

Junedul Shahid

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Education

Sep 2014 – July 2019

Queen Mary University of London, London, England

MEng Mechanical Engineering with Industrial Experience

- First Class (1st)
- Industrial Experience: Siemens

MEng Group Project – Shell Eco-marathon Competition, Prototype Class (Overall Grade – A, 75.7%)

- **Project Aim** – In a team of six, design and build a three-wheeled, fuel-efficient prototype vehicle powered by an internal combustion engine
- **Individual Area of Responsibility** – Steering system design, manufacture and assembly (Inc. wheels, tyres and brakes)
- **Project Outcome** – Rolling chassis with completed steering system achieved (progress limited by budget)

Third Year Project – Design and feasibility study of an energy recovery system utilising the suspension travel of a road vehicle (Overall Grade – A, 76%)

- **Aim** – To generate enough electricity through multiple onboard DC (Direct Current) generator units to power the non-critical electronics within a car
- **Project Outcome** – Generator unit and energy recovery mechanism designed. The analysis was based on consumer-grade magnets for the generators. Results indicated the design is feasible, in theory, if stronger magnets are used to account for low RPM (revolutions-per-minute). More complex simulations are required to account for vibrational effects, frictional and temperature losses and long-term durability

Sep 2012 – Jun 2014

Seven Kings High School, London, England

A - Level: Mathematics Mechanics (A), Chemistry (B), Physics (C),

Other: AS Product Design (C), Cambridge Pre-U Global Perspectives and Research (P2)

Sep 2007 – Jun 2012

Stepney Green Maths, Computing and Science College, London, England

11 GCSEs Including Mathematics (A*), Triple Science (AAA), Resistant Materials Design (A), English Language (B), received Spanish award in year 9

Experience

Aug 2017 - Aug 2018

Siemens Intelligent Traffic Systems – Mechanical Design Intern

Assisted the mechanical engineering department (drawing office) on various projects such as Plus+, a Variable Message Sign (VMS) which was installed in Warrington and the design of a handheld connector release tool

- **Mechanical design** of components, turning concepts into cost-effective designs for manufacture
- Supporting and updating existing designs to customer specification
- **Creating “kits” of parts** for internal assembly lines and for field service engineers
- **Preparing 3D CAD models** (using Autodesk Inventor and Solid Edge), **producing dimensioned drawings**, assembly drawings, installation drawings and **Bills-of-Materials (BOMs) using SAP**
- Adhering to **Product Data Management (PDM)** systems in-place which are used to maintain documents in accordance with ISO 9001 (Quality Management) i.e. revision controlled and traceable
- Updating and reworking legacy **AutoCAD drawings**
- **Supplier liaison** to source suitable components and arrange samples
- **Worked within a large team** of mechanical, hardware (electronic), field support and production planning engineers
- Graduated the **Industrial Cadet Platinum Leader** programme (awarded by the **Engineering Development Trust – EDT**)



Oct 2015 – Mar 2017

Queen Mary Formula Student – Suspension Design

Student team designing and building a single-seater racing car to compete at the annual Formula Student competition held at the Silverstone race track

- **Core Responsibilities** – Steering system design, wheels and tyres
- **Administrative Responsibilities** – Weekly progress report, design report, cost tracker
- **Working in a team of 40** (suspension team consisted of 4 people)
- SolidWorks (CAD) design, material selection, testing (FEA analysis)

June 2016

BP (British Petroleum) Widening Participation Programme (PEN Network) – Student Intern (1 Week)

Shadowed the engineering team at BP's technology centre in Pangbourne, Reading

- Introduced to **engine lubrication testing** - setting up a mounted engine in a test cell, using a dynamometer and software to imitate real conditions
- Observed a guided **dismantling of a four-cylinder motorbike engine**, received an in-depth explanation of all parts involved (emphasis placed on inspecting material wear)
- Participated in numerous interactive workshops related to different business areas (both upstream and downstream)

Oct 2015 – Dec 2015

Queen Mary University – J.P. Morgan Professional Skills Development Programme – Consultant (7 Weeks)

Worked within a **team of 6** for an IT start-up based in London on behalf of Queen Mary University (with support from a mentor at J.P. Morgan)

- **Market research** (on IT recruitment market), **research analysis** resulted in client changing their cost model, constructed a **marketing presentation**
- **Communicated** with roughly **60 different companies** to understand their **business and recruitment needs**
- **Presented to a panel at J.P. Morgan** summarising the outcomes of our project (audience of 40)

Recent Positions of Responsibility

2016 -2017

President – QMSU Aspire – A volunteering group working on campus and with children aged 9-11 running Paralympic sports sessions

- **Achievements** – 20 new volunteers recruited, new school signed onto programme, organised on-campus event (wheelchair basketball)
- **Responsibilities** – Leading a team of 30, supporting new volunteers in preparing their DBS application, chairing weekly meetings, maintaining relationships with the current schools on the programme

2015 - 2016

PASS Mentor (Peer – Assisted – Student –Support) – Provide guidance on academic/social aspects of university life during weekly drop-in sessions

Additional Skills and Interests

Languages: English (native), Bengali (intermediate), Spanish (intermediate)

Applications: Microsoft Office Suite, SolidWorks (CAD), Autodesk Inventor (CAD), Solid Edge (CAD), MATLAB, Granta CES Material Selector, Arduino (IDE), Ansys Workbench

Interests: Archery, Football, Travel, Photography

Other: Full UK Driving Licence

Additional Information

- **Silver Award** – contributing more than 50 hours to volunteering between 2015-16 (Awarded by Queen Mary Students' Union)
- **Video presentation and public speaking training** completed as part of the QM Skills Award presented by Queen Mary Students' Union (2016)

