



## Mohammed Sheeja

BEng (Hon) Mechatronics

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Expiry: 09-01-2023

DOB: 27-08-1994

On Visit Visa

International Driving License

3+ years of experience

Exposure in R&D

### Software Used:

- ✓ VectorCANalyzer
- ✓ Microchip LINAnalyzer
- ✓ Putty/Realterm
- ✓ Moxa/VirtualPort
- ✓ MATLAB/SIMULINK
- ✓ C/C++, Visual Studio
- ✓ PTC Creo/Solid Works
- ✓ WireShark
- ✓ LabVIEW
- ✓ Arduino
- ✓ DesignSpark
- ✓ Multisim/Ultiboard
- ✓ MS Office/Visio

### Key Attributes:

Effective communicator  
Delegate with respect  
Organised & Punctual  
Smart and assertive

Robotics & CNC machines  
Vision & Motion Control  
Vehicle ECU Diagnostics  
Electro-Mechanics

CAN/LIN/Ethernet  
SPI/ I2C  
RS485/232/TCP/IP  
PlecoD

Positive and self-motivated  
Good team- player  
Enthusiastic  
Resilient

### Skills:

- ❖ A good acumen across SDLC/V-Model
- ❖ Diagnostics & Validation
- ❖ Process tools – JIRA, Bugzilla
- ❖ Test case writing
- ❖ Electrical/Electronic circuitry testing.
- ❖ Programming & debugging
- ❖ V-model system development life cycle
- ❖ High level of customer satisfaction.
- ❖ Familiar with various tool chains
- ❖ Protocol testing & COM-interfacing
- ❖ Diagnostics over IP

### Work History:

**PDSL UK, Coventry, United Kingdom [Test & Validation Engineer] [Sep2018 – March2019]**

#### Projects:

##### Infotainment Feature Testing & Validation

- ❖ Testing of various features in the Infotainment system such as DAB, NAV, FM/AM, Bluetooth and Wi-Fi
- ❖ Testing and validation of ongoing issues
- ❖ Stability test on various software release and reporting to Test Lead
- ❖ Analyse the issues during the validation using CAN traces and identify the root cause
- ❖ Test case writing & Validation plan.
- ❖ Software implementation of next generation infotainment Systems
- ❖ Test scripting for Feature Validation Tool

##### IPC & Steering Column Rig Test & Validation

- ❖ Motor control test and validation
- ❖ Feature testing of Info Panel Cluster and steering control switches
- ❖ Low voltage testing & reporting bugs into defect management system.
- ❖ ADC/DAC/SPI/LIN/CAN/Sensors
- ❖ Automated test scripting and CAN data logging
- ❖ Software stability testing
- ❖ Development of test specifications and test cases from System Requirements

**Silent Sentinel Ltd, Hertfordshire, United Kingdom [Support Engineer] [Aug2017 – Sep2018]**

#### Projects:

##### Gyro-Stabilizing camera development & system integration for marines/defence

- ❖ Prototype development and test-rig set up for PTZ camera – platforms
- ❖ Working alongside with senior engineers & technicians with debugging & troubleshooting.
- ❖ Debug toochain - JTAG, STM Cube, VisualStudio/SysProg, Novus
- ❖ Start-up Test /Health check-up and performance of the hardware, sensors/ actuator interfaces
- ❖ Software release & validation
- ❖ Command querying of PELCOD protocol using OEM Diagnostic tool & various terminals
- ❖ Verification & Validation of Telemetry and electronic hardware integration
- ❖ Diagnostics Service & Remote assistance
- ❖ Encoder DOIP using generic data capture tools
- ❖ Moxa/Nport/Realterm/Putty
- ❖ Hi-Speed motor driver testing
- ❖ COM - RS485/SPI/232/POE-Ethernet
- ❖ Pre-sales support

##### Radiometric Fire detection & Extinguisher system testing

- ❖ Thermal imaging system integration with fire extinguisher network & telemetry controls
- ❖ Tech support & Assembly line asst
- ❖ CAN/PelcoD/RS232/RS485
- ❖ Switch mode power supply configuration
- ❖ DOIP – Wireshark, NPort/Moxa

### Course modules:

- ✚ Advanced Electrical/Electronic Simulation and Control.
- ✚ Digital Design and Embedded System.
- ✚ Measurement and Design.
- ✚ Mechanical and Fluid System.
- ✚ Business, Innovation and Enterprising in Engineering.
- ✚ Electro-Mechanical Control System.
- ✚ Robotics & Instrumentation.
- ✚ Applied Engineering Mathematics.
- ✚ Advanced Engineering Analysis.
- ✚ Professional Engineering Skills.
- ✚ Work Placement.



### Reference:

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- ❖ End user acceptance testing of software release & Validation

### Wiper system development and validation

- ❖ PCB integration & validation
- ❖ Firmware & Single wire protocol [LIN] testing
- ❖ Test report writing

### Drone Jammers & RADAR integration & Verification

- ❖ Hardware & software integration
- ❖ DOIP – OEM tools/Wireshark
- ❖ Remote diagnostics & assistance for overseas customers

- ❖ Requirement Specification & Test case writing

- ❖ Electromechanical system development
- ❖ Hardware integration of wiper module

- ❖ PoE/RS485/Moxa/NPort.
- ❖ Encoder diagnostics & troubleshooting
- ❖ Root cause analysis and problem solving

**IPD DESK Ltd, Stoke on Trent, United Kingdom [Asst. Mechatronics Engineer] [Sep2015 – Aug 2017]**

### Projects:

#### CAN Rig Simulator Product Testing & Validation

- ❖ Testing and Support validation for various functional areas
- ❖ Infotainment test rig setup for bench testing the CAN tool chain
- ❖ CAPL Scripting and database management
- ❖ Automotive diagnostics services – ISO – 14229
- ❖ Development by liaising with relevant departments
- ❖ Translating the requirements to use cases required for the product development
- ❖ Hardware integration & software testing
- ❖ Test case writing to perform sanity test on every batch of product release
- ❖ V-model system development life cycle
- ❖ Collecting evidence like CAN/system Logs & Videos of particular issues

#### Micro-machined CNC Probe System Design

- ❖ Designed a CNC probe using CAD software
- ❖ Material selection for the product development
- ❖ Mechatronics system designing [MEMS] for the devices including PCB Design and data communication structure
- ❖ CAD simulation & Prototype testing

#### MEMS Switch Actuator System Testing & Validation

- ❖ Testing and validation of the electro-mechanic system
- ❖ test rig setup for the wall switch actuator
- ❖ CAD modelling, HW/SW testing
- ❖ Development by liaising with relevant departments
- ❖ Translating the requirements to use cases required for the product development
- ❖ Collecting evidence like data logs & Videos of particular issues
- ❖ Program testing and debugging

#### 4 Axis CNC machine control panel development & testing

- ❖ Prototype development and testing
- ❖ CNC Probe system implementation and electro-mechanical system validation
- ❖ Switch mode power supplies, OP-Amps, SPI & ADC/DAC
- ❖ Encoders/Pendant/touchscreen/relay circuits
- ❖ Software simulation for 4 Axis machines
- ❖ Training and support over Skype and phone
- ❖ Steppers/Limits/Opto/Hall sensors
- ❖ Wiring manual documentation

### EDUCATION:

**BEng (Hon) Mechatronics, Staffordshire University, England [2013 – 2017]**