

RAMOTJATJI SHAUN PHALA

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Professional Summary:

Electrical Engineer with 4+ years of experience in project engineering, specifically in electrical and control systems of DCS/SCADA automation projects. Providing high-quality engineering solutions and managing complex projects from conception to execution. I hold a bachelor's degree in electrical engineering technology and in the process of professional registration with ECSA.

Specialized skills in Electrical design, PLC programming, Network architecture design, Commissioning, Project planning and execution. Exceptional communication, leadership and teamwork skills which ensures projects get delivered according to schedule and budget constraints. Constantly learning and developing new skills to provide better solutions for customers and to identify new opportunities for the business.

Key Skills:

- Electrical Design: Expertise in creating and reviewing electrical schematics and layouts.
- PLC Programming: Proficient in designing and programming automation systems.
- Commissioning: Hands-on experience in system loop testing, troubleshooting, cold commissioning, hot commissioning and startup operations.
- Root cause analysis
- Networking and virtualization
- Project Management: Skilled in planning, executing, and monitoring projects to ensure timely delivery.
- Technical Documentation: Competent in preparing reports, design documents, and user manuals.
- Software Tools: Experienced with [AutoCAD, Codesys, VMware, , ABB 800xA, ABB Symphony plus, Control Builder, Composer, Microsoft Visio, EPLAN Electrical 8, Solidworks electrical].

Professional Experience:

ABB PAEN – Power Generation Energy Industries Division:

1. Project Engineer (Oct 2024 – Present)

- Lead automation projects in the power generation sector.
- Conducted comprehensive drawing analysis to identify potential design optimizations, cost-saving opportunities, and ensure alignment with project requirements.
- Development of control panel BOM's
- Development of drawings for control panels, network panels. Included in the drawings are the general arrangement, internal layout, schematics, wire diagrams.
- Interface design to Excitation systems and other third-party systems.
- Oversee electrical design installations and ensure compliance with industry standards, project timelines and safety protocols.
- Provide technical guidance and support to installation teams, troubleshooting any issues that arise during the construction phase to maintain project momentum.

- Acted as a primary point of contact with subcontractor for communications of the hardware installation, providing regular updates on project progress, addressing any concerns, and ensuring customer satisfaction.
 - Coordinate commissioning activities, including system integration and testing.
 - Collaborate with cross-functional teams to ensure project goals are met within budget and schedule.
 - Maintain thorough documentation throughout the project lifecycle, including design specifications, installation records, commissioning reports, and as-built drawings.
2. Associate Project Engineer (October 2022 – September 2024)
- Assisted in project planning, scheduling, and execution of industrial process automation projects.
 - Supported electrical design reviews and provided technical solutions for challenges.
 - Conducted commissioning activities and ensured adherence to safety protocols.
 - Maintained technical documentation and liaised with clients for project updates.
3. Engineer in Training (EIT) (2020 – 2022)
- Rotational training in control systems, instrumentation, and electrical design.
 - Shadowed senior engineers to gain hands-on experience in project execution.
 - Participated in design, commissioning and troubleshooting of power generation systems.
 - Contributed to the preparation of engineering documentation and reports.

Project Experience:

Company ABB PAEN – Power Generation Division:

1. LHDA Hydo Power Station Upgrade Project (2022-Ongoing)

Duties and Responsibilities:

- Project Initiation and Planning: Plant Walk down, requirement analysis, budgeting and scheduling.
- Conceptual Design: 800xA DCS System Architecture design, Preliminary hardware selection
- Detail Engineering and Design: AC800M with 800xA Select IO Control Panel Design, Loop Drawing, Termination Drawings.
- Procurement and Manufacturing: Provided BOM for component procurement and control panel assembly and wiring drawings.
- Factory Acceptance Testing (FAT): Hardware and Panel testing
- Installation and Commissioning: Site establishment, Loop checking and IO testing, Site acceptance testing (SAT)
- Multiprogrammable transducer SINEAX DME 442 configuration and calibration to site requirements.
- Network switch configuration (VLAN setups)
- Operator and maintenance staff training on 800xA DCS cubicle components.
- Handover: Documentation (Manuals, loop certificates, calibration certificates, program backups & As-built drawings).
- Performance Validation
- Remote support

2. Eskom Kusile Power Station (New Power Station Project) (2024-Ongoing)

Duties and Responsibilities:

- Conducted commissioning activities on ABB Symphony Plus DCS System with Melody.
- Troubleshooting and root cause analysis of hardware and software program
- Maintained technical documentation and liaised with clients for project updates.
- Handover: Documentation (Manuals, loop certificates, calibration certificates, program backups & As-built drawings).

3. EEC Ezulwini Hydro Power Station (Modernization Project) (2020-2022)

Duties and Responsibilities:

- Conceptual Design: 800xA System Architecture design, Preliminary hardware selection
- Preparation of I/O Signal List and Channel Assignment.
- Detail Engineering and Design: Control Panel Design, Junction Box Design, Loop Drawing, Termination Drawings.
- ABB 800M Controller and Select IO panel interface to ABB Unitrol 6080 interface for Excitation System
- Interface design between ABB 800M Control Panel and MCC Panel
- Interface design between ABB 800M Control Panel and UPS Charger Panel
- Procurement and Manufacturing: Provided BOM for component procurement and control panel assembly and wiring drawings.
- Factory Acceptance Testing (FAT): Hardware and Panel testing
- Preparation of cable routes.
- Installation and Commissioning: Site preparation, Loop checking and IO testing, Site acceptance testing (SAT)
- Handover: Documentation (Manuals, loop certificates, calibration certificates, program backups & As-built drawings).

4. Air Products Vanderbijl (E-plant Upgrade Project) (2022-2023)

Duties and Responsibilities:

- Plant Process Graphic Designs upgrade from ABB INFI90 to PG2 800xA workplace.
- Factory Acceptance Testing (FAT): 800xA DCS logic and HMI testing and validation in a simulated environment.
- Assisted in PLC program conversion from System 800xA version 5.1 to 6.1 version
- Configuration of Profibus dp communication modules and select IO plant devices.
- Providing technical support during site installation and testing activities.

5. ESKOM TUTUKA (MV Switchgear Project) (2022)

Duties and Responsibilities:

- Factory Acceptance Testing (FAT): MV Switchgear Hardware and software Panel testing with ABB Germany

Education:

1. University of Johannesburg (2017-2019)

Qualification: Bachelor of Engineering Technology (Beng Tech) in Electrical Engineering

Key Subjects:

Algorithms and Programming, Electronic Circuits, Engineering Chemistry, Engineering Mathematics, Engineering Physics, Mechatronics and Controls, Networks, Sensors And Devices, Waves And Signals Technology, Automation, Control Systems Engineering, Machines, Process Automation, Power Technology, Technology Management, Project Management.

2. Tom Naude Technical High school (2010-2014)

Qualification: National Senior Certificate

Key Subjects:

Electrical Technology, Engineering Graphics and Design, AutoCAD, Mathematics, Physics, English.

Certifications:

- T305 – ABB 800xA System Admiration and Installation
- ABB Cyber security services
- ABB System benchmarking, system fingerprint and system assessment
- Cisco Operating system basics
- Cisco Computer Hardware basics
- Cisco introduction to cyber security

Honors and Awards:

- ABB Curiosity Award (2023)
- University of Johannesburg Most Patentable Project Of the Year(2019)
- ABB JDF Scholar 2018

References:

Available upon request.