

# **OTTA Havard G**

## **Instrumentation & Control Engineer**

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Port Harcourt, Nigeria

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### **OBJECTIVE**

To be successful in my career and resourcefully contribute to the realization of an overall goal of a result-oriented organization through unalloyed commitment to responsibilities.

### **CONTACT ADDRESS IMPaC Oil AND GAS NIGERIA**

74 King Perekunle Street  
GRA Phase 11 Port Harcourt  
Rivers state, Nigeria

### **INSTITUTIONS ATTENDED**

**WITH DATES:** Enugu State University of Science  
And Technology Enugu. 2000

**QUALIFICATIONS:** B.Engineering (Electrical/Electronics Engineering)

**NATIONALITY:** Nigerian

## CAREER SUMMARY

Since graduation in 2000, I have got (8) years experience in various Oil and Gas Sectors. Basically, instrumentation, Process control and Automation Systems. This spans across Engineering Design (FEED and Detail), Documentation, implementation, Field Services and Client`s Support

## PROFESSIONAL PROFILE

Experienced in Instrumentation, Process Control and Automation Engineering with on the job training, internal and external trainings experiences

**Project Engineering:** -Knowledge of the following project phase: Documentation, FEED, Detailed Design, Development of Specifications and Philosophies, Optimisation of existing assets and IC&A abnormal operational problems. Upgrade of existing (Green) and non existing (Brown), Tie- ins, Modification.

Experienced in Selection of field instruments, Distributed Control System (**DCS**), Programmable Logic Controller (**PLC**), **DACA**, Human-machine-Interface (**HMI**) and different system interfaces with **DCS/PLC/SCADA/HMI, F&G** and **ESD**. Knowledge of **FOUNDATION FIELDBUS (FF)** Safety instrumented System (**SIS**), **SIL**, **SIF**, **IPF** and Process Automation System (**PAS**)

**FIELD OF EXPERIENCE:** Oil and Gas Designs and Engineering, chromatographic instrument Technology, Oil Production Platforms, Instrument servicing and repairs.

### Particular activities includes:

- Carrying out Instrumentation, Control & Automation System Design activities (**FEED/DETAIL DESIGN**) in SPDC, MOBIL, and CHEVRON, AGIP etc Design of offshore and onshore processing facilities. Generation of FEED documents and interdisciplinary interfaces based problems with instrument and control resolution. Development of instrument Specification, Philosophies, Control and shutdown narratives for different plants. Review and making input to instrument drawings such as P&IDs, Safety Shutdown and PAS Architecture, Instrument Block diagram, index, cable rack/tray. Support details/Layout drawings; Loop drawing Logic Diagram, Location & Hook-up Drawings using AutoCAD and instrument facility modelling using PDMS.

**COMPUTER PROFICIENCY:** Experienced in the following software applications (Ms Word, Excel, Microsoft Project, Firstvue, PowerPoint, AutoCAD, INTOOLS and PDMS, COMOS for Datasheets)

## WORK HISTORY

**IMPAC OIL AND GAS NIGERIA**

**74 KING PEREKUNLE STREET GRA PHASE 11 PORT HARCOURT  
RIVERS STATE, NIGERIA**

**Period Aug 2008 – Date**

**Job title Senior Instrumentation, Control & Automation Engineer.**

**Current Project AG SOLUTION PHASI DETAIL ENGINEERING DESIGN**

**Particular activities includes but not limited to the following deliverables:**

- Instrument Index, Instrument I/O list for DCS, ESSDS and F&G, Instrument MTO.
- Preparation of Instrument Specification and Philosophies
- Engineering instrument drawings such as Instrument and control Equipment layout, Instrumentation and Control System Block Diagram, Instrument Power Supply and Distribution Diagram, Instrument Logic Diagrams, Instrument & Control Layout Diagrams Instrument location diagram etc
- Attends Design Review and progress meetings
- Review of the front end engineering design (feed) packages from the client (SPDC)
- Making Inputs to P&IDs and other related document for the project.
- Ensuring that all relevant SPDC Codes and Standards, DEPs and International Standard are strictly adhered to.

**PREVIOUS WORK HISTORY:**

**SHELL PETROLEUM DEVELOPMENT COMPANY (SPDC), SCiN FEED OFFICE, IA, SPDC, PORT HARCOURT.**

**Period Jan 2005 – Aug 2008**

**Job title Senior Instrumentation, Control & Automation Engineer**

- Carrying out Instrumentation, Control & Automation Engineering Front-End Engineering & Design (FEED) and Detail Engineering for Shell Companies in Nigeria (SCiN) major and minor projects
- Definition of High level Cost effective solution for automation, communication network requirements, safeguarding and manning requirement during project definition phase while exploring the latest technologies in Control and Automation Engineering
- Assess the instrumentation, control and automation philosophies required together with other disciplines in order to optimize operations and maintenance activities
- Provide technical support and participate in risk based analysis on instrumentation work lists, as well as apply engineering theory, practices, and principles to determine root cause of equipment failures, and to perform performance evaluations
- Developed and reviewed documents, study reports and design calculations and ensuring conformance to engineering quality, standard and competence
- Develop in conjunction with process, facilities control and process safeguarding philosophies, cause and effect matrix taking commission, start up operational requirement and impact on the environment into account.
- Participate in technical and design reviews, project audit HAZOP, Constructability workshop, FirePran, SAFOP

- Review and Input to instrument drawings such as Safety Shutdown, PAS Architecture and system block diagram etc.
- Development of instrument specifications and philosophies such as, PAS, HMI Foundation fieldbus, SIS F&GS I,C&A General instrument specification, and selection of field instruments like flow,pressure,Temperature level etc,
- Update PEFS (P&ID) regarding instrument requirement and control philosophy
- Participated in SIL study, classification and report for different plant stations
- Generating necessary hand over documents like synopsis, BFD update and other control system reports/ narratives.
- Access fire, gas and smoke detection equipment required for operational facilities
- Performing inter-discipline reviews and providing coordinating data to ensure a compatible design (Synergy)
- Access classification methods, certifying bodies and the selection of equipment for hazardous areas
- Ensure that all necessary handover procedures were followed, so that the project can be handed over to the Project Management Team
- Verify the design work carried out by Engineering design contractors to ensure that proposed solutions are technically sound and meet operability and maintainability requirements of the project
- Ensure that all deliverables were carried out in accordance with SHELL DEP`s SPDC Standards and INTERNATIONAL codes and standards

**Number of project executed under SHELL Instrument discipline so far**

- **AG SOLUTION PHASE I (Umuechem,Ahia,Adibawa,Otumara,) BELEMA PUMP REPLACEMENT, Alakiri AG Solution and NAG Plants Upgrade FEED ,Santa Barbara Surge Vessel Gas Project (FEED) , Soku Gas Plant integrated project (FEED), Shell H-Block offshore Development Project (FEED)., Associated Gas Gathering phase two FEED & DETAIL DESIGN, Surge Vessel Gas Gathering FEED & DETAIL DESIGN., SPDC FACILITIES INSTRUMENT UPGRADE (FEED AND DETAIL DESIGN), BELEMA & EKULAMA PROJECT etc**

**Project Name AG SOLUTION PROJECT (Umuechem, Ahia and Adibawa)**

**Job title Senior Instrumentation, Control & Automation Engineer**

- Carrying out basis for design review with respect to the project Specification and philosophies. Developing Specification for all the field instruments
- Preparing Specification for the fire and gas, Safety instrumented systems and IC &A philosophy
- Capture lessons learnt and best practices from past and existing projects and ensure that these are fully observed in the future project execution.
- Application of Shell DEPs, SPDC Standard and International Standards in Specification and Philosophy write-ups
- Instrument deliverable review, update and system report Assess the instrumentation, control and automation philosophies required together with other disciplines in order to optimize operations and maintenance activities
- SIL study, classification and report.
- Carrying out ESD and OSD reports and overall Shutdown hierarchy.
- Technical interfaces with other disciplines, vendors & client.
- Quality Assurance – Responsible for working within the provisions and guidelines of the Quality Assurance system relevant to the Oil & Gas Business Unit
- Preparation of manhour estimate and proposals
- Participate in technical and design reviews, HAZOPs, Constructability workshop, FirePran, SAFOP etc

**Project Name AG SOLUTION PROJECT (Otumara, Saghara & Opuama)**

**Job title Instrumentation, Control & Automation Engineer**

- Carrying out instrumentation, control & Automation FEED work in SPDC onshore processing facilities.
- Generating Field Instrument specification and philosophy for all the flowstations
- Operational and Maintenance activity assessment.
- Assess the instrumentation, control and automation philosophies required together with other disciplines in order to optimize operations and maintenance activities.
- Preparing Safety Integrity System (SIS) and PAS and Specification for the entire facilities.
- Safety Integrity Level (SIL) study, classification and report for all the safety loops.
- Application of Shell DEPs and external standards in specification and philosophy write-ups.
- CTR development and man-hour challenge session for the four flow stations
- Development of instrument list and index for FEED Execution
- Several site visit and reports on existing instrumentation and control systems

**NATIONAL ENGINEERING AND TECHNICAL COMPANY (NETCO)  
2, AJOSE ADEOGUN STREET VICTORIA ISLAND LAGOS (2002-2005)**

**Job title Instrumentation and Control Engineer. /Designer**

**Project Name NLNG TRAIN 6 ( CONDENSATE STABILISATION UNIT) CSU.**

- Production of instrument stands (support) for all instruments in the field and online using PDMS.
- Production of instrument cable racks for cable routine using PDMS.
- Underground / subsurface cable trenches layout modelling.
- Junction box creation and positioning using PDMS
- Extraction of instrument requirement on platforms both in field and online
- New cable rack modelling to the existing rack on the platform

**Project Name QUA IBOE TERMINAL GAS FLARE ELIMINATION PROJECT, MOBIL (QIT)  
(JOB NO. 1121)**

**Job title Instrument Engineer/Designer.**

- Review of Instrument deliverables to ensure that clients codes, standards and procedures are strictly adhered to
- Review of installation details and making inputs to P&ID.
- Preparation of pressure safety and relief valves valve Data sheets.
- Preparation of instrument index and location plan. material take-off and Hook-up drawings
- Preparation of Attend Interdisciplinary review meeting

**Project Name MOBIL PRODUCING NIG.UNLIMITED PIG.LAUNCHER/ RECEIVER  
EQUIPMENT MODIFICATION PROJECT. (JOB NO.1106)**

**Job title Instrument Designer**

Worked on four platforms (EKU, UTUE, INIM, ETIM)

- Review of existing plant document (AS-BUILT) making inputs to Piping and instrumentation diagram (P&ID).
- Preparation of instrument data sheet for pressure safety and control valves.
- Pressure and safety valve, Control valve sizing and calculations.
- Preparation of instrument Hook-ups drawing and installation details.
- Preparation of material take-off, man-hour and execution plans. Cable and junction box schedule
- Preliminary/detail drawing using AutoCAD

**Project Name SPDC GBARA-UBIE INTEGRATED OIL & GAS PROJECT (IOGP)**

**Job title Telecommunication Engineer.**

- Review of the Front End Engineering Design (FEED) packages.

- Preparation of detail Engineering Design man-hour. Execution plan and, timesheet
- Preparation of material take-off (MTO) for the projects
- Provision of necessary document for the EPC and other miscellaneous activities



## **WINELIGHT ANALYTICAL SYSTEMS NIGERIA LIMITED LAGOS (2001)**

### **Job title Instrument Service Engineer.**

- Installations, Commissioning of various analytical oil and gas instrument.
- Instrument servicing and troubleshooting of equipment not limited to Analyzers, Uv/vis spectrometer, Spectrophotometers, Flame photometers AAS, including all packaging related matters.
- Configuration and calibration of various oil and gas Equipment which includes Gas Chromatography, AAS, Analytical balances, Spectrophotometers among others
- Repair of different control panels, stabilizers
- Conducting training/seminar for staffs on the use of different Lab instrument and applications
- Writing Engineers Reports

### **Contributions and achievements**

Resolved Soku Gas plant debottlenecking PAS and SIS integration problem to suit the new instrument and control system to be deployed and tied into the existing plant

Conducted SIL study, classification and report for soku gas plant

Developed multiport Selector valve specification for three stations which has never been developed in SHELL FEED Department

Part of the team that designed a suit of seamless instrumentation and control system that was deployed and tied in to Soku gas plant existing control system

### **Key Competencies:**

- Good Communication skills, both verbal and written
- Adaptable and practical
- Ability to work to tight deadlines
- Computer literate

### **WORKSHOP / TRAININGS UNDERGONE**

#### **TRAINING TITLE COMPANY DURATION**

Basic instrumentation and control NETCO 2 weeks  
Supervisory control systems such as NETCO 1 week  
PLC/DCS/SCADA NETCO 1 week  
AutoCAD NETCO 2 weeks  
INTOOLS SPDC 4 days  
PDMS and software management NETCO 2 week  
DACA and foundation fieldbus SPDC 1 day  
SIF Classification SPDC Several  
Human factor Engineering SPDC 3 days  
HAZOPs SPDC 5days  
FIREPRAN SPDC 1 week  
INSTRUMENT calibration WINELIGHT 4 days  
Fire and Gas Detronics 2day  
Wire less technology in oil and Gas Emerson 1 day  
Foundation fieldbus Emerson 1 day

**MEMBERSHIP**

**ISA Member**

**NSE MEMBERSHIP IN PROGRESS**

**Coren MEMBERSHIP IN PROGRESS  
REFEREES**

**Engr Ifie U**

Principal Instr. Control & Automation Engr.  
FEED Team (EPG-PN-TEFD)  
Shell Petr.Dev.Co.Nigeria Ltd  
Port Harcourt.

**Engr.Ugbor**

Head Instr., Control and Automation  
National Engineering and Technical Company  
Lagos.

