**Overview**

**Accomplished**, **results oriented**, Six Sigma Green belt Certified **Building Management System** **Software Test professional** with more than **six years of experience** in the field of **Software testing, commissioning** of Building Management Systems products.

**Work experience 6.3 Years**

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| **Honeywell Technologies Solutions, Bangalore** | **Senior. Engineer - Testing** | *Sep’10 –Till date* |

* Having good experience in commissioning of **HVAC BMS** systems.
* Proficient in testing **building management supervisory** system, specifically in HVAC systems.
* Proficient in **commissioning & Debugging BACnet Plant controllers**, a native BACnet protocol based controller used for control and monitoring big heating or cooling systems like heaters, Chillers, Air handling unit.
* Having strong working knowledge in **Modbus, C-Bus** based controllers.
* Good working experience in **Sylk bus based Wall Module** and advanced Touch Screen **Thermostats**.
* Worked in **Scrum** (Agile Methodology), Waterfall Model, **STLC** and Automation test life cycle.
* Strong working experience in creating **Test Plans**, Test Design with extensive test cases against functional and non-functional requirements, product features.
* Proficient in the performing **Functional testing**, **System Integration testing**, **Performance Testing**, **Regression Testing** & **Site Acceptance testing** of Building Automation System Products.
* Strong working experience in **collecting test results**, documenting test reports, **debugging issues** **reported locally** and reported from **site**.
* Strong working experience in creating **Test Environments** to replicate customer scenarios.
* Strong working experience in **verification/validation of firmware, engineering tools** for large systems and web based applications.
* Demonstrated ability in **test automation** using **Test Complete** Automation tool, written many test scripts using VBScript for testing controller firmware over BACnet protocol communication also used to verify Modbus, Panel Bus and Lon protocol devices
* Worked on two major NPI (**new product development**/Introduction) **projects** involving in all phases of Testing, with role of test lead.
* Strong working knowledge in **Metrics Analysis** and providing metrics to management,
* Test Result Matrix,
  + Test Execution Rate
  + Defect Detection Rate
  + Post Release defect analysis via RCA.
* Traceability matrix
* Process: Six Sigma Green Belt, 5S in lab, Kaizen, Rapid Problem Solution, Bug of Month, Bug Bash
* Innovation: Product feature enhancement, Competitor product analysis
* Given many enhancements in current projects.
* Filed two Worldwide Invention Disclosure with Honeywell.

**Achievement & Awards:**

* Internally **published white paper** in Honeywell on ‘Centraline BACnet Test Library’, library was developed and based on it; automated test scripts were developed and deployed for testing BACnet controllers using Test Complete Automation Tool.
* Effectively prioritize and execute tasks in a high pressure environment.
* Demonstrated 5S activities in Test Labs and Cubicles, improved Kaizen rate in team.
* Won many awards for demonstrating technical and behavioural skills in projects and team like
  + Individual excellence award for demonstration of developing test scripts using test complete for BACnet plant controller
  + Partner award for excellent commitment and ownership in ensuring quality and schedule of BACnet plant controller project.
  + Many Spot awards for conducting and giving Modbus internal training to testers, fast learning of product, co-ordinating large system test team, ensuring quality and timely release of project.

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| **Sauter Race Technologies Pvt Ltd, Bangalore** | **Engineer-BMS Commissioning** | *Mar’09 – Sep’10* |

* Commissioning of Building management systems for better air conditioning and energy conservation
* Design control logics - programming for Chillers, Air handling units, CSU, VAV,
* Functionality Testing of HVAC systems,
* Technical discussions with client and consultants on projects,
* Planning and scheduling of commissioning activities.
* Having strong domain knowledge in HVAC systems, commissioned cooling HVAC system consisting of Chillers, Air Handling Unit, VAVs, demand controller ventilation.
* Commissioned HVAC sub systems consisting of power meters, energy meters working in Modbus protocol.

**Software** used in **commissioning Building management systems**:

* **Nova pro Open** – A Building Management System Central based on SCADA
* **FBD** – programming tool to design logics for BMS controllers.

**Protocols** used in **commissioning Building management systems**:

* **NovaNet,** **BacNET, Modbus,** LON

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| **Avalon Technologies Pvt Ltd, Chennai** | **Engineer – program management** | *Mar’08 – Sep’08* |

* Working in Printed Board Assembly projects, as a Project Engineer in Program management, I was responsible for production planning and delivery schedules for two products Culligan International and Embedtek.
* Processing of Quotations.
* Preparing Bill of Materials and quality testing documents.
* Direct interaction with Customers regarding the Engineering and production activities.
* Supervising the overall engineering activities of various departments like Cable, PCB, and System Integration.
* Engineering changes when necessary.
* Finding alternate and cheaper source for the Customized Electronic parts.

**Technical Skills:**

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| **Platform/ Operating System** | Window XP, Win 7 |
| **Version Control** | SVN |
| **Protocols** | BACNet, MODBus, Cbus, PanelBus, NovaNet, Lon |
| **Requirement Management Tool** | Contour |
| **Defect Tracking Tool** | JIRA, Siebel |
| **Tools** | **Software Tools:** |
|  | Microsoft Office, Tera Term, Total Commander, Win SCP |
|  | **Debugging /Performance Analysis Tools:** |
|  | Wire Shark, VTS (used for BACnet testing) |
|  | **Test Automation Tools:** |
|  | **Test Complete**, Test execute |
|  | **Device Simulators:** |
|  | MODR\_SIM, Simple MODBUS Slave, MODScan32 |
| **Programming & Test Scripting Languages** | **VB Script**, Basics in C. |
| **Trainings conducted** | BACnet and MODBus protocols |
| **Trainings undergone** | Design for Six Sigma Green Belt 🡪Project: Improve productivity and reduce test life cycle  Certified **Scrum** Developer 🡪 Project: Applied in projects. |
| **Technical paper Presentation** | **White Paper** on **'Centraline BACNet Test Library'** : used in Test Automation scripting |

**Academics:**

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| **DEGREE** | **YEAR** | **INSTITUTE** | **UNIVERSITY** | **PERCENTAGE** |
| **B.E (Electronics and Instrumentation Engg)** | May, 2007 | Mookambigai college of Engineering, Trichy | Anna University | 71% |
| **XII - AISSCE** | March, 2003 | Space Central School, Sriharikota. | CBSE | 78% |
| **X - AISSE** | March, 2001 | Space Central School, Sriharikota. | CBSE | 73% |

**B.E Academic Project:**

**Title: - Control and Monitoring Of Cryogenic Transfer Pump Using LabVIEW Done At Indian Space Research Organization (ISRO).**

Language: Lab VIEW.

Tools used: NI Lab VIEW 7.0 (LabView)

The objective of this project is to design and implement control and health monitoring of cryogenic transfer pump using the recent concept of virtual instrumentation (VI).

Advantage: The liquid N2 is hazardous and hence these physical parameters can be monitored from the remote station.

**Certifications:**

* PG Diploma Certificate course (6months duration) in VLSI DESIGN from ACCEL IT ACADEMY, Chennai.

**Extra-Curricular Activities**

* Represented Inter School basketball Team in the year of 2002-03.
* Member and captain of NCC in the School.
* Member of NSS in the school and college.

**Personal Details:**

Marital Status : Single

Passport No : J1457655