultancy Contract - AMEC, (Knutstford)

June 2012 – March 2014

Responsible Engineer (RE3) working with, and mentoring, a team of engineers developing of FE models for AWE.

RMA, Consultancy Contract - Babcock Marine (Devonport)

July 2010 – January 2011

Verification of FE for designs of the new nuclear submarine dry dock de-fuelling facility (FNF).

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

Lecturing and supervision on undergraduate and master level engineering courses.

RMA, Consultancy – Obvis

2008 (One month)

Employment prior to RMA

1979 - 2007

PCA Engineers Limited (Consultant Engineer)

1997 – 2007

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:

ResearchGate

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)

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.