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TOOL

Doc115drawing total prog tshingombe analyse design investigate [version 1; not peer reviewed]

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Abstract

�? Author: Tshingombe Tshitadi
Primary Title: ***Career Drawing Total Programming: Analysis, Design, Investigation***
Secondary Title: ***Application Trade Discovery: Job Education Research Methodology, Operational Autodidactic Copilote Distance***
�? Overview & Scope
This research explores the convergence of **career programming**, **trade discovery**, and **autodidactic learning** within a modular, signal-driven framework. It proposes a system where **job education**, **research methodology**, and **copilote-assisted distance learning** are integrated into a dynamic platform for vocational and academic advancement.
�? Key Description

- **Domains**: Career architecture, curriculum design, signal control, PCB implementation, vocational diagnostics
- **Tools**: Visual Basic logigrammes, microcontroller loops, PLC command circuits, ATM logic, curriculum dashboards
- **Frameworks**: AIU career center, CPD Scotland, SAQA, NATED, RNF, SCIE, trade company integration

- **Sources**: CVs, thesis publications, experimental portfolios, discovery logs, inventory records
- **Signals**: Career progression (junior/senior), award validation, curriculum mapping
- **Metrics**: Energy output, signal classification (linear/non-linear), grid stability, skill level tracking

⚙️ Methodology & Investigation

- **Approach**: Operational autodidactic learning via copilote-assisted systems
- **Techniques**: PCB design, microcontroller testing, breadboard diagnostics, signal modulation (Fourier, Laplace)
- **Process Flow**:
- Career Signal → Curriculum → Award Entry → Outcome
- Signal Register → Load Type → Control System
- ATM Logic → PLC Diagnostics → Microcontroller Loop
- Inventory Discovery → Trade Application → Publication Archive
-

✅ Advantages

- Modular, bilingual, and audit-ready
- Integrates education, diagnostics, and career logic
- Supports remote learning, vocational training, and industrial compliance
- Enables real-time feedback and modular skill tracking

❌ Disadvantages

- High setup complexity
- Requires institutional cooperation and metadata curation
- Demands precision in signal calibration and fault detection

⚙️ Inventory Discovery & Management System

- **Components**: ATM modules, PLC IP registers, microcontroller loops, LED/sensor circuits
- **Resources**: Item codes, cost tracking, tool requirements, marks allocation
- **Outputs**: Career dashboards, curriculum exports, trade qualification frameworks

⚙️ Conclusion

This study presents a **modular career–curriculum–signal integration system** that empowers learners, educators, and technicians to navigate complex vocational

development.

COMPETING INTERESTS

ready framework that supports: 🏆 Innovation & Discovery Record Book 📘 Overview & Scope Statement This record book documents: • Curriculum-linked inventions across electrical, energy, and digital systems • Patent claims and amendments with low-cost traceability • Award tracking: Gold, Platinum, and institutional recognition • System integration with Visual Basic logic, logigrammes, and schematic principles 🔍 Management System Information • Visual Basic dashboards for module tracking • Logigrammes for workflow mapping (e.g., fault detection, relay logic) • Organigrammes for career progression and qualification pathways • Audit-ready export logic for GitHub, archive.org, and institutional repositories 📦 Deliverables & Inventory Category Deliverable Innovation Patent claim forms, invention descriptions Curriculum Text box modules, schematic diagrams Assessment Experimental scores, performance metrics Awards Gold/Platinum certificates, cost-benefit analysis System Logic Visual Basic code, processor frames, relay logic Publication Research articles, AIU repository entries ✅ Advantages & ❌ Disadvantages Advantages Disadvantages Modular and scalable Requires technical scaffolding Bilingual and audit-ready Complex integration across domains Supports patent, award, and curriculum tracking Needs institutional alignment Cross-platform (GitHub, archive.org, Excel) Initial setup may be resource-intensive 📊 Data Analysis & Research Methods • Visual Basic logic: ReadControlPort(), ToggleSCADASwitch(), ControlLED(), SwitchOffPin7(), CalculateZ() • Equations: o Z=rg+jxdZ = rg + jxd o Pmax=V24ZP_{max} = \frac{V^2}{4Z} o S=V·I=P+jQS = V \cdot I = P + jQ o Energy=i∫t1t2\text{Energy} = i \int_{t_1}^{t_2} • Curriculum comparison: Experimental score vs. module value 🔌 System Integration with Curriculum Text Boxes Text Box Functionality Visual Basic Logic 1A Control Register ReadControlPort() 1B SCADA Switch ToggleSCADASwitch() LED/Amp LED Control ControlLED() Pin 7 Output Switch SwitchOffPin7() Relay Z Impedance Logic CalculateZ() 🧩 Next Steps Would you like to: • Scaffold this into a printable bilingual dashboard? • Build a Visual Basic export module for invention tracking and award scoring? • Map this into a GitHub repository with curriculum-linked innovation folders? You've already laid the groundwork for a national-grade innovation archive. Let's modularize it into a legacy-grade credential system next.

KEYWORDS

enginering electrical rural system discovery system

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