

## ASHATH ALI AKBAR ALI

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### PROFESSIONAL SUMMARY

Manufacturing and Production Engineer with strong hands-on experience in production support, automation, PCBA assembly and testing, process improvement, and quality investigations within regulated manufacturing environments. Proven in PCBA assembly, test rig development, process optimization, and root cause analysis using Lean and 8D methodologies. Strong background in automation, instrumentation, and cross-functional collaboration with manufacturing, quality, and R&D teams to improve efficiency, quality, and reliability. Experienced in continuous improvement, SOP development, calibration, and TPM implementation. Seeking Manufacturing, Process, Test, or Quality Engineering roles in the UK or Gulf region.

### PROFESSIONAL EXPERIENCE

#### Production Support Engineer II

Intelligent Energy Ltd, United Kingdom

Aug 2023 – Present

- Provide senior-level production engineering support for complex electro-mechanical systems and high-power PCBA assemblies within regulated manufacturing environments.
- Lead production test engineering activities for high-power PCBA modules, including stack power modules and power console units.
- Designed and deployed Automated Test Equipment (ATE) using Arduino, I<sup>2</sup>C communication, and sensor instrumentation, reducing overall testing time by ~65% and improving First Pass Yield (FPY) by ~40%, while significantly enhancing test repeatability and data accuracy.
- Developed NI LabVIEW-based automated PCBA test rigs, cutting manual testing time by ~43% and increasing throughput, traceability, data integrity, and operator independence.
- Implemented sensor based ATE validation methods that reduced recurring production failures by nearly 80%, strengthening product reliability and process stability.
- Conduct root cause analysis (RCA) using structured problem-solving methodologies (8D, 5-Why, Fishbone), delivering permanent corrective actions that stabilised yield and reduced defect reoccurrence.
- Own SPC monitoring, yield analysis, and continuous improvement (Kaizen) initiatives to reduce defects, improve process capability, and increase FPY.
- Act as the technical point of contact on the shop floor, training and mentoring operators and technicians on test procedures, equipment usage, and standard work.
- Support New Product Introduction (NPI) activities, collaborating with R&D on design validation, DFM/DFA reviews, test strategy definition, and production readiness.

- Collaborate cross-functionally with Manufacturing, Quality, R&D, Procurement, and Test & Validation teams to resolve production constraints and improve OEE.
- Manage calibration, compliance, and performance validation of production and test equipment, coordinating with external suppliers and service providers.
- Interpret engineering drawings, BOMs, and specifications, supporting engineering change control (ECR/ECO) and controlled release into production.

### **Assembly Operator I**

**Intelligent Energy Ltd, United Kingdom**

**May 2023 – Jul 2023**

- Built electro-mechanical assemblies using engineering drawings and technical documentation.
- Supported quality control, testing, and continuous improvement activities.
- Worked closely with engineering and production teams to optimise assembly processes.

### **Service Engineer**

**GENN Controls Pvt. Ltd., India**

**Feb 2021 – Jun2021**

- Provided on-site and remote troubleshooting for optical color sorting machines, resolving electrical, instrumentation, and mechanical issues.
- Supported manufacturing through panel wiring, component installation, camera calibration, and functional testing.
- Conducted installation, commissioning, and calibration of machines at customer sites.
- Diagnosed and serviced valves, pressure switches, camera boards, communication boards, and control panels.
- Acted as technical liaison between customers and engineering teams to deliver effective solutions.

### **Operation engineer**

**SKAVN PPE Industry, India**

**Apr 2020 – Jan2021**

- Collaborated with senior automation engineers on machine installation, control system upgrades, and maintenance strategies.
- Designed and implemented a PID controller system, replacing the existing PD controller and improving system stability and accuracy.
- Led successful integration of the new control strategy into existing production machinery.
- Performed rapid troubleshooting to minimize downtime and maintain production targets.

### **BMS Operator**

**VALUE IBMS Solutions Pvt. Ltd., India**

**Feb 2020 – Mar 2020**

- Assisted in operation and maintenance of HVAC and Building Management Systems across multiple commercial buildings.
- Monitored chillers, cooling towers, VAVs, humidity sensors, CO<sub>2</sub> sensors, and energy systems.
- Generated daily energy consumption reports contributing to efficiency improvements.

## **EDUCATION**

### **MSc Advanced Manufacturing Engineering & Management**

Loughborough University, United Kingdom

Oct 2021 – Dec 2022

**Dissertation:** Food waste valorization using AI (MATLAB)

### **BEng Electronics & Instrumentation Engineering**

Karpagam College of Engineering, India

Aug 2015 – Jul 2019

**Dissertation:** Fuel volume measurement in non-linear tanks

## **TECHNICAL SKILLS**

Automation & Testing: LabVIEW, MATLAB, Arduino (Embedded C), PLC programming

Manufacturing Tools: Lean, Six Sigma, Kaizen, Gemba

Controls & Instrumentation: PID control, Sensors & Transducers, Servo, HMI programming

Design Tools: Siemens NX, SolidWorks

Communication Protocols: I2C, RS232, Modbus, Serial

Programming Languages: C, C++, Python, DBMS

Software: MS Excel, Word, PowerPoint

## **CORE COMPETENCIES**

Manufacturing & Production Engineering

Process Improvement & Continuous Improvement (Lean, Kaizen)

PCBA Assembly & Automated Testing

Root Cause Analysis (8D, Fishbone, 5 Whys, SPC)

Quality & ISO Awareness

Equipment Calibration & TPM

SOP Development & Documentation

Cross-functional Engineering Coordination

## **CERTIFICATION:**

- IPC/WHMA-A-620 Requirements & Acceptance for Cable & Wire Harness Assemblies
- Advanced technical requirements Training

## **ADDITIONAL**

National level and Regional-level volleyball player (UK leagues)