

# STUART CHANDLER

7 Middle Row, Bute Town, Rhymney, Tredegar, Gwent, NP22 5QJ.

Mobile: 07475224226

Email: [chandler.cygnus@gmail.com](mailto:chandler.cygnus@gmail.com)

## SUMMARY

I started in the Automotive Aftermarket Industry designing heat exchangers, which covered a broad range of tasks from customer specification to design to supplier of manufacturing services to delivery. A good start to my career but had to leave due to a lack of any training programme, so ended up going to a large multi-national defence company with a structured training programme that met the requirements of Chartered Engineer status. While at this organisation I performed Logistic Support Analysis and spares ranging and scaling with mathematical modelling. I left this company to join a consultancy firm for the variety of projects and worked on Merlin Avionic Test System and the Batch Two Trafalgar nuclear submarine project, which later became Astute class. Within this project I moved to the design authority for the nuclear steam raising plant and the WR21 marine gas turbine projects where I was involved in conducting Reliability Centred Maintenance on Heysham two nuclear power station and Cormorant Alpha oil platform, whole life cost analysis on the WR21 and Failure Mode Effects and Criticality analysis of the main coolant pump of the Pressurised Water Reactor for the submarines. Due to cut backs I left the defence industry for a couple of years to perform reliability analysis and whole life cost modelling for air traffic control systems. I returned to the defence industry when the holding company decided to move all the technical work out to France. I then performed Integrated Logistic Support and whole life cost modelling for Armoured Fighting Vehicles (AFV). I spent two years in research and development into simulation based acquisition technology within a consultancy firm. I left a permanent position as an ILS Manager in an AFV project to pursue contract engineering roles for a greater variety of work where I was able to research Stirling engine designs at Durham University, support the design of laser guided missiles in Belfast, support the design of command and control systems in Saudi Arabia using SysML, awarded a research grant for a new renewable energy system design and perform reliability studies of the AP400 turbo-prop engine in Germany. I decided to go back to full-time education to study for a PhD in "Through Life Systems Engineering Design and Support of Renewable Energy Systems" using SysML and VB.NET for both system description in detail and simulation of scenarios to test options. The last role was analysing HUMS data from AFV's in various formats: xml, csv and blf type files containing fault codes, condition data and performance information.

## SKILLS

- Logistic Support Analysis (LSA)
- Integrated Logistic Support (ILS)
- Whole Life Cost Modelling (WLCM) with VBA
- Engineering Proposals (EP)
- Failure Mode Effects and Criticality Analysis (FMECA)
- Reliability Centred Maintenance (RCM)
- Reliability and Availability Modelling (RAM)
- Access database application development with SQL and VBA
- Excel application development with VBA
- Business Development (BD)
- Project Management (PM)
- Engineering Research and Development (R&D)
- Virtual ease of maintenance assessments using 3D XML
- System design using the System Modelling Language (SysML) with Artisan Studio & Visio
- Simulation modelling design using MATLAB
- Engineering design using Solidworks CAD
- Analysing Health and Usage Monitoring Systems (HUMS) data to advance towards the development of prognostic algorithms. Analysing xml, csv, text and CAN-bus (.blf) data files.
- Basic HTML, CSS, Bootstrap, Visual Studio Code.

## WORK HISTORY

### Code Institute

Student in full-stack web development

24<sup>th</sup> February 2020 to Present

### General Dynamics Land Systems UK

Senior Testability / HUMS Engineer

FMECA, BIT Analysis, HUMS Data Analysis, Prognostic Algorithm Development with Machine Learning

Merthyr Tydfil, Wales

9<sup>th</sup> March 2015 to 14<sup>th</sup> February 2020

### DURHAM UNIVERSITY

Student

FMECA, RCM, RAM, R&D, 3DXML, SysML, MATLAB, Solidworks CAD, Access, Excel & Visio with SQL, VBA & VB.NET 2010 Apps

Durham, County Durham

May 2012 to October 2014

PhD presently paused.

### ROLLS-ROYCE DEUTSCHLAND

Life Cycle Engineer

RAM, RAW, Access and Excel with VBA

Dahlewitz, Blankenfelde-Mahlow

February 2012 to April 2012

### BAE SYSTEMS SAUDI ARABIA

ILS Engineer

LSA, ILS, SysML

Riyadh, Riyadh Province

April 2011 to September 2011

### Thales

ILS Engineer

LSA, ILS, LCC

Belfast

March 2009 to December 2009

Gosforth, Tyne & Wear

July 2008 to March 2014

**ELECTRON SOLAR WIND LTD** (*Setup by myself*)  
Director and Contracting Engineer  
WLCM, LSA, ILS, RAM, 3DXML, R&D, Solidworks CAD, Access & Excel  
with SQL & VBA, SysML, Visio

**BAE SYSTEMS LAND**

ILS Manager  
ILS, PM, Access with SQL and Excel with VBA

**LSC GROUP**

Senior Consultant  
Business Development, R&D, Visio

**VICKERS DEFENCE SYSTEMS**

Senior Engineer and Team Leader  
ILS, LSA, WLCM, PM, Access with VBA & SQL, Visio Apps

**AIRSYS ATM**

ILS Senior Engineer  
RAM, WLCM, Access, Excel with VBA

**ROLLS-ROYCE AND ASSOCIATES**

ILS Engineer  
RCM, FMECA, WLCM, Excel & Access with VBA

**RELIABILITY CONSULTANTS LIMITED**

ILS Consultant  
LSA, ILS

**BRITISH AEROSPACE**

ILS Engineer  
LSA

**INTERNATIONAL RADIATORS LIMITED**

Design and Development Engineer  
Engineering Design using AutoCAD

Newcastle upon Tyne, Tyne & Wear  
April 2006 to February 2008

Lichfield, Staffordshire  
June 2003 to April 2006

Newcastle upon Tyne, Tyne & Wear  
March 2000 to June 2003

Chessington, Surrey  
April 1998 to March 2000

Derby, Derbyshire  
January 1995 to April 1998

Fareham, Hampshire  
October 1993 to December 1994

Balderstone, Lancashire  
September 1991 to October 1993

August 1990 to September 1991

---

## EDUCATION

---

**PHD: SYSTEMS ENGINEERING** (*Paused in Oct 2014*)  
Topic: "Through Life Systems Engineering Design and Support of Renewable Energy Systems"  
Scope: To research and develop a model based system engineering design tool running on a single computer with SysML integrated into other engineering domains and simulation technology from the systems engineering domain for efficient system design trade-off analysis with a holistic perspective.

Durham University, County Durham, UK  
May 2012 to October 2014  
(Not completed and has been abandoned)

**MSC: SYSTEMS ENGINEERING**

Topic: "Advanced Manufacturing Systems Engineering  
Final Project: Economic Availability Modelling for design trade-off analysis

Brunel University, Middlesex  
September 1992 to July 1995  
(Self-financed and distance learning)

**ENGINEERING COUNCIL PART TWO**

Topic: Production Engineering

Southampton Institute Higher Education, Hampshire  
September 1989 to June 1990

**HND: COMPUTER AIDED ENGINEERING**

Southampton Institute Higher Education, Hampshire  
September 1987 to June 1989

**OND: ENGINEERING TECHNOLOGY**

Coventry Technical College, West Midlands  
September 1983 to June 1986

---

## PUBLISHED

---

"Holistic Design Analysis", published in the International Journal of Simulation Systems Science and Technology in 2004

"Through Life Systems Engineering Design and Support with SysML", published in Procedia CIRP by Elsevier in November 2013

---

## INTERESTS

---

I enjoy hiking and landscape photography, especially in the Lake District where the two interests complement each other perfectly. I also like a large range of films and enjoy topics on film making especially with the use of 3D technology. I have a passion for trawler style motor yachts and did own a 33 foot Cygnus Marine boat with a 12.5 tonne displacement