

# Mussawar (Maz) Ahmad

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## Summary

- Mechanical Engineering, Brunel University, 2013
- Understanding of automotive propulsion systems – challenges and requirements
- Developing knowledge on DFMA
- Investigating the challenges associated with the mass production of fuel cells
- Previous experience with offshore and onshore integrity management for a E&P organisation
- Management of customer requirements and product limitations with an automotive supplier

## Technical Skills

- MATLAB – Video/Image processing, vehicle suspension modelling,
- CAD/CAM - Siemens NX, ProDesktop, Autodesk, Solidworks and 2D Design V2.
- ANSYS – 2D CFD and 3D FE modelling

## Education

**University of Warwick** High Volume Manufacturing of Fuel Cell Stacks for Small Vehicle Applications, PhD. August 2013 – August 2017. Working the High Speed Sustainable Manufacturing Institute, Arcola Energy, Horizon Fuel Cells UK and various other partners to onshore PEM fuel cell manufacturing capability from China. The research focuses on production scale up and implementing quality control protocols for fuel cell assembly.

**University of Brunel** 1<sup>st</sup> Class Hons, Mechanical Engineering (BEng) 4 Year thick sandwich September 2009 – June 2013. Level 3 Dissertation: Design and set up of an experiment to analyse and compare the variables affecting Diesel and Biodiesel sprays. The project analysed the resulting combustion characteristics which will were researched further by a group of researchers at Brunel.

**Herschel Grammar School** A Levels Sept 07 – Jun 09; Product Design A, Maths A, Physics B, Biology B

**Herschel Grammar School** GCSE Sept 02 – Jun 07; Biology A, Chemistry A\*, Physics A\*, Maths A\*, English Language A, Product Design A\*

## Employment History

**Centrica Energy** Mechanical Integrity Engineer (June 2013 – August 2013) A summer placement developed an understanding of the challenges faced by an E&P business. Key projects included the development of a process for the safe transportation of flanges, a strategy to manage integrity issues and development of a plan to resolve an issue concerning split nuts found on offshore platforms.

**Robert Bosch GmbH** Sample Administrator for Jaguar Land Rover (July 2011 – September 2012) An internship which required supporting the customer in the early stages of design and manufacture by supplying sample parts for prototype builds. This was initially an internship for 12 months but the contract was extended to 15 months to support both Bosch and the customer.

- **Technical:** Understanding the application and importance of the components Bosch supplies to its customers - in particular within Powertrain and Infotainment systems.
- **Communication:** Developing a rapport with the customer to help manage expectations for component lead-times.
- **Teamwork:** Working with a multidisciplinary team including engineering, sales, accounts, quality and manufacturing to assess problems resulting in the development and execution of solutions. Initiated and

lead projects to support the customer and maintain the businesses brand image such as the development of a strategy to meet the challenging demand of two parallel customer programs.

- **Organisation and Process Development:** Identifying a management issue as the customer's portfolio increased and implemented an innovative tracking system for orders that provided transparency both for the customer and the business. This mitigated the risk of 'line stops' as well as simplifying the sample part ordering process.

## **Part-time Work**

### **Vision Express Optical Assistant (March 2008 – June 2011)**

- **Technical:** Gaining an understanding of how lenses work, manufacturing and quality processes for varying grades. Making spectacles and carrying out preliminary exams, both making the use of specialist equipment.
- **Communication:** Answering calls to book appointments, handle queries and answering patient questions.
- **Interpersonal:** Aiding patients in choosing ophthalmic and sun glasses, providing my own opinion to finalise their choice
- **Organisation and Initiative:** Stock check and ordering new stock based on popularity and fashion trends
- **Teamwork:** Working within a team to make customers feel welcome. Bringing together individual skills to close a sale

### **Herschel Grammar School (Mid-term breaks)**

- **Project Management:** Constructing a separating wall between two classrooms. Ensuring manpower, materials and timing plan was in place before project started. Keeping on track and staying within budget.
- **Technical:** Use of power tools and hand tools to construct and disassemble cabinets, desks and worktops