**MD Rahman**

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#### Senior Engineering Leader

18+ years of Validation/Testing, Quality & Program Management (Software/Hardware)

(Automotive, Semiconductor & Wireless Device/Networks)

**LinkedIn Testimonials**

*“I highly recommend MD to any organization who needs a testing Commander in Chief”*

*“He was also able to reduce the cycle time of the testing by about 50% compared to the third-party test labs through efficient management of internal test team and testing best practices”*

*“Hands down one of the greatest managers I've had”*

*“I have been very impressed by MD’s ability to handle even the toughest internal and external clients”*

**Management Executive (Motorola/Google** ∙ **Qualcomm** ∙ **Harman** ∙ May Mobility**)**

* Outstanding record of improving the Reliability& Quality of Automotive, Semiconductor & Mobile Device products by efficient & strategic management of Validation, Test, Certification & Regulatory Compliance operations.
* Proven record of managing Device RF/OTA (Antenna) & Protocols development, test, and Global Carrier certifications (PTCRB, GCF/CCF, VZW, Sprint, US Cellular, ATT, T-Mobile, Vodafone) covering LTE, 3G (UMTS, CDMA), 2G, GPS & Wi-Fi wireless technologies.
* Servant Leadership in building & maintaining the team’s productivity, development, and growth of 30+ engineers globally. Achieved 50% more work efficiency by establishing precise corporate business goals, motivation & training that created a culture of ownership and accountability.
* Leadership in Identifying, Evaluating, and Partnering with External Vendors to outsource product testing that covers SOW, Timeline, PO, regulatory requirements, Track/Monitor execution progress & Review Test reports.
* Built and certified state-of-the-art Labs & Software Tools by effective resource planning & team management that enabled the best in class test capabilities.
* Hands-on experience in managing Validation in the areas of Mechanical/Thermal Shock, Vibration, High/Low Temp Operation, EMI/EMC/ESD, etc.
* Successfully implemented ISO 17025 Quality Management System that prevented test set up issues, introduced documentation & collaboration, improved lab equipment tracking & maintenance, and enhanced training resulting in superior value & productivity in the testing service.
* Enhanced the relationship & professional team environment by respectful, empathetic & positive attitude and transparent communication among the global lab sites (US, Mexico, India) that resulted in better collaboration and knowledge sharing across the teams.
* Supported the Development and Design teams to assess the Engineering Prototype based on the feedback from validation results.
* Experienced in Software design, code, and unit test using C/C++, Unix, ClearCase, SDL & UML in Agile and Waterfall development models.
* Hands-on experience in Requirements Management in DOORs, Test Cases Development & Maintenance using various tools (TMS, TC) and Defect Tracking via JIRA systems.
* Hands-on Process & Product Improvement experience using ASPICE, ISO 17025, IATF 16949/ISO 9001, Six Sigma, and ISO 26262 safety. Problem-solving skills using 8D-5Whys, Fishbone, FTA.
* Hands-on experience in creating RFI/RFPs and evaluating supplier’s RFQs to identify the most qualified vendor to complete projects in time with quality & within the budget.
* Achieved 20% of Cost reduction by utilizing ISO quality management, 20% more Defect Discovery by Innovative Test/Validation strategy & plans, and 30% of Design Cycle Reduction by accurately interpreting customer business requirements.
* Experienced with Battery, Microcontroller, Sensor/Lidar/Radar, Camera, Radio Frequency (4G/LTE, 5G, GPS, Wi-Fi, BT), Autonomy/Perception, Mechanical Reliability, EMC, CAN/LIN/Ethernet Protocol, ECUs, Antenna, Connectivity, Infotainment technologies to name a few.

**PROFESSIONAL** **EXPERIENCE**

***VCOMP LLC* – *Novi, MI (2020 – Present)***

**Owner/Consultant (Quality Engineering)**

* Assist Automotive & Mobile Device clients to review the current test/quality process and guide them to accurately define the SW/HW validation strategy to launch a reliable product in time within the budget. Also, support with the process improvement plans to reduce waste/cost and improve cycle time.

***May Mobility (Autonomous Vehicles) – Ann Arbor, MI (2019 – 2020)***

**Senior Engineering Leader (Reliability, Quality & Lab Operation)   (Short-Term)**

* Managed Hardware & Software validation teams to verify the reliability of supplier components (Brake/Steering modules, Harness, Connectors, etc.) before vehicle integration and system test.
* Drafted “Quality Manual” to guide the team members for process & quality improvement.
* Based on the product roadmap, identified the equipment & tools for purchase and reflected in the budget.
* In collaboration with internal development teams and external suppliers optimized program scope, budget, schedule, and delivery timelines and tracked the daily Integration progress to identify & mitigate any risk.
* Identified the root causes of the 40% grounded vehicle issues and collaborated with development, platform, production & external suppliers to fix and validate the issues that resulted in 100% vehicles “In Operation” in all the 4 customer sites within 3 months saving $3+ million in revenue.
* Organized and led daily vehicle review meetings with the senior leadership team to determine the priority and improvement plan based on the test results & customer-impacting issues.
* Coordinated with internal development teams and external suppliers to conduct sub-system Design Review (DFMEA) and ISO 26262 Safety Check (HARA, FTA, FIT) before the final validation.

***Harman International (Infotainment Systems) – Novi, MI (2016 to 2019)***

**Senior Manager (Hardware Reliability/Validation & Lab Operation)**

* Servant leadership in aligning & managing global teams (US, India, Mexico) by establishing common processes, tools, procedures, and training that created a culture of consistency, transparency, ownership, accountability & quality.
* Managed Hardware Validation (Mechanical Reliability & EMC) of 100+ Audio Amplifiers & Speakers projects accomplished by 30+ personnel with ≤5% defect leakage ensuring 100% customer’s (Ford, GM, FCA, Toyota, Subaru & Harley Davidson) requirements coverage before the Mass Production and Launch Approval (PPAP).
* Proven Record of creating, monitoring, and controlling budgets ($7+ Million) & CAPEX to manage Certification & Regulatory Compliance testing of Head Units.
* Supported Validation Engineers to write, verify, and lockdown customer DVPR/PVPR before sharing with customers. Assisted Sales teams to provide new program RFQs. Helped program managers in preparing PPAP for the OEMs.
* In collaboration with corporate IT, established a process flow of Defect Tracking and Resolution using the JIRA tool and trained the cross-functional teams to align with the process.
* Supported design teams to review & validate Engineering Prototypes & recommend final changes. Created 8Ds (5 Whys) on the issues found during validation.
* 20% of Cost reduction by utilizing ISO quality management.
* Critical contributor towards ISO 17025 lab renewal and supported the lab teams to document & update Work Instructions, Lab Manuals, SOPs, and equipment & test racks purchase/calibration.
* Conducted daily/weekly follow-ups with the cross-functional teams to monitor any deviation & roadblocks and took immediate action to resolve per corporate & customer quality guidelines.

***Motorola Mobility / Google (Mobile Devices) – Chicago, IL (2011 to 2016)***

**Senior Engineering Manager (SW/HW Validation, Regulatory Compliance & Quality Management)**

* Managed RF/OTA (Antenna), SAR (Specific Absorption Rate), and EMC (Electromagnetic Compatibility) validation labs and resources: equipment purchase, calibration & inventory, accreditation, budget & personnel.
* Successfully implemented Lab Equipment RFID Tracking System.
* In collaboration with external certification agency (A2LA) successfully led & accomplished ISO17025 accreditation to establish a culture of continuous improvement & corrective action.
* Successfully led RF/Antenna (OTA) Lab accreditation from scratch per CTIA specification to certify internal testing for all the Global Mobile Carriers.
* Being a Technical Interface to the customer interpreted Customer Business Requirements to Technical Requirements for the Design & Development teams that resulted in resolving ambiguity ahead of time.
* Managed risk, program planning, budget, & scheduling for the Integration & Testing towards launching of 10+ Android Devices to the Sprint Carrier.
* Built Software test teams in 2 locations (KS & IL) from scratch, demonstrating Sprint requirements/features, setup, execution procedures, log collection, debugging, and analyzing methods, saving 3+ million dollars in revenue & reducing cycle time compared to testing done by 3rd party vendors.
* Authored device Antenna/RF performance test cases based on hardware design, systems docs & customer requirements; planned, scheduled & managed Antenna test operations for all Motorola products.
* Saved $2M+ of development & outsourced cost by analyzing & reusing the test results from identical BOMs.
* 20% more Defect Discovery by Innovative Test/Validation strategy & plans. 30% of Design Cycle Reduction by accurately interpreting customer business requirements.
* In collaboration with UL, managed IEEE 1725 Battery Safety Certification.

***Qualcomm, Inc. (FLOTV, Mobile/Automotive Chipset) – San Diego, CA (2008 to 2011)***

**Software/Hardware Lead (Quality Assurance and Validation)**

* Led Hardware ODM (HTC @ Taiwan) Engineering team for FLOTV device development & reliability.
* Point of Contact for the broadcast FLOTV Systems Requirements and authored device test plans.
* Reduced cycle time by discovering most of the major defects in the first system release. Supported Field Test team by writing automated scripts to parse the logs in a shorter time.
* Discovered critical design failures and issues on Mobile Chipsets, ruled out the root cause by tracing the Software code, created defect reports, and coordinated with design & development teams to reproduce issues quickly.
* Assisted the Automotive division in validating Telematics Chipset.

***Motorola Solutions/ Motorola Inc – IL (2001 to 2008)***

**Integration & Test Lead (Wireless Device/Networks, Telematics)**

* Instrumental in winning the $200M contract with a Federal customer (US Navy & Marine Corps) by resolving critical project progress-blocking issues during ASTRO integration & customer trials, recognized as the most valuable contributor by the corporate executives.
* Dramatically improved UMTS Network Performance by discovering the highest number of RNC (Radio Network Controller) software defects on record.
* Subject Matter Expert (SME) to write Mobile Device test plans, discover & resolve major issues before the launch. Saved millions of dollars & improved the quality of Motorola devices. By applying exploratory testing, discovered the highest number of software defects in the division for Verizon devices.
* Provided testing support to the IESS division towards On-star Telematics projects.

**Software Development Engineer *(GSM / UMTS Networks Location Services)***

Designed, wrote, and tested software code for GSM MTPL3 / SCCP Pre-processor, UMTS RNC RANAP signaling protocol (based on 3GPP spec) to support Location Services cell-ID solution.

**Leadership Attributes**:*Servant Leader∙ Global Team Building ∙ Project & Program Management ∙ Risk Analysis ∙ Budget Management ∙ Employee Retention ∙ Quality & Process Improvement ∙ Outsourcing & Vendor Management ∙ Enforce Quality Guidelines / Standards & Methods ∙ Software & Hardware Products Release Management*

**Technical/Quality Attributes** *∙ ISO9001∙ ISO 17025 ∙ ISO 26262 ∙ DFMEA ∙ Mechanical Reliability ∙ Simian (Autonomous Vehicle Testing Simulation) ∙ V2X ∙ GIT ∙ AWS ∙ Automotive SPICE L3∙ Ishikawa ∙ Kaizen ∙ Pugh Matrix ∙ Pareto Chart ∙ FTA ∙ SPC Chart ∙ CMMI 5**∙ Mobile Device & Network Testing ∙ RF/Antenna 4G/5G (LTE)/Wi-Fi/aGPS/BT ∙ Software/Hardware Development Lifecycle ∙ 47 CFR part 2/15 ∙ IEC 60950 ∙ IEC 61508*

Education

**Masters, Computer Science**, Wayne State University – Detroit, Michigan, USA.

**Bachelor of Engineering, Computer Systems Engineering**

Training

*Crash Course on Electronics and PCB Design, Program Management Office, Privacy and Data Protection, Business Management System for Automotive Functions, Connected Car Product Portfolio, Dale Carnegie, Essentials for Emerging Leaders, Motorola M-Gates, Motorola’s Ethics Program, CMMI Level 5, Product Lifecycle Management (PLM), TS16949, Validation Laboratory Quality Manual*

*Clear Case UNIX, C/C++/Python, Specification & Description Language (SDL), Fagan Process-Quality Software Development, Secure Programming, Digital Six Sigma Foundations, Motorola’s Approach to Quality.*

**Recognition/Awards**

*“Be Brilliant” (Harman International); “Bravo” (Motorola); “Qual star” (Qualcomm)*

Publication

**“Shape Recognition Neural Network with Sindhi and English Character Image Database”**

*Proceedings International Workshop on Computer Vision and Parallel Processing*, IEEE(USA).