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Bulawayo, Zimbabwe

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PERSONAL PARTICULARS

Age	:	25 years	Date of Birth	:	07 February 1989
Nationality	:	Zimbabwean	Gender	:	Male
Marital Status	:	Single	ID Number	:	08-855521 Q26
Permanent Residence	:	Zimbabwe			

RESUME FOR JAN MAKOPA

BACKGROUND SUMMARY

- Sound educational and practical knowledge in Industrial Instrumentations and Controls attained at honors degree level in Applied Physics.
- Full year Trainee Engineer at Flexible Measurement and Control Systems Bulawayo.
- Highly innovative with the ability to plan, implement and evaluation of programs.
- Experienced in preparation of research materials and presentation with proven ability to research and implement.
- Team player with developed instinct to cost effectiveness and achievement.

Work Experience

Undergraduate trainee in Instrumentation and Control (Aug 2011-July 2012)

Flexible Measurement and Control Systems

Trainee Engineer Flexible Measurement (2013-2014)

Key responsibilities

- Servicing and asizing of Industrial Weighbridges from various companies in Zimbabwe.
- Direct involvement in Weighbridge installation projects
- Industrial Ethernet installation projects
- Optic Fiber runs and splicing for various Industrial IP Networking applications
- CCTV Installation Projects
- Testing and evaluating performance of plant Temperature Controllers against standard Process Multimeter.
- Installing weighbridge software database and configuring the RS232c Serial Comports for PC to Load cell communication.
- Calibration of Integrated conveyer belt weighing systems from various Companies
- Calibrating Pressure gauges at the LPP 30 Handpump Test point

- Calibrating pH Meters using the Standard Buffer Solution of pH 4.00 and 7.00.

PROJECT EXPERIENCE

1. ZPC Bulawayo Wagon Tippler Project(2013 Under Flexible Measurement)

■ **Project Scope**

The Scope of the project was to upgrade the existing hard wired Wound rotor circuit that controlled the On/OFF and Forward/Reverse of the Wagon Tippler at the Coal Plant.

■ **Implementation**

- Design and installation of a VFD based Wagon Tippler control system.
- Mounting and Parameterizing of the ABB VFD to vary the speed of the 3-phase electrical motor driving the Tripler.
- mounting the Wagon Tippler Upper and Lower Limit switches
- Programming and mounting the Siemens LOGO Comfort Controller to change the direction of the Wagon Tippler
- Commissioning the new Wagon Tippler Control system Project

2. ZPC Hwange CCTV Project(2013 Under Flexible Measurement)

■ **Project Scope**

To Install a Camera IP network to remotely monitor Processed Coal Spillage on the conveyer tails in the main Junction Towers and the Coal Bunkers at the Coal Plant.

■ **Implementation**

- To design the Ethernet based Camera Network system(Vivotek and Pelko Camera Brands)
- Running Optic Fiber cable linking the MOXA Ethernet Switches between the four Junction towers in a Ring Network Topology.
- Optic Fiber and MOXA switch SFP Module Cores Splicing at each Junction Box at the main Junction Towers (Using the Fusion Splicing Machine).
- Mounting the Network Cameras and Focusing them on each conveyer tail in the Coal Plant
- Installing the Camera servers in the Main Control Room and Configuring the DNVR Software Manager.
- Commissioning the new CCTV Project

3. ZPC Hwange Weighbridge Project(2014 Under Flexible Measurement)

■ **Project Scope**

To install a second Surface Mount Road weighbridge to take the Gross Weight of the Incoming Trucks of the Coal Suppliers and at the same time configuring the existing weighbridge system to take the Tare weight of the out-going trucks.

■ **Implementation**

- Sub-contracting Civil Engineers to collect soil samples for testing the ground strength of the weighbridge construction area and constructing the Weighbridge Ramps and Control Room
- Laying and aligning the Five Weighbar modules on the concrete slabs in preparation of the weighbridge deck original position.
- Mounting the Weighbridge Tiles into the Weighbar modules and aligning them to have a level weighbridge deck
- Installation of the Weighbridge Software
- Networking the two weighbridge Servers using the MOXA Ethernet to RS232c Combo Servers.
- Calibrating and Commissioning the new Integrated Weighbridge System

4. Other Projects (Software Design and Development 2013-2014)

Software given Assembly Name: WIM Manager

- Designed and Developed an ASCII based Command and Response Industrial Weighbridge Software called WIM Manager.
- The software uses Microsoft's SQL database, IP networking and programming tools to make Industrial Road and Rail Load Measurement easy and more effective
- Designed the Software with the objectives of reducing costs, improving processes and increasing profits for the major customer by:
  - Introducing a Networking function to remotely share the Periodic Weighbridge Transaction Reports with other Plant Departments as required
  - Including a function to Network the Software Server with other Plant Network Printers
- Engineered the software to Communicate with any Weighbridge Indicator with Command Response compliance by configuring either of the two templates: Level 1 SMA Protocol Template and a User Defined Template.
- The Software produces the following weighbridge Transactions Reports: A Consolidated Invoice, a Weighbridge Transaction Invoice and Periodic Transaction Reports.

■ 2009 to 2013 National University Of Science And Technology, Bulawayo Zimbabwe

- Obtained a 2.1 degree class in BSc Honors in Applied Physics.
- Majored in Industrial Instrumentations and Controls in the Final Year of study.

■ COMPUTER PROFICIENCY

- **Operating systems:** Windows XP, Windows 7, Linux, Windows 8.
- **Internet experience:** Extensive use of Web browsers (including Internet Explorer, Opera, Aurora, Firefox, e-mail, in depth knowledge of Internet navigation).
- **Applications:** Microsoft Office 2010 (including Word, Excel, PowerPoint, Microsoft Outlook Express).

■ TECHNICAL SOFTWARES

- Developing Industrial Weighing applications
- PLC Programming in Step7 (Worked with the Siemens S71200 PLC)
- Familiar with the GXWorks2 PLC Programming Environment
- Basic HMI Configurations and HMI Profibus Networking (Worked with Siemens HMI Panels)
- Programming Siemens LOGO Soft Comfort in LAD Logic and or Functional block Language

■ LANGUAGE SKILLS

	Spoken	Written
English	Good	Good
Ndebele	Excellent	Fair
Shona	Excellent	Good

REFERENCE

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