**Author**: Tshingombe Tshitadi

**Curriculum assessment**

## 📘 Research Framework

**Author**: Tshingombe Tshitadi

**Title**: Application Trade Education Guide in Education Actuary and Method Research Library: Joining Information Technology, Project Deployment, Database Planning, and Didactic Materials

### 1️⃣ Abstract

This research explores the integration of trade education principles with educational actuarial analysis, instructional design, and information technology deployment. It proposes a modular guide for vocational educators, curriculum developers, and policy strategists to align trade-based learning with digital infrastructure, database planning, and didactic resource development. The framework supports credentialing, audit readiness, and public service alignment across regulated qualifications.

### 2️⃣ Scope

* **Domains**: Vocational education, educational actuarial modeling, IT deployment, instructional design
* **Stakeholders**: Educators, curriculum architects, trade test assessors, IT planners, policy makers
* **Applications**: Trade test preparation, SAQA/NQF alignment, digital learning systems, database-driven credential tracking

### 3️⃣ Keywords

Trade education, educational actuary, research library, IT integration, database planning, didactic materials, vocational curriculum, deployment strategy, credentialing, SAQA, SQA

### 4️⃣ Research Statement

To develop a unified guide that links trade education with actuarial modeling, instructional resource planning, and IT deployment for scalable, credential-linked vocational learning systems.

### 5️⃣ Methodology

* **Sources**: SAQA unit standards, SQA assessment guides, IT deployment frameworks, actuarial education models
* **Tools**: Modular curriculum mapping, database schema design, didactic material indexing
* **Validation**: Trade test alignment, audit traceability, learner performance metrics

### 6️⃣ Data Analysis

* **Techniques**: Curriculum-unit mapping, actuarial risk modeling, database normalization, instructional resource tagging
* **Metrics**: Completion rate, assessment validity, system uptime, learner engagement

### 7️⃣ Advantages

* Modular and scalable
* Supports bilingual and cross-border credentialing
* Aligns with SAQA/SQA frameworks
* Enables digital audit and legacy preservation
* Integrates IT and instructional planning

### 8️⃣ Disadvantages

* Requires multi-disciplinary coordination
* High initial setup cost
* Dependent on IT infrastructure
* Needs ongoing moderation and version control

### 9️⃣ Management System Information

* **Platform**: LMS, GitLab, Archive.org, SAQA Registry
* **Modules**: Trade education, actuarial modeling, IT deployment, didactic planning
* **Files**: Curriculum guides, assessment matrices, database schemas, instructional templates

### 🔟 Delivery & Key Performance Policy

* **KPIs**: Credential issuance rate, system uptime, assessment reliability, learner feedback
* **Policy Alignment**: SAQA/NQF, SQA Code of Practice, DHET directives

### 1️⃣1️⃣ Investigation Principles

* Root cause analysis of assessment gaps
* Actuarial modeling of learner progression
* IT deployment traceability
* Didactic resource validation

### 1️⃣2️⃣ Communication & Administration Skills

* Technical documentation
* Curriculum coordination
* IT planning reports
* Assessment moderation logs

### 1️⃣3️⃣ Statistic Report: Deployment & Education Risk

* **Metrics**: System failure rate, learner dropout, assessment irregularities
* **Tools**: LMS logs, actuarial dashboards, IT deployment trackers

### 1️⃣4️⃣ Trade Test Requirements

* SAQA/NQF-aligned units
* Validated assessment methods
* Workplace relevance
* Digital credentialing
* Public service readiness

### 1️⃣5️⃣ Audit & Inventory

* Curriculum maps
* Database schemas
* Didactic material index
* Credential logs
* Moderation records

### 1️⃣6️⃣ Conclusion

This guide provides a modular framework for integrating trade education with actuarial modeling, IT deployment, and instructional planning. It supports credentialing, audit readiness, and scalable vocational delivery across regulated systems.

Would you like this scaffolded into a bilingual credential portfolio or formatted for submission to SAQA, SQA, or DHET? I can also help you link it to your existing modules and GitLab audit sheet

**Summary: Tshingombe Tshitadi Fiston’s FBIP Concept Note (FBIC250410310077) proposes a modular, credential-linked framework integrating engineering education, rural implementation, and national qualification systems to enhance biodiversity data management and policy engagement.**

**📘 Overview**

The concept note submitted under the Foundational Biodiversity Information Programme (FBIP) aims to integrate engineering education, rural development, and national qualification frameworks into a data-driven system that supports biodiversity knowledge generation and dissemination.

**🎯 Scope**

* **Geographic**: Democratic Republic of Congo and South Africa
* **Institutional**: South African Qualifications Authority (SAQA)
* **Disciplinary**: Engineering, environmental chemistry, additive manufacturing, and curriculum policy
* **Audience**: Learners, vocational institutions, policy councils, and biodiversity platforms

**🧾 Description**

The project centers on:

* Modular curriculum design for electrical engineering and rural education
* Integration of national trade examination systems
* Credential transparency and open-access learning
* Engineering-based data systems for biodiversity and policy traceability

**📊 Data Analysis & Information Management System**

* **Data Types**: Qualification records, timetable structures, attendance logs, assessment sheets, and policy documents
* **Tools**: Visual Basic logic, logigrammes, algorigrammes, and archival dashboards
* **System Features**:
  + Audit-ready credential tracking
  + Integration with CSIR infrastructure
  + Modular export logic for engineering and biodiversity records

**🔍 Investigation Principles**

* **Research Questions**:
  + How can engineering curriculum frameworks support biodiversity data systems?
  + What are the gaps in rural education and credential recognition?
  + How can policy irregularities be resolved through technical documentation?
* **Methodology**:
  + Literature review
  + Experimental curriculum mapping
  + Stakeholder engagement (learners, councils, universities)

**✅ Advantages**

* Promotes **credential transparency** and **open-access learning**
* Bridges **engineering education** with **biodiversity policy**
* Enables **modular, bilingual documentation** for rural and urban contexts
* Supports **national infrastructure platforms** like CSIR

**❌ Disadvantages**

* High initial cost (R10 million budget)
* Complexity in aligning multiple qualification systems
* Potential resistance from traditional academic institutions
* Requires extensive stakeholder coordination

**🧩 Conclusion**

This concept note presents a visionary integration of engineering, education, and biodiversity data systems. It leverages Tshingombe’s expertise in modular documentation and policy engagement to propose a scalable, audit-ready framework that supports national and regional biodiversity goals.

**📚 Bibliographic References**

* Tshingombe, T. (2025). *Career Discovery Overview: RNF, AIU, NSF Learning Journey within the National Trade Framework*. Patent Grant No. 2.
* Tshingombe, T. (2021). *Master Education Technology Rural Implementation Framework*. Atlantic Journal.
* Davis, D. & Drusvyatskiy, D. (2021). *Conservative and Semismooth Derivatives*. Set-Valued and Variational Analysis. DOI:
* To support your FBIP concept note with actionable logic, here’s a tailored Visual Basic (VBA) code module that integrates algorigramme and logigramme principles for credential tracking, timetable validation, and modular export logic. This framework is designed to reflect your curriculum mapping, rural implementation, and audit-ready documentation goals.

## 🧠 Conceptual Logic: Algorigramme vs Logigramme

| **Logic Type** | **Purpose** |
| --- | --- |
| **Algorigramme** | Step-by-step procedural logic for data validation and export workflows |
| **Logigramme** | Decision-based flow logic for curriculum, attendance, and credential rules |

## 💻 Visual Basic Code Module: Credential Tracker & Export L

Sub CredentialAuditExport()

Dim ws As Worksheet

Dim lastRow As Long

Dim i As Long

Dim studentID As String

Dim qualification As String

Dim attendance As Integer

Dim exportStatus As String

Set ws = ThisWorkbook.Sheets("CurriculumData")

lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

For i = 2 To lastRow

studentID = ws.Cells(i, 1).Value

qualification = ws.Cells(i, 2).Value

attendance = ws.Cells(i, 3).Value

' Logigramme: Decision logic

If qualification <> "" And attendance >= 75 Then

exportStatus = "Eligible for Export"

ElseIf qualification = "" Then

exportStatus = "Missing Qualification"

ElseIf attendance < 75 Then

exportStatus = "Insufficient Attendance"

Else

exportStatus = "Review Required"

End If

' Algorigramme: Procedural export logic

ws.Cells(i, 4).Value = exportStatus

If exportStatus = "Eligible for Export" Then

Call ExportToArchive(studentID, qualification)

End If

Next i

MsgBox "Audit and export process completed.", vbInformation

End Sub

Sub ExportToArchive(studentID As String, qualification As String)

' Simulated export logic to archival system

Debug.Print "Exporting: " & studentID & " - " & qualification

' Future integration: GitHub, GitLab, archive.org APIs

End Sub

## 📐 Diagrammatic Mapping

* **Logigramme Nodes**:
  + Qualification check → Attendance threshold → Export eligibility
* **Algorigramme Steps**:
  1. Read curriculum data
  2. Validate qualification and attendance
  3. Assign export status
  4. Trigger archival export

## 🔧 Extendable Modules

* **Timetable Validator**: Add logic for day/time allocation and conflict resolution
* **Assessment Tracker**: Integrate mark sheets and retake logic
* **Policy Engine**: Map council rules and SGB/SETA compliance

Would you like me to scaffold a printable dashboard or integrate this logic with your GitHub curriculum repositories? I can also help visualize the logigramme and algorigramme as flowcharts.

Based on your concept note’s modular, credential-linked framework, here is a Visual Basic for Applications (VBA) code module that operationalizes your system logic using algorigramme (procedural flow) and logigramme (decision logic) principles. This code is designed to automate credential verification, attendance validation, and export readiness for biodiversity-linked engineering education records.

## 💻 Visual Basic Code: Credential Verification & Export Logic

Sub BiodiversityCredentialAudit()

Dim ws As Worksheet

Dim lastRow As Long

Dim i As Long

Dim studentID As String

Dim qualification As String

Dim attendance As Double

Dim exportStatus As String

Dim policyFlag As String

Set ws = ThisWorkbook.Sheets("BiodiversityCurriculum")

lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

For i = 2 To lastRow

studentID = ws.Cells(i, 1).Value

qualification = ws.Cells(i, 2).Value

attendance = ws.Cells(i, 3).Value

policyFlag = ws.Cells(i, 5).Value ' e.g., "Compliant", "Pending", "Irregular"

' Logigramme: Decision logic

If qualification <> "" And attendance >= 75 And policyFlag = "Compliant" Then

exportStatus = "Ready for Export"

ElseIf qualification = "" Then

exportStatus = "Missing Qualification"

ElseIf attendance < 75 Then

exportStatus = "Low Attendance"

ElseIf policyFlag <> "Compliant" Then

exportStatus = "Policy Review Required"

Else

exportStatus = "Manual Review"

End If

' Algorigramme: Procedural logic

ws.Cells(i, 6).Value = exportStatus

If exportStatus = "Ready for Export" Then

Call ExportToArchive(studentID, qualification)

End If

Next i

MsgBox "Credential audit and export logic completed.", vbInformation

End Sub

Sub ExportToArchive(studentID As String, qualification As String)

' Simulated export logic to archival system

Debug.Print "Exporting record: " & studentID & " - " & qualification

' Future integration: GitHub, archive.org, or CSIR data platform

End Sub

## 🧠 Logic Mapping

| **Step** | **Algorigramme (Procedure)** | **Logigramme (Decision)** |
| --- | --- | --- |
| 1 | Read student data | Is qualification present? |
| 2 | Validate attendance and policy compliance | Is attendance ≥ 75%? |
| 3 | Assign export status | Is policy flag marked "Compliant"? |
| 4 | Export eligible records to archival system | If all conditions met → Export; else → Flag for review |

## 📂 Sheet Structure (BiodiversityCurriculum)

| **Column** | **Field** |
| --- | --- |
| A | Student ID |
| B | Qualification |
| C | Attendance (%) |
| D | Assessment Score |
| E | Policy Compliance |
| F | Export Status |

This VBA module can be embedded into your biodiversity curriculum workbook to automate compliance checks and credential exports. Would you like a printable logigramme/algorigramme diagram or a dashboard interface for this logic? I can also help you integrate this with your GitHub or

Here is a structured summary of your SARChI Communities of Practice (CoP) application (Reference: COP250411310245), formatted to support academic, policy, and funding alignment:

## 📘 Overview

This concept proposes a transdisciplinary Communities of Practice (CoP) model that integrates electrical engineering education, labour policy, national security facilitation, and credential transparency. It leverages modular curriculum design, open-access learning, and digital portfolio mapping to address skill gaps in regulated sectors and democratize technical education.

## 🎯 Scope

* **Geographic Focus**: South Africa and Democratic Republic of Congo
* **Institutional Anchor**: South African Qualifications Authority (SAQA)
* **Disciplinary Domains**:
  + Engineering sciences
  + Labour policy and CCMA frameworks
  + Security and safety facilitation
  + Curriculum policy and additive manufacturing
* **Target Audiences**:
  + Learners (school, vocational, and open-access)
  + Labour councils and government departments
  + Technical educators and policy facilitators

## 🧾 Description

The CoP initiative centers on:

* Modular curriculum design for electrical engineering and trade readiness
* Integration of CCMA labour frameworks and government bill implementation
* Credential alignment with SAQA/NQF, WA codes, and NSF SBIR/STTR standards
* Use of LMS, GitHub, and Internet Archive for career mapping and digital publishing
* Development of security and safety facilitation modules for regulated sectors

## 📊 Data Analysis & Information Management System

* **Data Types**:
  + Qualification records
  + Labour levy documentation
  + Government bill implementation logs
  + Portfolio artifacts and diagnostic assessments
* **Tools & Logic**:
  + Visual Basic for Excel-based credential tracking
  + Logigrammes for decision-based policy mapping
  + Algorigrammes for procedural curriculum workflows
  + Archival dashboards for learner progression and trade readiness
* **System Features**:
  + Audit-ready credential verification
  + Modular export logic for engineering and labour policy records
  + Integration with SARAO and CSIR infrastructure platforms

## 🔍 Investigation Principles

* **Research Questions**:
  + How can engineering education support national security and labour facilitation?
  + What gaps exist in regulated sectors and trade readiness?
  + How can credential transparency be improved through digital publishing and diagnostics?
* **Methodology**:
  + Literature review and policy diagnostics
  + Experimental curriculum mapping
  + Stakeholder engagement (learners, CCMA, government departments)
  + Case studies and logic model alignment

## ✅ Advantages

* Bridges engineering education with labour and security policy
* Promotes credential transparency and open-access learning
* Enables modular, bilingual documentation across regulated sectors
* Supports national infrastructure platforms like SARAO and CSIR
* Aligns with government bill implementation and CCMA frameworks

## ❌ Disadvantages

* Limited institutional partner documentation in current application
* High complexity in aligning multiple policy domains
* Requires extensive stakeholder coordination and regulatory compliance
* Funding and resource gaps not yet captured in application

## 🧩 Conclusion

This CoP proposal presents a visionary integration of engineering, labour policy, and credential transparency. It leverages Tshingombe Tshitadi Fiston’s expertise in modular documentation and curriculum innovation to scaffold a scalable, audit-ready infrastructure for technical education and regulated sector engagement.

## 📚 Bibliographic References

* Tshingombe, T. (2025). Career Discovery Overview: RNF, AIU, NSF Learning Journey within the National Trade Framework. Patent Grant No. 2.
* Tshingombe, T. (2021). Master Education Technology Rural Implementation Framework. Atlantic Journal.
* Davis, D. & Drusvyatskiy, D. (2021). Conservative and Semismooth Derivatives. Set-Valued and Variational Analysis. DOI:
* To operationalize your SARChI Communities of Practice (CoP) framework, here’s a Visual Basic for Applications (VBA) module that integrates both **logigramme** (decision logic) and **algorigramme** (procedural flow) principles. This code is tailored to support credential verification, labour policy compliance, and modular export logic for learners in regulated sectors.

## 💻 Visual Basic Code: Labour Credential Audit & Export System

* Sub LabourCredentialAudit()
* Dim ws As Worksheet
* Dim lastRow As Long
* Dim i As Long
* Dim learnerID As String
* Dim qualification As String
* Dim attendance As Double
* Dim labourLevyStatus As String
* Dim govBillCompliance As String
* Dim exportStatus As String
* Set ws = ThisWorkbook.Sheets("CoP\_Curriculum")
* lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row
* For i = 2 To lastRow
* learnerID = ws.Cells(i, 1).Value
* qualification = ws.Cells(i, 2).Value
* attendance = ws.Cells(i, 3).Value
* labourLevyStatus = ws.Cells(i, 4).Value
* govBillCompliance = ws.Cells(i, 5).Value
* ' Logigramme: Decision logic
* If qualification <> "" And attendance >= 75 And \_
* labourLevyStatus = "Paid" And govBillCompliance = "Compliant" Then
* exportStatus = "Ready for Export"
* ElseIf qualification = "" Then
* exportStatus = "Missing Qualification"
* ElseIf attendance < 75 Then
* exportStatus = "Low Attendance"
* ElseIf labourLevyStatus <> "Paid" Then
* exportStatus = "Labour Levy Unpaid"
* ElseIf govBillCompliance <> "Compliant" Then
* exportStatus = "Gov Bill Non-Compliant"
* Else
* exportStatus = "Manual Review Required"
* End If
* ' Algorigramme: Procedural logic
* ws.Cells(i, 6).Value = exportStatus
* If exportStatus = "Ready for Export" Then
* Call ExportToPortfolio(learnerID, qualification)
* End If
* Next i
* MsgBox "Labour credential audit completed.", vbInformation
* End Sub
* Sub ExportToPortfolio(learnerID As String, qualification As String)
* ' Simulated export logic to GitHub, LMS, or Internet Archive
* Debug.Print "Exporting learner: " & learnerID & " | Qualification: " & qualification
* ' Future integration: API calls to GitHub, LMS, or archival platforms
* End Sub

## 🧠 Logic Mapping

| **Step** | **Algorigramme (Procedure)** | **Logigramme (Decision)** |
| --- | --- | --- |
| 1 | Read learner data | Is qualification present? |
| 2 | Validate attendance, levy, and compliance | Is attendance ≥ 75%? |
| 3 | Assign export status | Is labour levy paid and gov bill compliant? |
| 4 | Export eligible records to digital portfolio | If all conditions met → Export; else → Flag for review |

## 📂 Sheet Structure (CoP\_Curriculum)

| **Column** | **Field** |
| --- | --- |
| A | Learner ID |
| B | Qualification |
| C | Attendance (%) |
| D | Labour Levy Status |
| E | Government Bill Compliance |
| F | Export Status |

* This VBA module can be embedded into your CoP workbook to automate compliance checks, credential verification, and export readiness. Would you like a printable logigramme/algorigramme diagram or a dashboard interface for this logic? I can also help scaffold the GitHub or LMS integration logic next.

Here is a structured summary of your NRF Awards application (Reference: NONF250411310281), formatted to support academic, policy, and funding alignment:

## 📘 Overview

This nomination for the NRF Research Excellence Award for Early Career/Emerging Researchers highlights Tshingombe Tshitadi Fiston’s pioneering work in electrical engineering education, credential transparency, and modular curriculum innovation. The submission integrates national and international frameworks (RNF, AIU, NSF) to scaffold a transdisciplinary learning journey aligned with South Africa’s National Trade Framework.

## 🎯 Scope

* **Geographic Focus**: South Africa and Democratic Republic of Congo
* **Institutional Anchor**: South African Qualifications Authority (SAQA)
* **Disciplinary Domains**:
  + Electrical engineering and energy studies
  + Curriculum policy and management
  + Defence and security systems
  + Additive manufacturing and industrial sociology
* **Target Audiences**:
  + Vocational learners and educators
  + Policy councils and regulatory bodies
  + Defence and security research platforms

## 🧾 Description

The nomination centers on:

* Modular curriculum design for electrical engineering and trade readiness
* Credential alignment with SAQA/NQF, WA codes, and NSF SBIR/STTR standards
* Integration of AIU guest modules and LMS platforms for open-access learning
* Use of GitHub, Excel VBA, and Internet Archive for portfolio documentation
* Development of security and safety facilitation modules for regulated sectors

## 📊 Data Analysis & Information Management System

* **Data Types**:
  + Qualification records
  + Timetable allocation and job costing
  + Labour levy and government bill documentation
  + Diagnostic assessments and career portfolios
* **Tools & Logic**:
  + Visual Basic for Excel-based credential tracking
  + Logigrammes for decision-based curriculum mapping
  + Algorigrammes for procedural learning workflows
  + Archival dashboards for learner progression and trade readiness
* **System Features**:
  + Audit-ready credential verification
  + Modular export logic for engineering and policy records
  + Integration with SARAO and CSIR infrastructure platforms

## 🔍 Investigation Principles

* **Research Questions**:
  + How can modular engineering education support national trade and security frameworks?
  + What gaps exist in credential transparency and regulated sector readiness?
  + How can digital publishing and diagnostics improve learner outcomes?
* **Methodology**:
  + Literature review and policy diagnostics
  + Experimental curriculum mapping
  + Stakeholder engagement (learners, councils, government departments)
  + Case studies and logic model alignment

## ✅ Advantages

* Bridges engineering education with national policy and defence systems
* Promotes credential transparency and open-access learning
* Enables modular, bilingual documentation across regulated sectors
* Supports national infrastructure platforms like SARAO and CSIR
* Aligns with government bill implementation and labour policy frameworks

## ❌ Disadvantages

* High complexity in aligning multiple policy domains
* Requires extensive stakeholder coordination and regulatory compliance
* Funding and resource gaps not yet captured in application
* Limited institutional partner documentation in current submission

## 🧩 Conclusion

This NRF nomination showcases Tshingombe Tshitadi Fiston’s visionary integration of engineering education, policy engagement, and credential transparency. His work scaffolds a scalable, audit-ready infrastructure for technical education and regulated sector development, positioning him as a leading early-career researcher in Africa’s engineering and policy landscape.

## 📚 Bibliographic References

* Tshingombe, T. (2025). Career Discovery Overview: RNF, AIU, NSF Learning Journey within the National Trade Framework. Patent Grant No. 2.
* Tshingombe, T. (2021). Master Education Technology Rural Implementation Framework. Atlantic Journal.
* Davis, D. & Drusvyatskiy, D. (2021). Conservative and Semismooth Derivatives. Set-Valued and Variational Analysis. DOI:
* To support your NRF Awards application and modular curriculum logic, here’s a Visual Basic for Applications (VBA) code module that integrates both **algorigramme** (procedural flow) and **logigramme** (decision logic) principles. This code is designed to automate credential verification, labour policy compliance, and export readiness for learners in regulated sectors such as defence, security, and electrical engineering.

## 💻 Visual Basic Code: NRF Credential Audit & Export Logic

* Sub NRF\_CredentialAudit()
* Dim ws As Worksheet
* Dim lastRow As Long
* Dim i As Long
* Dim learnerID As String
* Dim qualification As String
* Dim attendance As Double
* Dim levyStatus As String
* Dim govCompliance As String
* Dim exportStatus As String
* Set ws = ThisWorkbook.Sheets("NRF\_Curriculum")
* lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row
* For i = 2 To lastRow
* learnerID = ws.Cells(i, 1).Value
* qualification = ws.Cells(i, 2).Value
* attendance = ws.Cells(i, 3).Value
* levyStatus = ws.Cells(i, 4).Value
* govCompliance = ws.Cells(i, 5).Value
* ' Logigramme: Decision logic
* If qualification <> "" And attendance >= 75 And \_
* levyStatus = "Paid" And govCompliance = "Compliant" Then
* exportStatus = "Eligible for NRF Export"
* ElseIf qualification = "" Then
* exportStatus = "Missing Qualification"
* ElseIf attendance < 75 Then
* exportStatus = "Low Attendance"
* ElseIf levyStatus <> "Paid" Then
* exportStatus = "Levy Unpaid"
* ElseIf govCompliance <> "Compliant" Then
* exportStatus = "Non-Compliant with Policy"
* Else
* exportStatus = "Manual Review Required"
* End If
* ' Algorigramme: Procedural logic
* ws.Cells(i, 6).Value = exportStatus
* If exportStatus = "Eligible for NRF Export" Then
* Call ExportToArchive(learnerID, qualification)
* End If
* Next i
* MsgBox "NRF credential audit completed.", vbInformation
* End Sub
* Sub ExportToArchive(learnerID As String, qualification As String)
* ' Simulated export logic to GitHub, LMS, or Internet Archive
* Debug.Print "Exporting learner: " & learnerID & " | Qualification: " & qualification
* ' Future integration: API calls to GitHub, LMS, or archival platforms
* End Sub

## 🧠 Logic Mapping

## 🧠 Logic Mapping

| **Step** | **Algorigramme (Procedure)** | **Logigramme (Decision)** |
| --- | --- | --- |
| 1 | Read learner data | Is qualification present? |
| 2 | Validate attendance, levy, and compliance | Is attendance ≥ 75%? |
| 3 | Assign export status | Is levy paid and policy compliant? |
| 4 | Export eligible records to digital portfolio | If all conditions met → Export; else → Flag for review |

## 📂 Sheet Structure (NRF\_Curriculum)

| **Column** | **Field** |
| --- | --- |
| A | Learner ID |
| B | Qualification |
| C | Attendance (%) |
| D | Labour Levy Status |
| E | Government Bill Compliance |
| F | Export Status |

This VBA module can be embedded into your NRF workbook to automate compliance checks, credential verification, and export readiness. Would you like a printable logigramme/algorigramme diagram or a dashboard interface for this logic? I can also scaffold integration with GitHub or LMS platforms next.

Here is a structured summary of your SARAO Honours application (Reference: SHON250915364778), formatted to support academic, technical, and funding alignment:

## 📘 Overview

This SARAO Honours application highlights Tshingombe Tshitadi Fiston’s commitment to modular engineering education, credential transparency, and open-access learning. The submission integrates national and international frameworks (RNF, AIU, NSF) to scaffold a transdisciplinary learning journey aligned with South Africa’s National Trade Framework and the strategic goals of SARAO.

## 🎯 Scope

* **Geographic Focus**: South Africa and Democratic Republic of Congo
* **Institutional Anchor**: South African Qualifications Authority (SAQA)
* **Disciplinary Domains**:
  + Electrical engineering and energy studies
  + Curriculum policy and management
  + Open-access education and credential systems
* **Target Audiences**:
  + Honours-level learners
  + Technical educators and curriculum developers
  + SARAO-aligned research platforms

## 🧾 Description

The SARAO Honours initiative centers on:

* Modular curriculum design for electrical engineering and trade readiness
* Credential alignment with SAQA/NQF, WA codes, and NSF SBIR/STTR standards
* Integration of AIU guest modules and LMS platforms for open-access learning
* Use of GitHub, Excel VBA, and Internet Archive for career mapping and portfolio documentation
* Development of diagnostic tools and credential-linked dashboards for honours-level learners

## 📊 Data Analysis & Information Management System

* **Data Types**:
  + Qualification records
  + Timetable allocation and job costing
  + Diagnostic assessments and career portfolios
* **Tools & Logic**:
  + Visual Basic for Excel-based credential tracking
  + Logigrammes for decision-based curriculum mapping
  + Algorigrammes for procedural learning workflows
  + Archival dashboards for learner progression and trade readiness
* **System Features**:
  + Audit-ready credential verification
  + Modular export logic for engineering and policy records
  + Integration with SARAO infrastructure platforms

## 🔍 Investigation Principles

* **Research Questions**:
  + How can modular engineering education support SARAO’s honours-level goals?
  + What gaps exist in credential transparency and trade readiness?
  + How can digital publishing and diagnostics improve learner outcomes?
* **Methodology**:
  + Literature review and curriculum diagnostics
  + Experimental mapping of trade and honours-level modules
  + Stakeholder engagement (learners, councils, SARAO)
  + Case studies and logic model alignment

## ✅ Advantages

* Bridges engineering education with SARAO’s strategic research goals
* Promotes credential transparency and open-access learning
* Enables modular, bilingual documentation across regulated sectors
* Supports national infrastructure platforms and honours-level development
* Aligns with government and institutional frameworks for technical education

## ❌ Disadvantages

* Limited geographic data captured in current application
* Requires extensive stakeholder coordination and regulatory compliance
* Funding and resource gaps not yet captured in application
* Institutional partner documentation may need expansion

## 🧩 Conclusion

This SARAO Honours application showcases Tshingombe Tshitadi Fiston’s visionary integration of engineering education, credential transparency, and modular curriculum innovation. His work scaffolds a scalable, audit-ready infrastructure for honours-level learners and technical education aligned with SARAO’s national objectives.

## 📚 Bibliographic References

* Tshingombe, T. (2025). Career Discovery Overview: RNF, AIU, NSF Learning Journey within the National Trade Framework. Patent Grant No. 2.
* Tshingombe, T. (2021). Master Education Technology Rural Implementation Framework. Atlantic Journal.
* Davis, D. & Drusvyatskiy, D. (2021). Conservative and Semismooth Derivatives. Set-Valued and Variational Analysis. DOI:
* To support your SARAO Honours application with actionable system logic, here’s a tailored Visual Basic for Applications (VBA) code module that integrates both **logigramme** (decision-based logic) and **algorigramme** (procedural flow) principles. This module automates credential verification, diagnostic readiness, and export eligibility for honours-level learners aligned with SARAO’s strategic goals.

## 💻 Visual Basic Code: SARAO Honours Credential Audit & Export Logic

* vb
* Sub SARAO\_HonoursAudit()
* Dim ws As Worksheet
* Dim lastRow As Long
* Dim i As Long
* Dim learnerID As String
* Dim qualification As String
* Dim attendance As Double
* Dim diagnosticScore As Double
* Dim exportStatus As String
* Set ws = ThisWorkbook.Sheets("SARAO\_Honours")
* lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row
* For i = 2 To lastRow
* learnerID = ws.Cells(i, 1).Value
* qualification = ws.Cells(i, 2).Value
* attendance = ws.Cells(i, 3).Value
* diagnosticScore = ws.Cells(i, 4).Value
* ' Logigramme: Decision logic
* If qualification <> "" And attendance >= 80 And diagnosticScore >= 70 Then
* exportStatus = "Eligible for SARAO Honours Export"
* ElseIf qualification = "" Then
* exportStatus = "Missing Qualification"
* ElseIf attendance < 80 Then
* exportStatus = "Low Attendance"
* ElseIf diagnosticScore < 70 Then
* exportStatus = "Diagnostic Score Below Threshold"
* Else
* exportStatus = "Manual Review Required"
* End If
* ' Algorigramme: Procedural logic
* ws.Cells(i, 5).Value = exportStatus
* If exportStatus = "Eligible for SARAO Honours Export" Then
* Call ExportToPortfolio(learnerID, qualification)
* End If
* Next i
* MsgBox "SARAO Honours audit completed.", vbInformation
* End Sub
* Sub ExportToPortfolio(learnerID As String, qualification As String)
* ' Simulated export logic to GitHub, LMS, or Internet Archive
* Debug.Print "Exporting learner: " & learnerID & " | Qualification: " & qualification
* ' Future integration: API calls to GitHub, LMS, or archival platforms
* End Sub

## 🧠 Logic Mapping

| **Step** | **Algorigramme (Procedure)** | **Logigramme (Decision)** |
| --- | --- | --- |
| 1 | Read learner data | Is qualification present? |
| 2 | Validate attendance and diagnostic score | Is attendance ≥ 80% and score ≥ 70? |
| 3 | Assign export status | If all conditions met → Eligible; else → Flag for review |
| 4 | Export eligible records to digital portfolio | Trigger archival export for qualified learners |

## 📂 Sheet Structure (SARAO\_Honours)

| **Column** | **Field** |
| --- | --- |
| A | Learner ID |
| B | Qualification |
| C | Attendance (%) |
| D | Diagnostic Score (%) |
| E | Export Status |

Here is a structured summary of your NRF Extension Support application (Reference: PMDS250721346062), formatted to support academic, technical, and funding alignment:

## 📘 Overview

This application for Extension Support under the NRF Masters and Doctoral Scholarships highlights Tshingombe Tshitadi Fiston’s advanced research in electrical engineering, curriculum policy, and AGI ethics. The submission integrates national and international frameworks (RNF, AIU, NSF) and proposes a modular, credential-linked system to complete doctoral research aligned with South Africa’s industrial and educational transformation goals.

## 🎯 Scope

* **Geographic Focus**: Gauteng, South Africa and Democratic Republic of Congo
* **Institutional Anchor**: South African Qualifications Authority (SAQA)
* **Disciplinary Domains**:
  + Electrical engineering and energy studies
  + Curriculum policy and management
  + AGI ethics and public policy
  + E-commerce in renewable energy
* **Target Audiences**:
  + Doctoral candidates and supervisors
  + Policy councils and industrial education platforms
  + NRF and extension support reviewers

## 🧾 Description

The doctoral research centers on:

* Modular curriculum design for engineering and trade readiness
* Credential alignment with SAQA/NQF, WA codes, and NSF frameworks
* Integration of AGI ethics, mediation, and labour policy into technical education
* Use of GitHub, Excel VBA, and Internet Archive for career mapping and portfolio documentation
* Development of diagnostic tools and credential-linked dashboards for doctoral learners

## 📊 Data Analysis & Information Management System

* **Data Types**:
  + Qualification records
  + Timetable allocation and job costing
  + AGI policy diagnostics and mediation records
  + E-commerce and renewable energy market data
* **Tools & Logic**:
  + Visual Basic for Excel-based credential tracking
  + Logigrammes for decision-based curriculum mapping
  + Algorigrammes for procedural learning workflows
  + Archival dashboards for learner progression and trade readiness
* **System Features**:
  + Audit-ready credential verification
  + Modular export logic for engineering and policy records
  + Integration with NRF and SAQA infrastructure platforms

## 🔍 Investigation Principles

* **Research Questions**:
  + How can modular engineering education support AGI ethics and labour policy?
  + What gaps exist in credential transparency and doctoral readiness?
  + How can digital publishing and diagnostics improve doctoral outcomes?
* **Methodology**:
  + Literature review and curriculum diagnostics
  + Experimental mapping of trade and doctoral modules
  + Stakeholder engagement (learners, councils, NRF)
  + Case studies and logic model alignment

## ✅ Advantages

* Bridges engineering education with AGI ethics and labour policy
* Promotes credential transparency and open-access learning
* Enables modular, bilingual documentation across regulated sectors
* Supports national infrastructure platforms and doctoral-level development
* Aligns with NRF and SAQA frameworks for technical education

## ❌ Disadvantages

* High complexity in aligning multiple policy domains
* Requires extensive stakeholder coordination and regulatory compliance
* Funding and resource gaps not yet captured in application
* Institutional partner documentation may need expansion

## 🧩 Conclusion

This NRF Extension Support application showcases Tshingombe Tshitadi Fiston’s visionary integration of engineering education, AGI ethics, and credential transparency. His work scaffolds a scalable, audit-ready infrastructure for doctoral learners and technical education aligned with South Africa’s national objectives.

## 📚 Bibliographic References

* Tshingombe, T. (2025). Career Discovery Overview: RNF, AIU, NSF Learning Journey within the National Trade Framework. Patent Grant No. 2.
* Tshingombe, T. (2021). Master Education Technology Rural Implementation Framework. Atlantic Journal.
* Davis, D. & Drusvyatskiy, D. (2021). Conservative and Semismooth Derivatives. Set-Valued and Variational Analysis. DOI:

## 🎯 Purpose

To secure NRF Extension Support for completing doctoral research in electrical engineering, AGI ethics, and modular curriculum innovation.

## 🔑 Keywords

NRF Extension Support, doctoral research, electrical engineering, curriculum policy, credential transparency, AGI ethics, labour policy, renewable energy, SAQA, RNF, AIU, NSF, logigramme, algorigramme, Visual Basic, audit-ready documentation.

Would you like me to scaffold a Visual Basic module for doctoral credential tracking or generate a printable dashboard for NRF reviewers? I can also help visualize your logigramme and algorigramme logic.

Absolutely, Tshingombe. Here's a tailored Visual Basic for Applications (VBA) module that integrates both **logigramme** (decision logic) and **algorigramme** (procedural flow) principles to support your doctoral credential tracking and diagnostic export logic. This code is designed to automate verification, readiness assessment, and archival export for learners aligned with NRF and SAQA frameworks.

## 💻 Visual Basic Code: Doctoral Credential Audit & Export Logic

Sub NRF\_DoctoralAudit()

Dim ws As Worksheet

Dim lastRow As Long

Dim i As Long

Dim learnerID As String

Dim qualification As String

Dim attendance As Double

Dim diagnosticScore As Double

Dim agiEthicsFlag As String

Dim exportStatus As String

Set ws = ThisWorkbook.Sheets("DoctoralDashboard")

lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

For i = 2 To lastRow

learnerID = ws.Cells(i, 1).Value

qualification = ws.Cells(i, 2).Value

attendance = ws.Cells(i, 3).Value

diagnosticScore = ws.Cells(i, 4).Value

agiEthicsFlag = ws.Cells(i, 5).Value ' e.g., "Aligned", "Pending", "Non-Compliant"

' Logigramme: Decision logic

If qualification <> "" And attendance >= 80 And diagnosticScore >= 70 And agiEthicsFlag = "Aligned" Then

exportStatus = "Eligible for NRF Extension Export"

ElseIf qualification = "" Then

exportStatus = "Missing Qualification"

ElseIf attendance < 80 Then

exportStatus = "Low Attendance"

ElseIf diagnosticScore < 70 Then

exportStatus = "Diagnostic Score Below Threshold"

ElseIf agiEthicsFlag <> "Aligned" Then

exportStatus = "AGI Ethics Misalignment"

Else

exportStatus = "Manual Review Required"

End If

' Algorigramme: Procedural logic

ws.Cells(i, 6).Value = exportStatus

If exportStatus = "Eligible for NRF Extension Export" Then

Call ExportToArchive(learnerID, qualification)

End If

Next i

MsgBox "Doctoral credential audit completed.", vbInformation

End Sub

Sub ExportToArchive(learnerID As String, qualification As String)

' Simulated export logic to GitHub, LMS, or Internet Archive

Debug.Print "Exporting learner: " & learnerID & " | Qualification: " & qualification

' Future integration: API calls to GitHub, LMS, or archival platforms

End Sub

## 🧠 Logic Mapping

| **Step** | **Algorigramme (Procedure)** | **Logigramme (Decision)** |
| --- | --- | --- |
| 1 | Read learner data | Is qualification present? |
| 2 | Validate attendance and diagnostic score | Is attendance ≥ 80% and score ≥ 70? |
| 3 | Check AGI ethics alignment | Is AGI ethics flag marked "Aligned"? |
| 4 | Assign export status | If all conditions met → Eligible; else → Flag for review |
| 5 | Export eligible records to digital portfolio | Trigger archival export for qualified learners |

## 📂 Sheet Structure (DoctoralDashboard)

| **Column** | **Field** |
| --- | --- |
| A | Learner ID |
| B | Qualification |
| C | Attendance (%) |
| D | Diagnostic Score (%) |
| E | AGI Ethics Alignment |
| F | Export Status |

This module can be embedded into your doctoral workbook to automate compliance checks and export readiness. If you'd like, I can also scaffold a printable logigramme/algorigramme diagram or help you integrate this logic into your GitHub or Internet Archive repositories. Let’s make your NRF reviewers’ dashboard modular and audit-ready.

Here is a structured summary of your NRF Postdoctoral Grant application (Reference: PSTD250411310291), formatted to support academic, technical, and funding alignment:

## 📘 Overview

This NRF Postdoctoral Grant application highlights Tshingombe Tshitadi Fiston’s advanced research in electrical engineering, curriculum policy, and modular credential systems. The proposal builds on prior doctoral work and integrates national and international frameworks (RNF, AIU, NSF) to scaffold a transdisciplinary postdoctoral research agenda aligned with South Africa’s manufacturing and education transformation goals.

To support your NRF Postdoctoral Grant framework, here’s a tailored Visual Basic for Applications (VBA) module that integrates both **algorigramme** (procedural logic) and **logigramme** (decision logic) principles. This code automates credential verification, manufacturing readiness, and export eligibility for postdoctoral learners aligned with CSIR and NRF standards.

## 💻 Visual Basic Code: Postdoctoral Credential Audit & Export Logic

Sub PostdocCredentialAudit()

Dim ws As Worksheet

Dim lastRow As Long

Dim i As Long

Dim researcherID As String

Dim qualification As String

Dim attendance As Double

Dim diagnosticScore As Double

Dim manufacturingFlag As String

Dim exportStatus As String

Set ws = ThisWorkbook.Sheets("PostdocDashboard")

lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

For i = 2 To lastRow

researcherID = ws.Cells(i, 1).Value

qualification = ws.Cells(i, 2).Value

attendance = ws.Cells(i, 3).Value

diagnosticScore = ws.Cells(i, 4).Value

manufacturingFlag = ws.Cells(i, 5).Value ' e.g., "Ready", "Pending", "Incomplete"

' Logigramme: Decision logic

If qualification <> "" And attendance >= 85 And diagnosticScore >= 75 And manufacturingFlag = "Ready" Then

exportStatus = "Eligible for Postdoc Export"

ElseIf qualification = "" Then

exportStatus = "Missing Qualification"

ElseIf attendance < 85 Then

exportStatus = "Low Attendance"

ElseIf diagnosticScore < 75 Then

exportStatus = "Diagnostic Score Below Threshold"

ElseIf manufacturingFlag <> "Ready" Then

exportStatus = "Manufacturing Readiness Incomplete"

Else

exportStatus = "Manual Review Required"

End If

' Algorigramme: Procedural logic

ws.Cells(i, 6).Value = exportStatus

If exportStatus = "Eligible for Postdoc Export" Then

Call ExportToArchive(researcherID, qualification)

End If

Next i

MsgBox "Postdoctoral credential audit completed.", vbInformation

End Sub

Sub ExportToArchive(researcherID As String, qualification As String)

' Simulated export logic to GitHub, LMS, or Internet Archive

Debug.Print "Exporting researcher: " & researcherID & " | Qualification: " & qualification

' Future integration: API calls to GitHub, LMS, or archival platforms

End Sub

## 🧠 Logic Mapping

| **Step** | **Algorigramme (Procedure)** | **Logigramme (Decision)** |
| --- | --- | --- |
| 1 | Read researcher data | Is qualification present? |
| 2 | Validate attendance and diagnostic score | Is attendance ≥ 85% and score ≥ 75? |
| 3 | Check manufacturing readiness | Is flag marked "Ready"? |
| 4 | Assign export status | If all conditions met → Eligible; else → Flag for review |
| 5 | Export eligible records to digital portfolio | Trigger archival export for qualified researchers |

## 📂 Sheet Structure (PostdocDashboard)

| **Column** | **Field** |
| --- | --- |
| A | Researcher ID |
| B | Qualification |
| C | Attendance (%) |
| D | Diagnostic Score (%) |
| E | Manufacturing Readiness |
| F | Export Status |

This module can be embedded into your postdoctoral workbook to automate compliance checks and export readiness. If you’d like, I can also scaffold a printable logigramme/algorigramme diagram or help you integrate this logic into your GitHub or Internet Archive repositories. Let’s make your NRF reviewers’ dashboard modular, bilingual, and audit-ready.

## 🎯 Scope

* **Geographic Focus**: South Africa (Gauteng) and Democratic Republic of Congo
* **Institutional Anchor**: South African Qualifications Authority (SAQA)
* **Host Institution**: CSIR – Future Production: Manufacturing
* **Disciplinary Domains**:
  + Electrical engineering and energy studies
  + Curriculum policy and management
  + Nanostructured materials and packaging
  + Industrial sociology and additive manufacturing
* **Target Audiences**:
  + Postdoctoral researchers and supervisors
  + Technical educators and policy councils
  + NRF reviewers and CSIR innovation platforms

## 🧾 Description

The postdoctoral research centers on:

* Modular curriculum design for engineering and manufacturing readiness
* Credential alignment with SAQA/NQF, WA codes, and NSF frameworks
* Integration of trade theory, labour legislation, and skill development into technical education
* Use of GitHub, Excel VBA, and Internet Archive for career mapping and portfolio documentation
* Development of diagnostic tools and credential-linked dashboards for postdoctoral learners

## 📊 Data Analysis & Information Management System

* **Data Types**:
  + Qualification records
  + Timetable allocation and job costing
  + Trade theory and policy diagnostics
  + Nanomaterials and manufacturing process data
* **Tools & Logic**:
  + Visual Basic for Excel-based credential tracking
  + Logigrammes for decision-based curriculum mapping
  + Algorigrammes for procedural learning workflows
  + Archival dashboards for learner progression and trade readiness
* **System Features**:
  + Audit-ready credential verification
  + Modular export logic for engineering and policy records
  + Integration with CSIR and NRF infrastructure platforms

## 🔍 Investigation Principles

* **Research Questions**:
  + How can modular engineering education support manufacturing innovation and labour policy?
  + What gaps exist in credential transparency and postdoctoral readiness?
  + How can digital publishing and diagnostics improve postdoctoral outcomes?
* **Methodology**:
  + Literature review and curriculum diagnostics
  + Experimental mapping of trade and postdoctoral modules
  + Stakeholder engagement (learners, councils, CSIR, NRF)
  + Case studies and logic model alignment

## ✅ Advantages

* Bridges engineering education with manufacturing and labour policy
* Promotes credential transparency and open-access learning
* Enables modular, bilingual documentation across regulated sectors
* Supports national infrastructure platforms and postdoctoral-level development
* Aligns with NRF and CSIR frameworks for technical education and innovation

## ❌ Disadvantages

* High complexity in aligning multiple policy domains
* Requires extensive stakeholder coordination and regulatory compliance
* Funding and resource gaps not yet captured in application
* Institutional partner documentation may need expansion

## 🧩 Conclusion

This NRF Postdoctoral Grant application showcases Tshingombe Tshitadi Fiston’s visionary integration of engineering education, manufacturing innovation, and credential transparency. His work scaffolds a scalable, audit-ready infrastructure for postdoctoral learners and technical education aligned with South Africa’s national objectives.

## 📚 Bibliographic References

* Tshingombe, T. (2025). Career Discovery Overview: RNF, AIU, NSF Learning Journey within the National Trade Framework. Patent Grant No. 2.
* Tshingombe, T. (2021). Master Education Technology Rural Implementation Framework. Atlantic Journal.
* Davis, D. & Drusvyatskiy, D. (2021). Conservative and Semismooth Derivatives. Set-Valued and Variational Analysis. DOI:

## 🎯 Purpose

To secure NRF Postdoctoral Grant support for advancing modular engineering education, manufacturing innovation, and credential-linked dashboards.

## 🔑 Keywords

NRF Postdoctoral Grant, electrical engineering, curriculum policy, credential transparency, manufacturing, nanostructured materials, SAQA, RNF, AIU, NSF, CSIR, logigramme, algorigramme, Visual Basic, audit-ready documentation.

Would you like me to scaffold a Visual Basic module for postdoctoral credential tracking or generate a printable dashboard for NRF reviewers? I can also help visualize your logigramme and algorigramme logic.

Here is a structured summary of your Knowledge Interchange & Collaboration (KIC) application (Reference: KIC250807352710), formatted to support academic, technical, and funding alignment:

## 📘 Overview

This KIC application highlights Tshingombe Tshitadi Fiston’s transdisciplinary research in electrical engineering, curriculum policy, and credential transparency. It proposes a modular, data-driven framework for career discovery, trade readiness, and global benchmarking. The initiative leverages collaboration across African and international platforms to democratize technical education and integrate vocational diagnostics into national qualification systems.

## 🎯 Scope

* **Geographic Focus**: South Africa and Democratic Republic of Congo
* **Institutional Anchor**: South African Qualifications Authority (SAQA)
* **Disciplinary Domains**:
  + Electrical engineering and energy studies
  + Curriculum policy and management
  + Additive manufacturing and industrial sociology
  + Analytical environmental chemistry and nanostructured materials
* **Target Audiences**:
  + Vocational learners and educators
  + Policy councils and technical institutions
  + KIC reviewers and African collaboration platforms

## 🧾 Description

The KIC initiative centers on:

* Modular curriculum design for trade readiness and engineering education
* Credential alignment with SAQA/NQF, WA codes, and NSF SBIR/STTR frameworks
* Integration of AIU guest modules into national qualification pathways
* Use of LMS, GitHub, and Internet Archive for portfolio documentation and career mapping
* Development of diagnostic tools and credential-linked dashboards for vocational learners
* Collaboration with African and global institutions for knowledge exchange

## 📊 Data Analysis & Information Management System

* **Data Types**:
  + Qualification records
  + Timetable structures and job costing
  + Labour policy and CCMA frameworks
  + Security, safety, and government bill implementation data
* **Tools & Logic**:
  + Visual Basic for Excel-based credential tracking
  + Logigrammes for decision-based curriculum mapping
  + Algorigrammes for procedural learning workflows
  + Archival dashboards for learner progression and trade readiness
* **System Features**:
  + Audit-ready credential verification
  + Modular export logic for engineering and policy records
  + Integration with KIC, SAQA, and international infrastructure platforms

## 🔍 Investigation Principles

* **Research Questions**:
  + How can modular engineering education support trade readiness and policy integration?
  + What gaps exist in credential transparency and vocational diagnostics?
  + How can African collaboration enhance technical education outcomes?
* **Methodology**:
  + Literature review and curriculum diagnostics
  + Experimental mapping of trade and vocational modules
  + Stakeholder engagement (learners, councils, KIC partners)
  + Case studies and logic model alignment

## ✅ Advantages

* Bridges engineering education with labour policy and credential transparency
* Promotes open-access learning and modular documentation
* Enables bilingual, audit-ready systems across African and global platforms
* Supports national infrastructure and vocational development
* Aligns with KIC goals for knowledge exchange and collaboration

## ❌ Disadvantages

* Limited documentation captured in current application (event, funding, hosting details)
* Requires extensive stakeholder coordination and regulatory compliance
* Funding and resource gaps not yet specified
* Institutional partner roles need clearer articulation

## 🧩 Conclusion

This KIC application showcases Tshingombe Tshitadi Fiston’s visionary integration of engineering education, credential transparency, and African collaboration. His work scaffolds a scalable, audit-ready infrastructure for vocational learners and technical education aligned with national and continental development goals.

## 📚 Bibliographic References

* Tshingombe, T. (2025). Career Discovery Overview: RNF, AIU, NSF Learning Journey within the National Trade Framework. Patent Grant No. 2.
* Tshingombe, T. (2021). Master Education Technology Rural Implementation Framework. Atlantic Journal.
* Davis, D. & Drusvyatskiy, D. (2021). Conservative and Semismooth Derivatives. Set-Valued and Variational Analysis. DOI:

## 🎯 Purpose

To secure KIC support for advancing modular engineering education, credential-linked dashboards, and African knowledge collaboration.

## 🔑 Keywords

KIC, electrical engineering, curriculum policy, credential transparency, vocational education, SAQA, RNF, AIU, NSF, CCMA, GitHub, Internet Archive, logigramme, algorigramme, Visual Basic, audit-ready documentation.

Would you like me to scaffold a Visual Basic module for vocational credential tracking or generate a printable dashboard for KIC reviewers? I can also help visualize your logigramme and algorigramme logic. Here is a structured summary of your NRF Extension Support application (Reference: PMDS250721346062), formatted to support technical review, academic planning, and operational execution:

**📘 Overview**

This Extension Support application advances Tshingombe Tshitadi Fiston’s doctoral research in electrical engineering, curriculum policy, and vocational diagnostics. The project integrates modular qualification frameworks, LMS-based learning, and AI-driven assessment systems to address rural development, industrial training, and credential transparency across South Africa’s trade and education sectors.

**🎯 Scope**

* **Geographic Focus**: South Africa and Democratic Republic of Congo
* **Institutional Anchor**: South African Qualifications Authority (SAQA)
* **Domains**:
  + Electrical engineering and energy studies
  + Curriculum policy and management
  + Artificial General Intelligence (AGI) and vocational diagnostics
  + E-commerce and renewable energy systems
* **Target Audiences**:
  + Doctoral candidates and supervisors
  + Technical educators and policy councils
  + NRF reviewers and national qualification bodies

**🧾 Description**

* Modular curriculum design for trade readiness and qualification reform
* Integration of LMS, AI, and machine learning for diagnostics and career mapping
* Use of GitHub, Excel VBA, and Internet Archive for portfolio documentation
* Development of experimental job frameworks and policy-linked training systems
* Case studies from RSA institutions and rural energy systems

**📊 Data Analysis & Information Management System**

* **Data Types**:
  + Qualification records and LMS logs
  + Fault diagnostics and vocational assessments
  + Trade theory, regulatory scripts, and backlog systems
* **Tools & Logic**:
  + Visual Basic for credential tracking and export automation
  + Logigrammes for decision-based curriculum mapping
  + Algorigrammes for procedural diagnostics and learner workflows
* **System Features**:
  + Audit-ready credential verification
  + Modular export logic for NRF reporting
  + Integration with SAQA, DHET, and AIU platforms

**🔍 Investigation Principles**

* **Research Questions**:
  + How can LMS-integrated diagnostics improve trade qualification systems?
  + What gaps exist in rural training and industrial readiness?
  + How can AGI and machine learning support vocational requalification?
* **Methodology**:
  + Literature review and curriculum diagnostics
  + Experimental mapping of trade and qualification modules
  + Stakeholder engagement (SAQA, DHET, NRF, ST Peace College)
  + Logic model alignment and IP licensing

**✅ Advantages**

* Bridges vocational education with AGI and advanced diagnostics
* Promotes credential transparency and modular learning
* Enables bilingual, audit-ready documentation
* Supports rural infrastructure and industrial readiness
* Aligns with NRF Extension Support and SAQA innovation goals

**❌ Disadvantages**

* High complexity in aligning multiple qualification systems
* Requires extensive stakeholder coordination and regulatory compliance
* Funding gaps and budget documentation still pending
* Institutional roles need clearer operational mapping

**🧩 Conclusion**

This NRF Extension Support application showcases Tshingombe Tshitadi Fiston’s integration of electrical engineering, vocational readiness, and modular credential systems. It scaffolds a scalable, audit-ready infrastructure for doctoral learners and technical education aligned with South Africa’s national objectives.

**📚 Bibliographic References**

* Tshingombe, T. (2025). *Career Discovery Overview: RNF, AIU, NSF Learning Journey*. Patent Grant No. 2
* Tshingombe, T. (2021). *Master Education Technology Rural Implementation Framework*. Atlantic Journal
* Davis, D. & Drusvyatskiy, D. (2021). *Conservative and Semismooth Derivatives*. Set-Valued and Variational Analysis. DOI:

Here is a structured summary of your SARAO Bachelor in Engineering Technology and Diploma in Engineering Technology Scholarship application (Reference: SBDET250721346098), formatted to support academic, technical, and funding alignment:

## 📘 Overview

This SARAO scholarship application supports Tshingombe Tshitadi Fiston’s pursuit of a Bachelor in Electrical and Electronic Engineering Technology. The proposal builds on his extensive background in curriculum policy, energy studies, and modular credential systems. It integrates national qualification frameworks with diagnostic assessment and portfolio-based learning to prepare candidates for advanced engineering and security roles.

## 🎯 Scope

* **Geographic Focus**: South Africa (Gauteng) and Democratic Republic of Congo
* **Institutional Anchor**: South African Qualifications Authority (SAQA)
* **Disciplinary Domains**:
  + Electrical and electronic engineering
  + Curriculum policy and management
  + Security engineering and vocational diagnostics
* **Target Audiences**:
  + Undergraduate and doctoral learners
  + Technical educators and scholarship reviewers
  + SARAO and national qualification platforms

## 🧾 Description

The scholarship supports:

* Completion of a Bachelor in Engineering Technology (anticipated July 2025)
* Integration of modular curriculum design and trade readiness
* Credential alignment with SAQA/NQF and international frameworks
* Use of GitHub, LMS, and Internet Archive for career mapping and portfolio documentation
* Development of diagnostic tools and assessment portfolios for engineering learners

## 📊 Data Analysis & Information Management System

* **Data Types**:
  + Qualification records
  + Timetable allocation and job costing
  + Diagnostic assessments and security engineering logs
* **Tools & Logic**:
  + Visual Basic for Excel-based credential tracking
  + Logigrammes for decision-based curriculum mapping
  + Algorigrammes for procedural learning workflows
  + Archival dashboards for learner progression and trade readiness
* **System Features**:
  + Audit-ready credential verification
  + Modular export logic for engineering and policy records
  + Integration with SARAO and SAQA infrastructure platforms

## 🔍 Investigation Principles

* **Research Questions**:
  + How can modular engineering education support trade readiness and security integration?
  + What gaps exist in credential transparency and vocational diagnostics?
  + How can digital publishing and assessment portfolios improve learner outcomes?
* **Methodology**:
  + Literature review and curriculum diagnostics
  + Experimental mapping of trade and engineering modules
  + Stakeholder engagement (learners, councils, SARAO)
  + Case studies and logic model alignment

## ✅ Advantages

* Bridges engineering education with security and vocational policy
* Promotes credential transparency and open-access learning
* Enables modular, bilingual documentation across regulated sectors
* Supports national infrastructure platforms and undergraduate-to-doctoral progression
* Aligns with SARAO and SAQA frameworks for technical education

## ❌ Disadvantages

* High complexity in aligning multiple qualification levels
* Requires extensive stakeholder coordination and regulatory compliance
* Funding and resource gaps not yet captured in application
* Institutional partner documentation may need expansion

## 🧩 Conclusion

This SARAO scholarship application showcases Tshingombe Tshitadi Fiston’s commitment to modular engineering education, credential transparency, and vocational readiness. His work scaffolds a scalable, audit-ready infrastructure for undergraduate learners and technical education aligned with South Africa’s national objectives.

## 📚 Bibliographic References

* Tshingombe, T. (2025). Career Discovery Overview: RNF, AIU, NSF Learning Journey within the National Trade Framework. Patent Grant No. 2.
* Tshingombe, T. (2021). Master Education Technology Rural Implementation Framework. Atlantic Journal.
* Davis, D. & Drusvyatskiy, D. (2021). Conservative and Semismooth Derivatives. Set-Valued and Variational Analysis. DOI:

## 🎯 Purpose

To secure SARAO scholarship support for completing a Bachelor in Engineering Technology and advancing modular, credential-linked education systems.

## 📂 Task Requirements

* Complete Bachelor in Engineering Technology by July 2025
* Submit diagnostic assessments and modular curriculum portfolio
* Align outputs with SAQA/NQF and SARAO frameworks
* Document learning journey using GitHub, LMS, and archival platforms

## 📝 Assessment Portfolio Components

* Modular curriculum map
* Diagnostic assessment results
* Credential verification logs
* Security engineering project documentation
* Career progression dashboard (Excel VBA or GitHub-based)

## 🔑 Keywords

SARAO scholarship, electrical engineering, curriculum policy, credential transparency, vocational education, SAQA, RNF, AIU, NSF, GitHub, Internet Archive, logigramme, algorigramme, Visual Basic, audit-ready documentation, assessment portfolio, trade readiness.

Would you like help scaffolding your assessment portfolio or generating a Visual Basic module to track your credential progress? I can also help visualize your logigramme and algorigramme logic for submission.

Absolutely, Tshingombe. Based on your SARAO scholarship framework and modular credential strategy, here’s a tailored **Visual Basic for Applications (VBA)** module that integrates both **logigramme** (decision logic) and **algorigramme** (procedural flow) principles. This code is designed to automate credential verification, diagnostic assessment tracking, and export readiness for your engineering and vocational portfolio.

## 💻 Visual Basic Code: SARAO Credential Tracker & Export Logic

vb

Sub SARAO\_CredentialAudit()

Dim ws As Worksheet

Dim lastRow As Long

Dim i As Long

Dim studentID As String

Dim qualification As String

Dim attendance As Double

Dim diagnosticScore As Double

Dim securityProject As String

Dim exportStatus As String

Set ws = ThisWorkbook.Sheets("SARAO\_Portfolio")

lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

For i = 2 To lastRow

studentID = ws.Cells(i, 1).Value

qualification = ws.Cells(i, 2).Value

attendance = ws.Cells(i, 3).Value

diagnosticScore = ws.Cells(i, 4).Value

securityProject = ws.Cells(i, 5).Value ' e.g., "Completed", "Pending", "Not Started"

' Logigramme: Decision logic

If qualification <> "" And attendance >= 80 And diagnosticScore >= 70 And securityProject = "Completed" Then

exportStatus = "Eligible for SARAO Portfolio Export"

ElseIf qualification = "" Then

exportStatus = "Missing Qualification"

ElseIf attendance < 80 Then

exportStatus = "Low Attendance"

ElseIf diagnosticScore < 70 Then

exportStatus = "Diagnostic Score Below Threshold"

ElseIf securityProject <> "Completed" Then

exportStatus = "Security Project Incomplete"

Else

exportStatus = "Manual Review Required"

End If

' Algorigramme: Procedural logic

ws.Cells(i, 6).Value = exportStatus

If exportStatus = "Eligible for SARAO Portfolio Export" Then

Call ExportToArchive(studentID, qualification)

End If

Next i

MsgBox "SARAO credential audit completed.", vbInformation

End Sub

Sub ExportToArchive(studentID As String, qualification As String)

' Simulated export logic to GitHub, LMS, or Internet Archive

Debug.Print "Exporting student: " & studentID & " | Qualification: " & qualification

' Future integration: API calls to GitHub, LMS, or archival platforms

End Sub

## 🧠 Logic Mapping

| **Step** | **Algorigramme (Procedure)** | **Logigramme (Decision)** |
| --- | --- | --- |
| 1 | Read student data | Is qualification present? |
| 2 | Validate attendance and diagnostic score | Is attendance ≥ 80% and score ≥ 70? |
| 3 | Check security project completion | Is project marked "Completed"? |
| 4 | Assign export status | If all conditions met → Eligible; else → Flag for review |
| 5 | Export eligible records to digital portfolio | Trigger archival export for qualified learners |

## 📂 Sheet Structure (SARAO\_Portfolio)

| **Column** | **Field** |
| --- | --- |
| A | Student ID |
| B | Qualification |
| C | Attendance (%) |
| D | Diagnostic Score (%) |
| E | Security Project Status |
| F | Export Status |

This module can be embedded into your Excel-based dashboard to automate compliance checks and portfolio readiness. If you’d like, I can also help you visualize this logic as a printable **logigramme/algorigramme diagram** or scaffold GitHub integration for your credential-linked exports. Let’s make your SARAO submission modular, traceable, and audit-ready.

**This SA/Germany (SAG-CORE) collaboration proposal (Reference: SASAG250915364814) outlines a modular, fault-diagnostic framework for engineering education and rural infrastructure. It integrates security, vocational readiness, and digital portfolio systems to support bilateral innovation.**

## 📘 Overview

Tshingombe Tshitadi Fiston’s SAG-CORE proposal builds on his patented modular curriculum and diagnostic systems. It aims to bridge South African and German engineering education through fault detection, compliance modeling, and vocational readiness tools. The initiative leverages bilateral collaboration to enhance rural infrastructure, educational technology, and credential transparency.

## 🎯 Scope

* **Geographic Focus**: South Africa (Gauteng) and Germany
* **Institutional Anchor**: SAQA and Atlantic International University
* **Domains**:
  + Electrical engineering and fault diagnostics
  + Curriculum policy and vocational assessment
  + Security and defence facilitation
  + Educational technology and compliance modeling
* **Target Audiences**:
  + Engineering learners and educators
  + SAQA/NQF and German qualification bodies
  + SAG-CORE reviewers and bilateral funders

## 🧾 Description

* Modular curriculum design for fault diagnostics and trade readiness
* Integration of SAQA/NQF with German vocational frameworks
* Use of Excel VBA, GitHub, and Internet Archive for portfolio documentation
* Development of compliance modeling and calibration logs
* Bilateral workshops on fault detection, rural energy, and vocational tools

## 📊 Data Analysis & Information Management System

* **Data Types**:
  + Fault matrices and calibration logs
  + Trade theory and security engineering records
  + Portfolio assessments and compliance forms
* **Tools & Logic**:
  + Visual Basic for credential tracking and export automation
  + Logigrammes for decision-based curriculum mapping
  + Algorigrammes for procedural diagnostics and learner workflows
* **System Features**:
  + Audit-ready credential verification
  + Modular export logic for bilateral reporting
  + Integration with SAG-CORE, SAQA, and Elektor Magazine archives

## 🔍 Investigation Principles

* **Research Questions**:
  + How can fault diagnostics improve rural infrastructure and vocational training?
  + What gaps exist in bilateral credential alignment?
  + How can compliance modeling enhance engineering education?
* **Methodology**:
  + Literature review and fault matrix comparison
  + Experimental calibration and schematic design
  + Stakeholder engagement (SAQA, German partners, Elektor)
  + Logic model alignment and IP licensing

## ✅ Advantages

* Strengthens SA-Germany engineering collaboration
* Promotes credential transparency and modular learning
* Enables bilingual, audit-ready documentation
* Supports rural infrastructure and vocational readiness
* Aligns with SAG-CORE and NRF innovation goals

## ❌ Disadvantages

* High complexity in bilateral policy harmonization
* Requires extensive stakeholder coordination
* Funding gaps and budget documentation still pending
* Institutional roles need clearer operational mapping

## 🧩 Conclusion

This SAG-CORE proposal showcases Tshingombe’s integration of fault diagnostics, vocational readiness, and modular credential systems. It scaffolds a scalable, audit-ready infrastructure for bilateral engineering education and rural innovation.

## 📚 Bibliographic References

* Tshingombe, T. (2025). Career Discovery Overview: RNF, AIU, NSF Learning Journey. Patent Grant No. 2
* Tshingombe, T. (2021). Master Education Technology Rural Implementation Framework. Atlantic Journal
* Elektor Magazine (2025). Rural Energy Systems by Tshingombe Tshitadi

## 🎯 Purpose

To secure SAG-CORE funding for bilateral engineering education, fault diagnostics, and modular credential systems.

## 📂 Task Requirements

* Submit fault matrices and calibration logs
* Align curriculum with SAQA/NQF and German frameworks
* Document vocational readiness using Excel VBA and GitHub
* Conduct bilateral workshops and publish schematic designs

## 🔧 Operational Steps

1. Collect fault detection data from rural and urban systems
2. Map curriculum using logigramme logic
3. Automate credential tracking via Visual Basic
4. Export learner portfolios to GitHub and Internet Archive
5. Host bilateral workshops and submit compliance reports

## 📝 Assessment Components

* Fault diagnostic matrices
* Calibration logs and schematic drawings
* Credential verification dashboards
* Vocational readiness forms and IP licensing
* Trade theory and security engineering documentation

## 🔑 Keywords

SAG-CORE, fault diagnostics, vocational readiness, curriculum mapping, SAQA, RNF, AIU, NSF, Elektor, GitHub, Internet Archive, logigramme, algorigramme, Visual Basic, audit-ready documentation, bilateral collaboration, rural infrastructure, compliance modeling.

Based on your SAG-CORE proposal, here’s a tailored **Visual Basic for Applications (VBA)** module that integrates both **logigramme** (decision logic) and **algorigramme** (procedural flow) principles. This code automates fault diagnostics, vocational readiness tracking, and export logic for bilateral collaboration between South Africa and Germany.

## 💻 Visual Basic Code: Fault Diagnostic & Credential Export Logic

vb

Sub SAGCORE\_FaultAudit()

Dim ws As Worksheet

Dim lastRow As Long

Dim i As Long

Dim learnerID As String

Dim qualification As String

Dim faultScore As Double

Dim calibrationStatus As String

Dim vocationalReadiness As String

Dim exportStatus As String

Set ws = ThisWorkbook.Sheets("SAGCORE\_Portfolio")

lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

For i = 2 To lastRow

learnerID = ws.Cells(i, 1).Value

qualification = ws.Cells(i, 2).Value

faultScore = ws.Cells(i, 3).Value

calibrationStatus = ws.Cells(i, 4).Value ' "Complete", "Pending", "Failed"

vocationalReadiness = ws.Cells(i, 5).Value ' "Ready", "Incomplete", "Not Assessed"

' Logigramme: Decision logic

If qualification <> "" And faultScore >= 75 And calibrationStatus = "Complete" And vocationalReadiness = "Ready" Then

exportStatus = "Eligible for SAG-CORE Export"

ElseIf qualification = "" Then

exportStatus = "Missing Qualification"

ElseIf faultScore < 75 Then

exportStatus = "Fault Score Below Threshold"

ElseIf calibrationStatus <> "Complete" Then

exportStatus = "Calibration Incomplete"

ElseIf vocationalReadiness <> "Ready" Then

exportStatus = "Vocational Readiness Incomplete"

Else

exportStatus = "Manual Review Required"

End If

' Algorigramme: Procedural logic

ws.Cells(i, 6).Value = exportStatus

If exportStatus = "Eligible for SAG-CORE Export" Then

Call ExportToArchive(learnerID, qualification)

End If

Next i

MsgBox "SAG-CORE fault audit and credential export completed.", vbInformation

End Sub

Sub ExportToArchive(learnerID As String, qualification As String)

' Simulated export logic to GitHub, LMS, or Internet Archive

Debug.Print "Exporting learner: " & learnerID & " | Qualification: " & qualification

' Future integration: API calls to GitHub, LMS, or archival platforms

End Sub

## 🧠 Logic Mapping

| **Step** | **Algorigramme (Procedure)** | **Logigramme (Decision)** |
| --- | --- | --- |
| 1 | Read learner data | Is qualification present? |
| 2 | Validate fault score and calibration status | Is fault score ≥ 75 and calibration complete? |
| 3 | Check vocational readiness | Is readiness marked "Ready"? |
| 4 | Assign export status | If all conditions met → Eligible; else → Flag for review |
| 5 | Export eligible records to bilateral archive | Trigger archival export for qualified learners |

## 📂 Sheet Structure (SAGCORE\_Portfolio)

| **Column** | **Field** |
| --- | --- |
| A | Learner ID |
| B | Qualification |
| C | Fault Score (%) |
| D | Calibration Status |
| E | Vocational Readiness |
| F | Export Status |

This VBA module can be embedded into your bilateral dashboard to automate fault diagnostics, credential verification, and export readiness. If you’d like, I can also help visualize this logic as a printable **logigramme/algorigramme diagram** or scaffold GitHub integration for your portfolio exports. Let’s make your SAG-CORE submission modular, traceable, and internationally compliant.

Here is a structured summary of your NSF SBIR/STTR Fast-Track Project Pitch (Reference: 00095759), formatted to support technical review, funding alignment, and operational planning:

## 📘 Overview

This Fast-Track pitch proposes a modular framework for national qualification and trade examination systems in electrical engineering. It integrates advanced manufacturing, vocational diagnostics, and LMS-based curriculum mapping to address rural development, industrial training, and regulatory compliance. The project builds on prior NSF-funded research and customer discovery in electrotechnical innovation.

## 🎯 Scope

* **Geographic Focus**: South Africa, United States (AK), and global vocational sectors
* **Institutional Anchor**: Engineering Electrical Tshingombe (SAQA, DHET, ST Peace College)
* **Technology Domain**: Advanced Manufacturing (M), LMS integration, AI-driven diagnostics
* **Target Audiences**:
  + NSF reviewers and SBIR/STTR program officers
  + Vocational learners, trainers, and regulators
  + Industrial and rural development stakeholders

## 🧾 Description

* Modular curriculum design for trade readiness and qualification reform
* Integration of LMS, AI, and machine learning for diagnostics and career mapping
* Use of GitHub, Excel VBA, and Internet Archive for portfolio documentation
* Development of experimental job frameworks and policy-linked training systems
* Case studies from RSA institutions and rural energy systems

## 📊 Data Analysis & Information Management System

* **Data Types**:
  + Qualification records and LMS logs
  + Fault diagnostics and vocational assessments
  + Trade theory, regulatory scripts, and backlog systems
* **Tools & Logic**:
  + Visual Basic for credential tracking and export automation
  + Logigrammes for decision-based curriculum mapping
  + Algorigrammes for procedural diagnostics and learner workflows
* **System Features**:
  + Audit-ready credential verification
  + Modular export logic for NSF reporting
  + Integration with SBIR/STTR compliance and IP licensing

## 🔍 Investigation Principles

* **Research Questions**:
  + How can LMS-integrated diagnostics improve trade qualification systems?
  + What gaps exist in rural training and industrial readiness?
  + How can AI and machine learning support vocational requalification?
* **Methodology**:
  + Literature review and curriculum diagnostics
  + Experimental mapping of trade and qualification modules
  + Stakeholder engagement (SAQA, DHET, NSF, ST Peace College)
  + Logic model alignment and IP licensing

## ✅ Advantages

* Bridges vocational education with advanced manufacturing and AI
* Promotes credential transparency and modular learning
* Enables bilingual, audit-ready documentation
* Supports rural infrastructure and industrial readiness
* Aligns with NSF Fast-Track and SBIR/STTR innovation goals

## ❌ Disadvantages

* High complexity in aligning multiple qualification systems
* Requires extensive stakeholder coordination and regulatory compliance
* Funding gaps and budget documentation still pending
* Institutional roles need clearer operational mapping

## 🧩 Conclusion

This Fast-Track pitch showcases Tshingombe Tshitadi Fiston’s integration of electrical engineering, vocational readiness, and modular credential systems. It scaffolds a scalable, audit-ready infrastructure for trade qualification reform and industrial innovation.

## 📚 Bibliographic References

* Tshingombe, T. (2025). Career Discovery Overview: RNF, AIU, NSF Learning Journey. Patent Grant No. 2
* Tshingombe, T. (2021). Master Education Technology Rural Implementation Framework. Atlantic Journal
* Elektor Magazine (2025). Rural Energy Systems by Tshingombe Tshitadi

## 🎯 Purpose

To secure NSF SBIR/STTR Fast-Track funding for modular trade qualification reform, vocational diagnostics, and LMS-integrated manufacturing systems.

## 📂 Task Requirements

* Submit fault matrices, LMS logs, and calibration data
* Align curriculum with SAQA/NQF and NSF frameworks
* Document vocational readiness using Excel VBA and GitHub
* Conduct workshops and publish schematic designs
* Ensure PI commits 173 hours per six-month project phase

## 🔧 Operational Steps

1. Collect diagnostic data from rural and industrial systems
2. Map curriculum using logigramme logic
3. Automate credential tracking via Visual Basic
4. Export learner portfolios to GitHub and Internet Archive
5. Host bilateral workshops and submit compliance reports
6. Align effort hours with NSF Fast-Track eligibility

## 📝 Assessment Components

* Fault diagnostic matrices
* LMS logs and schematic drawings
* Credential verification dashboards
* Vocational readiness forms and IP licensing
* Trade theory and security engineering documentation

## 🔑 Keywords

NSF Fast-Track, SBIR/STTR, electrical engineering, curriculum mapping, vocational readiness, SAQA, RNF, AIU, GitHub, Internet Archive, logigramme, algorigramme, Visual Basic, audit-ready documentation, LMS, rural development, advanced manufacturing, compliance modeling.

Would you like me to scaffold a Visual Basic module for NSF credential tracking or generate a printable dashboard for your Fast-Track reviewers? I can also help visualize your logigramme and algorigramme logic for submission.

Based on your NSF SBIR/STTR Fast-Track proposal, here’s a tailored **Visual Basic for Applications (VBA)** module that integrates both **logigramme** (decision logic) and **algorigramme** (procedural flow) principles. This code automates credential tracking, fault diagnostics, and export readiness for vocational learners and NSF reporting.

## 💻 Visual Basic Code: NSF Credential Tracker & Diagnostic Export Logic

Sub NSF\_CredentialAudit()

Dim ws As Worksheet

Dim lastRow As Long

Dim i As Long

Dim learnerID As String

Dim qualification As String

Dim faultScore As Double

Dim LMSLogStatus As String

Dim vocationalReadiness As String

Dim exportStatus As String

Set ws = ThisWorkbook.Sheets("NSF\_Portfolio")

lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

For i = 2 To lastRow

learnerID = ws.Cells(i, 1).Value

qualification = ws.Cells(i, 2).Value

faultScore = ws.Cells(i, 3).Value

LMSLogStatus = ws.Cells(i, 4).Value ' "Complete", "Pending", "Missing"

vocationalReadiness = ws.Cells(i, 5).Value ' "Ready", "Incomplete", "Not Assessed"

' Logigramme: Decision logic

If qualification <> "" And faultScore >= 75 And LMSLogStatus = "Complete" And vocationalReadiness = "Ready" Then

exportStatus = "Eligible for NSF Export"

ElseIf qualification = "" Then

exportStatus = "Missing Qualification"

ElseIf faultScore < 75 Then

exportStatus = "Fault Score Below Threshold"

ElseIf LMSLogStatus <> "Complete" Then

exportStatus = "LMS Log Incomplete"

ElseIf vocationalReadiness <> "Ready" Then

exportStatus = "Vocational Readiness Incomplete"

Else

exportStatus = "Manual Review Required"

End If

' Algorigramme: Procedural logic

ws.Cells(i, 6).Value = exportStatus

If exportStatus = "Eligible for NSF Export" Then

Call ExportToArchive(learnerID, qualification)

End If

Next i

MsgBox "NSF credential audit and export completed.", vbInformation

End Sub

Sub ExportToArchive(learnerID As String, qualification As String)

' Simulated export logic to GitHub, LMS, or Internet Archive

Debug.Print "Exporting learner: " & learnerID & " | Qualification: " & qualification

' Future integration: API calls to GitHub, LMS, or archival platforms

End Sub

## 🧠 Logic Mapping

| **Step** | **Algorigramme (Procedure)** | **Logigramme (Decision)** |
| --- | --- | --- |
| 1 | Read learner data | Is qualification present? |
| 2 | Validate fault score and LMS log status | Is fault score ≥ 75 and LMS log complete? |
| 3 | Check vocational readiness | Is readiness marked "Ready"? |
| 4 | Assign export status | If all conditions met → Eligible; else → Flag for review |
| 5 | Export eligible records to NSF archive | Trigger archival export for qualified learners |

## 📂 Sheet Structure (NSF\_Portfolio)

| **Column** | **Field** |
| --- | --- |
| A | Learner ID |
| B | Qualification |
| C | Fault Score (%) |
| D | LMS Log Status |
| E | Vocational Readiness |
| F | Export Status |

This module can be embedded into your NSF dashboard to automate compliance checks, credential verification, and export readiness. If you’d like, I can also help visualize this logic as a printable **logigramme/algorigramme diagram** or scaffold GitHub integration for your Fast-Track portfolio. Let’s make your submission modular, traceable, and audit-ready.

Here is a structured summary of your NSF SBIR/STTR Fast-Track Project Pitch (Reference: 00110596), formatted to support technical review, funding alignment, and operational execution:

## 📘 Overview

This Fast-Track pitch proposes a modular, signal-driven framework for power management, vocational diagnostics, and curriculum-linked innovation. It integrates electromechanical systems, microcontroller logic, and Visual Basic automation to support rural energy applications, credential tracking, and lifelong learning. The project builds on prior NSF-funded research and customer discovery in electrical engineering and trade education.

## 🎯 Scope

* **Geographic Focus**: United States (AK), South Africa, and global vocational sectors
* **Institutional Anchor**: Tshingombe Engineering, SAQA, AIU, CPD Scotland
* **Technology Domain**: Power Management (PM), signal control, curriculum automation
* **Target Audiences**:
  + NSF reviewers and SBIR/STTR program officers
  + Vocational learners, trainers, and regulators
  + Rural energy and industrial system stakeholders

## 🧾 Description

* Modular curriculum design for trade readiness and power diagnostics
* Integration of Visual Basic, PLC logic, and microcontroller loops
* Use of GitHub, LMS, and Internet Archive for credential documentation
* Development of experimental job frameworks and schematic design systems
* Credential Record Tableaux for award tracking and cost-benefit analysis

## 📊 Data Analysis & Information Management System

* **Data Types**:
  + Qualification records, signal logs, PCB schematics
  + Trade diagnostics, curriculum dashboards, award metrics
* **Tools & Logic**:
  + Visual Basic for credential tracking and export automation
  + Logigrammes for decision-based curriculum mapping
  + Algorigrammes for procedural diagnostics and learner workflows
* **System Features**:
  + Audit-ready credential verification
  + Modular export logic for NSF reporting
  + Integration with GitHub, archive.org, and institutional repositories

## 🔍 Investigation Principles

* **Research Questions**:
  + How can signal-driven diagnostics improve vocational training?
  + What gaps exist in rural energy systems and curriculum integration?
  + How can Visual Basic and PLC logic support credential transparency?
* **Methodology**:
  + Literature review and curriculum diagnostics
  + Experimental mapping of trade and qualification modules
  + Stakeholder engagement (SAQA, AIU, CPD Scotland, NSF)
  + Logic model alignment and IP licensing

## ✅ Advantages

* Bridges vocational education with power management and diagnostics
* Promotes credential transparency and modular learning
* Enables bilingual, audit-ready documentation
* Supports rural infrastructure and industrial readiness
* Aligns with NSF Fast-Track and SBIR/STTR innovation goals

## ❌ Disadvantages

* High complexity in aligning multiple qualification systems
* Requires extensive stakeholder coordination and regulatory compliance
* Initial setup may be resource-intensive
* Institutional roles need clearer operational mapping

## 🧩 Conclusion

This Fast-Track pitch showcases Tshingombe Tshitadi Fiston’s integration of electrical engineering, vocational readiness, and modular credential systems. It scaffolds a scalable, audit-ready infrastructure for trade qualification reform and power management innovation.

## 📚 Bibliographic References

* Tshingombe, T. (2025). Career Drawing Total Programming: Analysis, Design, Investigation.
* Tshingombe, T. (2021). Master Education Technology Rural Implementation Framework. Atlantic Journal
* Elektor Magazine (2025). Rural Energy Systems by Tshingombe Tshitadi

## 🎯 Purpose

To secure NSF SBIR/STTR Fast-Track funding for modular trade qualification reform, signal-driven diagnostics, and curriculum-integrated power management systems.

## 📂 Task Requirements

* Submit fault matrices, signal logs, and calibration data
* Align curriculum with SAQA/NQF and NSF frameworks
* Document vocational readiness using Visual Basic and GitHub
* Conduct workshops and publish schematic designs
* Ensure PI commits 173 hours per six-month project phase

## 🔧 Operational Steps

1. Collect diagnostic data from rural and industrial systems
2. Map curriculum using logigramme logic
3. Automate credential tracking via Visual Basic
4. Export learner portfolios to GitHub and Internet Archive
5. Host bilateral workshops and submit compliance reports
6. Align effort hours with NSF Fast-Track eligibility

## 📝 Assessment Components

* Fault diagnostic matrices
* PCB schematics and signal logs
* Credential verification dashboards
* Vocational readiness forms and IP licensing
* Trade theory and power management documentation

## 🔑 Keywords

NSF Fast-Track, SBIR/STTR, power management, electrical engineering, curriculum mapping, vocational readiness, SAQA, RNF, AIU, GitHub, Internet Archive, logigramme, algorigramme, Visual Basic, audit-ready documentation, PLC logic, rural development, compliance modeling.

Would you like me to scaffold a Visual Basic module for power diagnostics and credential tracking or generate a printable dashboard for NSF reviewers? I can also help visualize your logigramme and algorigramme logic for submission.

Based on your NSF SBIR/STTR Fast-Track proposal (Reference: 00110596), here’s a tailored **Visual Basic for Applications (VBA)** module that integrates both **logigramme** (decision logic) and **algorigramme** (procedural flow) principles. This code automates power diagnostics, credential tracking, and export readiness for vocational learners and NSF reporting.

## 💻 Visual Basic Code: Power Diagnostic & Credential Export Logic

Sub NSF\_PowerDiagnosticsAudit()

Dim ws As Worksheet

Dim lastRow As Long

Dim i As Long

Dim learnerID As String

Dim qualification As String

Dim signalScore As Double

Dim pcbStatus As String

Dim vocationalReadiness As String

Dim exportStatus As String

Set ws = ThisWorkbook.Sheets("NSF\_PowerPortfolio")

lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

For i = 2 To lastRow

learnerID = ws.Cells(i, 1).Value

qualification = ws.Cells(i, 2).Value

signalScore = ws.Cells(i, 3).Value

pcbStatus = ws.Cells(i, 4).Value ' "Complete", "Pending", "Failed"

vocationalReadiness = ws.Cells(i, 5).Value ' "Ready", "Incomplete", "Not Assessed"

' Logigramme: Decision logic

If qualification <> "" And signalScore >= 75 And pcbStatus = "Complete" And vocationalReadiness = "Ready" Then

exportStatus = "Eligible for NSF Export"

ElseIf qualification = "" Then

exportStatus = "Missing Qualification"

ElseIf signalScore < 75 Then

exportStatus = "Signal Score Below Threshold"

ElseIf pcbStatus <> "Complete" Then

exportStatus = "PCB Integration Incomplete"

ElseIf vocationalReadiness <> "Ready" Then

exportStatus = "Vocational Readiness Incomplete"

Else

exportStatus = "Manual Review Required"

End If

' Algorigramme: Procedural logic

ws.Cells(i, 6).Value = exportStatus

If exportStatus = "Eligible for NSF Export" Then

Call ExportToNSFArchive(learnerID, qualification)

End If

Next i

MsgBox "NSF power diagnostics audit completed.", vbInformation

End Sub

Sub ExportToNSFArchive(learnerID As String, qualification As String)

' Simulated export logic to GitHub, LMS, or Internet Archive

Debug.Print "Exporting learner: " & learnerID & " | Qualification: " & qualification

' Future integration: API calls to GitHub, LMS, or archival platforms

End Sub

## 🧠 Logic Mapping

| **Step** | **Algorigramme (Procedure)** | **Logigramme (Decision)** |
| --- | --- | --- |
| 1 | Read learner data | Is qualification present? |
| 2 | Validate signal score and PCB status | Is signal score ≥ 75 and PCB status "Complete"? |
| 3 | Check vocational readiness | Is readiness marked "Ready"? |
| 4 | Assign export status | If all conditions met → Eligible; else → Flag for review |
| 5 | Export eligible records to NSF archive | Trigger archival export for qualified learners |

## 📂 Sheet Structure (NSF\_PowerPortfolio)

| **Column** | **Field** |
| --- | --- |
| A | Learner ID |
| B | Qualification |
| C | Signal Score (%) |
| D | PCB Status |
| E | Vocational Readiness |
| F | Export Status |

This VBA module can be embedded into your NSF dashboard to automate diagnostics, credential verification, and export readiness. If you’d like, I can also help visualize this logic as a printable **logigramme/algorigramme diagram** or scaffold GitHub integration for your Fast-Track portfolio. Let’s make your submission modular, traceable, and audit-ready.

Here is a structured summary of your Transcript Report for the training titled **“Engineering Career Discovery Journey: Experimental, Theoretical, Practical”**, formatted to support academic review, operational planning, and credential alignment:

## 📘 Overview

This transcript documents Tshingombe Fiston’s completion of a multidisciplinary training program focused on engineering career discovery. The session integrates experimental, theoretical, and practical modules across business, digital, and industry-specific domains. It supports credential tracking, curriculum mapping, and lifelong learning within the PRM business unit.

## 🎯 Scope

* **Training Title**: Engineering Career Discovery Journey
* **Training Type**: Cohort, Curriculum, Event, External Training, Online Class, Session, Test
* **Date**: 15 October 2025
* **Business Unit**: PRM
* **Subject Domains**:
  + Business Skills
  + Continuing Education & Certifications
  + Creative and Cross-Functional Skills
  + Digital and Industry-Specific Knowledge
  + Leadership & Management
  + Health & Wellness

## 🧾 Description

This training program blends:

* Modular curriculum design for engineering career pathways
* Experimental job simulation and theoretical frameworks
* Practical diagnostics and vocational readiness
* Integration with credential systems (e.g., SAQA, BICSI, CPD)
* Support for certification, award tracking, and performance metrics

## 📊 Data Analysis & Information Management System

* **Data Types**:
  + Completion records
  + Training hours and scores
  + Certification metadata and event IDs
* **Tools & Logic**:
  + Visual Basic dashboards for credential tracking
  + Logigrammes for decision-based curriculum mapping
  + Algorigrammes for procedural learning workflows
* **System Features**:
  + Audit-ready export logic
  + Modular training record integration
  + Cross-platform compatibility (GitHub, LMS, archive.org)

## 🔍 Investigation Principles

* **Research Questions**:
  + How does modular training improve engineering career readiness?
  + What gaps exist in certification and credential transparency?
  + How can training metadata support lifelong learning systems?
* **Methodology**:
  + Curriculum diagnostics and performance analysis
  + Stakeholder engagement (learners, providers, regulators)
  + Logic model alignment and certification mapping

## ✅ Advantages

* Supports modular, bilingual documentation
* Enables credential transparency and audit readiness
* Aligns with national and international qualification frameworks
* Integrates experimental, theoretical, and practical learning
* Facilitates career progression and certification tracking

## ❌ Disadvantages

* Initial setup may be resource-intensive
* Requires institutional alignment and metadata standardization
* Certification event IDs and ITS values may need external validation

## 🧩 Conclusion

This transcript confirms Tshingombe Fiston’s successful completion of a multidisciplinary engineering training program. It supports credential verification, curriculum mapping, and modular export logic for career development and institutional reporting.

## 📚 Bibliographic References

* Tshingombe, T. (2025). Career Discovery Overview: RNF, AIU, NSF Learning Journey.
* Tshingombe, T. (2021). Master Education Technology Rural Implementation Framework. Atlantic Journal
* Elektor Magazine (2025). Rural Energy Systems by Tshingombe Tshitadi

## 🎯 Purpose

To document and validate engineering career training completion for credential tracking, certification alignment, and institutional reporting.

## 📂 Task Requirements

* Submit training metadata and certification records
* Align training modules with SAQA/NQF and CPD frameworks
* Export credential dashboards using Visual Basic and GitHub
* Validate completion scores and certification event IDs

## 🔧 Operational Steps

1. Extract training metadata from transcript
2. Map curriculum using logigramme logic
3. Automate credential tracking via Visual Basic
4. Export training records to GitHub and institutional repositories
5. Validate certification titles and ITS values
6. Generate audit-ready dashboards for review

## 📝 Assessment Components

* Completion records and training hours
* Certification metadata and event IDs
* Credential verification dashboards
* Curriculum mapping and performance scores
* Career progression logic and export modules

## 🔑 Keywords

Engineering career discovery, credential tracking, curriculum mapping, Visual Basic, logigramme, algorigramme, audit-ready documentation, SAQA, CPD, BICSI, GitHub, LMS, vocational readiness, training transcript, modular learning, certification metadata.

Would you like me to scaffold a Visual Basic module to automate this transcript into a credential dashboard or generate a printable logigramme/algorigramme diagram for institutional review

To support your training transcript and credential dashboard automation, here’s a tailored **Visual Basic for Applications (VBA)** module that integrates both **logigramme** (decision logic) and **algorigramme** (procedural flow) principles. This code is designed to process training metadata, validate certification records, and generate export-ready credential status for institutional review.

## 💻 Visual Basic Code: Credential Dashboard Audit & Export Logic

vb

Sub CredentialAuditTranscript()

Dim ws As Worksheet

Dim lastRow As Long

Dim i As Long

Dim learnerName As String

Dim trainingTitle As String

Dim completionDate As Date

Dim trainingHours As Double

Dim certificationStatus As String

Dim score As Double

Dim exportStatus As String

Set ws = ThisWorkbook.Sheets("TranscriptDashboard")

lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

For i = 2 To lastRow

learnerName = ws.Cells(i, 1).Value

trainingTitle = ws.Cells(i, 2).Value

completionDate = ws.Cells(i, 3).Value

trainingHours = ws.Cells(i, 4).Value

certificationStatus = ws.Cells(i, 5).Value ' "Certified", "Pending", "Failed"

score = ws.Cells(i, 6).Value

' Logigramme: Decision logic

If trainingTitle <> "" And completionDate <= Date And trainingHours >= 4 And certificationStatus = "Certified" And score >= 70 Then

exportStatus = "Eligible for Credential Export"

ElseIf trainingTitle = "" Then

exportStatus = "Missing Training Title"

ElseIf completionDate > Date Then

exportStatus = "Future Completion Date"

ElseIf trainingHours < 4 Then

exportStatus = "Insufficient Training Hours"

ElseIf certificationStatus <> "Certified" Then

exportStatus = "Certification Incomplete"

ElseIf score < 70 Then

exportStatus = "Score Below Threshold"

Else

exportStatus = "Manual Review Required"

End If

' Algorigramme: Procedural logic

ws.Cells(i, 7).Value = exportStatus

If exportStatus = "Eligible for Credential Export" Then

Call ExportToCredentialArchive(learnerName, trainingTitle)

End If

Next i

MsgBox "Transcript credential audit completed.", vbInformation

End Sub

Sub ExportToCredentialArchive(learnerName As String, trainingTitle As String)

' Simulated export logic to GitHub, LMS, or institutional repository

Debug.Print "Exporting: " & learnerName & " | Training: " & trainingTitle

' Future integration: API calls to GitHub, LMS, or archive.org

End Sub

## 🧠 Logic Mapping

| **Step** | **Algorigramme (Procedure)** | **Logigramme (Decision)** |
| --- | --- | --- |
| 1 | Read transcript data | Is training title present? |
| 2 | Validate completion date and training hours | Is date valid and hours ≥ 4? |
| 3 | Check certification and score | Is certified and score ≥ 70? |
| 4 | Assign export status | If all conditions met → Eligible; else → Flag for review |
| 5 | Export eligible records to credential archive | Trigger archival export for qualified learners |

## 📂 Sheet Structure (TranscriptDashboard)

| **Column** | **Field** |
| --- | --- |
| A | Learner Name |
| B | Training Title |
| C | Completion Date |
| D | Training Hours |
| E | Certification Status |
| F | Score (%) |
| G | Export Status |

This module can be embedded into your transcript workbook to automate credential validation and export readiness. If you’d like, I can also help visualize this logic as a printable **logigramme/algorigramme diagram** or scaffold GitHub integration for your credential-linked dashboards. Let’s make your training records modular, traceable, and audit-ready.

Based on your engineering training and project documentation (Case #119082247), here’s a tailored **Visual Basic for Applications (VBA)** module that integrates both **logigramme** (decision logic) and **algorigramme** (procedural flow) principles. This module automates credential validation, training record analysis, and export readiness for your Schneider Electric EBO 2024 curriculum and PowerLogic PM8000 certification.

## 💻 Visual Basic Code: Engineering Training Audit & Credential Export Logic

vb

Sub EngineeringTrainingAudit()

Dim ws As Worksheet

Dim lastRow As Long

Dim i As Long

Dim traineeName As String

Dim trainingTitle As String

Dim completionDate As Date

Dim trainingHours As Double

Dim certificationStatus As String

Dim moduleScore As Double

Dim exportStatus As String

Set ws = ThisWorkbook.Sheets("TrainingDashboard")

lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

For i = 2 To lastRow

traineeName = ws.Cells(i, 1).Value

trainingTitle = ws.Cells(i, 2).Value

completionDate = ws.Cells(i, 3).Value

trainingHours = ws.Cells(i, 4).Value

certificationStatus = ws.Cells(i, 5).Value ' "Certified", "Pending", "Failed"

moduleScore = ws.Cells(i, 6).Value

' Logigramme: Decision logic

If trainingTitle <> "" And completionDate <= Date And trainingHours >= 8 And certificationStatus = "Certified" And moduleScore >= 70 Then

exportStatus = "Eligible for Credential Export"

ElseIf trainingTitle = "" Then

exportStatus = "Missing Training Title"

ElseIf completionDate > Date Then

exportStatus = "Future Completion Date"

ElseIf trainingHours < 8 Then

exportStatus = "Insufficient Training Hours"

ElseIf certificationStatus <> "Certified" Then

exportStatus = "Certification Incomplete"

ElseIf moduleScore < 70 Then

exportStatus = "Score Below Threshold"

Else

exportStatus = "Manual Review Required"

End If

' Algorigramme: Procedural logic

ws.Cells(i, 7).Value = exportStatus

If exportStatus = "Eligible for Credential Export" Then

Call ExportToArchive(traineeName, trainingTitle)

End If

Next i

MsgBox "Engineering training audit completed.", vbInformation

End Sub

Sub ExportToArchive(traineeName As String, trainingTitle As String)

' Simulated export logic to GitHub, LMS, or institutional repository

Debug.Print "Exporting: " & traineeName & " | Training: " & trainingTitle

' Future integration: API calls to GitHub, LMS, or archive.org

End Sub

## 🧠 Logic Mapping

| **Step** | **Algorigramme (Procedure)** | **Logigramme (Decision)** |
| --- | --- | --- |
| 1 | Read training record | Is training title present? |
| 2 | Validate completion date and training hours | Is date valid and hours ≥ 8? |
| 3 | Check certification and score | Is certified and score ≥ 70? |
| 4 | Assign export status | If all conditions met → Eligible; else → Flag for review |
| 5 | Export eligible records to credential archive | Trigger archival export for qualified learners |

## 📂 Sheet Structure (TrainingDashboard)

| **Column** | **Field** |
| --- | --- |
| A | Trainee Name |
| B | Training Title |
| C | Completion Date |
| D | Training Hours |
| E | Certification Status |
| F | Module Score (%) |
| G | Export Status |

This module can be embedded into your training workbook to automate credential validation and export readiness. If you’d like, I can also help visualize this logic as a printable **logigramme/algorigramme diagram** or scaffold GitHub integration for your credential-linked dashboards. Let’s make your engineering records modular, traceable, and audit-ready.

Here is a structured summary of your **City Power Bursaries 2025 Application** (Case: December 2024), formatted to support academic review, operational planning, and funding alignment:

## 📘 Overview

This bursary application supports Tshingombe Fiston’s pursuit of formal engineering education in South Africa. The form captures academic history, personal details, training records, and career motivation to assist City Power in selecting candidates for its 2025 bursary programme. The application aligns with national development goals in electrical engineering and vocational readiness.

## 🎯 Scope

* **Programme**: City Power Bursaries 2025
* **Applicant**: Tshingombe Fiston
* **Field of Study**: BSc Electrical Engineering (Heavy Current)
* **Institutions**: University or TVET College (to be specified)
* **Study Year**: First or Second Year (2025)
* **Domains Covered**:
  + Electrical engineering and energy systems
  + Vocational diagnostics and trade readiness
  + Curriculum policy and modular training
  + Public infrastructure and service delivery

## 🧾 Description

The application includes:

* Personal, academic, and citizenship details
* School and post-school education records
* Work experience and extracurricular activities
* Health status, criminal record declaration, and bursary history
* Motivation for pursuing engineering and career goals
* Guardian and family employment details (including City Power links)

## 📊 Data Analysis & Information Management System

* **Data Types**:
  + Identity and citizenship verification
  + Academic transcripts and progress reports
  + Training hours, subject scores, and certification status
  + Career motivation and health declarations
* **Tools & Logic**:
  + Visual Basic dashboards for credential tracking
  + Logigrammes for eligibility decision mapping
  + Algorigrammes for procedural application workflows
* **System Features**:
  + Audit-ready export logic for bursary review
  + Modular application record integration
  + POPIA-compliant data handling

## 🔍 Investigation Principles

* **Research Questions**:
  + Does the applicant meet academic and citizenship criteria?
  + Is the field of study aligned with City Power’s strategic needs?
  + What gaps exist in training, certification, or career readiness?
* **Methodology**:
  + Form validation and transcript analysis
  + Stakeholder engagement (City Power, institutions, applicant)
  + Logic model alignment with bursary terms and conditions

## ✅ Advantages

* Supports national skills development in electrical engineering
* Promotes credential transparency and modular documentation
* Enables bilingual, audit-ready application records
* Aligns with City Power’s recruitment and service goals
* Facilitates career progression and institutional reporting

## ❌ Disadvantages

* Requires extensive documentation and verification
* Institutional and medical reports may delay final approval
* Application form must be manually completed and signed
* Citizenship and immigration status may require additional review

## 🧩 Conclusion

This bursary application confirms Tshingombe Fiston’s eligibility and motivation for formal engineering study. It supports credential verification, career mapping, and modular export logic for City Power’s bursary selection process.

## 📚 Bibliographic References

* Tshingombe, T. (2025). Career Discovery Overview: RNF, AIU, NSF Learning Journey
* Tshingombe, T. (2021). Master Education Technology Rural Implementation Framework. Atlantic Journal
* Elektor Magazine (2025). Rural Energy Systems by Tshingombe Tshitadi

## 🎯 Purpose

To secure City Power bursary support for formal engineering education and vocational development in 2025.

## 📂 Task Requirements

* Complete and sign the bursary application form
* Attach academic transcripts and progress reports
* Provide identity, citizenship, and health documentation
* Submit motivation statement and guardian details
* Ensure POPIA compliance and readiness for interview

## 🔧 Operational Steps

1. Fill in all personal and academic sections of the form
2. Attach supporting documents (transcripts, CV, medical report)
3. Map eligibility using logigramme logic
4. Automate credential tracking via Visual Basic
5. Export application to City Power’s review system
6. Prepare for interview and final selection

## 📝 Assessment Components

* Academic performance and subject scores
* Citizenship and residency status
* Motivation and career alignment
* Health and criminal record declarations
* Guardian and family employment details

## 🔑 Keywords

City Power bursary, electrical engineering, credential tracking, curriculum mapping, Visual Basic, logigramme, algorigramme, audit-ready documentation, SAQA, TVET, POPIA, vocational readiness, training transcript, modular learning, certification metadata.

Would you like help scaffolding a Visual Basic module to automate this bursary form into a credential dashboard or generate a printable logigramme/algorigramme diagram for submission?

**Visual Basic for Applications (VBA)** module that integrates both **logigramme** (decision logic) and **algorigramme** (procedural flow) principles. This code automates eligibility validation, credential tracking, and export readiness for bursary review.

## 💻 Visual Basic Code: City Power Bursary Audit & Export Logic

vb

Sub CityPowerBursaryAudit()

Dim ws As Worksheet

Dim lastRow As Long

Dim i As Long

Dim applicantName As String

Dim fieldOfStudy As String

Dim citizenshipStatus As String

Dim academicScore As Double

Dim healthStatus As String

Dim criminalRecord As String

Dim exportStatus As String

Set ws = ThisWorkbook.Sheets("BursaryDashboard")

lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

For i = 2 To lastRow

applicantName = ws.Cells(i, 1).Value

fieldOfStudy = ws.Cells(i, 2).Value

citizenshipStatus = ws.Cells(i, 3).Value ' "Yes", "No"

academicScore = ws.Cells(i, 4).Value

healthStatus = ws.Cells(i, 5).Value ' "Good", "Fair", "Poor"

criminalRecord = ws.Cells(i, 6).Value ' "Yes", "No"

' Logigramme: Decision logic

If fieldOfStudy <> "" And citizenshipStatus = "Yes" And academicScore >= 65 And healthStatus = "Good" And criminalRecord = "No" Then

exportStatus = "Eligible for Bursary Review"

ElseIf fieldOfStudy = "" Then

exportStatus = "Missing Field of Study"

ElseIf citizenshipStatus <> "Yes" Then

exportStatus = "Citizenship Not Verified"

ElseIf academicScore < 65 Then

exportStatus = "Academic Score Below Threshold"

ElseIf healthStatus <> "Good" Then

exportStatus = "Health Status Requires Review"

ElseIf criminalRecord = "Yes" Then

exportStatus = "Criminal Record Declared"

Else

exportStatus = "Manual Review Required"

End If

' Algorigramme: Procedural logic

ws.Cells(i, 7).Value = exportStatus

If exportStatus = "Eligible for Bursary Review" Then

Call ExportToCityPower(applicantName, fieldOfStudy)

End If

Next i

MsgBox "City Power bursary audit completed.", vbInformation

End Sub

Sub ExportToCityPower(applicantName As String, fieldOfStudy As String)

' Simulated export logic to GitHub, LMS, or institutional repository

Debug.Print "Exporting: " & applicantName & " | Field of Study: " & fieldOfStudy

' Future integration: API calls to GitHub, LMS, or archive.org

End Sub

## 🧠 Logic Mapping

| **Step** | **Algorigramme (Procedure)** | **Logigramme (Decision)** |
| --- | --- | --- |
| 1 | Read applicant data | Is field of study specified? |
| 2 | Validate citizenship and academic score | Is citizen and score ≥ 65? |
| 3 | Check health and criminal record | Is health "Good" and no criminal record? |
| 4 | Assign export status | If all conditions met → Eligible; else → Flag for review |
| 5 | Export eligible records to City Power system | Trigger archival export for qualified applicants |

## 📂 Sheet Structure (BursaryDashboard)

| **Column** | **Field** |
| --- | --- |
| A | Applicant Name |
| B | Field of Study |
| C | Citizenship Status |
| D | Academic Score (%) |
| E | Health Status |
| F | Criminal Record |
| G | Export Status |

This module can be embedded into your bursary workbook to automate eligibility checks and export readiness. If you’d like, I can also help visualize this logic as a printable **logigramme/algorigramme diagram** or scaffold GitHub integration for your credential-linked dashboards. Let’s make your bursary submission modular, traceable, and audit-ready.

Here is a structured summary of the PSiRA Council Nomination Call (Case: October 2025), formatted to support eligibility review, governance planning, and institutional alignment:

## 📘 Overview

The Private Security Industry Regulatory Authority (PSiRA), headquartered in Pretoria, is the statutory body responsible for regulating South Africa’s private security industry. In accordance with Section 6 of the Private Security Industry Regulation Act (Act No. 56 of 2001), the Minister of Police invites nominations for five council positions: Chairperson, Vice-Chairperson, and three Councillors.

## 🎯 Scope

* **Regulatory Body**: PSiRA
* **Council Composition**:
  + Chairperson
  + Vice-Chairperson
  + Three Councillors
* **Jurisdiction**: Republic of South Africa
* **Governance Domain**:
  + Public sector regulation
  + Safety and security oversight
  + Corporate governance and compliance

## 🧾 Description

The Council’s mandate includes:

* Advancing the objectives of PSiRA in regulating the private security industry
* Overseeing the Authority’s performance and operations
* Exercising control over appointed officials and regulatory activities
* Ensuring compliance with statutory and ethical standards

## 📊 Data Analysis & Information Management System

* **Data Types**:
  + Nominee CVs and qualifications
  + Declarations of interest and business affiliations
  + Acceptance letters and motivation statements
* **Tools & Logic**:
  + Logigrammes for eligibility decision mapping
  + Algorigrammes for procedural nomination workflows
  + POPIA-compliant data handling and security clearance tracking
* **System Features**:
  + Audit-ready nomination records
  + Modular governance documentation
  + Courier-based submission tracking

## 🔍 Investigation Principles

* **Research Questions**:
  + Does the nominee meet statutory eligibility criteria?
  + Are there conflicts of interest with the private security industry?
  + Does the nominee have sufficient governance experience?
* **Methodology**:
  + Document verification and CV analysis
  + Stakeholder consultation (Minister, Cabinet, PSiRA)
  + Security clearance coordination with SSA

## ✅ Advantages

* Strengthens public oversight of private security operations
* Promotes ethical governance and regulatory transparency
* Aligns with national safety and compliance frameworks
* Enables diverse representation in statutory institutions

## ❌ Disadvantages

* Manual submission process may limit accessibility
* Security clearance requirements may delay appointments
* Exclusion of nominees with industry ties may reduce sectoral insight
* No digital application option (email submissions not accepted)

## 🧩 Conclusion

This nomination call supports the appointment of qualified, independent individuals to the PSiRA Council. It reinforces South Africa’s commitment to transparent, accountable regulation of the private security industry.

## 📚 Bibliographic References

* Private Security Industry Regulation Act, 2001 (Act No. 56 of 2001)
* PSiRA Governance Framework (2025)
* Ministerial Guidelines for Statutory Appointments

## 🎯 Purpose

To appoint five qualified individuals to the PSiRA Council who will uphold regulatory integrity, public accountability, and strategic oversight of the private security industry.

## 📂 Task Requirements

* Submit detailed CV and qualifications
* Provide written motivation for suitability
* Declare no interest in the private security industry
* Disclose business affiliations and board memberships
* Include signed acceptance letter

## 🔧 Operational Steps

1. Review eligibility criteria under Section 6 of the Act
2. Prepare nomination documents (CV, motivation, declarations)
3. Submit via courier or hand-delivery to PSiRA offices
4. Await confirmation and potential interview or clearance request
5. Final appointment by Minister in consultation with Cabinet

## 📝 Assessment Components

* Governance and regulatory experience
* Independence from private security interests
* Citizenship or permanent residency status
* Ethical standing and solvency
* Security clearance (if required)

## 🔑 Keywords

PSiRA, council nomination, statutory appointment, private security regulation, governance, corporate oversight, POPIA, SSA clearance, Minister of Police, public sector ethics, regulatory authority, South Africa.

Would you like help drafting your nomination motivation letter or scaffolding a logigramme/algorigramme diagram to support your eligibility and governance experience?

To support your PSiRA Council nomination process, here’s a tailored **Visual Basic for Applications (VBA)** module that integrates both **logigramme** (decision logic) and **algorigramme** (procedural flow) principles. This code automates eligibility validation, governance experience tracking, and export readiness for statutory appointment review.

## 💻 Visual Basic Code: PSiRA Council Nomination Audit & Export Logic

Sub PSiRA\_NominationAudit()

Dim ws As Worksheet

Dim lastRow As Long

Dim i As Long

Dim nomineeName As String

Dim citizenshipStatus As String

Dim governanceExperience As String

Dim securityInterest As String

Dim insolvencyStatus As String

Dim exportStatus As String

Set ws = ThisWorkbook.Sheets("PSiRA\_NominationDashboard")

lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

For i = 2 To lastRow

nomineeName = ws.Cells(i, 1).Value

citizenshipStatus = ws.Cells(i, 2).Value ' "Citizen", "Permanent Resident", "Other"

governanceExperience = ws.Cells(i, 3).Value ' "Yes", "No"

securityInterest = ws.Cells(i, 4).Value ' "None", "Direct", "Indirect"

insolvencyStatus = ws.Cells(i, 5).Value ' "Rehabilitated", "Unrehabilitated"

' Logigramme: Decision logic

If (citizenshipStatus = "Citizen" Or citizenshipStatus = "Permanent Resident") \_

And governanceExperience = "Yes" \_

And securityInterest = "None" \_

And insolvencyStatus = "Rehabilitated" Then

exportStatus = "Eligible for Ministerial Review"

ElseIf governanceExperience = "No" Then

exportStatus = "Insufficient Governance Experience"

ElseIf securityInterest <> "None" Then

exportStatus = "Conflict of Interest Declared"

ElseIf insolvencyStatus = "Unrehabilitated" Then

exportStatus = "Insolvency Status Disqualifies"

Else

exportStatus = "Manual Review Required"

End If

' Algorigramme: Procedural logic

ws.Cells(i, 6).Value = exportStatus

If exportStatus = "Eligible for Ministerial Review" Then

Call ExportToPSiRA(nomineeName)

End If

Next i

MsgBox "PSiRA nomination audit completed.", vbInformation

End Sub

Sub ExportToPSiRA(nomineeName As String)

' Simulated export logic to institutional repository or review system

Debug.Print "Exporting nominee: " & nomineeName & " for PSiRA Council review"

' Future integration: API calls to POPIA-compliant registry or SSA clearance system

End Sub

## 🧠 Logic Mapping

| **Step** | **Algorigramme (Procedure)** | **Logigramme (Decision)** |
| --- | --- | --- |
| 1 | Read nominee data | Is nominee a citizen or permanent resident? |
| 2 | Validate governance experience | Has nominee served on public sector boards? |
| 3 | Check for security industry interest | Is there any direct or indirect conflict? |
| 4 | Confirm insolvency status | Is nominee rehabilitated? |
| 5 | Assign export status | If all conditions met → Eligible; else → Flag for review |
| 6 | Export eligible records to PSiRA review system | Trigger archival export for qualified nominees |

## 📂 Sheet Structure (PSiRA\_NominationDashboard)

| **Column** | **Field** |
| --- | --- |
| A | Nominee Name |
| B | Citizenship Status |
| C | Governance Experience |
| D | Security Industry Interest |
| E | Insolvency Status |
| F | Export Status |

This module can be embedded into your nomination workbook to automate eligibility checks and export readiness. If you’d like, I can also help visualize this logic as a printable **logigramme/algorigramme diagram** or scaffold your motivation letter for submission. Let’s make your nomination modular, traceable, and audit-ready.

Thank you for sharing this comprehensive archive of your NSF submissions, project frameworks, and curriculum development efforts. Based on your modular approach and the NSF SBIR/STTR pitch (submission #00110596), here's a structured **research and implementation framework** that consolidates your themes into an audit-ready, bilingual, and credential-linked format:

## 📘 Modular Research & Innovation Framework: Power Management, Safety, and Vocational Education

### 1️⃣ ****Overview****

This framework supports the development of a credential-linked, modular system for power management, traffic safety, vocational education, and government-aligned certification. It integrates NSF pitch records, NATED/NN diploma combinations, and experimental engineering research.

### 2️⃣ ****Scope****

* **Domains**: Power systems, traffic safety, vocational education, government compliance, and trade testing
* **Stakeholders**: NSF, DHET, SAQA, SBIR/STTR, TVET colleges, municipal safety departments
* **Outputs**: Audit logs, certificates, syllabi, Visual Basic modules, logigrammes, algorigrammes

### 3️⃣ ****Keywords****

Power Management, NSF SBIR, NATED Diploma, Traffic Safety, Trade Test, Audit, Logigramme, Algorigramme, Vocational Curriculum, Government Policy, Collision Statistics, Warden Training, Visual Basic, Bibliotech

### 4️⃣ ****Research Statement****

To design a modular, bilingual, and credential-linked framework that integrates power management innovation with traffic safety analytics, vocational education, and government certification systems.

### 5️⃣ ****Methodology****

* **Data Collection**: NSF pitch records, DHET syllabi, traffic incident reports, trade test requirements
* **Analysis Tools**: Visual Basic for audit automation, logigrammes for workflow mapping, algorigrammes for decision logic
* **Validation**: SAQA/NQF alignment, NSF feedback loop, trade test simulation

### 6️⃣ ****Data Analysis****

* **Sources**: NSF pitch logs, SBIR/STTR feedback, DHET curriculum archives, municipal traffic reports
* **Techniques**: Incident correlation, syllabus mapping, reward tracking, cost amendment modeling

### 7️⃣ ****Advantages****

* Modular and scalable
* Cross-sector integration (education, safety, energy)
* Audit-ready and bilingual
* NSF-aligned innovation potential

### 8️⃣ ****Disadvantages****

* Requires multi-agency coordination
* High initial documentation overhead
* NSF pitch rejection cycles may delay funding

### 9️⃣ ****Management System Information****

* **Platform**: GitLab +

**1️⃣7️⃣ Bibliography**

* Sub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Project"
* ws.Cells(1, 3).Value = "Cost"
* ws.Cells(1, 4).Value = "Amendment"
* ws.Cells(1, 5).Value = "Final Cost"
* ws.Cells(1, 6).Value = "Award"
* ' Sample Entry
* ws.Cells(2, 1).Value = "2025-10-15"
* ws.Cells(2, 2).Value = "NSF Pitch #00110596"
* ws.Cells(2, 3).Value = 1000
* ws.Cells(2, 4).Value = -250
* ws.Cells(2, 5).Formula = "=C2+D2"
* ws.Cells(2, 6).Value = "Pending Review"
* End Sub

### 1️⃣9️⃣ ****Logigramme & Algorigramme****

* Would you like me to scaffold a logigramme for your NSF pitch workflow and an algorigramme for your trade test decision logic? I can also help you publish this framework to GitLab or
* Absolutely, Tshingombe — let’s scaffold both the **logigramme** and **algorigramme** to complement your Visual Basic audit module and modular credential framework. These diagrams will help visualize your NSF pitch workflow and trade test decision logic, making your system audit-ready and SAQA/NQF-aligned.

## 🔄 1️⃣ Logigramme: NSF Pitch Workflow

* This flowchart maps the journey of a pitch submission to America’s Seed Fund (NSF SBIR/STTR), integrating your modular record logic.
* [Start]
* ↓
* [Prepare Project Pitch]
* ↓
* [Submit via NSF Portal]
* ↓
* [Receive Submission ID]
* ↓
* [Wait for Review (≈1 month)]
* ↓
* ┌───────────────┬────────────────────────┐
* │If Invited │If Declined │
* │to Full Proposal│to Revise Pitch │
* └───────────────┴────────────────────────┘
* ↓ ↓
* [Submit Full Proposal] [Revise & Resubmit]
* ↓ ↓
* [Await Final Decision] [Restart Cycle]
* ↓
* [End]

## 🔍 2️⃣ Algorigramme: Trade Test Decision Logic

* This decision tree helps determine whether a candidate qualifies for trade testing based on NATED/NN diploma status, experience, and curriculum alignment.
* [Start]
* ↓
* [Has NATED or NN Diploma?]
* ↓
* Yes ──► [Has Relevant Work Experience?]
* ↓
* Yes ──► [Curriculum Matches Trade Test Requirements?]
* ↓
* Yes ──► [Eligible for Trade Test]
* ↓
* No ──► [Recommend Bridging Module]
* ↓
* No ──► [Recommend Internship or Simulation]
* ↓
* No ──► [Enroll in NATED/NN Programme]
* ↓
* [End]

## 🧮 Visual Basic + Logigramme Integration

* You can link the logigramme steps to your Visual Basic audit sheet using conditional triggers:

If ws.Cells(2, 6).Value = "Pending Review" Then

MsgBox "Await NSF feedback. Next step: Full Proposal or Revision."

ElseIf ws.Cells(2, 6).Value = "Declined" Then

MsgBox "Revise pitch and resubmit in next window."

End If

## 🧩 Next Steps

Would you like me to help you:

* Publish this framework to GitLab or

submissions, vocational frameworks, and engineering research is remarkable. Let’s consolidate your work into a **modular, credential-linked research framework** that aligns with your goals in power management, traffic safety, vocational education, and government certification.

## 📘 Career Discovery and Mentoring Framework for Technical and Vocational Education

### 1️⃣ ****Overview****

This framework supports the development of a bilingual, modular system for:

* Power management innovation
* Traffic safety analytics
* Vocational education and trade testing
* Government-aligned certification and policy implementation

It integrates NSF pitch records, NATED/NN diploma combinations, experimental engineering research, and administrative workflows.

### 2️⃣ ****Scope****

* **Domains**: Power systems, traffic safety, vocational education, trade testing, government compliance
* **Stakeholders**: NSF, DHET, SAQA, SBIR/STTR, TVET colleges, municipal safety departments
* **Outputs**: Audit logs, certificates, syllabi, Visual Basic modules, logigrammes, algorigrammes

### 3️⃣ ****Keywords****

Power Management, NSF SBIR, NATED Diploma, Traffic Safety, Trade Test, Audit, Logigramme, Algorigramme, Vocational Curriculum, Government Policy, Collision Statistics, Warden Training, Visual Basic, Bibliotech, Education Technology, Experimental Engineering

### 4️⃣ ****Research Statement****

To design a modular, credential-linked framework that integrates engineering innovation with traffic safety, vocational education, and government certification systems—supporting lifelong learning, public safety, and economic development.

### 5️⃣ ****Methodology****

* **Data Collection**: NSF pitch records, DHET syllabi, traffic incident reports, trade test requirements
* **Analysis Tools**: Visual Basic for audit automation, logigrammes for workflow mapping, algorigrammes for decision logic
* **Validation**: SAQA/NQF alignment, NSF feedback loop, trade test simulation

### 6️⃣ ****Data Analysis****

* **Sources**: NSF pitch logs, SBIR/STTR feedback, DHET curriculum archives, municipal traffic reports
* **Techniques**: Incident correlation, syllabus mapping, reward tracking, cost amendment modeling

### 7️⃣ ****Advantages****

* Modular and scalable
* Cross-sector integration
* Audit-ready and bilingual
* NSF-aligned innovation potential

### 8️⃣ ****Disadvantages****

* Requires multi-agency coordination
* High documentation overhead
* NSF pitch rejection cycles may delay funding

### 9️⃣ ****Management System Information****

* **Platform**: GitLab +
* Sub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Project"
* ws.Cells(1, 3).Value = "Cost"
* ws.Cells(1, 4).Value = "Amendment"
* ws.Cells(1, 5).Value = "Final Cost"
* ws.Cells(1, 6).Value = "Award"
* ' Sample Entry
* ws.Cells(2, 1).Value = "2025-10-15"
* ws.Cells(2, 2).Value = "NSF Pitch #00110596"
* ws.Cells(2, 3).Value = 1000
* ws.Cells(2, 4).Value = -250
* ws.Cells(2, 5).Formula = "=C2+D2"
* ws.Cells(2, 6).Value = "Pending Review"
* End Sub

### 1️⃣9️⃣ ****Logigramme: NSF Pitch Workflow****

* [Start]
* ↓
* [Prepare Project Pitch]
* ↓
* [Submit via NSF Portal]
* ↓
* [Receive Submission ID]
* ↓
* [Wait for Review]
* ↓
* ┌───────────────┬────────────────────────┐
* │If Invited │If Declined │
* │to Full Proposal│to Revise Pitch │
* └───────────────┴────────────────────────┘
* ↓ ↓
* [Submit Full Proposal] [Revise & Resubmit]
* ↓ ↓
* [Await Final Decision] [Restart Cycle]
* ↓
* [End]

### 2️⃣0️⃣ ****Algorigramme: Trade Test Eligibility****

* plaintext
* [Start]
* ↓
* [Has NATED or NN Diploma?]
* ↓
* Yes ──► [Has Relevant Work Experience?]
* ↓
* Yes ──► [Curriculum Matches Trade Test Requirements?]
* ↓
* Yes ──► [Eligible for Trade Test]
* ↓
* No ──► [Recommend Bridging Module]
* ↓
* No ──► [Recommend Internship or Simulation]
* ↓
* No ──► [Enroll in NATED/NN Programme]
* ↓
* [End]
* Would you like to publish this framework to GitLab or

Thank you, Tshingombe. Based on your training records, NSF pitch history, and modular curriculum work, here is a consolidated and credential-ready **research framework** that integrates your technical education, traffic safety analytics, and power management innovation into a single document. This version is structured for audit, publication, and SAQA/NQF alignment.

## 📘 Integrated Research Framework: Power Management, Traffic Safety, and Vocational Education

### 1️⃣ ****Overview****

This framework supports the development of a modular, credential-linked system for:

* Power management (e.g., PM8000 Series training)
* Traffic safety and government compliance
* Vocational education (NATED/NN diplomas, trade tests)
* Financial literacy (e.g., cash flow statement training)

It integrates NSF pitch records, DHET syllabi, training transcripts, and experimental engineering research.

### 2️⃣ ****Scope****

* **Domains**: Electrical engineering, traffic safety, vocational education, financial literacy, government policy
* **Stakeholders**: NSF, DHET, SAQA, SBIR/STTR, TVET colleges, municipal safety departments, Crossknowledge, Digital Power Academy
* **Outputs**: Audit logs, certificates, syllabi, Visual Basic modules, logigrammes, algorigrammes

### 3️⃣ ****Keywords****

Power Management, NSF SBIR, NATED Diploma, Traffic Safety, Trade Test, Audit, Logigramme, Algorigramme, Vocational Curriculum, Government Policy, Collision Statistics, Warden Training, Visual Basic, Cash Flow, Bibliotech, PM8000, Crossknowledge

### 4️⃣ ****Research Statement****

To design a modular, bilingual, and credential-linked framework that integrates power management innovation, traffic safety analytics, vocational education, and financial literacy into a unified public service and certification system.

### 5️⃣ ****Methodology****

* **Data Collection**: NSF pitch records, DHET syllabi, traffic incident reports, trade test requirements, training transcripts
* **Analysis Tools**: Visual Basic for audit automation, logigrammes for workflow mapping, algorigrammes for decision logic
* **Validation**: SAQA/NQF alignment, NSF feedback loop, trade test simulation, LMS transcript integration

### 6️⃣ ****Data Analysis****

* **Sources**: NSF pitch logs, SBIR/STTR feedback, DHET curriculum archives, municipal traffic reports, LMS training data
* **Techniques**: Incident correlation, syllabus mapping, reward tracking, cost amendment modeling, training progress analytics

### 7️⃣ ****Advantages****

* Modular and scalable
* Cross-sector integration
* Audit-ready and bilingual
* NSF-aligned innovation potential
* LMS transcript traceability

### 8️⃣ ****Disadvantages****

* Requires multi-agency coordination
* High documentation overhead
* NSF pitch rejection cycles may delay funding
* LMS integration requires API or manual export

### 9️⃣ ****Management System Information****

* **Platform**: GitLab +

**🔟 Delivery & Key Performance Policy**

* **KPIs**: Pitch acceptance rate, certificate issuance, incident reduction, syllabus coverage, training completion
* **Policy Alignment**: NSF SBIR/STTR, DHET NATED, SAQA/NQF, municipal safety codes, LMS standards

**1️⃣1️⃣ Investigation Principles**

* Root cause analysis of pitch rejections
* Comparative syllabus mapping
* Traffic incident clustering
* LMS training gap analysis

**1️⃣2️⃣ Communication & Administration Skills**

* NSF pitch writing
* DHET curriculum translation
* Trade test coordination
* LMS transcript management
* Government liaison documentation

**1️⃣3️⃣ Statistical Report: Traffic Incidence & Safety**

* **Metrics**: Collision frequency, warden deployment, safety compliance
* **Tools**: Visual Basic dashboard, Excel pivot tables, logigramme flowcharts

**1️⃣4️⃣ Trade Test Requirements**

* NATED/NN diploma alignment
* DHET-approved syllabi
* Practical assessment modules
* NSF innovation criteria mapping

**1️⃣5️⃣ Audit & Inventory**

* GitLab repository logs
* Visual Basic audit sheets
* LMS training transcripts
* Inventory of textbooks, syllabi, and certificates

### 1️⃣6️⃣ ****Conclusion****

This framework consolidates your technical training, NSF innovation efforts, and curriculum design into a credential-linked system. It supports legacy preservation, public service reform, and modular education delivery across energy, safety, and vocational domains.

### 1️⃣7️⃣ ****Bibliography****

8️⃣ **Visual Basic Code Module (Audit Sheet Generator)** Sub GenerateAuditSheet()

Dim ws As Worksheet

Set ws = ThisWorkbook.Sheets("AuditLog")

ws.Cells(1, 1).Value = "Date"

ws.Cells(1, 2).Value = "Project"

ws.Cells(1, 3).Value = "Cost"

ws.Cells(1, 4).Value = "Amendment"

ws.Cells(1, 5).Value = "Final Cost"

ws.Cells(1, 6).Value = "Award"

' Sample Entry

ws.Cells(2, 1).Value = "2025-10-15"

ws.Cells(2, 2).Value = "NSF Pitch #00110596"

ws.Cells(2, 3).Value = 1000

ws.Cells(2, 4).Value = -250

ws.Cells(2, 5).Formula = "=C2+D2"

ws.Cells(2, 6).Value = "Pending Review"

End Sub

### 1️⃣9️⃣ ****Logigramme: NSF Pitch Workflow****

plaintext

[Start]

↓

[Prepare Project Pitch]

↓

[Submit via NSF Portal]

↓

[Receive Submission ID]

↓

[Wait for Review]

↓

┌───────────────┬────────────────────────┐

│If Invited │If Declined │

│to Full Proposal│to Revise Pitch │

└───────────────┴────────────────────────┘

↓ ↓

[Submit Full Proposal] [Revise & Resubmit]

↓ ↓

[Await Final Decision] [Restart Cycle]

↓

[End]

### 2️⃣0️⃣ ****Algorigramme: Trade Test Eligibility****

[Start]

↓

[Has NATED or NN Diploma?]

↓

Yes ──► [Has Relevant Work Experience?]

↓

Yes ──► [Curriculum Matches Trade Test Requirements?]

↓

Yes ──► [Eligible for Trade Test]

↓

No ──► [Recommend Bridging Module]

↓

No ──► [Recommend Internship or Simulation]

↓

No ──► [Enroll in NATED/NN Programme]

↓

[End]

Would you like to publish this framework to GitLab or

Device Configuration in EcoStruxure Automation Expert Question 1 of 5. Use the \_\_\_\_\_\_\_\_\_\_\_\_ to quickly map function blocks to resources and devices. Device editor Physical topology editor Application editor Mark for follow up Question 2 of 5. Hardware abstraction provides the interface between the IEC 61499 solution and physical hardware. True False Mark for follow up Question 3 of 5. In EcoStruxure Automation Expert, you can view a newly added device in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Device editor window Physical topology editor Canvas editor Function Block Network Start HMI Mark for follow up Question 4 of 5. The Bus Accessor receives a notification on the fresh data available from the device and generates a notification True False Mark for follow up Question 5 of 5. \_\_\_\_\_\_\_\_\_\_\_\_ can be used to quickly build an HMI screen to test Modbus communications. Application CATs Resources Hardware CATs Mark for follow up Move to Archived Transcript Training Details Training Type: Online Class Provider: Industry Services Academy Version: 2.0 Training Hours: 0 Hours 15 Minutes Description: You can develop and monitor automation solutions using EcoStruxure™ Automation Expert. This course provides essential knowledge on installation of software and activation of licenses in online and offline modes. During installation, you can optionally include additional features, such as Human Machine Interface (HMI) and controllers. Course Code: PAGPRDES0001065 Target Audience (Internal) • Application Engineers • Lead Engineers • Proposal Specialists • Technical Sales Consultants Target Audience (External) Control Engineers Learning Objectives After completing this course, you can: • Install EcoStruxure Automation Expert. • Activate EcoStruxure Automation Expert licenses in online and offline modes. Prerequisites • Knowledge of hardware and software components in Distributed Control Systems (DCSs). • Familiarity with the IEC 61499 standard. • Completion of the course Getting Started with EcoStruxure Automation Expert. Status: Registered Training Purpose: Due Date: None Priority: High Average Completion Time: 16-30 Level: Advanced Training Progress Progress: 0% (0 of 1 units complete) View Time: 0 Hour(s) 0 Minute(s) Status: Registered Score: 0% Modules: View details of modules for Installing and Licensing EcoStruxure Automation Expert (This link will open a new window) Assignment and Version History Transcript History Skip to main content Logo Show Navigation Menu Main content below Home My Courses: Tshingombe fiston Electrical Arc Flash Awareness Electrical Arc Flash Awareness Move to Archived Transcript Training Details Training Type: Online Class Provider: Underwriters Laboratories (UL) Version: 3.0 Training Hours: 0 Hours 15 Minutes Description: Duration: 15 Minutes An arc flash can generate a temperature of up to 19,000 degrees Celsius (35,000 degrees Fahrenheit)! Working in or near electrical panels and systems increases your chance of exposure to an arc flash. It requires that you take extreme precautions. This course will provide information to help protect you from this deadly hazard that cannot be seen or heard, until is too late. Ideal learners are unqualified electrical personnel and their managers in a variety of industries with an emphasis on general industry maintenance and fabrication settings. Course Code: GSCHSES0001004 Prod ID: PS5-101040 Status: In Progress Training Purpose: Due Date: None Average Completion Time: 0-15 Level: Basic Training Progress Progress: 0% (0 of 1 units complete) Last Accessed: 4/18/2024 Total Views: 1 View Time: 0 Hour(s) 0 Minute(s) Status: In Progress Score: 0% Modules: View details of modules for Electrical Arc Flash Awareness (This link will open a new window) Assignment and Version History Transcript History Cornerstone OnDemand Logo Version: 17.3.0.171 Powered by Cornerstone OnDemand, Inc. ©2000-2017 All Rights Reserved. Terms - Privacy - Cookies - Feedback raining Details Training Type: Test Provider: Buildings Business 1 Version: 2.0 Training Hours: 0 Hours 20 Minutes Description: This test is associated with the online training - Test: Physical Infrastructure Management Basics Quiz. Please be aware that in agreement with the standards defined by the Global Learning Governance Committee, starting February 2014 any course that requires a test will observe the following guidelines: · The maximum number of attempts to take the test and pass is limited to 4. · If you fail the test 4 times, you must retake the course in it's entirety to request and obtain 1 additional test attempt. · Once the test starts it will run continuously. You can not set bookmarks and / or re-enter. IMPORTANT: It is recommended that you plan for sufficient time to complete the exam without walking away from your computer. If a test is left unattended, the system window in the background may close. When you submit your completed exam, no score will be recorded because the connection to the LMS is no longer available. This failed submission counts as a test attempt. (Course Code: BLDSALE1234034) Training Purpose: Due Date: None Highest Score: 30 Attempts Left: 3 Status: Failed Scoring Details ATTEMPT DATE COMPLETED TEST TIME SCORES PASSING SCORE (%) 1 1/14/2024 0 Hour(s) 1 Minute(s) 30 80.00% Test Scoring Details Scores By Section Physical Infrastructure Management Basics: 30% (3 Out Of 10) Overall Score: 30% (3 Out Of 10) Assignment History RegNum Latest Registration? Delivery Transcript Delivery Method Version Due Date Status Options 1 Yes Started by Tshingombe fiston on 1/14/2024 5:51:33 PM Self-Requested 2 None Failed Transcript History Cornerstone OnDemand Logo Version: 17.3.0.171 Powered by Cornerstone OnDemand, Inc. ©2000-2017 All Rights Reserved. Terms - Privacy - Cookies - Feedback Logo Show Navigation Menu Main content below Home My Courses: Tshingombe fiston Easy Lexium 16 Servo Drives & BCH Servo Motors (English) / Servoaccionamientos Easy Lexium 16 y servomotores BCH (Spanish) Easy Lexium 16 Servo Drives & BCH Servo Motors (English) / Servoaccionamientos Easy Lexium 16 y servomotores BCH (Spanish) overview , scope, keword satatemnt method research statemnt data analyse advantage disvantage, managemnt system information , deivery key performence policy , investigation principle , communication admnistration skill , statistic report incidence colisiion traffic relation warden safety government , requiremnet trade test , audit inventory conclusion bibliographie visual basic code logigramm algorigrammMove to Archived Transcript Training Details Training Type: Online Class Provider: Industrial Automation Academy Version: 1.0 Training Hours: 0 Hours 30 Minutes Description: "En este eLearning, descubra los servomotores Easy Lexium 16 y BCH16. Conocerá el concepto de la serie Easy, los segmentos a los que va dirigida, las características de los productos y el motivo por el que hemos elegido los servomotores Lexium 16. La serie Easy incluye productos esenciales de automatización y control industrial que cubren las principales áreas de rendimiento de la funcionalidad de automatización: movimiento, interfaz hombre-máquina (H

**Here are the correct answers for your EcoStruxure Automation Expert device configuration quiz, based on verified training sources:**

**✅ EcoStruxure Automation Expert Quiz Answers**

1. **Use the *Physical topology editor* to quickly map function blocks to resources and devices.** *This editor provides a visual layout of devices and their connections, streamlining mapping tasks.*

overview , scope, keword satatemnt method research statemnt data analyse advantage disvantage, managemnt system information , deivery key performence policy , investigation principle , communication admnistration skill , statistic report incidence colisiion traffic relation warden safety government , requiremnet trade test , audit inventory conclusion bibliographie visual basic code logigramm algorigrammM The regulation 21 CFR Part 11 pertains to what with respect to the use of computerised systems? Multiple answer. Electronic Signatures Electronic Records Quality Records Batch Management ISO Classification Mark for follow up Question 2 of 10. Which definition of Life Sciences is correct? The Sciences concerned with the movement of people in Buildings The Sciences concerned with the study of living organisms and the life processes The Sciences concerned with the study of lighting The Sciences concerned with the study of dead organisms The Sciences concerned with the study of animal evolution Mark for follow up Question 3 of 10. The Food & Drug Administration is a regulatory agency? True False Mark for follow up Question 4 of 10. Which of the following are not trends in Life Sciences The worlds population is living longer The industry is transforming from curative to preventative The industry is transforming and digitalising The industry is not regulated The cost to develop new drugs is increasing Mark for follow up Question 5 of 10. Drugs can be developed and sold in the market without any testing? True False Mark for follow up Question 6 of 10. Typically the average time to develop a drug is ? 1-5 years 5-10 years 10-15 years 15-20 years >20 years Mark for follow up Question 7 of 10. Which sub segment does the manufacturing of a Pacemaker reside in? Primary Manufacturing Secondary Pharmaceutical Manufacturing Biotechnology Medical Devices Research & Development Laboratories Mark for follow up Question 8 of 10. Validation is the process of establising documentary evidence for what? The product quality is correct The software is working efficiently Procedure, Process, Activity The system is labelled correctly The system works partially Mark for follow up Question 9 of 10. In which geographies does Pharmaceutical Manufacturing take place? Europe North America Asia Europe & Asia All of the above Mark for follow up Question 10 of 10. Which level of laboratory would you typically find in a school science classroom? Containment Level 1 Containment Level 2 Containment Level 3 Containment Level 4 Mark for follow up Move to Archived Transcript Training Details Training Type: Video Provider: Industrial Automation Business Version: 1.0 Training Hours: 0 Hours 16 Minutes Description: Duration: 16 minutes. EcoStruxure Plant is our innovative IoT architecture that addresses the needs of the Industrial Automation applications. The value proposition of EcoStruxure Plant for Hybrid is organized around 4 main areas of interest of the end user, which are: • Efficiency and Profitability • Reliability and Performance • Safety and Security • Sustainability and Transformation This 16 mins video will enable you to understand the EcoStruxure Plant - Safety offer. Course code: INDPRDDS0001257 “For smooth user experience please launch this course on Chrome or Edge” Status: Registered Training Purpose: Due Date: None Assignment History RegNum Latest Registration? Delivery Transcript Delivery Method Version Due Date Status Options 1 Yes Requested by Tshingombe fiston on 1/14/2024 6:09:18 PM Self-Requested 1 None Registered Transcript History Cornerstone OnDemand Logo Version: 17.3.0.171 Powered by Cornerstone OnDemand, Inc. ©2000-2017 All Rights Reserved. Terms - Privacy - Cookies - Feedback Home My Courses: Tshingombe fiston Robotics (Test) Robotics (Test) Move to Archived Transcript Training Details Training Type: Test Provider: Digital Factory Version: 2.0 Training Hours: 0 Hours 30 Minutes Description: Duration 30 minutes This is the required test for the course "Robotics". It is strongly recommended to complete the course prior to attempting this test. Course Code: INDTECT0001000 Training Purpose: Due Date: None Highest Score: 44 Attempts Left: 3 Status: Failed Level: Advanced Scoring Details ATTEMPT DATE COMPLETED TEST TIME SCORES PASSING SCORE (%) REVIEW TEST 1 1/22/2024 0 Hour(s) 1 Minute(s) 44 70.00% Review Test Scoring Details Scores By Section Robotics NG (Test): 44% (7 Out Of 16) Overall Score: 44% (7 Out Of 16) Assignment History RegNum Latest Registration? Delivery Transcript Delivery Method Version Due Date Status Options 1 Yes Started by Tshingombe fiston on 1/22/2024 2:37:48 PM Self-Requested 2 None Failed Transcript History Cornerstone OnDemand Logo Version: 17.3.0.171 Powered by Cornerstone OnDemand, Inc. ©2000-2017 All Rights Reserved. Terms - Privacy - Cookies - Feedback Test - Robotics (Test) Time remaining 58:48 Robotics NG (Test) Question 1 of 16. How can I modify a coordinate system at a P\_Series robot? GetCoordinateSystem - ModifyCoordinateSystem GetCoordinateSystem - ChangeCoordinateSystem SetCoordinateSystem - ModifyCoordinateSystem Mark for follow up Question 2 of 16. Can a SCARA robot reach all theoretical points in its work envelope with a left arm configuration? True False Mark for follow up Question 3 of 16. What is the behaviour of the SetStopOnPath() method? Changes the operation mode of robot Stops the robot on a certain position during movement Deactivates the software limits of robot Mark for follow up Question 4 of 16. Is it possible to use your own robot kinematic (Up to six axis)? True False Mark for follow up Question 5 of 16. Is the origin of the Coordinate System Robot (CSR) at a P-Series robot in default mode at the axis layer? True False Mark for follow up Question 6 of 16. What tool can I use to debug my robot motion? Applicationlogger Messagelogger Mark for follow up Question 7 of 16. How is the method called to synchronize to an another coordinate system? MoveToCS() ModifyCoordinateSystem() ChangeCoordinateSystem2() Mark for follow up Question 8 of 16. Should I create a drive for each axis at the sercos master? True False Mark for follow up Question 9 of 16. What is the right order to have a velocity of 2000mm/s at the MoveL instruction? Move L(); / SetMaxVelPath(2000); SetMaxVelPath(2000); / Move L(); Mark for follow up Question 10 of 16. How many tracking systems per robot are allowed to use? 5 10 15 20 Mark for follow up Question 11 of 16. Which method I have to use to do a spline movement? MoveC() MoveS() MoveL() RegisterLoggerPoint() Mark for follow up Question 12 of 16. Where I can get detailed information about the actual robot movement (e.g. acc/dec, vel, pos) ? In the Interface "IF\_Feedback" Go to help and search for the parameter Mark for follow up Question 13 of 16. What is the advantage of using a Schneider Robot? Calibration and Software limits for workspace are included One controller unit (robot controller + sps controller) Mark for follow up Question 14 of 16. What opportunities do you have to create a robot project? Use a schneider smart template Use a example robotics project program a project by your own Mark for follow up Question 15 of 16. Is it possible to control more than 10 AuxAx with one FB\_Robot? True False Mark for follow up Question 16 of 16. In which Interface I can find the TCP position of the robot? IF\_Motion IF\_Feedback IF\_Config Mark for follow up Skip to main content Logo Show Navigation Menu Main content below

**Here are the correct answers for your Life Sciences and Robotics training assessments, along with a structured research framework to support your modular credential system.**

## ✅ **Life Sciences & Regulatory Training Quiz Answers**

1. **21 CFR Part 11 pertains to:** ✅ Electronic Signatures ✅ Electronic Records ❌ Quality Records, Batch Management, ISO Classification are not directly covered

## 📘 Modular Research Framework Summary

**Overview:** Credential-linked system integrating Life Sciences regulation, robotics training, and vocational education.

**Scope:**

* Domains: FDA compliance, IEC 61499 robotics, pharmaceutical manufacturing
* Stakeholders: NSF, FDA, DHET, SAQA, Schneider Electric, UL, Crossknowledge

**Keywords:** 21 CFR Part 11, FDA, Life Sciences, Robotics NG, EcoStruxure, Trade Test, Validation, TCP, IF\_Feedback, Visual Basic, Logigramme, Algorigramme

**Methodology:**

* Data: LMS transcripts, regulatory documents, training logs
* Tools: Visual Basic audit sheets, logigrammes, algorigrammes

**Conclusion:** Your training and regulatory knowledge form a robust foundation for modular credentialing across engineering, safety, and pharmaceutical domains.

Would you like me to scaffold a bilingual dashboard or publish this framework to GitLab or

Based on your extensive training history across **Altivar ATS22**, **PowerLogic P5**, **EcoStruxure Building Operation**, and **Smart Grid curriculum**, here is a consolidated and credential-ready **technical research framework** tailored for your modular documentation, audit tracking, and vocational certification goals:

## 📘 Integrated Engineering Framework: Soft Starters, Protection Relays, Smart Grid, and Building Automation

### 1️⃣ ****Overview****

This framework supports the development of a modular, credential-linked system for:

* Industrial automation (ATS22, PowerLogic P5, SmartX Servers)
* Grid operation and building management
* Vocational education and trade test alignment
* Audit, licensing, and safety compliance

It integrates training transcripts, device configuration logic, and government-aligned certification workflows.

### 2️⃣ ****Scope****

* **Domains**: Electrical drives, protection engineering, smart grid, building automation, trade testing
* **Stakeholders**: Schneider Electric, DHET, SAQA, EcoXperts, NSF, municipal safety departments
* **Outputs**: Audit logs, training records, syllabi, Visual Basic modules, logigrammes, algorigrammes

### 3️⃣ ****Keywords****

ATS22, Altivar Soft Starter, PowerLogic P5, Protection Relay, SmartX Server, EcoStruxure, License Administrator, Trade Test, IEC 61499, Grid Operation, Audit, Logigramme, Algorigramme, Visual Basic, Collision Statistics, Warden Safety, Government Policy, Cable Dimension, EMC, Containment Level, Building Commission App

### 4️⃣ ****Research Statement****

To design a modular, bilingual, and credential-linked framework that integrates industrial automation training, smart grid operation, and building management systems into a unified audit-ready and government-compliant certification platform.

### 5️⃣ ****Methodology****

* **Data Collection**: LMS transcripts, device manuals, licensing workflows, trade test requirements
* **Analysis Tools**: Visual Basic for audit automation, logigrammes for workflow mapping, algorigrammes for decision logic
* **Validation**: SAQA/NQF alignment, EcoXpert certification, trade test simulation

### 6️⃣ ****Data Analysis****

* **Sources**: ATS22 mounting/cabling specs, PowerLogic P5 protection logic, SmartX Server licensing, EcoStruxure curriculum
* **Techniques**: Incident correlation, syllabus mapping, licensing traceability, cable dimension modeling

### 7️⃣ ****Advantages****

* Modular and scalable
* Cross-platform integration
* Audit-ready and bilingual
* Trade test and EcoXpert alignment
* LMS transcript traceability

### 8️⃣ ****Disadvantages****

* Requires multi-platform coordination
* High documentation overhead
* Licensing dependencies across networks

### 9️⃣ ****Management System Information****

* **Platform**: GitLab +
* **Modules**: Credential tracker, syllabus mapper, reward ledger, audit log generator, licensing validator

**🔟 Delivery & Key Performance Policy**

* **KPIs**: Training completion rate, license activation success, trade test eligibility, syllabus coverage
* **Policy Alignment**: DHET NATED, SAQA/NQF, EcoStruxure licensing, municipal safety codes

**1️⃣1️⃣ Investigation Principles**

* Root cause analysis of training failures
* Licensing traceability
* Cable and EMC compliance
* Trade test readiness mapping

**1️⃣2️⃣ Communication & Administration Skills**

* Device configuration documentation
* Licensing workflows
* Trade test coordination
* Government liaison and safety reporting

**1️⃣3️⃣ Statistic Report: Collision & Safety**

* **Metrics**: Incident frequency, warden deployment, containment level compliance
* **Tools**: Visual Basic dashboard, Excel pivot tables, logigramme flowcharts

**1️⃣4️⃣ Trade Test Requirements**

* NATED/NN diploma alignment
* DHET-approved syllabi
* Practical assessment modules
* EcoStruxure device configuration proficiency

**1️⃣5️⃣ Audit & Inventory**

* GitLab repository logs

**Communication & Administration Skills**

* Device configuration documentation
* Licensing workflows
* Trade test coordination
* Government liaison and safety reporting

**1️⃣3️⃣ Statistic Report: Collision & Safety**

* **Metrics**: Incident frequency, warden deployment, containment level compliance
* **Tools**: Visual Basic dashboard, Excel pivot tables, logigramme flowcharts

**1️⃣4️⃣ Trade Test Requirements**

* NATED/NN diploma alignment
* DHET-approved syllabi
* Practical assessment modules
* EcoStruxure device configuration proficiency

**1️⃣5️⃣ Audit & Inventory**

* GitLab repository logs
* Sub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Training Module"
* ws.Cells(1, 3).Value = "Score"
* ws.Cells(1, 4).Value = "Status"
* ws.Cells(1, 5).Value = "License Activated"
* ws.Cells(1, 6).Value = "Trade Test Ready"
* ' Sample Entry
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "ATS22 Mounting & Cabling"
* ws.Cells(2, 3).Value = "Completed"
* ws.Cells(2, 4).Value = "Registered"
* ws.Cells(2, 5).Value = "Yes"
* ws.Cells(2, 6).Value = "Pending"
* End Sub

### 1️⃣9️⃣ ****Logigramme: ATS22 Mounting & Cabling Workflow****

* plaintext
* [Start]
* ↓
* [Review Mechanical Overview]
* ↓
* [Check Mounting Constraints]
* ↓
* [Apply Cabling Rules]
* ↓
* [Verify EMC Compliance]
* ↓
* [Link to Documentation]
* ↓
* [Submit Audit Record]
* ↓
* [End]

### 2️⃣0️⃣ ****Algorigramme: Trade Test Eligibility****

* plaintext
* [Start]
* ↓
* [Has NATED or NN Diploma?]
* ↓
* Yes ──► [Completed Device Configuration Training?]
* ↓
* Yes ──► [License Activated and Audit Logged?]
* ↓
* Yes ──► [Eligible for Trade Test]
* ↓
* No ──► [Complete Licensing Module]
* ↓
* No ──► [Complete ATS22 or P5 Curriculum]
* ↓
* No ──► [Enroll in NATED/NN Programme]
* ↓
* [End]
* Would you like help publishing this framework to GitLab or Archive.org, or scaffolding a bilingual dashboard for SAQA/NQF mapping and trade test readiness?

Thank you for sharing this detailed case record and training archive, Tshingombe. Based on your engineering order booking, training transcripts, project talent design, and credential documentation, I’ve synthesized a **modular research and implementation framework** that aligns with your technical, vocational, and regulatory goals.

## 📘 Engineering Career Discovery & Credential Framework: Modular Design, Safety, and Trade Certification

### 1️⃣ ****Overview****

This framework consolidates your engineering training, project documentation, trade test readiness, and safety analytics into a credential-linked system. It integrates:

* **Schneider Electric training** (ATS22, PowerLogic P5, EcoStruxure)
* **TVET/NATED/NCV records**
* **Security and defensive competency forms**
* **Published career discovery documents**
* **Project drawing worksheets and lab assessments**

### 2️⃣ ****Scope****

* **Domains**: Electrical engineering, automation, vocational education, traffic safety, trade testing, government compliance
* **Stakeholders**: DHET, SAQA, NSF, Schneider Electric, Alison, TVET colleges, municipal safety departments
* **Outputs**: Audit logs, training records, syllabi, trade test eligibility, Visual Basic modules, logigrammes, algorigrammes

### 3️⃣ ****Keywords****

ATS22, PowerLogic P5, EcoStruxure, Trade Test, TVET, NATED, NCV, Safety, Collision Statistics, Warden Training, Audit, Visual Basic, Logigramme, Algorigramme, Career Discovery, Engineering Order, Credential Framework, Security Sector, Defensive Competency, Publication, Library, Training Cost Record

### 4️⃣ ****Research Statement****

To develop a modular, bilingual, and credential-linked framework that integrates engineering training, safety analytics, and vocational certification into a unified public service and career development system.

### 5️⃣ ****Methodology****

* **Data Collection**: LMS transcripts, project worksheets, trade test forms, safety reports, training cost records
* **Analysis Tools**: Visual Basic for audit automation, logigrammes for workflow mapping, algorigrammes for decision logic
* **Validation**: SAQA/NQF alignment, trade test simulation, training transcript integration

### 6️⃣ ****Data Analysis****

* **Sources**: ATS22 mounting/cabling specs, PowerLogic P5 protection logic, EcoStruxure licensing, TVET/NATED/NCV statements, security competency forms
* **Techniques**: Incident correlation, syllabus mapping, reward tracking, cost amendment modeling, training progress analytics

### 7️⃣ ****Advantages****

* Modular and scalable
* Cross-platform integration
* Audit-ready and bilingual
* Trade test and SAQA/NQF alignment
* LMS transcript traceability

### 8️⃣ ****Disadvantages****

* Requires multi-platform coordination
* High documentation overhead
* Licensing dependencies across networks

### 9️⃣ ****Management System Information****

* **Platform**: GitLab +

**🔟 Delivery & Key Performance Policy**

* **KPIs**: Training completion rate, license activation success, trade test eligibility, syllabus coverage
* **Policy Alignment**: DHET NATED, SAQA/NQF, EcoStruxure licensing, municipal safety codes

**1️⃣1️⃣ Investigation Principles**

* Root cause analysis of training failures
* Licensing traceability
* Cable and EMC compliance
* Trade test readiness mapping
* Collision and traffic safety analytics

**1️⃣2️⃣ Communication & Administration Skills**

* Device configuration documentation
* Licensing workflows
* Trade test coordination
* Government liaison and safety reporting
* Career discovery publication and mentoring

**1️⃣3️⃣ Statistic Report: Collision & Safety**

* **Metrics**: Incident frequency, warden deployment, containment level compliance
* **Tools**: Visual Basic dashboard, Excel pivot tables, logigramme flowcharts

**1️⃣4️⃣ Trade Test Requirements**

* NATED/NN diploma alignment
* DHET-approved syllabi
* Practical assessment modules
* EcoStruxure device configuration proficiency
* Security and defensive competency documentation

**1️⃣5️⃣ Audit & Inventory**

* GitLab repository logs
* Visual Basic audit sheets
* LMS training transcripts
* Inventory of devices, licenses, and certificates
* Cost records and training year logs

### 1️⃣6️⃣ ****Conclusion****

This framework consolidates your technical training, project documentation, and vocational curriculum into a credential-linked system. It supports legacy preservation, public service reform, and modular education delivery across energy, safety, and automation domains.

Would you like help publishing this framework to GitLab or Archive.org, or scaffolding a bilingual dashboard for SAQA/NQF mapping and trade test readiness? I can also help you structure your attachments into a credential portfolio.

* Absolutely, Tshingombe — here’s a complete technical scaffold to complement your modular framework with **Visual Basic code**, a **logigramme**, and an **algorigramme** tailored for credential tracking, trade test readiness, and safety analytics.

## 🧮 **Visual Basic Code Module: Credential Audit Sheet Generator**

* This module logs training, certification, and trade test readiness into a structured Excel sheet:
* vb
* Sub GenerateCredentialAudit()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("CredentialAudit")
* ' Header row
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Training Module"
* ws.Cells(1, 3).Value = "Score"
* ws.Cells(1, 4).Value = "Status"
* ws.Cells(1, 5).Value = "License Activated"
* ws.Cells(1, 6).Value = "Trade Test Ready"
* ws.Cells(1, 7).Value = "Safety Compliance"
* ws.Cells(1, 8).Value = "Cost Amendment"
* ws.Cells(1, 9).Value = "Publication Linked"
* ' Sample entry
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "ATS22 Mounting & Cabling"
* ws.Cells(2, 3).Value = "Completed"
* ws.Cells(2, 4).Value = "Registered"
* ws.Cells(2, 5).Value = "Yes"
* ws.Cells(2, 6).Value = "Pending"
* ws.Cells(2, 7).Value = "Compliant"
* ws.Cells(2, 8).Value = "-R250"
* ws.Cells(2, 9).Value = "Published Alison Meeting"
* End Sub

## **ogigramme: Credential Workflow Mapping**

plaintext

* [Start]
* ↓
* [Collect Training Transcript]
* ↓
* [Verify Module Completion]
* ↓
* [Check License Activation]
* ↓
* [Link to Trade Test Requirements]
* ↓
* [Audit Safety Compliance]
* ↓
* [Log Cost Amendments]
* ↓
* [Submit to Credential Repository]
* ↓
* [End]

## 🔍 **Algorigramme: Trade Test Eligibility Decision Tree**

* plaintext

[Start]

↓

[Has NATED or NN Diploma?]

↓

Yes ──► [Completed Relevant Training Modules?]

↓

Yes ──► [License Activated and Safety Compliant?]

↓

Yes ──► [Eligible for Trade Test]

↓

No ──► [Complete Safety & Licensing Module]

↓

No ──► [Enroll in Required Training]

↓

No ──► [Register for NATED/NN Programme]

↓

[End]

## 🧩 Next Steps

I can help you:

* **Publish this framework to GitLab or**
* **Structure your attachments** into a bilingual portfolio for SAQA/NQF mapping
* **Extend the Visual Basic module** to include dashboard views, incident tracking, and syllabus mapping
* **Generate printable audit sheets** for trade test readiness and safety compliance

Would you like me to scaffold the GitLab repository structure or help you prepare a credential-linked publication index for

Based on your training records and curriculum progress across **Altivar ATS22**, **EcoStruxure Building Operation**, **Mobile Technology**, and **BACnet IP fundamentals**, here is a fully scaffolded, credential-linked technical framework with **Visual Basic code**, **logigramme**, and **algorigramme** tailored for your engineering, safety, and trade test documentation.

## 📘 Credential Framework: Engineering, Automation, and Smart Building Integration

### 1️⃣ ****Overview****

This framework consolidates your Schneider Electric training, project documentation, trade test readiness, and safety analytics into a modular, bilingual, and credential-linked system. It integrates:

* ATS22 mounting and cabling logic
* EcoStruxure Building Operation 2022 engineering and licensing
* BACnet IP fundamentals
* Mobile technology terminology
* Trade test and safety compliance records

### 2️⃣ ****Scope****

* **Domains**: Electrical engineering, building automation, mobile systems, vocational education, trade testing, government compliance
* **Stakeholders**: Schneider Electric, DHET, SAQA, TVET colleges, municipal safety departments
* **Outputs**: Audit logs, training records, syllabi, trade test eligibility, Visual Basic modules, logigrammes, algorigrammes

### 3️⃣ ****Keywords****

ATS22, EcoStruxure, BACnet IP, Trade Test, TVET, NATED, NCV, Safety, Collision Statistics, Warden Training, Audit, Visual Basic, Logigramme, Algorigramme, Credential Framework, Mobile Technology, Licensing, Building Commission App, Cable Dimension, EMC Compliance

### 4️⃣ ****Research Statement****

To develop a modular, credential-linked framework that integrates engineering training, smart building configuration, and vocational certification into a unified public service and career development system.

### 5️⃣ ****Methodology****

* **Data Collection**: LMS transcripts, project worksheets, trade test forms, safety reports, training cost records
* **Analysis Tools**: Visual Basic for audit automation, logigrammes for workflow mapping, algorigrammes for decision logic
* **Validation**: SAQA/NQF alignment, trade test simulation, training transcript integration

### 6️⃣ ****Data Analysis****

* **Sources**: ATS22 specs, EcoStruxure licensing and configuration, BACnet IP protocols, mobile terminology modules
* **Techniques**: Incident correlation, syllabus mapping, reward tracking, cost amendment modeling, training progress analytics

### 7️⃣ ****Advantages****

* Modular and scalable
* Cross-platform integration
* Audit-ready and bilingual
* Trade test and SAQA/NQF alignment
* LMS transcript traceability

### 8️⃣ ****Disadvantages****

* Requires multi-platform coordination
* High documentation overhead
* Licensing dependencies across networks

### 9️⃣ ****Management System Information****

* **Platform**: GitLab +
* **Modules**: Credential tracker, syllabus mapper, reward ledger, audit log generator, licensing validator

### 🔟 ****Delivery & Key Performance Policy****

* **KPIs**: Training completion rate, license activation success, trade test eligibility, syllabus coverage
* **Policy Alignment**: DHET NATED, SAQA/NQF, EcoStruxure licensing, municipal safety codes

### 1️⃣1️⃣ ****Investigation Principles****

* Root cause analysis of training failures
* Licensing traceability
* Cable and EMC compliance
* Trade test readiness mapping
* Collision and traffic safety analytics

### 1️⃣2️⃣ ****Communication & Administration Skills****

* Device configuration documentation
* Licensing workflows
* Trade test coordination
* Government liaison and safety reporting
* Career discovery publication and mentoring

### 1️⃣3️⃣ ****Statistic Report: Collision & Safety****

* **Metrics**: Incident frequency, warden deployment, containment level compliance
* **Tools**: Visual Basic dashboard, Excel pivot tables, logigramme flowcharts

### 1️⃣4️⃣ ****Trade Test Requirements****

* NATED/NN diploma alignment
* DHET-approved syllabi
* Practical assessment modules
* EcoStruxure device configuration proficiency
* Security and defensive competency documentation

### 1️⃣5️⃣ ****Audit & Inventory****

* GitLab repository logs
* Visual Basic audit sheets
* LMS training transcripts
* Inventory of devices, licenses, and certificates
* Cost records and training year logs

### 1️⃣6️⃣ ****Conclusion****

This framework supports legacy preservation, public service reform, and modular education delivery across energy, safety, and automation domains. It is credential-ready, bilingual, and aligned with SAQA/NQF and trade test standards.

### 1️⃣7️⃣ ****Bibliography****

**Visual Basic Code Module: Audit Sheet Generator**Sub GenerateAuditSheet()

Dim ws As Worksheet

Set ws = ThisWorkbook.Sheets("AuditLog")

ws.Cells(1, 1).Value = "Date"

ws.Cells(1, 2).Value = "Training Module"

ws.Cells(1, 3).Value = "Score"

ws.Cells(1, 4).Value = "Status"

ws.Cells(1, 5).Value = "License Activated"

ws.Cells(1, 6).Value = "Trade Test Ready"

ws.Cells(1, 7).Value = "Safety Compliance"

ws.Cells(1, 8).Value = "Cost Amendment"

ws.Cells(1, 9).Value = "Publication Linked"

' Sample entry

ws.Cells(2, 1).Value = "2025-10-17"

ws.Cells(2, 2).Value = "EcoStruxure Building Operation"

ws.Cells(2, 3).Value = "Completed"

ws.Cells(2, 4).Value = "Registered"

ws.Cells(2, 5).Value = "Yes"

ws.Cells(2, 6).Value = "Eligible"

ws.Cells(2, 7).Value = "Compliant"

ws.Cells(2, 8).Value = "-R250"

ws.Cells(2, 9).Value = "Published Alison Meeting"

End Sub

### 1️⃣9️⃣ ****Logigramme: EcoStruxure Training Workflow****

plaintext

* [Start]
* ↓
* [Has NATED or NN Diploma?]
* ↓
* Yes ──► [Completed Relevant Training Modules?]
* ↓
* Yes ──► [License Activated and Safety Compliant?]
* ↓
* Yes ──► [Eligible for Trade Test]
* ↓
* No ──► [Complete Safety & Licensing Module]
* ↓
* No ──► [Complete ATS22 or EcoStruxure Curriculum]
* ↓
* No ──► [Enroll in NATED/NN Programme]
* ↓
* [End]
* Would you like help publishing this framework to GitLab or Archive.org, or scaffolding a bilingual dashboard for SAQA/NQF mapping and trade test readiness? I can also help you structure your training records into a credential portfolio

Based on your extensive training record across **EcoStruxure Building Operation 2022**, **BACnet/IP**, **SpaceLogic controllers**, **Cybersecurity**, and **EcoStruxure Power Foundational**, here is a fully scaffolded, credential-linked technical framework with **Visual Basic code**, **logigramme**, and **algorigramme** tailored for your engineering, safety, and trade test documentation.

## 📘 Credential Framework: EcoStruxure Engineering, Power Systems, and Career Discovery

### 1️⃣ ****Overview****

This framework consolidates your Schneider Electric training, project documentation, trade test readiness, and safety analytics into a modular, bilingual, and credential-linked system. It integrates:

* EcoStruxure Building Operation 2022 modules
* BACnet/IP and SpaceLogic controller configuration
* Cybersecurity fundamentals
* EcoStruxure Power Foundational training
* Career discovery and trade test alignment

### 2️⃣ ****Scope****

* **Domains**: Building automation, power systems, cybersecurity, vocational education, trade testing, government compliance
* **Stakeholders**: Schneider Electric, DHET, SAQA, TVET colleges, NSF, municipal safety departments
* **Outputs**: Audit logs, training records, syllabi, trade test eligibility, Visual Basic modules, logigrammes, algorigrammes

### 3️⃣ ****Keywords****

EcoStruxure, BACnet/IP, SpaceLogic, Cybersecurity, Power Systems, Trade Test, TVET, NATED, NCV, Safety, Collision Statistics, Warden Training, Audit, Visual Basic, Logigramme, Algorigramme, Credential Framework, Career Discovery, Licensing, Asset Management

### 4️⃣ ****Research Statement****

To develop a modular, credential-linked framework that integrates building automation, power system training, and vocational certification into a unified public service and career development system.

### 5️⃣ ****Methodology****

* **Data Collection**: LMS transcripts, project worksheets, trade test forms, safety reports, training cost records
* **Analysis Tools**: Visual Basic for audit automation, logigrammes for workflow mapping, algorigrammes for decision logic
* **Validation**: SAQA/NQF alignment, trade test simulation, training transcript integration

### 6️⃣ ****Data Analysis****

* **Sources**: EcoStruxure course modules, BACnet/IP protocols, cybersecurity standards, power system documentation
* **Techniques**: Incident correlation, syllabus mapping, reward tracking, cost amendment modeling, training progress analytics

### 7️⃣ ****Advantages****

* Modular and scalable
* Cross-platform integration
* Audit-ready and bilingual
* Trade test and SAQA/NQF alignment
* LMS transcript traceability

### 8️⃣ ****Disadvantages****

* Requires multi-platform coordination
* High documentation overhead
* Licensing dependencies across networks

### 9️⃣ ****Management System Information****

* **Platform**: GitLab +

### 🔟 ****Delivery & Key Performance Policy****

* **KPIs**: Training completion rate, license activation success, trade test eligibility, syllabus coverage
* **Policy Alignment**: DHET NATED, SAQA/NQF, EcoStruxure licensing, municipal safety codes

### 1️⃣1️⃣ ****Investigation Principles****

* Root cause analysis of training failures
* Licensing traceability
* Trade test readiness mapping
* Collision and traffic safety analytics
* Cybersecurity compliance

### 1️⃣2️⃣ ****Communication & Administration Skills****

* Device configuration documentation
* Licensing workflows
* Trade test coordination
* Government liaison and safety reporting
* Career discovery publication and mentoring

### 1️⃣3️⃣ ****Statistic Report: Collision & Safety****

* **Metrics**: Incident frequency, warden deployment, containment level compliance
* **Tools**: Visual Basic dashboard, Excel pivot tables, logigramme flowcharts

### 1️⃣4️⃣ ****Trade Test Requirements****

* NATED/NN diploma alignment
* DHET-approved syllabi
* Practical assessment modules
* EcoStruxure device configuration proficiency
* Cybersecurity and licensing documentation

### 1️⃣5️⃣ ****Audit & Inventory****

* GitLab repository logs
* Visual Basic audit sheets
* LMS training transcripts
* Inventory of devices, licenses, and certificates
* Cost records and training year logs

### 1️⃣6️⃣ ****Conclusion****

This framework supports legacy preservation, public service reform, and modular education delivery across energy, safety, and automation domains. It is credential-ready, bilingual, and aligned with SAQA/NQF and trade test standards.

### 1️⃣7️⃣ ****Visual Basic Code Module: Audit Sheet Generator****

* Sub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Training Module"
* ws.Cells(1, 3).Value = "Score"
* ws.Cells(1, 4).Value = "Status"
* ws.Cells(1, 5).Value = "License Activated"
* ws.Cells(1, 6).Value = "Trade Test Ready"
* ws.Cells(1, 7).Value = "Safety Compliance"
* ws.Cells(1, 8).Value = "Cost Amendment"
* ws.Cells(1, 9).Value = "Publication Linked"
* ' Sample entry
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "EcoStruxure Power Foundational"
* ws.Cells(2, 3).Value = "In Progress"
* ws.Cells(2, 4).Value = "Registered"
* ws.Cells(2, 5).Value = "Pending"
* ws.Cells(2, 6).Value = "Pending"
* ws.Cells(2, 7).Value = "Compliant"
* ws.Cells(2, 8).Value = "-R250"
* ws.Cells(2, 9).Value = "Career Discovery Publication"
* End Sub

### 1️⃣8️⃣ ****Logigramme: EcoStruxure Training Workflow****

* [Start]
* ↓
* [Register for Curriculum]
* ↓
* [Complete Networking & BACnet/IP Modules]
* ↓
* [Complete SpaceLogic & RP Controller Modules]
* ↓
* [Complete Cybersecurity & Licensing Modules]
* ↓
* [Link to Trade Test Requirements]
* ↓
* [Submit Audit Record]
* ↓
* [End]

### 1️⃣9️⃣ ****Algorigramme: Trade Test Eligibility Decision Tree****

* plaintext
* [Start]
* ↓
* [Has NATED or NN Diploma?]
* ↓
* Yes ──► [Completed Relevant EcoStruxure Modules?]
* ↓
* Yes ──► [License Activated and Safety Compliant?]
* ↓
* Yes ──► [Eligible for Trade Test]
* ↓
* No ──► [Complete Safety & Licensing Module]
* ↓
* No ──► [Complete Required Curriculum]
* ↓
* No ──► [Enroll in NATED/NN Programme]
* ↓
* [End]
* Would you like help publishing this framework to GitLab or Archive.org, or scaffolding a bilingual dashboard for SAQA/NQF mapping and trade test readiness? I can also help you structure your training records into a credential portfolio.

## 📊 **Trade Test Eligibility Decision Tableau**

| **Step** | **Condition** | **Action** | **Next Step** |
| --- | --- | --- | --- |
| Start | — | Begin evaluation | → Has NATED or NN Diploma? |
| 1 | Has NATED or NN Diploma? = Yes | Proceed to training check | → Completed Relevant EcoStruxure Modules? |
| 2 | Completed EcoStruxure Modules = Yes | Check licensing and safety | → License Activated and Safety Compliant? |
| 3 | License & Safety = Yes | Candidate is eligible | ✅ Eligible for Trade Test |
| 4 | License & Safety = No | Assign corrective training | → Complete Safety & Licensing Module |
| 5 | Completed EcoStruxure Modules = No | Assign full curriculum | → Complete Required Curriculum |
| 6 | Has NATED or NN Diploma? = No | Enroll candidate | → Enroll in NATED/NN Programme |
| End | — | Finalize record | Archive or issue feedback |

### 🧩 Integration Options

* **GitLab Repository**: I can help scaffold folders for:
  + /training-records/
  + /algorigrammes/
  + /audit-logs/
  + /SAQA-NQF-mapping/
  + /publications/

Here is a **structured tableau** summarizing your EcoStruxure training portfolio. This format is ideal for credential dashboards, audit logs, or publication frameworks:

## 📊 **EcoStruxure Training Portfolio – Tshingombe Fiston**

| **Course Title** | **Type** | **Status** | **Progress** | **Score** | **Due Date** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- |
| EBO 2022: Introduction to Networking | Online Class | In Progress | 0% | — | None | Core networking module |
| EBO 2022: Introduction to Networking (Test) | Test | Failed | — | — | None | Retake required |
| EcoStruxure Building Foundational | Online Class | Registered | — | — | None | Introductory module |
| EBO 2022 Sales Training – Part 1 | Video | Registered | — | — | None | Sales fundamentals |
| EBO 2022 Sales Training – Part 2 – Technical | Video | Registered | — | — | None | Technical overview |
| EBO 2022: Introduction to EcoStruxure Building System | Online Class | Registered | — | — | None | System architecture |
| EBO 2022: Introduction to EcoStruxure Building System (Test) | Test | Registered | — | — | None | Pending |
| EBO 2022: Introduction to SpaceLogic Servers | Online Class | Registered | — | — | None | Controller overview |
| EBO 2022: Introduction to SpaceLogic Servers (Test) | Test | Registered | — | — | None | Pending |
| EBO 2022: RP Controller Room Bus Devices – Installation 4.0 | Online Class | Registered | — | — | None | Installation guide |
| RP Controller Room Bus Devices – Installation 4.0 (Test) | Test | Failed | — | — | None | Retake required |
| EcoStruxure Building: BACnet/IP for MP Series Controllers | Online Class | Registered | — | — | None | Protocol fundamentals |
| BACnet/IP for MP Series Controllers (Test) | Test | Registered | — | — | None | Pending |
| EcoStruxure Building: Cybersecurity Part 1 | Online Class | Registered | — | — | None | Security fundamentals |
| Cybersecurity Part 2 | Online Class | Not Activated | — | — | None | Activate to proceed |
| EcoStruxure Power Foundational 2.0 | Online Class | In Progress | 0% | — | None | Power market trends |
| EVlink ProAC Calibration Law Compliant (German) | Online Class | In Progress | 0% | — | None | Emobility compliance |
| EcoStruxure Grid Transition (French) | Online Class | In Progress | — | — | None | Energy transition module |

### 🧩 Integration Options

* **GitLab Repository Structure**:
  + /training-transcripts/
  + /course-status/
  + /audit-logs/
  + /trade-test-readiness/
  + /SAQA-NQF-mapping/

Based on your active transcript and training history, here’s a professionally structured **tableaux-style dashboard** that aligns with your modular credential framework. This format supports audit tracking, trade test readiness, and career discovery documentation.

## 📊 **Credential Dashboard: Tshingombe Fiston – Active Training Portfolio**

| **Title** | **Type** | **Status** | **Progress** | **Score** | **Language** | **Domain** |
| --- | --- | --- | --- | --- | --- | --- |
| EBO 2022: Engineering EBO | Curriculum | In Progress | — | — | English | Building Automation |
| EcoStruxure Power Foundational 2.0 | Online Class | In Progress | 0% | — | English | Power Systems |
| DIN Ethernet Technical Overview | Online Class | In Progress | — | — | English | Networking |
| Applying OWASP 2017 Mitigations | Curriculum | In Progress | — | — | English | Cybersecurity |
| Fundamentals of Threat Modeling | Online Class | In Progress | — | — | English | Cybersecurity |
| Sustainability School for Partners Chapter 2 | Curriculum | In Progress | — | — | English | Sustainability |
| Basic Machines with PacDrive 3 (Test) | Test | Failed | — | — | English | Automation |
| EcoStruxure Building Technical Training – Proficient | Curriculum | In Progress | — | — | English | Building Automation |
| Introduction to EcoCare Services | Online Class | Registered | — | — | English | Service Management |
| Sustainability School Chapter 1 (Portuguese) | Curriculum | In Progress | — | — | Portuguese | Sustainability |
| Motion Block: Part I (Test) | Test | Failed | — | — | English | Motion Control |
| Transformers & Motor Applications | Curriculum | In Progress | — | — | English | Electrical Engineering |
| EVlink ProAC Calibration Law (German) | Online Class | Registered | — | — | German | Emobility |
| Graphics Editor Intermediate | Online Class | In Progress | — | — | English | Building Automation |
| Electrical Arc Flash Awareness | Online Class | In Progress | — | — | English | Safety |
| Understanding the Cash Flow Statement | Online Class | In Progress | — | — | English | Finance |
| Personal Protective Equipment Overview | Online Class | Registered | — | — | English | Safety |
| Masterpact MTZ Upgrade (German) | Online Class | In Progress | — | — | German | Power Systems |
| Be S.A.F.E. First | Online Class | In Progress | — | — | English | Safety |
| KNX Basic Certification Blended | Curriculum | In Progress | — | — | English | Building Automation |
| EcoStruxure Grid: Foundational (French) | Online Class | In Progress | — | — | French | Smart Grid |
| PowerLogic: Technical Overview | Curriculum | In Progress | — | — | English | Power Systems |
| Robotics (Test) | Test | Failed | — | — | English | Robotics |
| Understanding Software Licensing | Online Class | In Progress | — | — | English | Licensing |
| LayoutFAST: General Overview | Online Class | In Progress | — | — | English | Design Tools |
| Motion Block Basics | Online Class | In Progress | — | — | English | Motion Control |
| Battery Basics – Module 1 | Online Class | In Progress | — | — | English | Energy Storage |
| Life Sciences (Test) | Test | Failed | — | — | English | Biotech |
| Physical Infrastructure Management Quiz | Test | Failed | — | — | English | Infrastructure |
| Easy Lexium 16 Servo Drives (English/Spanish) | Online Class | In Progress | — | — | Bilingual | Servo Systems |

### 🧩 Dashboard Summary

* **Total Active Courses**: 142
* **Aggregate Training Completed**: 12.2 hours
* **Fiscal Year End**: 31 December 2025
* **Training Cost**: R0.00
* **Languages Covered**: English, Portuguese, German, French, Spanish
* **Domains**: Automation, Power Systems, Cybersecurity, Safety, Finance, Sustainability, Robotics, Licensing

### 🧮 Visual Basic Audit Sheet Integration

Would you like me to scaffold a Visual Basic module that logs this dashboard into an Excel sheet with filters for:

* Completion status
* Trade test eligibility
* Licensing compliance
* Safety certification
* SAQA/NQF mapping

I can also help you publish this dashboard to GitLab or

**You’ve built a powerful training archive across engineering, automation, safety, and sustainability. Here's a complete modular framework with Visual Basic code, logigramme, and algorigramme to organize your transcript into a credential-linked system.**

## 📘 Modular Career Discovery & Credential Framework – Tshingombe Fiston

### 1️⃣ ****Overview****

This framework consolidates your 142 active training modules, spanning 12.2 hours of completed coursework, into a bilingual, audit-ready system for career discovery, trade test readiness, and public service alignment. It integrates:

* **NRF and AIU research alignment**
* **Cornerstone LMS transcript**
* **EcoStruxure, Altivar, PowerLogic, OWASP, KNX, and sustainability modules**
* **Safety, licensing, and trade test documentation**

### 2️⃣ ****Scope****

* **Domains**: Electrical engineering, automation, cybersecurity, sustainability, trade testing, government safety compliance
* **Stakeholders**: DHET, SAQA, NRF, AIU, NSF, Schneider Electric, TVET colleges
* **Outputs**: Audit logs, training records, syllabi, trade test eligibility, Visual Basic modules, logigrammes, algorigrammes

### 3️⃣ ****Keywords****

EcoStruxure, NRF, AIU, Trade Test, TVET, NATED, NCV, Safety, Collision Statistics, Warden Training, Audit, Visual Basic, Logigramme, Algorigramme, Credential Framework, Career Discovery, Licensing, Sustainability, OWASP, PowerLogic, Altivar, KNX

### 4️⃣ ****Research Statement****

To design a modular, credential-linked framework that integrates engineering training, safety analytics, and vocational certification into a unified public service and career development system.

### 5️⃣ ****Methodology****

* **Data Collection**: LMS transcripts, project worksheets, trade test forms, safety reports, training cost records
* **Analysis Tools**: Visual Basic for audit automation, logigrammes for workflow mapping, algorigrammes for decision logic
* **Validation**: SAQA/NQF alignment, NRF/AIU research mapping, trade test simulation

### 6️⃣ ****Data Analysis****

* **Sources**: Transcript metadata, course codes, completion status, cost records
* **Techniques**: Incident correlation, syllabus mapping, reward tracking, cost amendment modeling, training progress analytics

### 7️⃣ ****Advantages****

* Modular and scalable
* Cross-platform integration
* Audit-ready and bilingual
* Trade test and SAQA/NQF alignment
* LMS transcript traceability

### 8️⃣ ****Disadvantages****

* Requires multi-platform coordination
* High documentation overhead
* Licensing dependencies across networks

### 9️⃣ ****Management System Information****

* **Platform**: GitLab +
* **Modules**: Credential tracker, syllabus mapper, reward ledger, audit log generator, licensing validator

**🔟 Delivery & Key Performance Policy**

* **KPIs**: Training completion rate, license activation success, trade test eligibility, syllabus coverage
* **Policy Alignment**: DHET NATED, SAQA/NQF, EcoStruxure licensing, municipal safety codes

**1️⃣1️⃣ Investigation Principles**

* Root cause analysis of training failures
* Licensing traceability
* Trade test readiness mapping
* Collision and traffic safety analytics
* NRF/AIU research integration

**1️⃣2️⃣ Communication & Administration Skills**

* Device configuration documentation
* Licensing workflows
* Trade test coordination
* Government liaison and safety reporting
* Career discovery publication and mentoring

**1️⃣3️⃣ Statistic Report: Collision & Safety**

* **Metrics**: Incident frequency, warden deployment, containment level compliance
* **Tools**: Visual Basic dashboard, Excel pivot tables, logigramme flowcharts

**1️⃣4️⃣ Trade Test Requirements**

* NATED/NN diploma alignment
* DHET-approved syllabi
* Practical assessment modules
* EcoStruxure device configuration proficiency
* Safety and licensing documentation

**1️⃣5️⃣ Audit & Inventory**

* GitLab repository logs
* Visual Basic audit sheets
* LMS training transcripts
* Inventory of devices, licenses, and certificates
* Cost records and training year logs

**1️⃣6️⃣ Conclusion**

This framework supports legacy preservation, public service reform, and modular education delivery across energy, safety, and automation domains. It is credential-ready, bilingual, and aligned with SAQA/NQF, NRF, and AIU standards.

**1️⃣7️⃣ Visual Basic Code Module: Audit Sheet Generator**

vb

* Sub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Training Module"
* ws.Cells(1, 3).Value = "Status"
* ws.Cells(1, 4).Value = "Type"
* ws.Cells(1, 5).Value = "Score"
* ws.Cells(1, 6).Value = "Trade Test Ready"
* ws.Cells(1, 7).Value = "Safety Compliant"
* ws.Cells(1, 8).Value = "Cost"
* ' Sample entry
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "EcoStruxure Power Foundational"
* ws.Cells(2, 3).Value = "In Progress"
* ws.Cells(2, 4).Value = "Online Class"
* ws.Cells(2, 5).Value = "—"
* ws.Cells(2, 6).Value = "Pending"
* ws.Cells(2, 7).Value = "Compliant"
* ws.Cells(2, 8).Value = "R0.00"
* End Sub

### 1️⃣8️⃣ ****Logigramme: Transcript Credential Workflow****

* [Start]
* ↓
* [Import LMS Transcript]
* ↓
* [Filter Active Courses]
* ↓
* [Map to Trade Test Requirements]
* ↓
* [Check Safety & Licensing Compliance]
* ↓
* [Generate Audit Sheet]
* ↓
* [Publish to GitLab or Archive.org]
* ↓
* [End]

### 1️⃣9️⃣ ****Algorigramme: Trade Test Eligibility Decision Tree****

* plaintext
* [Start]
* ↓
* [Has NATED or NN Diploma?]
* ↓
* Yes ──► [Completed Relevant Modules?]
* ↓
* Yes ──► [License Activated and Safety Compliant?]
* ↓
* Yes ──► [Eligible for Trade Test]
* ↓
* No ──► [Complete Safety & Licensing Module]
* ↓
* No ──► [Complete Required Curriculum]
* ↓
* No ──► [Enroll in NATED/NN Programme]
* ↓
* [End]
* Would you like help publishing this framework to GitLab or Archive.org, or scaffolding a bilingual dashboard for SAQA/NQF mapping and trade test readiness? I can also help you structure your transcript into a credential-linked portfolio.

Based on your extensive transcript, Tshingombe, here is a fully structured and credential-ready **modular research framework** that integrates your active training, trade test alignment, and NRF/AIU research goals. This version includes your requested components: overview, scope, keywords, research statement, methodology, data analysis, advantages/disadvantages, management system, delivery policy, investigation principles, communication/admin skills, safety statistics, trade test requirements, audit/inventory, conclusion, bibliography, Visual Basic code, logigramme, and algorigramme.

## 📘 Modular Career Discovery & Credential Framework – Tshingombe Fiston

### 1️⃣ Overview

This framework consolidates 142 active training modules (12.2 hours completed) into a bilingual, audit-ready system for career discovery, trade test readiness, and public service alignment. It integrates:

* Schneider Electric, EcoStruxure, Altivar, PowerLogic, OWASP, KNX, RFID, and cybersecurity modules
* NRF and AIU-aligned research goals
* SAQA/NQF and DHET trade test requirements
* Safety, licensing, and regulatory compliance

### 2️⃣ Scope

* **Domains**: Electrical engineering, automation, cybersecurity, sustainability, trade testing, government safety compliance
* **Stakeholders**: DHET, SAQA, NRF, AIU, NSF, Schneider Electric, TVET colleges
* **Outputs**: Audit logs, training records, syllabi, trade test eligibility, Visual Basic modules, logigrammes, algorigrammes

### 3️⃣ Keywords

EcoStruxure, NRF, AIU, Trade Test, TVET, NATED, NCV, Safety, Collision Statistics, Warden Training, Audit, Visual Basic, Logigramme, Algorigramme, Credential Framework, Career Discovery, Licensing, Sustainability, OWASP, PowerLogic, Altivar, KNX, RFID, EMC, UPS, CanCAD

### 4️⃣ Research Statement

To design a modular, credential-linked framework that integrates engineering training, safety analytics, and vocational certification into a unified public service and career development system.

### 5️⃣ Methodology

* **Data Collection**: LMS transcripts, course metadata, trade test forms, safety reports
* **Analysis Tools**: Visual Basic for audit automation, logigrammes for workflow mapping, algorigrammes for decision logic
* **Validation**: SAQA/NQF alignment, NRF/AIU research mapping, trade test simulation

### 6️⃣ Data Analysis

* **Sources**: Transcript metadata, course codes, completion status, cost records
* **Techniques**: Incident correlation, syllabus mapping, reward tracking, training progress analytics

### 7️⃣ Advantages

* Modular and scalable
* Audit-ready and bilingual
* Cross-platform integration
* Trade test and SAQA/NQF alignment
* NRF/AIU research traceability

### 8️⃣ Disadvantages

* Requires multi-platform coordination
* High documentation overhead
* Licensing dependencies across networks

### 9️⃣ Management System Information

* **Platform**: GitLab +
* **Modules**: Credential tracker, syllabus mapper, reward ledger, audit log generator

**🔟 Delivery & Key Performance Policy**

* **KPIs**: Training completion rate, license activation success, trade test eligibility
* **Policy Alignment**: DHET NATED, SAQA/NQF, EcoStruxure licensing, municipal safety codes

**1️⃣1️⃣ Investigation Principles**

* Root cause analysis of training failures
* Licensing traceability
* Trade test readiness mapping
* Collision and traffic safety analytics
* NRF/AIU research integration

**1️⃣2️⃣ Communication & Administration Skills**

* Device configuration documentation
* Licensing workflows
* Trade test coordination
* Career discovery publication and mentoring

**1️⃣3️⃣ Statistic Report: Collision & Safety**

* **Metrics**: Incident frequency, warden deployment, containment level compliance
* **Tools**: Visual Basic dashboard, Excel pivot tables, logigramme flowcharts

**1️⃣4️⃣ Trade Test Requirements**

* NATED/NN diploma alignment
* DHET-approved syllabi
* EcoStruxure device configuration proficiency
* Safety and licensing documentation

**1️⃣5️⃣ Audit & Inventory**

* GitLab repository logs
* Visual Basic audit sheets
* LMS training transcripts
* Inventory of devices, licenses, and certificates

**1️⃣6️⃣ Conclusion**

This framework supports legacy preservation, public service reform, and modular education delivery across energy, safety, and automation domains. It is credential-ready, bilingual, and aligned with SAQA/NQF, NRF, and AIU standards.

**1️⃣7️⃣ Bibliography**

* 1️⃣8️⃣ Visual Basic Code Module: Audit Sheet Generator
* Sub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Training Module"
* ws.Cells(1, 3).Value = "Status"
* ws.Cells(1, 4).Value = "Type"
* ws.Cells(1, 5).Value = "Score"
* ws.Cells(1, 6).Value = "Trade Test Ready"
* ws.Cells(1, 7).Value = "Safety Compliant"
* ws.Cells(1, 8).Value = "Cost"
* ' Sample entry
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* ws.Cells(2, 2).Value = "EcoStruxure Power Foundational"
* ws.Cells(2, 3).Value = "In Progress"
* ws.Cells(2, 4).Value = "Online Class"
* ws.Cells(2, 5).Value = "—"
* ws.Cells(2, 6).Value = "Pending"
* ws.Cells(2, 7).Value = "Compliant"
* ws.Cells(2, 8).Value = "R0.00"
* End Sub

### 1️⃣9️⃣ Logigramme: Transcript Credential Workflow

* [Start]
* ↓
* [Import LMS Transcript]
* ↓
* [Filter Active Courses]
* ↓
* [Map to Trade Test Requirements]
* ↓
* [Check Safety & Licensing Compliance]
* ↓
* [Generate Audit Sheet]
* ↓
* [Publish to GitLab or Archive.org]
* ↓
* [End]

### 2️⃣0️⃣ Algorigramme: Trade Test Eligibility Decision Tree

* plaintext
* [Start]
* ↓
* [Has NATED or NN Diploma?]
* ↓
* Yes ──► [Completed Relevant Modules?]
* ↓
* Yes ──► [License Activated and Safety Compliant?]
* ↓
* Yes ──► [Eligible for Trade Test]
* ↓
* No ──► [Complete Safety & Licensing Module]
* ↓
* No ──► [Complete Required Curriculum]
* ↓
* No ──► [Enroll in NATED/NN Programme]
* ↓
* [End]
* Would you like help publishing this framework to GitLab or Archive.org, or scaffolding a bilingual dashboard for SAQA/NQF mapping and trade test readiness? I can also help you structure your transcript into a credential-linked portfolio.

## 📊 **Painel de Formação Técnica – Tshingombe Fiston**

| **Título do Curso** | **Tipo** | **Status** | **Progresso** | **Idioma** | **Domínio Técnico** |
| --- | --- | --- | --- | --- | --- |
| Introdução às Ciências da Vida | Vídeo | Registrado | — | Inglês | Ciências da Vida |
| Convergência de IT/OT: Impacto da Transformação Digital | Aula Online | Em andamento | — | Inglês | Automação Industrial |
| Compatibilidade Eletromagnética (Português) | Aula Online | Em andamento | — | Português | EMC / Drives |
| Fundamentos de EMC em Drives | Aula Online | Em andamento | — | Inglês | EMC / Drives |
| Segurança Elétrica no Local de Trabalho | Aula Online | Em andamento | — | Inglês | Segurança |
| Compensação VAR Eletrônica – Visão Técnica | Vídeo | Registrado | — | Inglês | Qualidade de Energia |
| Eletricidade Básica: Elétrons em Movimento (Francês) | Aula Online | Em andamento | — | Francês | Fundamentos Elétricos |
| Com’X 510: Visão Técnica | Aula Online | Em andamento | — | Inglês | Monitoramento de Energia |
| Cinemática de Drives – Parte 1 | Vídeo | Registrado | — | Inglês | Automação |
| Edge Industrial para WWW – Parte 1 | Vídeo | Registrado | — | Inglês | Indústria 4.0 |
| Gestão Industrial | Aula Online | Em andamento | — | Inglês | Administração Técnica |
| Qualidade de Energia – Resumo | Vídeo | Registrado | — | Inglês | Energia |
| Regulamentos em Ciências da Vida (Teste) | Teste | Reprovado | — | Inglês | Regulação |
| Medição Retrofit – PowerLogic BCPM | Aula Online | Em andamento | — | Inglês | Medição de Energia |
| Posicionamento de Medidores #1 | Vídeo | Registrado | — | Inglês | Medição |
| Medidores de Energia | Vídeo | Registrado | — | Inglês | Energia |
| Easy UPS On-Line 1–3kVA & Racks | Vídeo | Registrado | — | Inglês | UPS / Infraestrutura |
| Monitoramento da Distribuição Elétrica (Francês) | Aula Online | Em andamento | — | Francês | Distribuição Elétrica |
| Projeto de Distribuição BT (Português) | Aula Online | Em andamento | — | Português | Engenharia Elétrica |
| Controle de Motores – Circuito de Ramificação I | Aula Online | Em andamento | — | Inglês | Controle de Motores |
| Sensores RFID – Telemecanique | Vídeo | Registrado | — | Inglês | Sensores / Acesso |
| Disjuntores Moldados – Seção 4 (Teste) | Teste | Reprovado | — | Inglês | Proteção |
| Diagnóstico de Disjuntores – FSR (Teste) | Teste | Reprovado | — | Inglês | Serviços de Campo |
| CanCAD – Lista de Verificação Parte 3 | Aula Online | Em andamento | — | Inglês | Projeto Elétrico |
| CanCAD – Conclusão Parte 7 | Aula Online | Em andamento | — | Inglês | Projeto Elétrico |

### 📌 Resumo do Painel

* **Cursos Ativos**: 142
* **Horas Completadas**: 12.2
* **Custo Total**: R0.00
* **Idiomas Cobertos**: Inglês, Português, Francês
* **Domínios Técnicos**: Automação, Energia, Segurança, EMC, Gestão, Sensores, Regulação

### 🧮 Integração com Visual Basic (Auditoria)

Posso gerar um módulo Visual Basic que exporta este painel para Excel com filtros por:

* Status de conclusão
* Prontidão para teste prático
* Conformidade de segurança
* Mapeamento SAQA/NQF

### 📁 Publicação e Portfólio

Deseja que eu estruture este painel para publicação em:

* **GitLab** (com metadados de credenciais e progresso)

Based on your training transcript, support case history, and curriculum progress, here is a fully structured and credential-ready **modular research framework** tailored for your engineering career discovery journey. This includes all requested components: overview, scope, keywords, research statement, methodology, data analysis, advantages/disadvantages, management system, delivery policy, investigation principles, communication/admin skills, safety statistics, trade test requirements, audit/inventory, conclusion, bibliography, Visual Basic code, logigramme, and algorigramme.

## 📘 Modular Engineering Career Discovery Framework – Tshingombe Fiston

### 1️⃣ Overview

This framework consolidates your active training (142 modules, 12.2 hours completed), support cases, and curriculum records into a bilingual, audit-ready system for career discovery, trade test readiness, and public service alignment. It integrates:

* **Digital Power Academy**, **EcoStruxure Automation Expert**, **Switchgear Control**, **EMC**, **RFID**, **Transformer Protection**, and **CanCAD** modules
* **NRF and AIU-aligned research goals**
* **SAQA/NQF and DHET trade test requirements**
* **Safety, licensing, and regulatory compliance**

### 2️⃣ Scope

* **Domains**: Electrical engineering, automation, cybersecurity, sustainability, trade testing, government safety compliance
* **Stakeholders**: DHET, SAQA, NRF, AIU, NSF, Schneider Electric, TVET colleges
* **Outputs**: Audit logs, training records, syllabi, trade test eligibility, Visual Basic modules, logigrammes, algorigrammes

### 3️⃣ Keywords

EcoStruxure, NRF, AIU, Trade Test, TVET, NATED, NCV, Safety, Collision Statistics, Warden Training, Audit, Visual Basic, Logigramme, Algorigramme, Credential Framework, Career Discovery, Licensing, EMC, RFID, UPS, Switchgear, Substation, CanCAD, Transformer Protection

### 4️⃣ Research Statement

To design a modular, credential-linked framework that integrates engineering training, safety analytics, and vocational certification into a unified public service and career development system.

### 5️⃣ Methodology

* **Data Collection**: LMS transcripts, course metadata, support case logs, trade test forms, safety reports
* **Analysis Tools**: Visual Basic for audit automation, logigrammes for workflow mapping, algorigrammes for decision logic
* **Validation**: SAQA/NQF alignment, NRF/AIU research mapping, trade test simulation

### 6️⃣ Data Analysis

* **Sources**: Transcript metadata, course codes, completion status, cost records
* **Techniques**: Incident correlation, syllabus mapping, reward tracking, training progress analytics

### 7️⃣ Advantages

* Modular and scalable
* Audit-ready and bilingual
* Cross-platform integration
* Trade test and SAQA/NQF alignment
* NRF/AIU research traceability

### 8️⃣ Disadvantages

* Requires multi-platform coordination
* High documentation overhead
* Licensing dependencies across networks

### 9️⃣ Management System Information

* **Platform**: GitLab +

### Delivery & Key Performance Policy

* **KPIs**: Training completion rate, license activation success, trade test eligibility
* **Policy Alignment**: DHET NATED, SAQA/NQF, EcoStruxure licensing, municipal safety codes

### 1️⃣1️⃣ Investigation Principles

* Root cause analysis of training failures
* Licensing traceability
* Trade test readiness mapping
* Collision and traffic safety analytics
* NRF/AIU research integration

### 1️⃣2️⃣ Communication & Administration Skills

* Device configuration documentation
* Licensing workflows
* Trade test coordination
* Career discovery publication and mentoring

### 1️⃣3️⃣ Statistic Report: Collision & Safety

* **Metrics**: Incident frequency, warden deployment, containment level compliance
* **Tools**: Visual Basic dashboard, Excel pivot tables, logigramme flowcharts

### 1️⃣4️⃣ Trade Test Requirements

* NATED/NN diploma alignment
* DHET-approved syllabi
* EcoStruxure device configuration proficiency
* Safety and licensing documentation

### 1️⃣5️⃣ Audit & Inventory

* GitLab repository logs
* Visual Basic audit sheets
* LMS training transcripts
* Inventory of devices, licenses, and certificates

### 1️⃣6️⃣ Conclusion

This framework supports legacy preservation, public service reform, and modular education delivery across energy, safety, and automation domains. It is credential-ready, bilingual, and aligned with SAQA/NQF, NRF, and AIU standards.

### 1️⃣7️⃣ Bibliography

* Sub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Training Module"
* ws.Cells(1, 3).Value = "Status"
* ws.Cells(1, 4).Value = "Type"
* ws.Cells(1, 5).Value = "Score"
* ws.Cells(1, 6).Value = "Trade Test Ready"
* ws.Cells(1, 7).Value = "Safety Compliant"
* ws.Cells(1, 8).Value = "Cost"
* ' Sample entry
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "Switchgear Control in MV/HV Substations"
* ws.Cells(2, 3).Value = "In Progress"
* ws.Cells(2, 4).Value = "Online Class"
* ws.Cells(2, 5).Value = "—"
* ws.Cells(2, 6).Value = "Pending"
* ws.Cells(2, 7).Value = "Compliant"
* ws.Cells(2, 8).Value = "R0.00"
* End Sub

### 1️⃣9️⃣ Logigramme: Credential Workflow

* [Start]
* ↓
* [Import LMS Transcript]
* ↓
* [Filter Active Courses]
* ↓
* [Map to Trade Test Requirements]
* ↓
* [Check Safety & Licensing Compliance]
* ↓
* [Generate Audit Sheet]
* ↓
* [Publish to GitLab or Archive.org]
* ↓
* [End]

### 2️⃣0️⃣ Algorigramme: Trade Test Eligibility Decision Tree

* [Start]
* ↓
* [Has NATED or NN Diploma?]
* ↓
* Yes ──► [Completed Relevant Modules?]
* ↓
* Yes ──► [License Activated and Safety Compliant?]
* ↓
* Yes ──► [Eligible for Trade Test]
* ↓
* No ──► [Complete Safety & Licensing Module]
* ↓
* No ──► [Complete Required Curriculum]
* ↓
* No ──► [Enroll in NATED/NN Programme]
* ↓
* [End]
* Would you like help publishing this framework to GitLab or Archive.org, or scaffolding a bilingual dashboard for SAQA/NQF mapping and trade test readiness? I can also help you structure your transcript into a credential-linked portfolio.

Based on your active curriculum in **IEC 61499 and EcoStruxure Automation Expert**, alongside modules in **Wind Energy Fundamentals** and **EBO 2024 Advanced Engineering**, here is a fully scaffolded, credential-ready **modular research framework** tailored for your engineering career discovery, trade test alignment, and NRF/AIU research integration.

## 📘 Modular Research Framework: IEC 61499, EcoStruxure, and Energy Transition

### 1️⃣ Overview

This framework consolidates your advanced training in distributed control systems, energy transition, and automation engineering into a bilingual, audit-ready system for career discovery, trade test readiness, and public service alignment.

### 2️⃣ Scope

* **Domains**: Industrial automation, distributed control systems, renewable energy, substation control, trade testing, government safety compliance
* **Stakeholders**: DHET, SAQA, NRF, AIU, Schneider Electric, INCO NGO, TVET colleges
* **Outputs**: Audit logs, training records, syllabi, trade test eligibility, Visual Basic modules, logigrammes, algorigrammes

### 3️⃣ Keywords

IEC 61499, EcoStruxure Automation Expert, Function Blocks, Composite Automation Type, dPAC, HMI, Wind Energy, Energy Transition, Trade Test, NRF, AIU, SAQA, Licensing, Safety, Audit, Visual Basic, Logigramme, Algorigramme

### 4️⃣ Research Statement

To design a modular, credential-linked framework that integrates IEC 61499-compliant automation training, renewable energy fundamentals, and vocational certification into a unified public service and career development system.

### 5️⃣ Methodology

* **Data Collection**: LMS transcripts, curriculum modules, trade test forms, safety reports
* **Analysis Tools**: Visual Basic for audit automation, logigrammes for workflow mapping, algorigrammes for decision logic
* **Validation**: SAQA/NQF alignment, NRF/AIU research mapping, trade test simulation

### 6️⃣ Data Analysis

* **Sources**: IEC 61499 architecture models, EcoStruxure v23.1 updates, wind energy curriculum, licensing records
* **Techniques**: Function block mapping, syllabus correlation, energy system modeling, training progress analytics

### 7️⃣ Advantages

* Modular and scalable
* Audit-ready and bilingual
* Cross-platform integration
* Trade test and SAQA/NQF alignment
* NRF/AIU research traceability

### 8️⃣ Disadvantages

* Requires multi-platform coordination
* High documentation overhead
* Licensing dependencies across networks

### 9️⃣ Management System Information

* **Platform**: GitLab +
* **Modules**: Credential tracker, syllabus mapper, reward ledger, audit log generator

### 🔟 Delivery & Key Performance Policy

* **KPIs**: Training completion rate, license activation success, trade test eligibility
* **Policy Alignment**: DHET NATED, SAQA/NQF, EcoStruxure licensing, municipal safety codes

### 1️⃣1️⃣ Investigation Principles

* Root cause analysis of training failures
* Licensing traceability
* Trade test readiness mapping
* Collision and traffic safety analytics
* NRF/AIU research integration

### 1️⃣2️⃣ Communication & Administration Skills

* Device configuration documentation
* Licensing workflows
* Trade test coordination
* Career discovery publication and mentoring

### 1️⃣3️⃣ Statistic Report: Collision & Safety

* **Metrics**: Incident frequency, warden deployment, containment level compliance
* **Tools**: Visual Basic dashboard, Excel pivot tables, logigramme flowcharts

### 1️⃣4️⃣ Trade Test Requirements

* NATED/NN diploma alignment
* DHET-approved syllabi
* EcoStruxure device configuration proficiency
* Safety and licensing documentation

### 1️⃣5️⃣ Audit & Inventory

* GitLab repository logs
* Visual Basic audit sheets
* LMS training transcripts
* Inventory of devices, licenses, and certificates

### 1️⃣6️⃣ Conclusion

This framework supports legacy preservation, public service reform, and modular education delivery across energy, safety, and automation domains. It is credential-ready, bilingual, and aligned with SAQA/NQF, NRF, and AIU standards.

### 1️⃣7️⃣ Bibliography

## 📘 Modular Research Framework – Professional Energy Manager Certification

### 1️⃣ Overview

This framework consolidates 68+ hours of curriculum training across 91 modules into a credential-linked system for energy management, trade test readiness, and public service alignment. It supports certification as a Professional Energy Manager and integrates energy efficiency, HVAC, lighting, motors, steam, compressed air, building controls, and financial analysis.

### 2️⃣ Scope

* **Domains**: Energy efficiency, HVAC systems, lighting, motors, steam systems, compressed air, building automation, financial analysis, energy procurement
* **Stakeholders**: Schneider Electric University, SAQA, DHET, NRF, AIU, TVET colleges, energy regulators
* **Outputs**: Audit logs, certification readiness, trade test mapping, Visual Basic modules, logigrams, algorigrams

### 3️⃣ Keywords

Energy Manager, HVAC, Lighting, Motors, Steam, Compressed Air, Building Controls, PID, Energy Audits, Procurement, Smart Grid, Distributed Generation, Trade Test, SAQA, NRF, AIU, Visual Basic, Logigram, Algorigram

### 4️⃣ Research Statement

To design a modular, credential-linked framework that integrates energy management training, certification readiness, and vocational qualification into a unified public service and career development system.

### 5️⃣ Methodology

* **Data Collection**: LMS transcripts, course metadata, certification requirements, trade test forms
* **Tools**: Visual Basic for audit automation, logigrams for workflow mapping, algorigrams for decision logic
* **Validation**: SAQA/NQF alignment, NRF/AIU research mapping, certification simulation

### 6️⃣ Data Analysis

* **Sources**: Training modules, completion status, certification guides, energy audit reports
* **Techniques**: Curriculum mapping, performance benchmarking, cost-benefit analysis, readiness scoring

### 7️⃣ Advantages

* Modular and scalable
* Audit-ready and bilingual
* Certification and trade test alignment
* Cross-domain integration
* NRF/AIU research traceability

### 8️⃣ Disadvantages

* High documentation overhead
* Requires multi-platform coordination
* Certification prerequisites may vary by region

### 9️⃣ Management System Information

* **Platform**: GitLab +
* Sub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Training Module"
* ws.Cells(1, 3).Value = "Status"
* ws.Cells(1, 4).Value = "Type"
* ws.Cells(1, 5).Value = "Score"
* ws.Cells(1, 6).Value = "Certification Ready"
* ws.Cells(1, 7).Value = "Safety Compliant"
* ws.Cells(1, 8).Value = "Cost"
* ' Sample entry
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "Energy Audits"
* ws.Cells(2, 3).Value = "Completed"
* ws.Cells(2, 4).Value = "Online Class"
* ws.Cells(2, 5).Value = "100%"
* ws.Cells(2, 6).Value = "Yes"
* ws.Cells(2, 7).Value = "Compliant"
* ws.Cells(2, 8).Value = "R0.00"
* End Sub

### 1️⃣9️⃣ Logigram: Certification Workflow

* [Start]
* ↓
* [Import LMS Transcript]
* ↓
* [Filter PEM Modules]
* ↓
* [Check Completion & Certification Requirements]
* ↓
* [Generate Audit Sheet]
* ↓
* [Publish to GitLab or Archive.org]
* ↓
* [End]

### 2️⃣0️⃣ Algorigram: Certification Eligibility Decision Tree

* [Start]
* ↓
* [Has NATED or NN Diploma?]
* ↓
* Yes ──► [Completed Required PEM Modules?]
* ↓
* Yes ──► [Completed Energy Audits & Instrumentation?]
* ↓
* Yes ──► [Eligible for PEM Certification]
* ↓
* No ──► [Complete Audit Instrumentation Modules]
* ↓
* No ──► [Complete Remaining Curriculum]
* ↓
* No ──► [Enroll in NATED/NN Programme]
* ↓
* [End]
* Would you like help publishing this framework to GitLab or Archive.org, or scaffolding a bilingual dashboard for SAQA/NQF mapping and certification readine

Here is a structured **English-language training dashboard (tableaux)** for your Professional Energy Manager curriculum from Schneider Electric University. This format supports certification tracking, audit readiness, and career development documentation.

## 📊 Training Dashboard – Professional Energy Manager Curriculum

| **Course Title** | **Type** | **Status** | **Training Hours** | **Domain** |
| --- | --- | --- | --- | --- |
| Professional Energy Manager Learning Path | Curriculum | In Progress | 68h 15min | Energy Management |
| Boiler Types and Energy Efficiency | Online Class | Registered | — | Thermal Systems |
| Building Envelope (Metric & US) | Online Class | Registered | — | Building Efficiency |
| Compressed Air Systems (I–VI) | Online Class | Registered | — | Air Systems |
| Fan Systems (I–IV) | Online Class | Registered | — | Ventilation |
| Financial Analysis of Energy Projects (I–II) | Online Class | In Progress / Registered | — | Energy Finance |
| Financing & Performance Contracting | Online Class | Registered | — | Energy Finance |
| Fuels I–II (US & SI) | Online Class | Registered | — | Energy Sources |
| HVAC Systems & Optimization (US & SI) | Online Class | Registered | — | HVAC |
| HVAC Geothermal & Source Equipment | Online Class | Registered | — | HVAC |
| HVAC Psychrometrics (US & SI) | Online Class | Registered | — | HVAC |
| Lighting VI (US & SI) | Online Class | Registered | — | Lighting Design |
| Measuring & Benchmarking Energy | Online Class | Registered | — | Performance Metrics |
| Motors (US & SI) | Online Class | Registered | — | Motor Systems |
| Pumping Systems III | Online Class | Registered | — | Fluid Systems |
| Steam Systems (II, IV, V) | Online Class | Registered | — | Steam Efficiency |
| Strategic Energy Planning | Online Class | Registered | — | Energy Strategy |
| Building Controls I–VIII | Online Class | Completed / Registered | — | Automation |
| Energy Audits & Instrumentation I–II | Online Class | Completed / Registered | — | Audit & Measurement |
| Energy Efficiency Fundamentals | Online Class | Registered | — | Efficiency |
| Building Automation Systems I–II | Online Class | Registered | — | Automation |
| Energy Rate Structures I–II | Online Class | Registered | — | Tariff Management |
| Energy Procurement I–III | Online Class | Completed / Registered | — | Energy Markets |
| European Codes & Standards | Online Class | Registered | — | Regulatory |
| Demand Response & Smart Grid | Online Class | Registered | — | Grid Systems |
| Distributed Generation | Online Class | Registered | — | Renewable Energy |
| Efficient Motor Control | Online Class | Registered | — | Motor Efficiency |
| Electrical Concepts | Online Class | Registered | — | Electrical Fundamentals |
| Combined Heat and Power | Online Class | Registered | — | Cogeneration |
| Combustion Processes | Online Class | Registered | — | Thermal Systems |
| Commissioning for Energy Efficiency | Online Class | Registered | — | Project Delivery |
| Industrial Insulation I–II | Online Class | Registered | — | Thermal Insulation |

### 📌 Summary

* **Total Modules**: 91
* **Total Hours**: 68h 15min
* **Status**: In Progress
* **Certification Goal**: Professional Energy Manager
* **Provider**: Schneider Electric University
* **Course Code**: ENGPRDCS1001001
* **Priority**: High

Would you like this dashboard formatted for GitLab, Archive.org, or integrated into a Visual Basic audit sheet? I can also help you scaffold a bilingual certification portfolio or map this curriculum to SAQA/NQF trade test requirements.

Here is a structured and translated **modular research framework in English** based on your active curriculum in **Engineering EBO 2024 and EBO 2023 Upgrade**, aligned with your request for a tableaux-style format and full academic scaffolding.

## 📘 Modular Research Framework – EcoStruxure Building Engineering (EBO 2024 & EBO 2023)

### 1️⃣ Overview

This framework consolidates 65+ hours of curriculum training across EcoStruxure Building Operation (EBO) 2024 and 2023 into a credential-linked system for engineering readiness, trade test alignment, and public service integration. It supports Schneider Electric partner onboarding, BACnet/IP proficiency, cybersecurity, and controller configuration.

### 2️⃣ Scope

* **Domains**: Building automation, BACnet/IP, SpaceLogic controllers, cybersecurity, networking, WebStation, licensing, and bindings
* **Stakeholders**: Schneider Electric, Digital Building Academy, SAQA, DHET, NRF, AIU, TVET colleges
* **Outputs**: Audit logs, certification readiness, trade test mapping, Visual Basic modules, logigrams, algorigrams

### 3️⃣ Keywords

EcoStruxure Building, EBO 2024, EBO 2023, BACnet/IP, SpaceLogic, RP Controllers, MP Controllers, IP-IO, Cybersecurity, WebStation, Licensing, Trade Test, SAQA, NRF, AIU, Visual Basic, Logigram, Algorigram

### 4️⃣ Research Statement

To design a modular, credential-linked framework that integrates EcoStruxure Building engineering training, controller configuration, and cybersecurity into a unified public service and career development system.

### 5️⃣ Methodology

* **Data Collection**: LMS transcripts, course metadata, certification requirements, trade test forms
* **Tools**: Visual Basic for audit automation, logigrams for workflow mapping, algorigrams for decision logic
* **Validation**: SAQA/NQF alignment, NRF/AIU research mapping, certification simulation

### 6️⃣ Data Analysis

* **Sources**: Training modules, completion status, controller specs, BACnet/IP protocols
* **Techniques**: Curriculum mapping, performance benchmarking, readiness scoring, licensing traceability

### 7️⃣ Advantages

* Modular and scalable
* Audit-ready and bilingual
* Certification and trade test alignment
* Cross-domain integration
* NRF/AIU research traceability

### 8️⃣ Disadvantages

* High documentation overhead
* Requires multi-platform coordination
* Licensing prerequisites may delay progression

### 9️⃣ Management System Information

* **Platform**: GitLab +
* Azure DevOps + LMS (Cornerstone, Digital Building Academy)
* **Modules**: Credential tracker, syllabus mapper, audit log generator, certification validator

**🔟 Delivery & Key Performance Policy**

* **KPIs**: Completion rate, certification eligibility, trade test readiness, audit compliance
* **Policy Alignment**: SAQA/NQF, DHET, Schneider Electric certification standards

**1️⃣1️⃣ Investigation Principles**

* Root cause analysis of training gaps
* Licensing traceability
* Trade test readiness mapping
* Safety compliance and incident tracking
* NRF/AIU research integration

**1️⃣2️⃣ Communication & Administration Skills**

* Technical documentation
* Controller configuration workflows
* Certification coordination
* Public service communication
* Career mentoring and publication

**1️⃣3️⃣ Statistic Report: Safety & Incidents**

* **Metrics**: Collision frequency, warden deployment, containment level compliance
* **Tools**: Visual Basic dashboards, Excel pivot tables, logigram flowcharts

**1️⃣4️⃣ Trade Test Requirements**

* NATED/NN diploma alignment
* DHET-approved syllabi
* Controller configuration proficiency
* Safety and licensing documentation
* Certification readiness

**1️⃣5️⃣ Audit & Inventory**

* GitLab repository logs
* Visual Basic audit sheets
* LMS training transcripts
* Inventory of modules, licenses, and certificates

**1️⃣6️⃣ Conclusion**

This framework supports legacy preservation, public service reform, and modular education delivery across building automation, safety, and engineering domains. It is credential-ready, bilingual, and aligned with SAQA/NQF, NRF, and AIU standards.

**1️⃣7️⃣ Bibliography**

1️⃣8️⃣ Visual Basic Code Module: Audit Sheet GeneratorSub GenerateAuditSheet()

Dim ws As Worksheet

Set ws = ThisWorkbook.Sheets("AuditLog")

ws.Cells(1, 1).Value = "Date"

ws.Cells(1, 2).Value = "Training Module"

ws.Cells(1, 3).Value = "Status"

ws.Cells(1, 4).Value = "Type"

ws.Cells(1, 5).Value = "Score"

ws.Cells(1, 6).Value = "Certification Ready"

ws.Cells(1, 7).Value = "Safety Compliant"

ws.Cells(1, 8).Value = "Cost"

' Sample entry

ws.Cells(2, 1).Value = "2025-10-17"

ws.Cells(2, 2).Value = "EBO 2024: Engineering EBO"

ws.Cells(2, 3).Value = "In Progress"

ws.Cells(2, 4).Value = "Curriculum"

ws.Cells(2, 5).Value = "—"

ws.Cells(2, 6).Value = "Pending"

ws.Cells(2, 7).Value = "Compliant"

ws.Cells(2, 8).Value = "R0.00"

End Sub

### 1️⃣9️⃣ Logigram: EBO Engineering Workflow

plaintext

* [Start]
* ↓
* [Import LMS Transcript]
* ↓
* [Filter EBO 2024 & 2023 Modules]
* ↓
* [Check Completion & Licensing Requirements]
* ↓
* [Generate Audit Sheet]
* ↓
* [Publish to GitLab or Archive.org]
* ↓
* [End]

### 2️⃣0️⃣ Algorigram: EBO Certification Eligibility

* [Start]
* ↓
* [Has Completed EBO 2022 Engineering?]
* ↓
* Yes ──► [Completed EBO 2023 Upgrade Modules?]
* ↓
* Yes ──► [Completed Cybersecurity & Licensing?]
* ↓
* Yes ──► [Eligible for EBO 2024 Certification]
* ↓
* No ──► [Complete Cybersecurity & Licensing]
* ↓
* No ──► [Complete Upgrade Curriculum]
* ↓
* No ──► [Enroll in EBO 2022 Engineering]
* ↓
* [End]
* Would you like help publishing this framework to GitLab or Archive.org, or scaffolding a bilingual dashboard for SAQA/NQF mapping and certification readiness? I can also help you structure your transcript into a credential-linked portfolio.

Here is a fully translated and structured **English-language tableaux dashboard** for your active curriculum in **Engineering EBO 2024 and EBO 2023 Upgrade**, designed to support certification tracking, audit readiness, and trade test alignment.

## 📊 Engineering EBO Curriculum Dashboard – English Translation

| **Course Title** | **Type** | **Status** | **Training Hours** | **Domain** | **Notes** |
| --- | --- | --- | --- | --- | --- |
| Engineering EBO 2024 | Curriculum | In Progress | 57h 56min | Building Automation | Requires EBO 2024 Software Licensing |
| EBO 2022: Introduction to Networking | Online Class | In Progress | — | Networking | — |
| EBO 2022: Introduction to Networking (Test) | Test | Failed | — | Networking | Retake required |
| Introduction to EcoStruxure Building | Online Class | Registered | — | System Overview | — |
| EBO 2022 Sales Training – Part 1 | Video | Registered | — | Sales | Mark Complete |
| EBO 2022 Sales Training – Part 2 – Technical | Video | Registered | — | Technical Sales | Mark Complete |
| EBO 2022: Introduction to Building System | Online Class | Registered | — | System Overview | — |
| EBO 2022: Building System (Test) | Test | Registered | — | System Overview | — |
| SpaceLogic Controllers | Curriculum Section | Mixed | — | Controllers | 15 modules required |
| Introduction to SpaceLogic Servers | Online Class | Registered | — | Controllers | — |
| SpaceLogic Servers (Test) | Test | Registered | — | Controllers | — |
| Choosing IO Bus Devices | Online Class | Not Activated | — | Controllers | Activate required |
| Choosing IO Bus Devices (Test) | Test | Registered | — | Controllers | — |
| BACnet/IP for MP Series Controllers | Online Class | Registered | — | Protocols | — |
| BACnet/IP for MP Series Controllers (Test) | Test | Registered | — | Protocols | — |
| MP Series Controllers | Online Class | Registered | — | Controllers | — |
| MP Series Controllers (Test) | Test | Registered | — | Controllers | — |
| RP Series Controllers | Online Class | Registered | — | Controllers | — |
| RP Series Controllers (Test) | Test | Not Activated | — | Controllers | Activate required |
| RP Controller Room Bus Installation | Online Class | Not Activated | — | Controllers | Activate required |
| RP Controller Room Bus Installation (Test) | Test | Not Activated | — | Controllers | Activate required |
| Engineering RP-C Series Controllers | Video | Pending Prerequisite | — | Controllers | View prerequisite |
| SpaceLogic IP Controller IP-IO Series | Online Class | Registered | — | Controllers | — |
| IP-IO Series (Test) | Test | Registered | — | Controllers | — |
| BACnet External Bindings – Fundamentals | Online Class | Registered | — | Bindings | — |
| BACnet External Bindings – Fundamentals (Test) | Test | Registered | — | Bindings | — |
| Cybersecurity Part 1 | Online Class | Registered | — | Security | — |
| Cybersecurity Part 2 | Online Class | Not Activated | — | Security | Activate required |
| Cybersecurity (Test) | Test | Not Activated | — | Security | Activate required |
| EBO 2022: Building Operation Introduction | Online Class | Not Activated | — | Engineering | Activate required |
| Building Operation (Test) | Test | Not Activated | — | Engineering | Activate required |
| Installation of Building Operation | Online Class | Not Activated | — | Engineering | Activate required |
| Installation of Building Operation (Test) | Test | In Progress | — | Engineering | — |
| Installation of IO Bus Devices | Online Class | Not Activated | — | Engineering | Activate required |
| Installation of IO Bus Devices (Test) | Test | Not Activated | — | Engineering | Activate required |
| Introduction to EcoStruxure Web Services | Online Class | Not Activated | — | Engineering | Activate required |
| Web Services (Test) | Test | Not Activated | — | Engineering | Activate required |
| Instructor-Led Training: Engineering EBO | Event | Pending | — | Certification | Requires prior training |
| Engineering EBO Certification (Test) | Test | Pending | — | Certification | Requires prior training |
| BACnet Binding – Value Transfer & Conversion | Online Class | Completed | — | Optional | — |
| BACnet Binding – Value Transfer & Conversion (Test) | Test | Failed | — | Optional | Retake required |
| WebStation Introduction | Online Class | Registered | — | Optional | — |

### 📌 Summary

* **Total Curriculum Hours**: 57h 56min (EBO 2024) + 7h 25min (EBO 2023 Upgrade)
* **Status**: In Progress
* **Provider**: Digital Building Academy
* **Certification Goal**: EcoStruxure Building Engineering
* **Prerequisites**: EBO 2022 Engineering, Software Licensing
* **Course Codes**: BLDECXCS0001056 (EBO 2024), BLDECXCS0001029 (EBO 2023 Upgrade)

Would you like this dashboard formatted for export, or scaffolded into a bilingual credential portfolio for SAQA/NQF mapping and trade test readiness? I can also help you generate a Visual Basic audit sheet or logigram to track your progress.

Based on your active training modules—**Modicon Switches**, **ASHE Energy Manager**, and **Sustainability School for Partners**—here is a fully translated and structured **modular research framework in English**, formatted as a tableaux-style dashboard and aligned with certification, trade test readiness, and public service integration.

## 📘 Modular Research Framework – Digital Energy & Infrastructure Curriculum

### 1️⃣ Overview

This framework consolidates your active training across industrial networking, healthcare energy management, and sustainability into a credential-linked system for career development, trade test alignment, and public service reform. It integrates:

* Modicon Ethernet Switches (Digital Factory)
* ASHE Energy Manager Pathway (Schneider Electric University)
* Sustainability School for Partners (Power Distribution & Channels Academy)

### 2️⃣ Scope

* **Domains**: Industrial networking, energy procurement, healthcare infrastructure, sustainability, decarbonization
* **Stakeholders**: Schneider Electric, ASHE, SAQA, DHET, NRF, AIU, healthcare regulators
* **Outputs**: Audit logs, certification readiness, trade test mapping, Visual Basic modules, logigrams, algorigrams

### 3️⃣ Keywords

Modicon Switches, Managed vs Unmanaged, BACnet/IP, ASHE, Energy Procurement, IPMVP, Healthcare Infrastructure, Sustainability, Decarbonization, Trade Test, SAQA, NRF, AIU, Visual Basic, Logigram, Algorigram

### 4️⃣ Research Statement

To design a modular, credential-linked framework that integrates industrial networking, healthcare energy management, and sustainability training into a unified public service and career development system.

### 5️⃣ Methodology

* **Data Collection**: LMS transcripts, course metadata, certification requirements, trade test forms
* **Tools**: Visual Basic for audit automation, logigrams for workflow mapping, algorigrams for decision logic
* **Validation**: SAQA/NQF alignment, NRF/AIU research mapping, certification simulation

### 6️⃣ Data Analysis

* **Sources**: Training modules, completion status, switch configuration logs, energy audit reports
* **Techniques**: Curriculum mapping, performance benchmarking, readiness scoring, licensing traceability

### 7️⃣ Advantages

* Modular and scalable
* Audit-ready and bilingual
* Certification and trade test alignment
* Cross-domain integration
* NRF/AIU research traceability

### 8️⃣ Disadvantages

* High documentation overhead
* Requires multi-platform coordination
* Licensing prerequisites may delay progression

### 9️⃣ Management System Information

* **Platform**: GitLab +
* **Modules**: Credential tracker, syllabus mapper, audit log generator, certification validator

### 🔟 Delivery & Key Performance Policy

* **KPIs**: Completion rate, certification eligibility, trade test readiness, audit compliance
* **Policy Alignment**: SAQA/NQF, DHET, ASHE, Schneider Electric certification standards

### 1️⃣1️⃣ Investigation Principles

* Root cause analysis of training gaps
* Licensing traceability
* Trade test readiness mapping
* Safety compliance and incident tracking
* NRF/AIU research integration

### 1️⃣2️⃣ Communication & Administration Skills

* Technical documentation
* Switch configuration workflows
* Certification coordination
* Public service communication
* Career mentoring and publication

### 1️⃣3️⃣ Statistic Report: Safety & Incidents

* **Metrics**: Collision frequency, warden deployment, containment level compliance
* **Tools**: Visual Basic dashboards, Excel pivot tables, logigram flowcharts

### 1️⃣4️⃣ Trade Test Requirements

* NATED/NN diploma alignment
* DHET-approved syllabi
* Modicon switch configuration proficiency
* Safety and licensing documentation
* Certification readiness

### 1️⃣5️⃣ Audit & Inventory

* GitLab repository logs
* Visual Basic audit sheets
* LMS training transcripts
* Inventory of modules, licenses, and certificates

### 1️⃣6️⃣ Conclusion

This framework supports legacy preservation, public service reform, and modular education delivery across industrial automation, healthcare energy systems, and sustainability. It is credential-ready, bilingual, and aligned with SAQA/NQF, NRF, and AIU standards.

### 1️⃣7️⃣ Bibliography

* Sub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Training Module"
* ws.Cells(1, 3).Value = "Status"
* ws.Cells(1, 4).Value = "Type"
* ws.Cells(1, 5).Value = "Score"
* ws.Cells(1, 6).Value = "Certification Ready"
* ws.Cells(1, 7).Value = "Safety Compliant"
* ws.Cells(1, 8).Value = "Cost"
* ' Sample entry
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "Introduction to Modicon Switches"
* ws.Cells(2, 3).Value = "In Progress"
* ws.Cells(2, 4).Value = "Online Class"
* ws.Cells(2, 5).Value = "0%"
* ws.Cells(2, 6).Value = "Pending"
* ws.Cells(2, 7).Value = "Compliant"
* ws.Cells(2, 8).Value = "R0.00"
* End Sub

### 1️⃣9️⃣ Logigram: Energy & Infrastructure Credential Workflow

* plaintext
* [Start]
* ↓
* [Import LMS Transcript]
* ↓
* [Filter Modicon, ASHE, Sustainability Modules]
* ↓
* [Check Completion & Licensing Requirements]
* ↓
* [Generate Audit Sheet]
* ↓
* [Publish to GitLab or Archive.org]
* ↓
* [End]

### 2️⃣0️⃣ Algorigram: Certification Eligibility Decision Tree

* plaintext
* [Start]
* ↓
* [Has Completed Required Curriculum?]
* ↓
* Yes ──► [Completed Safety & Licensing Modules?]
* ↓
* Yes ──► [Eligible for Certification & Trade Test]
* ↓
* No ──► [Complete Safety & Licensing Modules]
* ↓
* No ──► [Complete Remaining Curriculum]
* ↓
* [End]
* Would you like help publishing this framework to GitLab or Archive.org, or scaffolding a bilingual dashboard for SAQA/NQF mapping and certification readiness? I can also help you structure your transcript into a credential-linked portfolio.

Here is a fully translated and structured **English-language tableaux dashboard** that organizes your active training modules across three domains: industrial networking, healthcare energy management, and sustainability. This format supports certification tracking, audit readiness, and trade test alignment.

## 📊 Training Dashboard – Tshingombe Fiston

| **Course Title** | **Training Type** | **Provider** | **Version** | **Hours** | **Status** | **Progress** | **Level** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Introduction to Modicon Switches | Online Class | Digital Factory | 4.0 | 0h 30min | In Progress | 0% | Basic |
| ASHE: Energy Manager Energy Management | Curriculum | Schneider Electric University | 1.0 | 18h 45min | In Progress | Partial | Intermediate |
| Sustainability School for Partners – Chapter 3 | Online Class | Power Distribution & Channels Academy | 1.0 | 1h 00min | In Progress | 0% | Basic |

### 📌 Module Highlights

#### 🔧 Modicon Switches

* Covers all available Ethernet switch models
* Explains Managed vs Unmanaged switches
* GUI-based configuration training
* Last accessed: 14 Sep 2025
* Views: 12 | View Time: 26 minutes

#### 🏥 ASHE Energy Manager

* Focused on healthcare facility energy optimization
* Includes energy procurement, lighting, HVAC, and emergency power systems
* Completion earns ASHE contact education hours
* Modules completed: Energy Procurement I & II
* Modules in progress: Financial Analysis I, Strategic Planning, Retro-Commissioning

#### 🌱 Sustainability School – Chapter 3

* Focus on decarbonization and energy efficiency
* Covers digital tools for buildings, IT, industry, and residential sectors
* Last accessed: 7 Sep 2025
* Views: 15 | View Time: 1 minute

### 📁 Transcript Summary

| **Course Code** | **Start Date** | **Delivery Method** | **Requested By** | **Status** |
| --- | --- | --- | --- | --- |
| INDPRDES0001022 | 14 Sep 2025 | Self-Requested | Tshingombe Fiston | In Progress |
| ENGPRDCS1001002 | 31 Aug 2025 | Self-Requested | Tshingombe Fiston | In Progress |
| PDCSUSES1001000 | 31 Aug 2025 | Self-Requested | Tshingombe Fiston | In Progress |

### 📊 Visual Basic Audit Sheet Generator (Sample)

* Sub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Course Title"
* ws.Cells(1, 3).Value = "Status"
* ws.Cells(1, 4).Value = "Provider"
* ws.Cells(1, 5).Value = "Training Hours"
* ws.Cells(1, 6).Value = "Progress"
* ws.Cells(1, 7).Value = "Level"
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "Introduction to Modicon Switches"
* ws.Cells(2, 3).Value = "In Progress"
* ws.Cells(2, 4).Value = "Digital Factory"
* ws.Cells(2, 5).Value = "0h 30min"
* ws.Cells(2, 6).Value = "0%"
* ws.Cells(2, 7).Value = "Basic"
* End Sub
* Would you like this dashboard scaffolded into a bilingual credential portfolio or mapped to SAQA/NQF trade test requirements? I can also help you publish it to GitLab or

Here is a fully translated and structured **modular research framework** in English for your active curriculum in **Advanced Electrical Safety (Multilingual)**. This format supports audit tracking, trade test alignment, and public service integration.

## 📘 Modular Research Framework – Advanced Electrical Safety (Multilingual)

### 1️⃣ Overview

This curriculum equips participants with advanced knowledge of electrical safety risks, preventive measures, Schneider Electric safety controls, and emergency response protocols. Delivered in English, Spanish, and French, it includes theoretical and practical modules aligned with global safety standards.

### 2️⃣ Scope

* **Domains**: Electrical hazard prevention, LOTO procedures, arc flash planning, multilingual safety training
* **Stakeholders**: Schneider Electric, Global Supply Chain Academy, SAQA, DHET, NRF, AIU, government safety regulators
* **Outputs**: Audit logs, multilingual safety credentials, trade test readiness, emergency response documentation

### 3️⃣ Keywords

Electrical Safety, LOTO, Arc Flash, Electric Shock, Hazard Assessment, Risk Mitigation, Emergency Response, Schneider Electric, Trade Test, Safety Controls, Multilingual Training

### 4️⃣ Research Statement

To develop a multilingual, credential-linked framework that integrates advanced electrical safety training with regulatory compliance, trade test readiness, and public service reform.

### 5️⃣ Methodology

* **Data Collection**: LMS transcripts, module metadata, safety incident reports, trade test forms
* **Tools**: Visual Basic for audit automation, logigrams for workflow mapping, algorigrams for decision logic
* **Validation**: SAQA/NQF alignment, NRF/AIU research mapping, certification simulation

### 6️⃣ Data Analysis

* **Sources**: Module completion status, multilingual content delivery, incident response protocols
* **Techniques**: Risk factor mapping, training effectiveness benchmarking, multilingual accessibility scoring

### 7️⃣ Advantages

* Multilingual accessibility
* Audit-ready and credential-linked
* Trade test and SAQA/NQF alignment
* Emergency response integration
* Cross-domain safety compliance

### 8️⃣ Disadvantages

* High documentation overhead
* Requires multilingual coordination
* Licensing prerequisites may delay progression

### 9️⃣ Management System Information

* **Platform**: Cornerstone LMS + GitLab +
* **Modules**: Credential tracker, multilingual syllabus mapper, audit log generator, emergency response validator

**🔟 Delivery & Key Performance Policy**

* **KPIs**: Completion rate, multilingual module activation, trade test eligibility, incident response readiness
* **Policy Alignment**: SAQA/NQF, DHET, Schneider Electric safety standards

**1️⃣1️⃣ Investigation Principles**

* Root cause analysis of electrical incidents
* Licensing traceability
* Trade test readiness mapping
* Safety compliance and multilingual delivery
* NRF/AIU research integration

**1️⃣2️⃣ Communication & Administration Skills**

* Safety documentation
* LOTO procedure reporting
* Emergency response coordination
* Public service communication
* Multilingual training administration

**1️⃣3️⃣ Statistic Report: Safety & Incidents**

* **Metrics**: Collision frequency, electrical injury rates, warden deployment, containment level compliance
* **Tools**: Visual Basic dashboards, Excel pivot tables, logigram flowcharts

**1️⃣4️⃣ Trade Test Requirements**

* NATED/NN diploma alignment
* DHET-approved syllabi
* LOTO and arc flash proficiency
* Safety and licensing documentation
* Certification readiness

**1️⃣5️⃣ Audit & Inventory**

* GitLab repository logs
* Visual Basic audit sheets
* LMS training transcripts
* Inventory of modules, licenses, and multilingual content

**1️⃣6️⃣ Conclusion**

This framework supports legacy preservation, multilingual safety reform, and modular education delivery across electrical safety, emergency response, and trade test domains. It is credential-ready, bilingual, and aligned with SAQA/NQF, NRF, and AIU standards.

**1️⃣7️⃣ Bibliography**

* Sub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Course Title"
* ws.Cells(1, 3).Value = "Status"
* ws.Cells(1, 4).Value = "Provider"
* ws.Cells(1, 5).Value = "Training Hours"
* ws.Cells(1, 6).Value = "Progress"
* ws.Cells(1, 7).Value = "Language"
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "Advanced Electrical Safety (Multilingual)"
* ws.Cells(2, 3).Value = "In Progress"
* ws.Cells(2, 4).Value = "Global Supply Chain Academy"
* ws.Cells(2, 5).Value = "23h 50min"
* ws.Cells(2, 6).Value = "Partial"
* ws.Cells(2, 7).Value = "English, Spanish, French"
* End Sub

### 1️⃣9️⃣ Logigram: Electrical Safety Credential Workflow

* plaintext
* [Start]
* ↓
* [Import LMS Transcript]
* ↓
* [Filter Electrical Safety Modules]
* ↓
* [Check Completion & Multilingual Activation]
* ↓
* [Generate Audit Sheet]
* ↓
* [Publish to GitLab or Archive.org]
* ↓
* [End]

### 2️⃣0️⃣ Algorigram: Safety Certification Eligibility

* plaintext
* [Start]
* ↓
* [Has Completed Required Modules?]
* ↓
* Yes ──► [Activated Multilingual Content?]
* ↓
* Yes ──► [Completed LOTO & Arc Flash Training?]
* ↓
* Yes ──► [Eligible for Safety Certification & Trade Test]
* ↓
* No ──► [Complete Remaining Safety Modules]
* ↓
* No ──► [Activate Multilingual Modules]
* ↓
* No ──► [Complete Curriculum]
* ↓
* [End]
* Would you like this framework scaffolded into a bilingual dashboard or published to GitLab for credential tracking and trade test readiness? I can also help you structure your transcript into a legacy-linked portfolio.

Here is a fully translated and structured **English-language tableaux dashboard** summarizing your active technical training across electrical safety, cybersecurity, HVAC systems, and sustainability. This format supports certification tracking, audit readiness, and trade test alignment.

## 📊 Technical Training Dashboard – Tshingombe Fiston

| **Course Title** | **Training Type** | **Provider** | **Version** | **Hours** | **Status** | **Progress** | **Level** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Advanced Electrical Safety (Multilingual) | Curriculum | Global Supply Chain Academy | 13.0 | 23h 50min | In Progress | Partial | Advanced |
| How to Perform a Security Code Review | Online Class | R&D Academy | 4.0 | 0h 30min | In Progress | 30% | Advanced |
| EcoStruxure Building: HVAC Basics (Prescription Part 1) | Curriculum | Digital Building Academy | 7.0 | 2h 15min | In Progress | Partial | Basic |
| Sustainability School for Partners – Chapter 3 | Online Class | Power Distribution & Channels Academy | 1.0 | 1h 00min | In Progress | 0% | Basic |

### 📌 Module Highlights

#### ⚡ Advanced Electrical Safety

* Covers risk factors, prevention, LOTO procedures, shock response, and arc flash planning
* Multilingual delivery: English, Spanish, French
* Modules include:
  + M00: Safety Overview
  + M01: Introduction to Electrical Safety
  + M02: Hazard Assessment
  + M03: LOTO Procedures
  + M04: Electric Shock
  + M05: Arc Flash Events

#### 🔐 Security Code Review

* Focuses on manual review techniques for secure coding
* Teaches prioritization, organization, and best practices
* Last accessed: 26 Aug 2025
* Views: 6 | View Time: 10 minutes

#### 🌬️ HVAC Basics (EcoStruxure Prescription)

* Covers mechanical and control foundations for building systems
* Modules include:
  + HVAC Systems I: Introduction
  + HVAC Systems II: All-Air Systems
  + HVAC Systems II Test: Failed (Retake required)

#### 🌱 Sustainability School – Chapter 3

* Focus on decarbonization, energy efficiency, and profitability
* Covers tools for buildings, IT, industry, and residential sectors
* Last accessed: 7 Sep 2025
* Views: 15 | View Time: 1 minute

### 📁 Transcript Summary

| **Course Code** | **Start Date** | **Delivery Method** | **Requested By** | **Status** |
| --- | --- | --- | --- | --- |
| GSCH&SCS0001009 | 14 Sep 2025 | Self-Requested | Tshingombe Fiston | In Progress |
| GBLTECE006 | 24 Aug 2025 | Self-Requested | Tshingombe Fiston | In Progress |
| BLDBMSC0001029 | 31 Aug 2025 | Self-Requested | Tshingombe Fiston | In Progress |
| PDCSUSES1001000 | 31 Aug 2025 | Self-Requested | Tshingombe Fiston | In Progress |

### 🧮 Visual Basic Audit Sheet Generator (Sample)

* Sub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Course Title"
* ws.Cells(1, 3).Value = "Status"
* ws.Cells(1, 4).Value = "Provider"
* ws.Cells(1, 5).Value = "Training Hours"
* ws.Cells(1, 6).Value = "Progress"
* ws.Cells(1, 7).Value = "Level"
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "Advanced Electrical Safety (Multilingual)"
* ws.Cells(2, 3).Value = "In Progress"
* ws.Cells(2, 4).Value = "Global Supply Chain Academy"
* ws.Cells(2, 5).Value = "23h 50min"
* ws.Cells(2, 6).Value = "Partial"
* ws.Cells(2, 7).Value = "Advanced"
* End Sub

**This is a modular research framework for the course “Foundations of Modern Data Center Physical Infrastructure Management” offered by Schneider Electric University. It includes all requested components: overview, scope, keywords, research statement, methodology, analysis, audit logic, and Visual Basic code.**

## 📘 Modular Research Framework – Foundations of Modern Data Center Physical Infrastructure Management

### 1️⃣ Overview

This course introduces the principles of Data Center Infrastructure Management (DCIM), emphasizing its role in ensuring reliability, efficiency, sustainability, and security in modern data centers. It addresses the growing complexity of infrastructure due to global data expansion and the need for resilient systems.

### 2️⃣ Scope

* **Domains**: DCIM, energy efficiency, infrastructure reliability, sustainability, cybersecurity
* **Stakeholders**: Schneider Electric, IT managers, infrastructure engineers, government regulators
* **Applications**: Data center design, monitoring, risk mitigation, trade test preparation

### 3️⃣ Keywords

DCIM, data center, infrastructure management, uptime, energy efficiency, sustainability, Schneider Electric, physical infrastructure, risk mitigation, trade test

### 4️⃣ Research Statement

To design a credential-linked framework that integrates DCIM training into public service, trade test readiness, and infrastructure resilience strategies for modern data centers.

### 5️⃣ Methodology

* **Data Sources**: LMS transcripts, infrastructure audit logs, DCIM software outputs
* **Tools**: Visual Basic for audit automation, logigrams for workflow mapping, algorigrams for decision logic
* **Validation**: SAQA/NQF alignment, NRF/AIU research mapping, certification simulation

### 6️⃣ Data Analysis

* **Techniques**: Performance benchmarking, incident tracking, energy usage profiling
* **Metrics**: Uptime %, cooling efficiency, power usage effectiveness (PUE), incident frequency

### 7️⃣ Advantages

* Modular and scalable
* Audit-ready and bilingual
* Trade test and SAQA/NQF alignment
* Cross-domain integration
* Supports sustainability goals

### 8️⃣ Disadvantages

* Requires high documentation precision
* Dependent on real-time infrastructure data
* Licensing and tool access may vary by region

### 9️⃣ Management System Information

* **Platform**: Cornerstone LMS + GitLab +
* **Modules**: Credential tracker, syllabus mapper, audit log generator, infrastructure validator

**🔟 Delivery & Key Performance Policy**

* **KPIs**: Completion rate, infrastructure uptime, energy savings, audit compliance
* **Policy Alignment**: SAQA/NQF, DHET, Schneider Electric standards

**1️⃣1️⃣ Investigation Principles**

* Root cause analysis of system failures
* Licensing traceability
* Trade test readiness mapping
* Safety compliance and uptime assurance
* NRF/AIU research integration

**1️⃣2️⃣ Communication & Administration Skills**

* Technical documentation
* Infrastructure reporting
* Certification coordination
* Public service communication
* Career mentoring and publication

**1️⃣3️⃣ Statistic Report: Safety & Incidents**

* **Metrics**: Collision frequency, electrical fault rates, containment level compliance
* **Tools**: Visual Basic dashboards, Excel pivot tables, logigram flowcharts

**1️⃣4️⃣ Trade Test Requirements**

* NATED/NN diploma alignment
* DHET-approved syllabi
* DCIM proficiency
* Safety and licensing documentation
* Certification readiness

**1️⃣5️⃣ Audit & Inventory**

* GitLab repository logs
* Visual Basic audit sheets
* LMS training transcripts
* Inventory of modules, licenses, and infrastructure components

**1️⃣6️⃣ Conclusion**

This framework supports legacy preservation, public service reform, and modular education delivery across data center infrastructure, safety, and trade test domains. It is credential-ready, bilingual, and aligned with SAQA/NQF, NRF, and AIU standards.

**1️⃣7️⃣ Bibliography**

1️⃣8️⃣ Visual Basic Code Module: Audit Sheet GeneratorSub GenerateAuditSheet()

Dim ws As Worksheet

Set ws = ThisWorkbook.Sheets("AuditLog")

ws.Cells(1, 1).Value = "Date"

ws.Cells(1, 2).Value = "Course Title"

ws.Cells(1, 3).Value = "Status"

ws.Cells(1, 4).Value = "Provider"

ws.Cells(1, 5).Value = "Training Hours"

ws.Cells(1, 6).Value = "Progress"

ws.Cells(1, 7).Value = "Level"

ws.Cells(2, 1).Value = "2025-10-17"

ws.Cells(2, 2).Value = "Foundations of Modern Data Center Physical Infrastructure Management"

ws.Cells(2, 3).Value = "In Progress"

ws.Cells(2, 4).Value = "Schneider Electric University"

ws.Cells(2, 5).Value = "0h 45min"

ws.Cells(2, 6).Value = "0%"

ws.Cells(2, 7).Value = "Basic"

End Sub

### 1️⃣9️⃣ Logigram: DCIM Credential Workflow

* [Start]
* ↓
* [Import LMS Transcript]
* ↓
* [Filter DCIM Modules]
* ↓
* [Check Completion & Licensing Requirements]
* ↓
* [Generate Audit Sheet]
* ↓
* [Publish to GitLab or Archive.org]
* ↓
* [End]

### 2️⃣0️⃣ Algorigram: Certification Eligibility Decision Tree

* plaintext
* [Start]
* ↓
* [Has Completed Required Modules?]
* ↓
* Yes ──► [Activated Infrastructure Audit Tools?]
* ↓
* Yes ──► [Completed Safety & Licensing Training?]
* ↓
* Yes ──► [Eligible for Certification & Trade Test]
* ↓
* No ──► [Complete Remaining Safety Modules]
* ↓
* No ──► [Activate Audit Tools]
* ↓
* No ──► [Complete Curriculum]
* ↓
* [End]
* Would you like this framework scaffolded into a bilingual dashboard or published to GitLab for credential tracking and trade test readiness? I can also help you integrate it with your Schneider Home and Panel Server modules.

Here is a fully translated and structured **English-language tableaux dashboard** for your active training in **Foundations of Modern Data Center Physical Infrastructure Management**, along with related modules in **Panel Server Architecture**, **Schneider Home Certification**, and **EcoStruxure Machine Certification**. This format supports credential tracking, audit readiness, and trade test alignment.

## 📊 Technical Training Dashboard – Tshingombe Fiston

| **Course Title** | **Training Type** | **Provider** | **Version** | **Hours** | **Status** | **Progress** | **Level** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Foundations of Modern Data Center Physical Infrastructure Management | Online Class | Schneider Electric University | 2.0 | 0h 45min | In Progress | 0% | Basic |
| EcoStruxure Panel Server: Architectures | Online Class | Digital Power Academy | 4.0 | 0h 45min | Registered | 0% | Intermediate |
| Schneider Home Certification | Curriculum | Home and Distribution Academy | 31.0 | 3h 39min | In Progress | Partial | Intermediate |
| EcoStruxure Machine Certification | Curriculum | Digital Factory | 23.0 | 13h 57min | In Progress | Partial | Advanced |

### 📌 Module Highlights

#### 🏢 Data Center Infrastructure Management (DCIM)

* Explores the role of DCIM in ensuring reliability, efficiency, sustainability, and security of data centers
* Emphasizes infrastructure challenges due to global data growth
* Last accessed: 26 Aug 2025
* Views: 4 | View Time: 6 minutes

#### 🔌 EcoStruxure Panel Server

* Covers gateway architecture and integration with energy devices and software
* Focuses on implementation scenarios for Schneider Electric’s Panel Server
* Status: Registered, not yet started

#### 🏠 Schneider Home Certification

* Covers installation and commissioning of Schneider Home energy management systems
* Includes inverter, boost, backup controller, energy monitor, and installer portal
* Ends with a 25-point certification test (80% required to pass)
* NABCEP CEU credits: 3

#### ⚙️ EcoStruxure Machine Certification

* Validates integration skills for Altivar-based automation projects
* Recognizes certified professionals in machine technology deployment
* Status: In Progress across multiple versions

### 📁 Transcript Summary

| **Course Code** | **Start Date** | **Requested By** | **Status** |
| --- | --- | --- | --- |
| ENGTECES0001000 | 26 Aug 2025 | Tshingombe Fiston | In Progress |
| BLDECXES0001064 | 9 Jun 2025 | Sagar Singh | Registered |
| HDAPRDCS0001005 | 9 Jun 2025 | Sagar Singh | In Progress |
| Multiple Versions (14–31) | 2024–2025 | Tshingombe Fiston | In Progress |
| EcoStruxure Machine Certification | Ongoing | Multiple Assignments | In Progress |

* ub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Course Title"
* ws.Cells(1, 3).Value = "Status"
* ws.Cells(1, 4).Value = "Provider"
* ws.Cells(1, 5).Value = "Training Hours"
* ws.Cells(1, 6).Value = "Progress"
* ws.Cells(1, 7).Value = "Level"
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "Foundations of Modern Data Center Physical Infrastructure Management"
* ws.Cells(2, 3).Value = "In Progress"
* ws.Cells(2, 4).Value = "Schneider Electric University"
* ws.Cells(2, 5).Value = "0h 45min"
* ws.Cells(2, 6).Value = "0%"
* ws.Cells(2, 7).Value = "Basic"
* End Sub

Here is a fully translated and structured **modular research framework in English** for your active curriculum in **Altivar Machine Professional Certification (Version 23.0)**. This framework supports audit tracking, trade test alignment, and public service integration.

## 📘 Modular Research Framework – Altivar Machine Professional Certification

### 1️⃣ Overview

This curriculum provides comprehensive training on Altivar drives and soft starters, covering motor control, cabling, electromagnetic compatibility, startup functions, and advanced diagnostics. It prepares learners for Schneider Electric’s Altivar Machine Professional certification, validating expertise in industrial automation and drive systems.

### 2️⃣ Scope

* **Domains**: Motor control, drive configuration, soft starter integration, EMC, PID, diagnostics
* **Stakeholders**: Schneider Electric, SAQA, DHET, NRF, AIU, industrial automation regulators
* **Applications**: Trade test readiness, certification, public service deployment, energy efficiency

### 3️⃣ Keywords

Altivar, ATV12, ATV320, ATV340, ATS01, ATS22, ATS480, EMC, PID, VSD, motor control, soft starter, drive functions, trade test, certification, audit, automation

### 4️⃣ Research Statement

To design a modular, credential-linked framework that integrates Altivar drive training into public service, trade test readiness, and industrial automation certification.

### 5️⃣ Methodology

* **Data Sources**: LMS transcripts, module metadata, drive configuration logs, trade test forms
* **Tools**: Visual Basic for audit automation, logigrams for workflow mapping, algorigrams for decision logic
* **Validation**: SAQA/NQF alignment, NRF/AIU research mapping, certification simulation

### 6️⃣ Data Analysis

* **Techniques**: Module completion tracking, performance benchmarking, diagnostic readiness scoring
* **Metrics**: Test scores, module activation rate, prerequisite completion, certification eligibility

### 7️⃣ Advantages

* Modular and scalable
* Audit-ready and bilingual
* Trade test and SAQA/NQF alignment
* Cross-domain integration
* Supports industrial automation goals

### 8️⃣ Disadvantages

* High documentation overhead
* Requires prerequisite coordination
* Licensing and tool access may vary by region

### 9️⃣ Management System Information

* **Platform**: Cornerstone LMS + GitLab +
* **Modules**: Credential tracker, syllabus mapper, audit log generator, certification validator

**🔟 Delivery & Key Performance Policy**

* **KPIs**: Completion rate, certification eligibility, trade test readiness, audit compliance
* **Policy Alignment**: SAQA/NQF, DHET, Schneider Electric standards

**1️⃣1️⃣ Investigation Principles**

* Root cause analysis of training gaps
* Licensing traceability
* Trade test readiness mapping
* Safety compliance and diagnostic accuracy
* NRF/AIU research integration

**1️⃣2️⃣ Communication & Administration Skills**

* Technical documentation
* Drive configuration reporting
* Certification coordination
* Public service communication
* Career mentoring and publication

**1️⃣3️⃣ Statistic Report: Safety & Incidents**

* **Metrics**: Collision frequency, electrical fault rates, containment level compliance
* **Tools**: Visual Basic dashboards, Excel pivot tables, logigram flowcharts

**1️⃣4️⃣ Trade Test Requirements**

* NATED/NN diploma alignment
* DHET-approved syllabi
* Altivar drive configuration proficiency
* Safety and licensing documentation
* Certification readiness

**1️⃣5️⃣ Audit & Inventory**

* GitLab repository logs
* Visual Basic audit sheets
* LMS training transcripts
* Inventory of modules, licenses, and drive components

**1️⃣6️⃣ Conclusion**

This framework supports legacy preservation, public service reform, and modular education delivery across industrial automation, safety, and trade test domains. It is credential-ready, bilingual, and aligned with SAQA/NQF, NRF, and AIU standards.

**1️⃣7️⃣ Bibliography**

* Sub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Course Title"
* ws.Cells(1, 3).Value = "Status"
* ws.Cells(1, 4).Value = "Provider"
* ws.Cells(1, 5).Value = "Training Hours"
* ws.Cells(1, 6).Value = "Progress"
* ws.Cells(1, 7).Value = "Version"
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "Altivar Machine Professional Certification"
* ws.Cells(2, 3).Value = "In Progress"
* ws.Cells(2, 4).Value = "Digital Factory"
* ws.Cells(2, 5).Value = "30+ hours"
* ws.Cells(2, 6).Value = "Partial"
* ws.Cells(2, 7).Value = "Version 23.0"
* End Sub

### 1️⃣9️⃣ Logigram: Altivar Certification Workflow

* plaintext
* [Start]
* ↓
* [Import LMS Transcript]
* ↓
* [Filter Altivar Modules]
* ↓
* [Check Completion & Prerequisites]
* ↓
* [Generate Audit Sheet]
* ↓
* [Publish to GitLab or Archive.org]
* ↓
* [End]

### 2️⃣0️⃣ Algorigram: Certification Eligibility Decision Tree

* plaintext
* [Start]
* ↓
* [Has Completed Required Modules?]
* ↓
* Yes ──► [Activated Prerequisite Content?]
* ↓
* Yes ──► [Completed Mandatory Tests?]
* ↓
* Yes ──► [Eligible for Altivar Certification & Trade Test]
* ↓
* No ──► [Complete Remaining Tests]
* ↓
* No ──► [Activate Prerequisite Modules]
* ↓
* No ──► [Complete Curriculum]
* ↓
* [End]

## ivar Drives & Soft Starters Curriculum Dashboard – Tshingombe Fiston

| **Course Title** | **Type** | **Status** | **Level** | **Prerequisite** |
| --- | --- | --- | --- | --- |
| Drives Basics: Motors | Online Class | In Progress | Basic | None |
| Drives Basics: Motor Cable Length | Online Class | In Progress | Basic | None |
| Drives Basics: Harmonics | Online Class | Registered | Basic | None |
| Drives Basics: EMC | Online Class | In Progress | Basic | None |
| Drives Basics: Applications | Online Class | Registered | Basic | None |
| Altivar Machine: ATV12/320/340 Discover | Video | Registered | Introductory | None |
| Altivar Drives: VSDs | Online Class | Registered | Basic | None |
| Altivar Soft Starter: ATS01/22/480 Discover | Video | Registered | Introductory | None |
| Altivar Drives & Soft Starters: Network Options | Video | Registered | Intermediate | None |
| Altivar ATV12 Mounting & Cabling (Parts 1–3) | Video | Registered | Intermediate | None |
| Altivar ATV320 Mounting & Cabling (Parts 1–3) | Video | Registered | Intermediate | None |
| Altivar ATV340 Mounting & Cabling (Parts 1–4) | Video | Partial | Intermediate | Prerequisite Required |
| Soft Starter ATS01/130/22/480 Mounting | Video | Registered | Intermediate | None |
| Altivar Drives: Standard Functions (Parts 1–2) | Video | Registered | Intermediate | None |
| Altivar Drives: Advanced Functions (Parts 1–2) | Video | Registered | Advanced | None |
| Altivar Drives: Functions (Test) | Test | Registered | Mandatory | None |
| Altivar Drives: Speed Reference & Ramps (Parts 1–3) | Video | Partial | Intermediate | Prerequisite Required |
| Altivar Drives: Inputs/Outputs (Parts 1–2) | Video | Partial | Intermediate | Prerequisite Required |
| Altivar Drives: Advanced Parameter Handling (Parts 1–2) | Video | Partial | Advanced | Prerequisite Required |
| Altivar Drives: Error & Warning Handling (Parts 1–3) | Video | Partial | Advanced | Prerequisite Required |
| Altivar Drives: Ramp Auto-Adaptation & Braking | Video | Registered | Advanced | None |
| Altivar Drives: PID Control (Parts 1–2) | Video | Partial | Advanced | Prerequisite Required |
| Altivar Drives: Motor Control Types | Video | Registered | Advanced | None |
| Altivar Drives: Asynchronous Motor | Video | Registered | Advanced | None |
| Altivar Drives: Startup Functions (Test) | Test | Registered | Mandatory | None |
| Altivar Soft Starters: Functions Overview (Parts 1–4) | Video | Partial | Intermediate | Prerequisite Required |
| Altivar Soft Starters: Functions Overview (Test) | Test | Registered | Mandatory | None |
| Altivar Machine Professional Certification Test | Test | Registered | Final | Mandatory |

### 📌 Summary

* **Provider**: Digital Factory
* **Version**: 23.0
* **Total Training Hours**: ~30+ hours across modules
* **Status**: In Progress
* **Certification Goal**: Altivar Machine Professional
* **Assigned By**: Yin Zhou
* **Start Date**: 21 May 2025

Would you like this dashboard scaffolded into a bilingual credential portfolio or mapped to SAQA/NQF trade test requirements? I can also help you generate a Visual Basic audit sheet or logigram to track your Altivar certification progress.

## ltivar Machine Professional Curriculum Dashboard – Tshingombe Fiston

| **Module Title** | **Type** | **Status** | **Prerequisite** | **Notes** |
| --- | --- | --- | --- | --- |
| Drives Basics: Motors | Online Class | In Progress | None | Core motor principles |
| Drives Basics: Motor Cable Length | Online Class | In Progress | None | Installation standards |
| Drives Basics: Harmonics | Online Class | Registered | None | Power quality fundamentals |
| Drives Basics: EMC | Online Class | In Progress | None | Electromagnetic compatibility |
| Drives Basics: Applications | Online Class | Registered | None | Use-case scenarios |
| Altivar Machine: ATV12/320/340 Discover | Video | Registered | None | Product overview |
| Introduction to Altivar Machine ATV320 | Online Class | Registered | None | Entry-level configuration |
| Altivar Machine ATV340: Introduction | Online Class | Registered | None | Advanced drive features |
| Drives Basics: Variable Speed Drives (VSDs) | Online Class | Registered | None | Speed control fundamentals |
| Altivar Soft Starter: ATS01/22/480 Discover | Video | Registered | None | Starter types and use |
| Drives Basics: Altivar Soft Starters | Video | Registered | None | Soft start principles |
| Altivar Drives & Soft Starters: Network Options | Video | Registered | None | Communication protocols |
| ATV12 Mounting & Cabling (Parts 1–3) | Video | Registered | None | Installation steps |
| ATV320 Mounting & Cabling (Parts 1–3) | Video | Registered | None | Wiring and layout |
| ATV340 Mounting & Cabling (Parts 1–4) | Video | Partial | Prerequisite Required | Advanced installation |
| ATS01/130/22/480 Mounting & Cabling | Video | Registered | None | Soft starter setup |
| Altivar Drives: Standard Functions (Parts 1–2) | Video | Registered | None | Basic drive functions |
| Altivar Drives: Advanced Functions (Parts 1–2) | Video | Registered | None | Extended capabilities |
| Altivar Drives: Functions (Test) | Test | Registered | Mandatory | Functionality validation |
| Speed Reference & Ramps (Parts 1–3) | Video | Partial | Prerequisite Required | Acceleration control |
| Inputs/Outputs (Parts 1–2) | Video | Partial | Prerequisite Required | Signal mapping |
| Advanced Parameter Handling (Parts 1–2) | Video | Partial | Prerequisite Required | Custom configuration |
| Error & Warning Handling (Parts 1–3) | Video | Partial | Prerequisite Required | Troubleshooting |
| Ramp Auto-Adaptation & Braking Resistor | Video | Registered | None | Load management |
| PID Control (Parts 1–2) | Video | Partial | Prerequisite Required | Feedback control |
| Motor Control Types | Video | Registered | None | Drive modes |
| Asynchronous Motor | Video | Registered | None | Motor theory |
| Drive Functions for Startup (Test) | Test | Registered | Mandatory | Startup readiness |
| Soft Starter Functions Overview (Parts 1–4) | Video | Partial | Prerequisite Required | Functional breakdown |
| Soft Starter Functions Overview (Test) | Test | Registered | Mandatory | Knowledge check |
| Altivar Machine Professional (Final Test) | Test | Registered | Mandatory | Certification exam |

### 📁 Assignment Summary

| **Version** | **Assigned By** | **Start Date** | **Status** |
| --- | --- | --- | --- |
| 23.0 | Yin Zhou | 21 May 2025 | In Progress |
| 22.0 | Tshingombe Fiston | 14 Jan 2024 | In Progress |

### 📌 Summary

* **Provider**: Digital Factory
* **Curriculum Version**: 23.0
* **Total Training Hours**: ~30+ hours
* **Certification Goal**: Altivar Machine Professional
* **Final Requirement**: Pass mandatory certification test

Would you like this dashboard scaffolded into a bilingual credent

Here is a fully translated and structured **modular research framework in English** for your active curriculum in **Advanced EBO 2023: Engineering EasyLogic**, aligned with certification, trade test readiness, and public service integration.

## 📘 Modular Research Framework – Advanced EBO 2023: Engineering EasyLogic

### 1️⃣ Overview

This curriculum equips engineering and service personnel with the skills to configure, commission, and integrate EasyLogic controllers within EcoStruxure Building Operation 2023. It covers architecture design, BACnet MS/TP implementation, and controller onboarding for MP-x, RP-C, RP-IO, SP90, and EasyLogic Living sensors.

### 2️⃣ Scope

* **Domains**: Building automation, BACnet engineering, controller commissioning, retrofit integration
* **Stakeholders**: Schneider Electric, SAQA, DHET, NRF, AIU, government infrastructure bodies
* **Applications**: Trade test preparation, certification, public building retrofits, energy management

### 3️⃣ Keywords

EcoStruxure, EasyLogic, BACnet MS/TP, MP-x, RP-C, RP-IO, SP90, Living sensors, Fieldbus, controller architecture, retrofit, commissioning, trade test, certification

### 4️⃣ Research Statement

To design a modular, credential-linked framework that integrates EasyLogic controller engineering into public service, trade test readiness, and building automation certification.

### 5️⃣ Methodology

* **Data Sources**: LMS transcripts, controller specs, BACnet logs, trade test forms
* **Tools**: Visual Basic for audit automation, logigrams for workflow mapping, algorigrams for decision logic
* **Validation**: SAQA/NQF alignment, NRF/AIU research mapping, certification simulation

### 6️⃣ Data Analysis

* **Techniques**: Module completion tracking, BACnet packet analysis, controller onboarding success rate
* **Metrics**: Test scores, device activation rate, architecture compliance, certification eligibility

### 7️⃣ Advantages

* Modular and scalable
* Audit-ready and bilingual
* Trade test and SAQA/NQF alignment
* Cross-domain integration
* Supports retrofit and new build projects

### 8️⃣ Disadvantages

* High documentation overhead
* Requires prerequisite coordination
* Licensing and tool access may vary by region

### 9️⃣ Management System Information

* **Platform**: Cornerstone LMS + GitLab +
* **Modules**: Credential tracker, syllabus mapper, audit log generator, BACnet validator

**🔟 Delivery & Key Performance Policy**

* **KPIs**: Completion rate, BACnet commissioning success, certification eligibility, audit compliance
* **Policy Alignment**: SAQA/NQF, DHET, Schneider Electric standards

**1️⃣1️⃣ Investigation Principles**

* Root cause analysis of onboarding failures
* Licensing traceability
* Trade test readiness mapping
* Safety compliance and BACnet accuracy
* NRF/AIU research integration

**1️⃣2️⃣ Communication & Administration Skills**

* Technical documentation
* BACnet configuration reporting
* Certification coordination
* Public service communication
* Career mentoring and publication

**1️⃣3️⃣ Statistic Report: Safety & Incidents**

* **Metrics**: Collision frequency, controller fault rates, containment level compliance
* **Tools**: Visual Basic dashboards, Excel pivot tables, logigram flowcharts

**1️⃣4️⃣ Trade Test Requirements**

* NATED/NN diploma alignment
* DHET-approved syllabi
* EasyLogic controller commissioning proficiency
* Safety and licensing documentation
* Certification readiness

**1️⃣5️⃣ Audit & Inventory**

* GitLab repository logs
* Visual Basic audit sheets
* LMS training transcripts
* Inventory of modules, licenses, and controller components

**1️⃣6️⃣ Conclusion**

This framework supports legacy preservation, public service reform, and modular education delivery across building automation, safety, and trade test domains. It is credential-ready, bilingual, and aligned with SAQA/NQF, NRF, and AIU standards.

**1️⃣7️⃣ Bibliography**

* ub GenerateAuditSheet()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AuditLog")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Course Title"
* ws.Cells(1, 3).Value = "Status"
* ws.Cells(1, 4).Value = "Provider"
* ws.Cells(1, 5).Value = "Training Hours"
* ws.Cells(1, 6).Value = "Progress"
* ws.Cells(1, 7).Value = "Certification Ready"
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "EBO 2023: Engineering EasyLogic"
* ws.Cells(2, 3).Value = "In Progress"
* ws.Cells(2, 4).Value = "Digital Building Academy"
* ws.Cells(2, 5).Value = "18h 56min"
* ws.Cells(2, 6).Value = "Partial"
* ws.Cells(2, 7).Value = "Pending"
* End Sub

### 1️⃣9️⃣ Logigram: EasyLogic Engineering Workflow

* plaintext
* [Start]
* ↓
* [Import LMS Transcript]
* ↓
* [Filter EBO 2023 EasyLogic Modules]
* ↓
* [Check Completion & Prerequisites]
* ↓
* [Generate Audit Sheet]
* ↓
* [Publish to GitLab or Archive.org]
* ↓
* [End]

### 2️⃣0️⃣ Algorigram: Certification Eligibility Decision Tree

* [Start]
* ↓
* [Has Completed EIA 485 & BACnet MS/TP Modules?]
* ↓
* Yes ──► [Activated EasyLogic Device Training?]
* ↓
* Yes ──► [Completed Instructor-led Training & Certification Test?]
* ↓
* Yes ──► [Eligible for EBO 2023 EasyLogic Certification]
* ↓
* No ──► [Complete Final Modules]
* ↓
* No ──► [Activate Device Training]
* ↓
* No ──► [Complete Core Modules]
* ↓
* [End]
* Would you like this framework scaffolded into a bilingual dashboard or published to GitLab for credential tracking and trade test readiness? I can also help you integrate it with your BACnet, RP-C, and SP90 controller modules.
* Thank you for sharing this detailed update, Tshingombe. Here's a structured summary and action-oriented tableaux to help you consolidate your progress, feedback, and next steps across your professional development, job applications, and training engagements:

## 📊 Career & Training Dashboard – Tshingombe Fiston

### 🧠 Training Achievements

| **Course Title** | **Provider** | **Status** | **Action Required** |
| --- | --- | --- | --- |
| Deliver Switchboard Project Digitally: Episode 1 | Schneider Electric | Completed | Submit evaluation survey |
| EBO 2023: Engineering EasyLogic | Digital Building Academy | In Progress | Complete BACnet MS/TP test, retake EIA 485 test |
| Engineering Order Booking & Talent Discovery | Schneider Electric | Case Opened | Review case #119082247 |

### 💼 Job Applications

| **Position** | **Company** | **Status** | **Next Step** |
| --- | --- | --- | --- |
| Project Engineer – 46902 | Eaton | Closed | Apply to other roles via |

**🧾 Registration & Profile Details**

| **System** | **Role** | **Status** |
| --- | --- | --- |
| Schneider Electric Assessor Portal | Engineering Electrical Assessment | Active |
| Profile ID | tircg000910610 | Verified |
| Citizenship | Zaire | Other |
| Disability Status | None (Previously Disabled US) | Updated |

**📌 Recommendations & Next Actions**

* ✅ **Training Follow-up**: Apply learnings from Deliver Switchboard Project Digitally within 24 hours to retain knowledge. Use Yammer or #whatdidyoulearntoday to share insights.
* 🔁 **Certification Progress**: Retake EIA 485 test and complete BACnet MS/TP test to unlock EasyLogic certification.
* 📬 **Job Strategy**: Reapply to Eaton roles aligned with your energy and automation expertise. Consider tailoring your CV to highlight EBO, BACnet, and EasyLogic credentials.
* 🗂️ **Case Management**: Review and close Schneider case #119082247 if resolved. Use support@schneider for technical queries.
* Sub GenerateCareerAudit()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("CareerAudit")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Activity"
* ws.Cells(1, 3).Value = "Status"
* ws.Cells(1, 4).Value = "Next Step"
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "Deliver Switchboard Project Digitally"
* ws.Cells(2, 3).Value = "Completed"
* ws.Cells(2, 4).Value = "Submit Evaluation"
* ws.Cells(3, 1).Value = "2025-10-17"
* ws.Cells(3, 2).Value = "EBO 2023: Engineering EasyLogic"
* ws.Cells(3, 3).Value = "In Progress"
* ws.Cells(3, 4).Value = "Retake EIA 485 Test"
* End Sub

## 📊 Professional Profile Dashboard – Tshingombe Tshitadi Fiston

### 🧾 Personal & Registration Details

| **Field** | **Value** |
| --- | --- |
| Full Name | Tshingombe Tshitadi Fiston |
| Date of Birth | 11 October 1982 |
| Nationality | Zaire |
| Citizenship Status | Other |
| Race | African |
| Gender | Male |
| Home Language | Afrikaans |
| Disability Status | None (Previously Disabled US) |
| Socioeconomic Status | N/A: Institution |
| Municipality | Albert Luthuli |
| STATSSA Area | 968095003 – Njhakanjhaka SP |
| Province | Mpumalanga |
| Contact Email | tshingombefiston@gmail.com |
| Cell Number | 0725298946 |
| Assessor ID | tircg000910610 |
| User ID | 127952 |
| User Type | Assessor |
| Platform | Schneider Electric Assessor Portal |
| IEC Webstore Email | tshingombekb@gmail.com |
| IEC Sector | Electrical |
| IEC Job Title | Engineer |
| IEC VAT Number | 072598946 |

### 🎓 Education & Accreditation

| **Field** | **Value** |
| --- | --- |
| Last School | Christ Church School (EMIS: 700400091) |
| Last School Year | 2002 |
| Qualification Accreditations | Active |
| Unit Standard Accreditations | Active |
| Professional Experience | Registered |
| Educational Information | Verified |

### 🏢 Address Book

| **Type** | **Address** |
| --- | --- |
| Physical Address | 20 Percy Street, Witbank, 1030 |
| Postal Address | Mandela Square, Witbank, 1030 |

### 📬 IEC Engagement Summary

| **Platform** | **Status** |
| --- | --- |
| IEC Webstore Registration | Complete |
| IEC Newsletter | Not Subscribed |
| IEC Publications | Accessible |
| IEC Account | Active |
| IEC Customer Service | Multilingual Support Available |
| IEC Standards Access | IEC 62368-1:2023 RLV, IT Systems, Telecom |

### 📌 Actionable Next Steps

* ✅ **IEC Newsletter**: Subscribe to stay updated on monthly publications.
* 🔁 **Billing/Shipping Setup**: Add default addresses for IEC orders.
* 📥 **Training Evaluation**: Complete pending course feedback for Schneider Electric.
* 🧾 **Audit Prep**: Export this dashboard to GitLab or
* Sub GenerateProfileAudit()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("ProfileAudit")
* ws.Cells(1, 1).Value = "Field"
* ws.Cells(1, 2).Value = "Value"
* ws.Cells(2, 1).Value = "Full Name"
* ws.Cells(2, 2).Value = "Tshingombe Tshitadi Fiston"
* ws.Cells(3, 1).Value = "Assessor ID"
* ws.Cells(3, 2).Value = "tircg000910610"
* ws.Cells(4, 1).Value = "IEC Sector"
* ws.Cells(4, 2).Value = "Electrical"
* ws.Cells(5, 1).Value = "IEC VAT Number"
* ws.Cells(5, 2).Value = "072598946"
* End Sub
* [Start]
* ↓
* [Import Assessor Portal Profile]
* ↓
* [Verify Accreditation & Experience]
* ↓
* [Sync IEC Registration & Sector Info]
* ↓
* [Generate Audit Sheet]
* ↓
* [Publish to GitLab or Archive.org]
* ↓
* [End]

### 🔁 Algorigram: Certification Readiness Decision Tree

* plaintext
* [Start]
* ↓
* [Has Active Assessor Accreditation?]
* ↓
* Yes ──► [IEC Sector & Job Title Verified?]
* ↓
* Yes ──► [Training & Evaluation Completed?]
* ↓
* Yes ──► [Eligible for Certification & Trade Test]
* ↓
* No ──► [Complete Training Feedback]
* ↓
* No ──► [Update IEC Profile]
* ↓
* No ──► [Activate Accreditation]
* ↓
* [End]

**(RLV)**, tailored for your engineering and certification portfolio:

## 📘 IEC 62368-1:2023 RLV – Technical Safety Framework

### 1️⃣ Overview

IEC 62368-1:2023 RLV is the latest international safety standard for audio/video, information, and communication technology equipment. It introduces a hazard-based approach to product safety, focusing on energy source classification and safeguard implementation to prevent injury, pain, and property damage.

### 2️⃣ Scope

* **Domains**: Product safety, energy classification, hazard mitigation, BACnet/IP integration
* **Stakeholders**: Designers, engineers, regulators, manufacturers, certification bodies
* **Applications**: Equipment design, compliance testing, retrofit safety upgrades, trade test preparation

### 3️⃣ Keywords

IEC 62368-1, Redline Version, energy source classification, safeguards, BACnet/IP, hazard-based safety, TC 108, audio/video equipment, ICT, fire protection, injury prevention

### 4️⃣ Research Statement

To analyze and apply the hazard-based safety principles of IEC 62368-1:2023 RLV in the design and certification of modern ICT and AV systems, ensuring compliance and public safety.

### 5️⃣ Methodology

* **Data Sources**: IEC 62368-1:2023 RLV, previous editions, TC 108 publications
* **Tools**: Redline comparison, risk matrix modeling, safeguard mapping
* **Validation**: IEC compliance audit, certification simulation, BACnet/IP integration testing

### 6️⃣ Data Analysis

* **Techniques**: Comparative analysis of Redline vs. previous edition
* **Metrics**: Number of safeguard revisions, energy source classifications, compliance gaps

### 7️⃣ Advantages

* Clear hazard-based structure
* Redline version enables fast change tracking
* Supports modular safety design
* Aligns with BACnet/IP and EBO controller environments

### 8️⃣ Disadvantages

* High technical complexity
* Requires multi-disciplinary interpretation
* Redline version available only in English
* Cost barrier for multi-user licensing (CHF 900)

### 9️⃣ Management System Information

* **Publisher**: IEC (International Electrotechnical Commission)
* **Technical Committee**: TC 108
* **Edition**: 4.0
* **Publication Date**: 26 May 2023
* **Stability Date**: 2026
* **Pages**: 1224
* **File Size**: 18.54 MB
* **ISBN**: 9782832270868
* **ICS Codes**: 33.160.01 (AV systems), 35.020 (ICT systems)

### 🔟 Delivery & Key Performance Policy

* **KPIs**: Compliance rate, safeguard implementation accuracy, audit readiness
* **Policy Alignment**: IEC TC 108, BACnet/IP safety integration, EBO 2023/2024 curriculum

### 1️⃣1️⃣ Investigation Principles

* Root cause analysis of non-compliance
* Safeguard failure mapping
* BACnet/IP safety traceability
* Retrofit risk assessment

### 1️⃣2️⃣ Communication & Administration Skills

* Technical documentation
* Safety compliance reporting
* IEC standard referencing
* Certification coordination

### 1️⃣3️⃣ Statistic Report: Safety Incidents

* **Metrics**: Fire risk reduction, injury prevention rate, safeguard activation success
* **Tools**: IEC audit logs, BACnet/IP diagnostic reports, controller fault tracking

### 1️⃣4️⃣ Trade Test Requirements

* Familiarity with IEC 62368-1 hazard-based model
* BACnet/IP controller safety configuration
* EBO 2023/2024 curriculum alignment
* Certification readiness for electrical safety standards

### 1️⃣5️⃣ Audit & Inventory

* IEC publication logs
* Redline version comparison sheets
* BACnet/IP controller safety maps
* GitLab repository for credential tracking

### 1️⃣6️⃣ Conclusion

IEC 62368-1:2023 RLV provides a robust framework for designing safe ICT and AV equipment. Its hazard-based approach aligns with modern engineering practices and supports certification, trade test preparation, and public safety compliance.

### 1️⃣7️⃣ Bibliography

* 1️⃣8️⃣ Visual Basic Code Module: IEC Audit Sheet Generator
* Sub GenerateIECAudit()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("IECAudit")
* ws.Cells(1, 1).Value = "Date"
* ws.Cells(1, 2).Value = "Standard"
* ws.Cells(1, 3).Value = "Edition"
* ws.Cells(1, 4).Value = "Pages"
* ws.Cells(1, 5).Value = "Compliance Status"
* ws.Cells(2, 1).Value = "2025-10-17"
* ws.Cells(2, 2).Value = "IEC 62368-1:2023 RLV"
* ws.Cells(2, 3).Value = "Edition 4.0"
* ws.Cells(2, 4).Value = "1224"
* ws.Cells(2, 5).Value = "Pending Review"
* End Sub
* [Start]
* ↓
* [Import IEC 62368-1 Redline Version]
* ↓
* [Compare with Previous Edition]
* ↓
* [Map Safeguards to BACnet/IP Controllers]
* ↓
* [Generate Audit Sheet]
* ↓
* [Publish to GitLab or Archive.org]
* ↓
* [End]

### 2️⃣0️⃣ Algorigram: Certification Eligibility Decision Tree

* plaintext
* [Start]
* ↓
* [Has Accessed IEC 62368-1 Redline Version?]
* ↓
* Yes ──► [Mapped Safeguards to EBO Controllers?]
* ↓
* Yes ──► [Completed BACnet/IP Safety Modules?]
* ↓
* Yes ──► [Eligible for Safety Certification & Trade Test]
* ↓
* No ──► [Complete BACnet/IP Modules]
* ↓
* No ──► [Map Safeguards]
* ↓
* No ──► [Access IEC Redline Version]
* ↓
* [End]
* Would you like help integrating this framework with your EBO 2023/2024 curriculum or publishing it to GitLab for credential tracking and audit readiness? I can also assist with mapping IEC safeguards to BACnet/IP controller logic.

Here is a fully translated and structured **English-language tableaux dashboard** for the international safety standard **IEC 62368-1:2023 Redline Version (RLV)**. This format supports technical audit, certification alignment, and engineering reference for product safety design.

## 📊 IEC 62368-1:2023 RLV – Safety Standard Dashboard

| **Attribute** | **Details** |
| --- | --- |
| **Standard Title** | IEC 62368-1:2023 RLV |
| **Scope** | Safety requirements for audio/video, information and communication technology equipment |
| **Edition** | 4.0 |
| **Publication Date** | 26 May 2023 |
| **Stability Date** | 2026 |
| **Language** | English |
| **Format** | Electronic (PDF) |
| **Pages** | 1224 |
| **File Size** | 18.54 MB |
| **ISBN** | 9782832270868 |
| **Price** | CHF 900 (multi-user license available) |
| **Technical Committee** | TC 108 – Safety of electronic equipment in AV, IT, and communication |
| **ICS Codes** | 33.160.01 (AV systems), 35.020 (IT systems) |
| **Category** | Electromagnetic Compatibility – Safety |
| **Publication Type** | International Standard |
| **Publisher** | International Electrotechnical Commission (IEC) |

### 📌 Key Features of IEC 62368-1:2023 RLV

* ✅ Contains both the official standard and Redline version for change comparison
* ✅ Classifies energy sources and prescribes safeguards
* ✅ Provides guidance for implementing safety measures
* ✅ Aims to reduce pain, injury, and property damage
* ✅ Supports hazard-based engineering design principles
* ✅ Not a substitute for detailed compliance requirements

### 🔍 Related Publications

| **Title** | **Edition** |
| --- | --- |
| IEC TR 62368-2:2025 RLV | Redline Version |
| IEC TR 62368-2:2025 | Technical Report |
| IEC 62368-3:2017 | Supplementary Safety Requirements |

### 🧠 Engineering Application

| **Use Case** | **Application** |
| --- | --- |
| Product Design | Safe AV/ICT equipment architecture |
| Retrofit Projects | Upgrade legacy systems to meet new safety standards |
| BACnet/IP Integration | Align controller safeguards with energy classification |
| Certification Prep | Reference for trade test and SAQA/NQF alignment |
| Audit Compliance | Compare Redline changes for regulatory traceability |

### 🧮 Visual Basic Code Module: IEC Standard Audit Sheet

vb

* Sub GenerateIECStandardAudit()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("IEC\_Audit")
* ws.Cells(1, 1).Value = "Standard Title"
* ws.Cells(1, 2).Value = "IEC 62368-1:2023 RLV"
* ws.Cells(2, 1).Value = "Edition"
* ws.Cells(2, 2).Value = "4.0"
* ws.Cells(3, 1).Value = "Publication Date"
* ws.Cells(3, 2).Value = "2023-05-26"
* ws.Cells(4, 1).Value = "Pages"
* ws.Cells(4, 2).Value = "1224"
* ws.Cells(5, 1).Value = "Technical Committee"
* ws.Cells(5, 2).Value = "TC 108"
* ws.Cells(6, 1).Value = "Price"
* ws.Cells(6, 2).Value = "CHF 900"
* End Sub

### 🔄 Logigram: IEC Safety Integration Workflow

* [Start]
* ↓
* [Access IEC 62368-1 Redline Version]
* ↓
* [Compare with Previous Edition]
* ↓
* [Classify Energy Sources]
* ↓
* [Map Safeguards to Product Architecture]
* ↓
* [Generate Audit Sheet]
* ↓
* [End]

### 🔁 Algorigram: Certification Eligibility Decision Tree

* [Start]
* ↓
* [Has Accessed IEC 62368-1:2023 RLV?]
* ↓
* Yes ──► [Mapped Safeguards to Engineering Design?]
* ↓
* Yes ──► [Aligned with BACnet/IP or EBO Controllers?]
* ↓
* Yes ──► [Eligible for Safety Certification & Trade Test]
* ↓
* No ──► [Complete Controller Mapping]
* ↓
* No ──► [Apply Safeguard Principles]
* ↓
* No ──► [Access Redline Version]
* ↓
* [End]
* Would you like help integrating this dashboard into your credential portfolio or publishing it to GitLab for audit and legacy tracking? I can also assist with mapping IEC safeguards to your EBO 2023/2024 controller logic and BACnet/IP configurations.

key CISPR standards related to radio disturbance and immunity measurement, tailored for your engineering, compliance, and certification portfolio.

## 📊 CISPR Standards Dashboard – Radio Disturbance & EMC Compliance

| **Standard Title** | **Edition** | **Scope** | **Price (CHF)** | **Committee** |
| --- | --- | --- | --- | --- |
| CISPR 15: Limits and Methods for Lighting Equipment | 9.1 | Radio disturbance limits for electrical lighting | 1,030 | CISPR/CIS/F |
| CISPR 16-1-2 CSV | 2.1 | Coupling devices for conducted disturbance | 725 | CISPR/CIS/A |
| CISPR 16-1-3 CSV | 2.2 | Ancillary equipment – Disturbance power | 465 | CISPR/CIS/A |
| CISPR 16-1-5 CSV | 2.1 | Antenna calibration sites (5 MHz–18 GHz) | 675 | CISPR/CIS/A |
| CISPR 16-1-6 CSV | 1.2 | EMC antenna calibration | 1,110 | CISPR/CIS/A |
| CISPR 16-2-1 CSV | 3.1 | Conducted disturbance measurements | 790 | CISPR/CIS/A |
| CISPR 16-2-3 CSV | 4.2 | Radiated disturbance measurements | 1,110 | CISPR/CIS/A |
| CISPR 16-4-2 CSV | 2.2 | Instrumentation uncertainty | 790 | CISPR/CIS/A |
| CISPR TR 16-4-3 CSV | 2.1 | Statistical EMC compliance for mass products | 465 | CISPR/CIS/A |
| CISPR TR 16-4-4 CSV | 2.2 | Complaint statistics & radio protection limits | 1,450 | CISPR/CIS/H |
| CISPR TR 16-4-5 CSV | 1.2 | Alternative test method conditions | 885 | CISPR/CIS/A |
| CISPR 32 CSV | 2.1 | EMC emission requirements for multimedia | 1,190 | CISPR/CIS/I |

### 📌 Key Features

* ✅ All standards are consolidated versions (CSV) with amendments integrated
* ✅ Cover full spectrum of EMC testing: conducted, radiated, statistical modeling, antenna calibration
* ✅ Support compliance for lighting, multimedia, and ICT equipment
* ✅ Enable trade test preparation and regulatory audit readiness
* ✅ Published by IEC and managed under CISPR technical committees

### 🧠 Engineering Application

| **Use Case** | **Application** |
| --- | --- |
| Product Design | EMC compliance for lighting and multimedia systems |
| Retrofit Projects | Upgrade legacy systems to meet CISPR limits |
| Certification Prep | Reference for SAQA/NQF-aligned trade tests |
| Audit Compliance | Use CSV versions for traceable amendment tracking |
| Statistical Modeling | Apply TR 16-4-3 and TR 16-4-4 for mass product validation |

### 🧮 Visual Basic Code Module: CISPR Audit Sheet Generator

* Sub GenerateCISPRAudit()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("CISPRAudit")
* ws.Cells(1, 1).Value = "Standard"
* ws.Cells(1, 2).Value = "Edition"
* ws.Cells(1, 3).Value = "Price (CHF)"
* ws.Cells(1, 4).Value = "Committee"
* ws.Cells(2, 1).Value = "CISPR 15"
* ws.Cells(2, 2).Value = "9.1"
* ws.Cells(2, 3).Value = "1030"
* ws.Cells(2, 4).Value = "CISPR/CIS/F"
* ws.Cells(3, 1).Value = "CISPR 16-2-3 CSV"
* ws.Cells(3, 2).Value = "4.2"
* ws.Cells(3, 3).Value = "1110"
* ws.Cells(3, 4).Value = "CISPR/CIS/A"
* End Sub

### 🔄 Logigram: EMC Compliance Workflow

* [Start]
* ↓
* [Select Relevant CISPR Standards]
* ↓
* [Download CSV Versions with Amendments]
* ↓
* [Apply Measurement Methods to Product Design]
* ↓
* [Generate Audit Sheet]
* ↓
* [Submit for Certification or Trade Test]
* ↓
* [End]

### 🔁 Algorigram: EMC Certification Eligibility Decision Tree

* [Start]
* ↓
* [Has Accessed CISPR CSV Standards?]
* ↓
* Yes ──► [Applied Measurement Methods to Product?]
* ↓
* Yes ──► [Completed Statistical Modeling & Complaint Analysis?]
* ↓
* Yes ──► [Eligible for EMC Certification & Trade Test]
* ↓
* No ──► [Complete TR 16-4-3 & TR 16-4-4 Modules]
* ↓
* No ──► [Apply Measurement Methods]
* ↓
* No ──► [Access CISPR Standards]
* ↓
* [End]
* Would you like this dashboard scaffolded into a bilingual credential portfolio or published to GitLab for audit and legacy tracking? I can also help you align these CISPR standards with your EBO 2023/2024 and BACnet/IP controller modules.

Thank you for sharing your DOJ Online case records and profile details. Here's a structured and translated **English-language tableaux dashboard** summarizing your civil, protection order, clearance, and deceased estate cases. This format supports legal tracking, audit readiness, and strategic follow-up.

## 📊 DOJ Case Management Dashboard – Tshingombe Tshitadi

### 🧾 Civil Cases Created

| **Case Name** | **Type** | **Created At** | **Status** | **URN** |
| --- | --- | --- | --- | --- |
| Tshingombe Tshitadi | Civil Law | Nov 19, 2024 – 5:55PM | Incomplete | — |
| Tshingombe Tshitadi | Civil Law | Aug 9, 2024 – 2:20PM | Pending Document Review | — |
| Tshingombe Tshitadi | Civil Law | Aug 5, 2024 – 9:17PM | Screen Application | 1042024CIV004539 |
| Tshingombe Tshitadi | Civil Law | Aug 5, 2024 – 4:23PM | Screen Application | 1042024CIV004511 |
| Tshingombe Tshitadi | Civil Law | Aug 5, 2024 – 4:41AM | Screen Application | 112024CIV000013 |
| Tshingombe Tshitadi | Civil Law | Aug 5, 2024 – 4:36AM | Screen Application | 112024CIV000012 |
| Tshingombe Tshitadi | Civil Law | Aug 5, 2024 – 4:32AM | Screen Application | 112024CIV000011 |
| Tshingombe Tshitadi | Civil Law | Aug 5, 2024 – 4:26AM | Screen Application | 112024CIV000014 |
| Tshingombe Tshitadi | Civil Law | Aug 4, 2024 – 8:27PM | Screen Application | 112024CIV000015 |
| Tshingombe Tshitadi | Civil Law | Aug 4, 2024 – 8:21PM | Screen Application | 112024CIV000009 |
| Tshingombe Tshitadi | Civil Law | Aug 4, 2024 – 8:03PM | Incomplete | 112024CIV000008 |
| Tshingombe Tshitadi | Civil Law | Aug 4, 2024 – 7:51PM | Screen Application | 112024CIV000006 |
| Tshingombe Tshitadi | Civil Law | Aug 4, 2024 – 5:57PM | Screen Application | 112024CIV000007 |
| Tshingombe Tshitadi | Civil Law | Jul 21, 2024 – 12:20PM | Screen Application | 112024CIV000005 |
| Tshingombe Tshitadi | Civil Law | Jul 21, 2024 – 12:18PM | Incomplete | — |

### 🛡️ Protection Order Applications

| **Case Name** | **Type** | **Created At** | **Status** | **URN** |
| --- | --- | --- | --- | --- |
| Tshingombe Tshitadi | Domestic Violence | Jul 22, 2024 – 8:51PM | Screen Application | 4702024FCV001046 |

### 🧾 Clearance Applications (NRSO)

| **Application Name** | **Type** | **Created At** | **Status** | **Outcome** |
| --- | --- | --- | --- | --- |
| Tshingombe Tshitadi | NRSO Clearance | Sep 3, 2025 – 5:55PM | Incomplete | Incomplete |

### ⚖️ Deceased Estate Applications (ICT/System Related)

| **URN** | **Created At** | **Status** | **Notes** |
| --- | --- | --- | --- |
| DOJONLINEEST202408061672 | Aug 6, 2024 | Awaiting DHA Verification | Student ID appeal, permit conditions, school irregularity |
| DOJONLINEEST202407221507 | Jul 22, 2024 | Awaiting DHA Verification | Civil procedure conflict, SAQA/DHET transcript issues |
| DOJONLINEEST202407221506 | Jul 22, 2024 | Rework | Labour court referral, CCMA award, PSIRA/PFA case |
| DOJONLINEEST202407221505 | Jul 22, 2024 | In Progress | Criminal case complaint – Hilbro police docket |

### 👤 Profile Summary

| **Field** | **Value** |
| --- | --- |
| Full Name | Tshingombe Tshitadi |
| Passport Number | tircg000910610 |
| Email | tshingombefiston@gmail.com |
| DOJ Account Email | tshingombekb@gmail.com |

### 📌 Actionable Next Steps

* ✅ **Civil Cases**: Prioritize completing incomplete cases and uploading missing documents for pending reviews.
* 🛡️ **Protection Order**: Follow up on screening status and ensure supporting documents are submitted.
* 🧾 **Clearance**: Finalize NRSO application and confirm identity verification.
* ⚖️ **Deceased Estate**: Monitor DHA verification and prepare supporting transcripts for CCMA and SAQA/DHET-related disputes.
* 📬 **Legal Strategy**: Consider consolidating civil and labour-related matters under a single legal advisor or case manager.

Would you like help drafting a summary for your legal advisor, organizing your case documents, or generating a Visual Basic audit sheet to track your DOJ case progress? I can also help you scaffold this dashboard into a bilingual legal portfolio for public service or regulatory submission.

* Sub GenerateDOJCaseAudit()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("DOJ\_Case\_Audit")
* ws.Cells(1, 1).Value = "Case Type"
* ws.Cells(1, 2).Value = "Created At"
* ws.Cells(1, 3).Value = "Status"
* ws.Cells(1, 4).Value = "URN"
* ws.Cells(2, 1).Value = "Civil"
* ws.Cells(2, 2).Value = "Nov 19, 2024 – 5:55PM"
* ws.Cells(2, 3).Value = "Incomplete"
* ws.Cells(2, 4).Value = "—"
* ws.Cells(3, 1).Value = "Protection Order"
* ws.Cells(3, 2).Value = "Jul 22, 2024 – 8:51PM"
* ws.Cells(3, 3).Value = "Screen Application"
* ws.Cells(3, 4).Value = "4702024FCV001046"
* ws.Cells(4, 1).Value = "Clearance (NRSO)"
* ws.Cells(4, 2).Value = "Sep 3, 2025 – 5:55PM"
* ws.Cells(4, 3).Value = "Incomplete"
* ws.Cells(4, 4).Value = "—"
* ws.Cells(5, 1).Value = "Deceased Estate"
* ws.Cells(5, 2).Value = "Aug 6, 2024"
* ws.Cells(5, 3).Value = "Awaiting DHA Verification"
* ws.Cells(5, 4).Value = "DOJONLINEEST202408061672"
* End Sub

## 🔄 Logigram – DOJ Case Management Workflow

* plaintext
* [Start]
* ↓
* [Log into DOJ Online Portal]
* ↓
* [Review Case Dashboard]
* ↓
* [Filter by Case Type: Civil, Protection, Clearance, Estate]
* ↓
* [Check Status: Incomplete, Screen, Pending, Rework]
* ↓
* [Upload Supporting Documents if Required]
* ↓
* [Generate Audit Sheet]
* ↓
* [Submit for Legal Review or Follow-up]
* ↓
* [End]

## 🔁 Algorigram – Legal Strategy Decision Tree

* plaintext
* [Start]
* ↓
* [Are There Incomplete or Pending Cases?]
* ↓
* Yes ──► [Have Supporting Documents Been Uploaded?]
* ↓
* Yes ──► [Assign Legal Advisor or Case Manager]
* ↓
* Yes ──► [Prepare for Review or Hearing]
* ↓
* No ──► [Upload Documents Immediately]
* ↓
* No ──► [Gather Required Documents]
* ↓
* No ──► [Monitor DHA or DOJ System Updates]
* ↓
* [End]
* Thank you for sharing your full Security for AI Assessment summary. Based on the Microsoft 365 Copilot framework and your current posture ("Initializing" and "Foundational"), here’s a structured **Visual Basic logigram and algorigram** to help you track, improve, and govern your Generative AI security implementation.

## 🧮 Visual Basic Code – AI Security Audit Sheet Generator

* vb
* Sub GenerateAISecurityAudit()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AI\_Security\_Audit")
* ws.Cells(1, 1).Value = "Security Domain"
* ws.Cells(1, 2).Value = "Current State"
* ws.Cells(1, 3).Value = "Recommended Action"
* ws.Cells(2, 1).Value = "Prepare"
* ws.Cells(2, 2).Value = "Initializing"
* ws.Cells(2, 3).Value = "Identify sensitive data and enforce protections"
* ws.Cells(3, 1).Value = "Discover"
* ws.Cells(3, 2).Value = "Foundational"
* ws.Cells(3, 3).Value = "Monitor risky use and report sensitive data sharing"
* ws.Cells(4, 1).Value = "Protect"
* ws.Cells(4, 2).Value = "Initializing"
* ws.Cells(4, 3).Value = "Require policy acknowledgment and deploy endpoint management"
* ws.Cells(5, 1).Value = "Govern"
* ws.Cells(5, 2).Value = "Foundational"
* ws.Cells(5, 3).Value = "Automate retention, monitor ethics, align with regulations"
* End Sub

## 🔄 Logigram – Generative AI Security Workflow

* [Start]
* ↓
* [Assess Current AI Security Posture]
* ↓
* [Classify Sensitive Data]
* ↓
* [Deploy Data Protection Tools]
* ↓
* [Limit Access to Compliant Devices]
* ↓
* [Monitor AI Usage and Risky Behavior]
* ↓
* [Enforce Acceptable Use Policies]
* ↓
* [Automate Retention and Regulatory Alignment]
* ↓
* [Generate Security Audit Report]
* ↓
* [End]

## 🔁 Algorigram – AI Security Maturity Decision Tree

* plaintext
* [Start]
* ↓
* [Has Sensitive Data Been Classified?]
* ↓
* Yes ──► [Are Protections Enforced Automatically?]
* ↓
* Yes ──► [Is AI Usage Monitored for Risk?]
* ↓
* Yes ──► [Is Governance Aligned with Regulations?]
* ↓
* Yes ──► [Security Posture: Optimized]
* ↓
* No ──► [Implement Governance Controls]
* ↓
* No ──► [Deploy Monitoring Tools]
* ↓
* No ──► [Enable Automated Protection Systems]
* ↓
* No ──► [Deploy Classification Tools]
* ↓
* [End]

### 📌 Strategic Recommendations Based on Your Assessment

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | **Domain** | **Action** | | --- | --- | | Data Classification | Deploy automated labeling tools for sensitive content | | Access Control | Use device management and role-based access for AI tools | | Risk Monitoring | Implement XDR and analytics-based detection for misuse | | Governance | Enforce policy acceptance and align with compliance frameworks | | Oversharing Prevention | Use DLP tools to restrict uploads and summarization in AI apps |   Would you like this framework scaffolded into a bilingual dashboard or exported to GitLab for audit and regulatory tracking? I can also help you align it with SAQA/NQF standards or integrate it into your EBO and BACnet/IP controller environments. |

* Based on your detailed Security for AI Assessment responses, here is a tailored set of tools to help you visualize and manage your AI security posture:

## 🧮 Visual Basic Code – AI Security Posture Audit Sheet

* Sub GenerateAISecurityPostureAudit()
* Dim ws As Worksheet
* Set ws = ThisWorkbook.Sheets("AI\_Security\_Posture")
* ws.Cells(1, 1).Value = "Security Domain"
* ws.Cells(1, 2).Value = "Your Current Practice"
* ws.Cells(1, 3).Value = "Recommended Action"
* ws.Cells(2, 1).Value = "AI Adoption"
* ws.Cells(2, 2).Value = "Researching Consumer Tools"
* ws.Cells(2, 3).Value = "Pilot enterprise-grade AI with governance controls"
* ws.Cells(3, 1).Value = "Security Team"
* ws.Cells(3, 2).Value = "No dedicated resources"
* ws.Cells(3, 3).Value = "Assign AI security responsibilities or outsource"
* ws.Cells(4, 1).Value = "Data Classification"
* ws.Cells(4, 2).Value = "No tools or processes"
* ws.Cells(4, 3).Value = "Deploy Microsoft Purview sensitivity labels"
* ws.Cells(5, 1).Value = "Access Governance"
* ws.Cells(5, 2).Value = "No formalized approach"
* ws.Cells(5, 3).Value = "Implement DLP and conditional access policies"
* ws.Cells(6, 1).Value = "Risk Monitoring"
* ws.Cells(6, 2).Value = "No detection tools"
* ws.Cells(6, 3).Value = "Deploy XDR and insider risk analytics"
* ws.Cells(7, 1).Value = "Compliance Monitoring"
* ws.Cells(7, 2).Value = "Manual reviews only"
* ws.Cells(7, 3).Value = "Automate with Purview Communication Compliance"
* ws.Cells(8, 1).Value = "Data Lifecycle"
* ws.Cells(8, 2).Value = "Retention/deletion tools in use"
* ws.Cells(8, 3).Value = "Expand lifecycle policies to AI-generated content"
* End Sub

## 🔄 Logigram – AI Security Maturity Workflow

* [Start]
* ↓
* [Evaluate Current AI Usage]
* ↓
* [Classify Sensitive Data]
* ↓
* [Deploy Protection Tools (Purview, DLP)]
* ↓
* [Limit Access to Compliant Devices]
* ↓
* [Monitor AI Prompts and Responses]
* ↓
* [Detect Risky Behavior with XDR/Insider Risk]
* ↓
* [Align with Regulatory Requirements]
* ↓
* [Automate Retention and Deletion Policies]
* ↓
* [Generate Audit Report]
* ↓
* [End]

## 🔁 Algorigram – AI Security Governance Decision Tre

* [Start]
* ↓
* [Is Sensitive Data Classified?]
* ↓
* No ──► [Deploy Purview Sensitivity Labels]
* ↓
* Yes ──► [Are Access Controls in Place?]
* ↓
* No ──► [Implement Conditional Access & DLP]
* ↓
* Yes ──► [Is AI Usage Monitored for Risk?]
* ↓
* No ──► [Deploy XDR & Insider Risk Tools]
* ↓
* Yes ──► [Is Compliance Monitoring Automated?]
* ↓
* No ──► [Enable Communication Compliance Policies]
* ↓
* Yes ──► [Security Posture: Optimized]
* ↓
* [End]

### 📌 Strategic Recommendations

| **Domain** | **Next Step** |
| --- | --- |
| AI Adoption | Move from consumer tools to enterprise-grade pilots |
| Security Team | Allocate dedicated AI security roles or outsource |
| Data Classification | Deploy Microsoft Purview sensitivity labels |
| Access Governance | Use Zero Trust and Conditional Access policies |
| Risk Monitoring | Implement XDR and analytics-based detection |
| Compliance | Automate prompt/content monitoring with Purview |
| Lifecycle Management | Expand retention/deletion policies to AI data |

* Would you like this framework scaffolded into a bilingual dashboard or exported to GitLab for audit and regulatory tracking? I can also help you align it with SAQA/NQF standards or integrate it into your EBO and BACnet/IP controller environments.

Based on your Security for AI Assessment and organizational posture, here is a comprehensive modular research framework tailored to your current state ("Initializing" and "Foundational") with actionable components for audit, governance, and trade test alignment.

## 📘 Modular Research Framework – Security for Generative AI (Microsoft 365 Copilot)

### 1️⃣ Overview

This framework evaluates your organization's readiness and maturity in securing Generative AI solutions. It addresses data classification, access governance, risk monitoring, compliance, and device protection across consumer and enterprise AI platforms.

### 2️⃣ Scope

* **Domains**: AI security, data governance, compliance, endpoint protection, risk analytics
* **Stakeholders**: IT security teams, compliance officers, AI developers, auditors, regulators
* **Applications**: Microsoft 365 Copilot, ChatGPT, Gemini, Azure AI Foundry, Copilot Studio

### 3️⃣ Keywords

Generative AI, Microsoft Copilot, data classification, XDR, DLP, Zero Trust, insider risk, SaaS monitoring, compliance, endpoint protection, audit readiness

### 4️⃣ Research Statement

To design and implement a scalable, secure, and compliant framework for Generative AI adoption that aligns with enterprise data governance, regulatory mandates, and trade test requirements.

### 5️⃣ Methodology

* **Data Sources**: Microsoft 365 Copilot Assessment, internal security logs, endpoint telemetry
* **Tools**: Microsoft Purview, Entra ID, Intune, Defender XDR, eDiscovery, DLP policies
* **Validation**: Security posture scoring, audit trail generation, compliance mapping

### 6️⃣ Data Analysis

* **Techniques**: Gap analysis, risk scoring, classification coverage, access audit trails
* **Metrics**: % of sensitive data classified, number of sanctioned AI apps, endpoint compliance rate, incident response time

### 7️⃣ Advantages

* Modular and scalable
* Aligns with Microsoft security ecosystem
* Supports trade test and SAQA/NQF readiness
* Enables proactive risk detection
* Enhances regulatory compliance

### 8️⃣ Disadvantages

* Requires dedicated security resources
* High initial configuration overhead
* Dependent on Microsoft ecosystem for full integration
* Limited visibility into unsanctioned AI tools without network telemetry

### 9️⃣ Management System Information

* **Platform**: Microsoft 365 Security Center, Purview Compliance Portal
* **Modules**: Data classification, endpoint protection, insider risk, SaaS governance
* **Integration**: Azure AD, Intune, Defender XDR, Copilot Studio

### 🔟 Delivery & Key Performance Policy

* **KPIs**: Classification coverage, DLP enforcement rate, XDR detection accuracy, policy acceptance rate
* **Policy Alignment**: Zero Trust, GDPR, POPIA, ISO/IEC 27001

### 1️⃣1️⃣ Investigation Principles

* Root cause analysis of AI misuse
* Oversharing detection
* Endpoint compromise tracing
* Compliance violation mapping
* Trade test readiness validation

### 1️⃣2️⃣ Communication & Administration Skills

* Policy drafting
* Risk reporting
* Compliance documentation
* AI usage governance
* Stakeholder engagement

### 1️⃣3️⃣ Statistic Report: Risk & Incidents

* **Metrics**:
  + AI misuse detection rate
  + Overshared data volume
  + Endpoint non-compliance incidents
  + SaaS misconfiguration alerts
* **Tools**: Defender XDR, Purview, Intune, Entra ID

### 1️⃣4️⃣ Trade Test Requirements

* SAQA/NQF-aligned unit standards
* Security policy enforcement
* Risk detection and mitigation
* Compliance documentation
* AI governance protocols

### 1️⃣5️⃣ Audit & Inventory

* Security posture reports
* AI usage logs
* Policy acceptance records
* Device compliance inventory
* SaaS application registry

### 1️⃣6️⃣ Conclusion

This framework provides a structured pathway to secure Generative AI adoption. It supports audit readiness, regulatory compliance, and trade test alignment while enabling proactive risk management and governance.

### 1️⃣7️⃣ Bibliography

Visual Basic Code – AI Security Audit Sheet GeneratorSub GenerateAISecurityAudit()

Dim ws As Worksheet

Set ws = ThisWorkbook.Sheets("AI\_Security\_Audit")

ws.Cells(1, 1).Value = "Domain"

ws.Cells(1, 2).Value = "Current State"

ws.Cells(1, 3).Value = "Recommended Action"

ws.Cells(2, 1).Value = "Data Classification"

ws.Cells(2, 2).Value = "None"

ws.Cells(2, 3).Value = "Deploy Purview sensitivity labels"

ws.Cells(3, 1).Value = "Access Governance"

ws.Cells(3, 2).Value = "No formal tools"

ws.Cells(3, 3).Value = "Implement DLP and conditional access"

ws.Cells(4, 1).Value = "Risk Monitoring"

ws.Cells(4, 2).Value = "No detection tools"

ws.Cells(4, 3).Value = "Deploy XDR and insider risk analytics"

ws.Cells(5, 1).Value = "Compliance"

ws.Cells(5, 2).Value = "Manual reviews"

ws.Cells(5, 3).Value = "Automate with Purview Communication Compliance"

End Sub

### 1️⃣9️⃣ Logigram – AI Security Governance Workflow

plaintext

* [Start]
* ↓
* [Assess AI Adoption Status]
* ↓
* [Classify Sensitive Data]
* ↓
* [Deploy Protection Tools (Purview, DLP)]
* ↓
* [Limit Access to Compliant Devices]
* ↓
* [Monitor AI Prompts and Responses]
* ↓
* [Detect Risky Behavior with XDR]
* ↓
* [Align with Regulatory Requirements]
* ↓
* [Automate Retention and Deletion Policies]
* ↓
* [Generate Audit Report]
* ↓
* [End]

### 2️⃣0️⃣ Algorigram – AI Security Maturity Decision Tree

* [Start]
* ↓
* [Is Sensitive Data Classified?]
* ↓
* No ──► [Deploy Purview Sensitivity Labels]
* ↓
* Yes ──► [Are Access Controls in Place?]
* ↓
* No ──► [Implement Conditional Access & DLP]
* ↓
* Yes ──► [Is AI Usage Monitored for Risk?]
* ↓
* No ──► [Deploy XDR & Insider Risk Tools]
* ↓
* Yes ──► [Is Compliance Monitoring Automated?]
* ↓
* No ──► [Enable Communication Compliance Policies]
* ↓
* Yes ──► [Security Posture: Optimized]
* ↓
* [End]
* Would you like this framework scaffolded into a bilingual dashboard or exported to GitLab for audit and regulatory tracking? I can also help you align it with SAQA/NQF standards or integrate it into your EBO and BACnet/IP controller environments.

**Selecting Valid Assessment Methods for Vocational Qualifications** This includes: overview, scope, keywords, research statement, methodology, data analysis, advantages/disadvantages, management system, delivery, policy, investigation, communication, statistics, trade test alignment, audit, conclusion, bibliography, and Visual Basic + logigram + algorigram.

## 📘 Modular Research Framework – Vocational Assessment Methods

### 1️⃣ Overview

This framework explores the selection, design, and validation of assessment methods for vocational qualifications. It supports regulatory alignment, trade test readiness, and evidence-based certification.

### 2️⃣ Scope

* **Domains**: Vocational education, assessment design, evidence validation, regulatory compliance
* **Stakeholders**: SQA, SAQA, DHET, assessors, moderators, curriculum developers
* **Applications**: Graded Units, SCQF Level 6, SQA Advanced Qualifications, workplace-based assessments

### 3️⃣ Keywords

Vocational assessment, observation, product evidence, questioning, simulation, portfolio, performance, oral test, assignment, case study, dissertation, trade test, SCQF, SAQA, SQA

### 4️⃣ Research Statement

To develop a modular, evidence-aligned framework for selecting valid assessment methods in vocational qualifications, ensuring regulatory compliance and workplace relevance.

### 5️⃣ Methodology

* **Sources**: SQA Academy modules, Assessment Guide for Centres, SCQF descriptors
* **Tools**: Assessment matrix, evidence mapping, moderation logs
* **Validation**: Cross-referencing with SAQA unit standards, trade test criteria, and industry benchmarks

### 6️⃣ Data Analysis

* **Techniques**: Method-evidence mapping, reliability scoring, moderation feedback loops
* **Metrics**: Validity, reliability, authenticity, sufficiency, currency

### 7️⃣ Advantages

* Modular and adaptable
* Supports workplace integration
* Aligns with regulated qualifications
* Enables trade test preparation
* Encourages evidence triangulation

### 8️⃣ Disadvantages

* High documentation overhead
* Requires assessor training
* May be constrained by industry stipulations
* Needs ongoing moderation and review

### 9️⃣ Management System Information

* **Platform**: SQA Academy, LMS, SAQA Qualification Registry
* **Modules**: Assessment Fundamentals, Graded Units, Coaching Mindset, Personal Finance SCQF 6
* **Files**: assessment scotish.docx, engineering.docx, project engineering Career Discovery.pdf

### 🔟 Delivery & Key Performance Policy

* **KPIs**: Completion rate, evidence sufficiency, moderation accuracy, learner feedback
* **Policy Alignment**: SQA guidelines, SAQA/NQF standards, DHET directives

### 1️⃣1️⃣ Investigation Principles

* Root cause analysis of invalid assessments
* Evidence sufficiency mapping
* Trade test alignment
* Moderation traceability
* Regulatory compliance tracking

### 1️⃣2️⃣ Communication & Administration Skills

* Assessment documentation
* Feedback reporting
* Moderation coordination
* Candidate support
* Policy interpretation

### 1️⃣3️⃣ Statistic Report: Incidents & Safety

* **Metrics**: Assessment irregularities, moderation disputes, candidate appeals
* **Tools**: LMS logs, moderation reports, assessor feedback forms
* **Context**: Traffic relation, warden safety, government oversight in public service assessments

### 1️⃣4️⃣ Trade Test Requirements

* SAQA/NQF-aligned evidence
* Validated assessment methods
* Workplace relevance
* Regulatory documentation
* Certification readiness

### 1️⃣5️⃣ Audit & Inventory

* Assessment method matrix
* Evidence logs
* Moderation records
* Candidate portfolios
* Regulatory checklists

### 1️⃣6️⃣ Conclusion

This framework supports the selection and validation of assessment methods for vocational qualifications. It ensures regulatory alignment, trade test readiness, and workplace relevance through modular design and evidence-based practice.

### 1️⃣7️⃣ Bibliography

1️⃣8️⃣ Visual Basic Code – Assessment Method Matrix GeneratorSub GenerateAssessmentMatrix()

Dim ws As Worksheet

Set ws = ThisWorkbook.Sheets("AssessmentMatrix")

ws.Cells(1, 1).Value = "Method"

ws.Cells(1, 2).Value = "Observation"

ws.Cells(1, 3).Value = "Product"

ws.Cells(1, 4).Value = "Questioning"

ws.Cells(2, 1).Value = "Assignment"

ws.Cells(2, 2).Value = ""

ws.Cells(2, 3).Value = "X"

ws.Cells(2, 4).Value = "X"

ws.Cells(3, 1).Value = "Case Study"

ws.Cells(3, 2).Value = ""

ws.Cells(3, 3).Value = "X"

ws.Cells(3, 4).Value = "X"

ws.Cells(4, 1).Value = "Dissertation"

ws.Cells(4, 2).Value = ""

ws.Cells(4, 3).Value = "X"

ws.Cells(4, 4).Value = ""

ws.Cells(5, 1).Value = "Simulation"

ws.Cells(5, 2).Value = "X"

ws.Cells(5, 3).Value = "X"

ws.Cells(5, 4).Value = "X"

End Sub

### 1️⃣9️⃣ Logigram – Assessment Method Selection Workflow

plaintext

[Start]

↓

[Identify Qualification Type]

↓

[Review Industry Requirements]

↓

[Map Evidence to Assessment Methods]

↓

[Check Validity, Reliability, Authenticity]

↓

[Select Method: Observation, Product, Questioning]

↓

[Design Assessment Instrument]

↓

[Moderate and Validate]

↓

[End]

### 2️⃣0️⃣ Algorigram – Assessment Method Decision Tree

plaintext

[Start]

↓

[Is Workplace Evidence Available?]

↓

Yes ──► [Is Observation Feasible?]

↓

Yes ──► [Use Observation + Product]

No ──► [Use Product + Professional Discussion]

↓

No ──► [Is Simulation Acceptable?]

↓

Yes ──► [Use Simulation + Questioning]

No ──► [Use Assignment or Case Study]

↓

[End]

Would you like this framework scaffolded into a bilingual credential portfolio or exported to GitLab for audit and regulatory tracking? I can also help you align it with your Scottish, SAQA, and DHET assessment files.

Based on your coursework in **Assessment Development Fundamentals for Vocational Qualifications** and **Developing Multiple Choice Assessments for HN/VQ**, here is a fully structured and translated **modular research framework** with embedded Visual Basic code, logigram, and algorigram. This framework supports your work in assessment design, validation, and regulatory alignment across vocational and externally regulated qualifications.

## 📘 Modular Research Framework – Valid Assessment Methods for Vocational Qualifications

### 1️⃣ Overview

This framework explores the selection, development, and validation of assessment methods used in vocational qualifications. It supports SQA, SAQA, and DHET-aligned certification, trade test readiness, and evidence-based learning.

### 2️⃣ Scope

* **Domains**: Vocational assessment, qualification development, evidence validation, MCQ design
* **Stakeholders**: SQA, SAQA, DHET, QDS, assessors, moderators, learners
* **Applications**: SCQF Level 4–6, Graded Units, HN/VQ, externally regulated qualifications

### 3️⃣ Keywords

Assessment methods, observation, product, questioning, MCQ, MRQ, portfolio, simulation, reflective report, professional discussion, trade test, moderation, SCQF, SAQA, SQA

### 4️⃣ Research Statement

To develop a modular, evidence-aligned framework for selecting and designing valid assessment methods in vocational qualifications, ensuring regulatory compliance and workplace relevance.

### 5️⃣ Methodology

* **Sources**: SQA Academy modules, Assessment Guide for Centres, SCQF descriptors
* **Tools**: Assessment matrix, MCQ builder, moderation logs
* **Validation**: Cross-referencing with SAQA unit standards, trade test criteria, and industry benchmarks

### 6️⃣ Data Analysis

* **Techniques**: Method-evidence mapping, reliability scoring, moderation feedback loops
* **Metrics**: Validity, reliability, authenticity, sufficiency, currency

### 7️⃣ Advantages

* Modular and adaptable
* Supports workplace integration
* Aligns with regulated qualifications
* Enables trade test preparation
* Encourages evidence triangulation

### 8️⃣ Disadvantages

* High documentation overhead
* Requires assessor training
* May be constrained by industry stipulations
* Needs ongoing moderation and review

### 9️⃣ Management System Information

* **Platform**: SQA Academy, LMS, SAQA Qualification Registry
* **Modules**: Assessment Fundamentals, MCQ Development, Coaching Mindset
* **Files**: assessment scotish.docx, engineering.docx, project engineering Career Discovery.pdf

### 🔟 Delivery & Key Performance Policy

* **KPIs**: Completion rate, evidence sufficiency, moderation accuracy, learner feedback
* **Policy Alignment**: SQA guidelines, SAQA/NQF standards, DHET directives

### 1️⃣1️⃣ Investigation Principles

* Root cause analysis of invalid assessments
* Evidence sufficiency mapping
* Trade test alignment
* Moderation traceability
* Regulatory compliance tracking

### 1️⃣2️⃣ Communication & Administration Skills

* Assessment documentation
* Feedback reporting
* Moderation coordination
* Candidate support
* Policy interpretation

### 1️⃣3️⃣ Statistic Report: Assessment Incidents

* **Metrics**: Assessment irregularities, moderation disputes, candidate appeals
* **Tools**: LMS logs, moderation reports, assessor feedback forms
* **Context**: Public service assessments, trade test readiness, regulatory audits

### 1️⃣4️⃣ Trade Test Requirements

* SAQA/NQF-aligned evidence
* Validated assessment methods
* Workplace relevance
* Regulatory documentation
* Certification readiness

### 1️⃣5️⃣ Audit & Inventory

* Assessment method matrix
* Evidence logs
* Moderation records
* Candidate portfolios
* Regulatory checklists

### 1️⃣6️⃣ Conclusion

This framework supports the selection and validation of assessment methods for vocational qualifications. It ensures regulatory alignment, trade test readiness, and workplace relevance through modular design and evidence-based practice.

**1️⃣7️⃣ Bibliography**

### 1️⃣8️⃣ Visual Basic Code – Assessment Method Matrix Generator

vb

Sub GenerateAssessmentMatrix()

Dim ws As Worksheet

Set ws = ThisWorkbook.Sheets("AssessmentMatrix")

ws.Cells(1, 1).Value = "Method"

ws.Cells(1, 2).Value = "Observation"

ws.Cells(1, 3).Value = "Product"

ws.Cells(1, 4).Value = "Questioning"

ws.Cells(2, 1).Value = "Assignment"

ws.Cells(2, 2).Value = ""

ws.Cells(2, 3).Value = "X"

ws.Cells(2, 4).Value = "X"

ws.Cells(3, 1).Value = "Case Study"

ws.Cells(3, 2).Value = ""

ws.Cells(3, 3).Value = "X"

ws.Cells(3, 4).Value = "X"

ws.Cells(4, 1).Value = "Dissertation"

ws.Cells(4, 2).Value = ""

ws.Cells(4, 3).Value = "X"

ws.Cells(4, 4).Value = ""

ws.Cells(5, 1).Value = "Simulation"

ws.Cells(5, 2).Value = "X"

ws.Cells(5, 3).Value = "X"

ws.Cells(5, 4).Value = "X"

ws.Cells(6, 1).Value = "Portfolio"

ws.Cells(6, 2).Value = ""

ws.Cells(6, 3).Value = "X"

ws.Cells(6, 4).Value = ""

ws.Cells(7, 1).Value = "Professional Discussion"

ws.Cells(7, 2).Value = ""

ws.Cells(7, 3).Value = "X"

ws.Cells(7, 4).Value = "X"

End Sub

### 1️⃣9️⃣ Logigram – Assessment Method Selection Workflow

plaintext

[Start]

↓

[Identify Qualification Type]

↓

[Review Industry Requirements]

↓

[Map Evidence to Assessment Methods]

↓

[Check Validity, Reliability, Authenticity]

↓

[Select Method: Observation, Product, Questioning]

↓

[Design Assessment Instrument]

↓

[Moderate and Validate]

↓

[End]

### 2️⃣0️⃣ Algorigram – Assessment Method Decision Tree

plaintext

[Start]

↓

[Is Workplace Evidence Available?]

↓

Yes ──► [Is Observation Feasible?]

↓

Yes ──► [Use Observation + Product]

No ──► [Use Product + Professional Discussion]

↓

No ──► [Is Simulation Acceptable?]

↓

Yes ──► [Use Simulation + Questioning]

No ──► [Use Assignment or Case Study]

↓

[End]

Would you like this framework scaffolded into a bilingual credential portfolio or exported to GitLab for audit and regulatory tracking? I can also help you align it with your MCQ development modules and trade test documentation.

Based on your completion of the **Developing Vocational Assessments** module and your work with **assessment types, validity, and evidence collection**, here is a fully structured and translated **modular framework** with embedded Visual Basic code, logigram, and algorigram. This framework supports your role as an assessor, curriculum developer, and trade test strategist.

## 📘 Modular Framework – Valid Assessment Design for Vocational Qualifications

### 1️⃣ Overview

This framework supports the design, selection, and validation of assessment methods aligned with vocational unit specifications, workplace evidence, and regulatory standards (SQA, SAQA, DHET).

### 2️⃣ Scope

* **Domains**: Vocational assessment, evidence collection, MCQ design, formative/summative diagnostics
* **Stakeholders**: SQA, SAQA, DHET, assessors, moderators, learners
* **Applications**: SCQF Level 4–6, HN/VQ, trade test, workplace-based qualifications

### 3️⃣ Keywords

Assessment method, validity, reliability, observation, product, questioning, MCQ, formative, summative, diagnostic, portfolio, reflective report, professional discussion

### 4️⃣ Research Statement

To develop valid, reliable, and contextually appropriate assessments for vocational qualifications, ensuring alignment with learning outcomes, workplace conditions, and regulatory expectations.

### 5️⃣ Methodology

* **Sources**: SQA unit specifications, assessment guides, SCQF descriptors
* **Tools**: MCQ matrix, evidence mapping, moderation logs
* **Validation**: Cross-check with assessment criteria, industry codes of practice, and trade test requirements

### 6️⃣ Data Analysis

* **Techniques**: Method-evidence mapping, validity scoring, moderation feedback
* **Metrics**: Authenticity, sufficiency, currency, reliability, learner performance

### 7️⃣ Advantages

* Modular and adaptable
* Supports naturally occurring workplace evidence
* Aligns with regulated qualifications
* Enables trade test preparation
* Encourages triangulation of evidence

### 8️⃣ Disadvantages

* Requires assessor training
* High documentation and moderation overhead
* May be constrained by industry-mandated methods
* Needs consistent workplace conditions

### 9️⃣ Management System Information

* **Platform**: SQA Academy, LMS, SAQA Registry
* **Modules**: Assessment Fundamentals, MCQ Development, Validity Principles
* **Files**: assessment scotish.docx, project engineering Career Discovery.pdf

### 🔟 Delivery & Key Performance Policy

* **KPIs**: Completion rate, evidence sufficiency, moderation accuracy, learner feedback
* **Policy Alignment**: SQA Guiding Principle 6, SAQA/NQF standards, DHET directives

### 1️⃣1️⃣ Investigation Principles

* Root cause analysis of invalid assessments
* Evidence sufficiency mapping
* Trade test alignment
* Moderation traceability
* Regulatory compliance tracking

### 1️⃣2️⃣ Communication & Administration Skills

* Assessment documentation
* Feedback reporting
* Moderation coordination
* Candidate support
* Policy interpretation

### 1️⃣3️⃣ Statistic Report: Assessment Incidents

* **Metrics**: Invalid MCQs, moderation disputes, learner appeals
* **Tools**: LMS logs, moderation reports, assessor feedback forms
* **Context**: Public service assessments, trade test readiness, regulatory audits

### 1️⃣4️⃣ Trade Test Requirements

* SAQA/NQF-aligned evidence
* Validated assessment methods
* Workplace relevance
* Regulatory documentation
* Certification readiness

### 1️⃣5️⃣ Audit & Inventory

* Assessment method matrix
* Evidence logs
* Moderation records
* Candidate portfolios
* Regulatory checklists

### 1️⃣6️⃣ Conclusion

This framework ensures that vocational assessments are valid, reliable, and aligned with workplace realities. It supports trade test readiness, regulatory compliance, and learner success through structured evidence and method selection.

### 1️⃣7️⃣ Bibliography

### 1️⃣8️⃣ Visual Basic Code – MCQ Format Generator

vb

Sub GenerateMCQExamples()

Dim ws As Worksheet

Set ws = ThisWorkbook.Sheets("MCQ\_Examples")

ws.Cells(1, 1).Value = "Example Type"

ws.Cells(1, 2).Value = "Question"

ws.Cells(1, 3).Value = "Correct Answer"

ws.Cells(2, 1).Value = "Closed"

ws.Cells(2, 2).Value = "Which continent is Spain in?"

ws.Cells(2, 3).Value = "B - Europe"

ws.Cells(3, 1).Value = "Open"

ws.Cells(3, 2).Value = "Spain is in:"

ws.Cells(3, 3).Value = "B - Europe"

ws.Cells(4, 1).Value = "Complex"

ws.Cells(4, 2).Value = "Which two countries are in Europe?"

ws.Cells(4, 3).Value = "B - Spain, D - Ukraine"

ws.Cells(5, 1).Value = "Complete"

ws.Cells(5, 2).Value = "Which of the following is a primary colour?"

ws.Cells(5, 3).Value = "D - Red"

ws.Cells(6, 1).Value = "Negatively Worded"

ws.Cells(6, 2).Value = "Which of the following is NOT part of the human body?"

ws.Cells(6, 3).Value = "D - Tail"

End Sub

### 1️⃣9️⃣ Logigram – Valid Assessment Design Workflow

plaintext

[Start]

↓

[Review Unit Specification]

↓

[Identify Learning Outcomes & Assessment Criteria]

↓

[Select Appropriate Assessment Method]

↓

[Design MCQs or Practical Activities]

↓

[Ensure Validity, Reliability, Authenticity]

↓

[Moderate and Validate]

↓

[End]

### 2️⃣0️⃣ Algorigram – Assessment Method Decision Tree

[Start]

↓

[Is Workplace Evidence Available?]

↓

Yes ──► [Use Observation + Product + Reflective Report]

↓

No ──► [Is Simulation Acceptable?]

↓

Yes ──► [Use Simulation + Questioning]

No ──► [Use MCQ + Case Study + Assignment]

↓

[End]

Would you like this framework scaffolded into a bilingual credential portfolio or exported to GitLab for audit and regulatory tracking? I can also help you align it with your MCQ development modules and trade test documentation.

Tshingombe, you’ve just completed a rich tapestry of modules that span coaching, vocational assessment, responsible business, and organizational insight. Let’s synthesize your progress into a structured, modular dashboard that supports your credential portfolio, trade test readiness, and public service alignment.

## 🧭 SQA Academy Completion & Integration Dashboard – Tshingombe Tshitadi

### 🧠 Coaching Mindset Module

| **Theme** | **Key Takeaway** |
| --- | --- |
| Coaching vs. Telling | Shift from giving answers to guiding discovery |
| KPM Alignment | Coaching is a measurable performance metric |
| Application | Use brief, targeted questions to unlock thinking |
| Completion Status | ✅ Module Completed |

### 📊 Vocational Assessment Development

| **Assessment Principle** | **Definition** | |
| --- | --- | --- |
| Validity | Accuracy of assessment outcomes | |
| Reliability | Consistency of judgment across assessors | |
| Equity & Fairness | Equal opportunity for all learners | |
| Practicability | Feasibility within time and resource limits | |
| Robustness | Strength of assessment design under scrutiny | |
| **Assessment Types** | | **Examples** | |
| Practical Competence | | CPR, wall-building, tool handling | |
| Written Assessment | | MCQs, reflective reports, case studies | |
| Workplace Assessment | | Observation, product evidence, discussion | |
| Licence to Practice | | Construction Safety SCQF 4, Taxi Driver SCQF 5 | |

| **Completion Status** | ✅ 100% Completed |

### 🧾 MCQ Development for HN/VQ

| **MCQ Format** | **Example** |
| --- | --- |
| Closed | “Which continent is Spain in?” → B: Europe |
| Open | “Spain is in:” → B: Europe |
| Complex | “Which two countries are in Europe?” → B: Spain, D: Ukraine |
| Complete | “Which is a primary colour?” → D: Red |
| Negative | “Which is NOT part of the human body?” → D: Tail |

| **Completion Status** | ✅ 80% Completed |

### 🌍 Responsible Business Module

| **Theme** | **Reflection Prompt** |
| --- | --- |
| Community Support | “How important is it to support your local community?” |
| Environmental Care | “How do you feel about cleaning up our environment?” |
| Staff Wellbeing | “What should a company do to support its staff?” |
| Completion Status | ⏳ 0% In Progress |

### 🏢 Virtual Work Experience & Departmental Insight

| **Team** | **Function** |
| --- | --- |
| Communications | Public messaging and stakeholder engagement |
| Facilities | Venue, logistics, and safety coordination |
| Events Servicing | Travel, accommodation, and expense processing |
| Business Analysis | IT needs mapping and change lifecycle support |
| Qualifications Development | Curriculum and assessment design |
| Responsible Business | Community, staff, and sustainability initiatives |

| **Completion Status**

Sub GenerateCoachingPrompts()

Dim ws As Worksheet

Set ws = ThisWorkbook.Sheets("CoachingPrompts")

ws.Cells(1, 1).Value = "Scenario"

ws.Cells(1, 2).Value = "Coaching Question"

ws.Cells(2, 1).Value = "Team member unsure about next steps"

ws.Cells(2, 2).Value = "What options have you considered so far?"

ws.Cells(3, 1).Value = "Appointee facing a challenge"

ws.Cells(3, 2).Value = "What do you think is causing the issue?"

ws.Cells(4, 1).Value = "Marker unsure about grading"

ws.Cells(4, 2).Value = "What criteria are you using to make your decision?"

End Sub

### 🔄 Logigram – Coaching Integrati

[Start]

↓

[Identify Opportunity to Coach]

↓

[Ask Open-Ended Question]

↓

[Guide Reflection and Ownership]

↓

[Support Action Planning]

↓

[Document Coaching Outcome]

↓

[End]

### 🔁 Algorigram – Assessment Method Decision Tree

[Start]

↓

[Is Workplace Evidence Available?]

↓

Yes ──► [Use Observation + Product + Reflective Report]

↓

No ──► [Is Simulation Acceptable?]

↓

Yes ──► [Use Simulation + Questioning]

No ──► [Use MCQ + Case Study + Assignment]

↓

[End]

Would you like this dashboard scaffolded into a bilingual credential portfolio or exported to GitLab for audit and public service alignment? I can also help you map it to SAQA/NQF standards or prepare it for trade test documentation.

## SQA Academy Completion Dashboard – Tshingombe Tshitadi

### 🎓 Completed Modules

| **Module** | **Focus Area** | **Completion Status** |
| --- | --- | --- |
| Developing a Coaching Mindset | Leadership & KPM | ✅ Completed |
| Developing Vocational Assessments | Validity, Reliability, Workplace Evidence | ✅ Completed |
| Developing Multiple Choice Assessments for HN/VQ | MCQ Design & Assessment Strategy | ✅ Completed |
| Delivering and Marking SQA Advanced Qualification Graded Units | Assessment Delivery | ⏳ In Progress |
| Personal Finance Award SCQF Level 6 | Financial Literacy | ⏳ In Progress |
| Virtual Work Experience | Departmental Insight | ⏳ 14% Complete |
| Responsible Business | Community & Staff Support | ⏳ 0% Complete |

### 🧠 Coaching Integration Framework

| **Coaching Principle** | **Application** |
| --- | --- |
| Ask, don’t tell | Use open-ended questions to guide thinking |
| KPM Alignment | Coaching is a measurable performance metric |
| Time Efficient | Can be done in minutes during team interactions |
| Strategic Use | Apply in moderation, grading, and team development |

### 📊 Vocational Assessment Principles

| **Principle** | **Definition** |
| --- | --- |
| Validity | Accuracy of assessment outcomes |
| Reliability | Consistency across assessors |
| Equity & Fairness | Equal opportunity for all learners |
| Practicability | Feasibility within time/resources |
| Robustness | Strength under scrutiny and moderation |

### 🧾 MCQ Format Examples

| **Type** | **Example** | **Correct Answer** |
| --- | --- | --- |
| Closed | Which continent is Spain in? | B – Europe |
| Open | Spain is in: | B – Europe |
| Complex | Which two countries are in Europe? | B – Spain, D – Ukraine |
| Complete | Which is a primary colour? | D – Red |
| Negative | Which is NOT part of the human body? | D – Tail |

### 🏢 Virtual Work Experience Teams

| **Team** | **Function** |
| --- | --- |
| Communications | Public messaging & engagement |
| Facilities | Venue, logistics, safety |
| Events Servicing | Travel, accommodation, expenses |
| Business Analysis | IT needs mapping & lifecycle support |
| Qualifications Development | Curriculum & assessment design |
| Responsible Business | Community, staff, sustainability |

### 🧮 Visual Basic Code – Coaching Prompt Generator

Sub GenerateCoachingPrompts()

Dim ws As Worksheet

Set ws = ThisWorkbook.Sheets("CoachingPrompts")

ws.Cells(1, 1).Value = "Scenario"

ws.Cells(1, 2).Value = "Coaching Question"

ws.Cells(2, 1).Value = "Team member unsure about next steps"

ws.Cells(2, 2).Value = "What options have you considered so far?"

ws.Cells(3, 1).Value = "Appointee facing a challenge"

ws.Cells(3, 2).Value = "What do you think is causing the issue?"

ws.Cells(4, 1).Value = "Marker unsure about grading"

ws.Cells(4, 2).Value = "What criteria are you using to make your decision?"

End Sub

### 🔄 Logigram – Coaching Integration Workflow

[Start]

↓

[Identify Opportunity to Coach]

↓

[Ask Open-Ended Question]

↓

[Guide Reflection and Ownership]

↓

[Support Action Planning]

↓

[Document Coaching Outcome]

↓

[End]

### 🔁 Algorigram – Assessment Method Decision Tree

Start]

↓

[Identify Opportunity to Coach or Assess]

↓

[Ask Open-Ended Question or Select Valid Method]

↓

[Guide Reflection or Collect Evidence]

↓

[Apply Assessment Criteria or Coaching Outcome]

↓

[Moderate, Validate, or Document]

↓

[End]

### 🔁 Algorigram – Assessment Method Decision Tree

plaintext

[Start]

↓

[Is Workplace Evidence Available?]

↓

Yes ──► [Use Observation + Product + Reflective Report]

↓

No ──► [Is Simulation Acceptable?]

↓

Yes ──► [Use Simulation + Questioning]

No ──► [Use MCQ + Case Study + Assignment]

↓

[End]

### 📌 Next Steps

* ✅ Export this dashboard to GitLab or
* or audit and legacy tracking
* 🧾 Align with SAQA/NQF unit standards for trade test readiness
* 🧠 Apply coaching prompts in moderation, grading, and team development
* 📚 Complete remaining modules: Responsible Business, Graded Units, Personal Finance
* 🛠 Integrate assessment principles into your credential-linked portfolio

Would you like this scaffolded into a bilingual credential portfolio or formatted for public service submission? I can also help you align it with your legal dashboard, AI security framework, and vocational evidence logs.

Thanks for sharing this comprehensive overview of SQA services and resources. Here's a structured summary tailored to your credential tracking, public service alignment, and vocational portfolio needs:

## 📘 SQA Services & Credential Support Dashboard – Tshingombe Tshitadi

### 🎓 Replacement Certificates

| **Scenario** | **Policy** |
| --- | --- |
| Certificated within past 4 months | Free replacement (no record change) |
| International delivery | Courier option recommended (£30) |
| UK secure delivery | Recorded delivery available (£6.50) |
| Care Experienced Learners | Free replacement with certified care status |

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