

Annual Progress Report 2025

Sipho Dlamini – MSc Information Systems

Student Number:	3867234
Programme:	MSc Information Systems (Full Thesis)
Supervisor:	Prof. Sarah van der Berg
Reporting Period:	January 2025 – December 2025
Registration Year:	2025

1. Research Progress Summary

The research project "Blockchain-Based Academic Credential Verification Systems" has progressed well in its first year. The research proposal was developed, reviewed, and approved by the Faculty Higher Degrees Committee. A comprehensive literature review covering blockchain technology, credential verification systems, and the South African higher education regulatory framework (SAQA/NQF) has been completed.

2. Milestones Achieved

- Research proposal approved by Faculty Board (July 2025)
- Literature review chapter drafted and submitted for review
- Design Science Research methodology chapter initiated
- Attended UWC Blockchain Workshop (April 2025)
- Completed Coursera specialization on Blockchain Development
- Established contact with SAQA for potential case study collaboration

3. Challenges and Mitigation

The main challenge has been obtaining access to real credential verification data due to privacy concerns (POPIA compliance). This has been mitigated by designing a prototype that works with synthetic but realistic credential data. Discussions with the university's registrar office are ongoing for a potential pilot implementation.

4. Planned Activities (2026)

- Complete methodology chapter (Q1 2026)
- Develop blockchain prototype for credential verification (Q1-Q2 2026)
- Conduct user evaluation study with university staff (Q2 2026)
- Write results chapter (Q3 2026)
- Complete thesis draft (Q3-Q4 2026)
- Submit for examination (Q4 2026)

5. Supervisor's Assessment

Mr Dlamini has made solid progress in his first year of MSc studies. His literature review demonstrates a good understanding of both the blockchain technology landscape and the South African credential verification context. The choice of Design Science Research methodology is appropriate for this applied research project. I recommend continued registration and am optimistic about timely completion.

Supervisor Signature:

Date:

18 December 2025