

KRUGER INNOVATION (PTY) LTD

Strategic Engineering & Machinery Modernisation

Principal Profile

Dr Louis LSJ Krüger | Pr. Eng. | Senior Member of the SAIEE

A registered Professional Engineer with over 40 years of cross-disciplinary experience in industrial automation, system integrity, and mechanical design. Kruger Innovation specialises in the strategic modernisation of high-value industrial assets, replacing restrictive, proprietary hardware with sustainable, open engineering standards.

Core Specialisations

- **Open-Architecture PLC Migration:** Total replacement of legacy or proprietary PLCs with high-performance, open-architecture control systems. This eliminates "vendor lock-in" and ensures the client is no longer dependent on a single OEM's proprietary hardware life-cycle.
- **Strategic Sourcing Resilience:** Designing control environments that utilise hardware-agnostic industrial standards. This enables multi-vendor component sourcing, mitigating the risk of long lead times or "End-of-Life" (EOL) announcements from a single supplier.
- **System Revitalisation:** Transitioning industrial machinery from aging, "black box" electronic units to modern, transparent, and locally diagnosable control environments.
- **Legacy Hardware Mitigation:** Identifying and replacing critical single-points-of-failure in proprietary controller cards to prevent catastrophic production downtime and "stranded asset" scenarios.
- **Strategic System Integrity:** Leveraging over 40 years of engineering experience with mission-critical systems (SANDEF, Iscor, Armscor) to develop robust, long-term modernisation strategies for the printing and manufacturing sectors.

Academic Authority & Leadership

Our technical approach is underpinned by a deep academic foundation and a commitment to the advancement of the South African engineering sector:

- **Doctorate in Engineering Management (D Ing):** University of Johannesburg.
- **Extensive Mentorship:** Successfully guided over **80 Masters and Doctoral students** through complex research and dissertation phases.
- **Institutional Impact:** Served as a Senior Lecturer at the **University of Pretoria, University of Johannesburg, and Tshwane University of Technology (TUT)**.
- **Educational Scale:** Taught Engineering Professionalism and Technological Entrepreneurship to thousands of students.

Professional Integrity & Confidentiality

Kruger Innovation operates with the strict professional discretion required of a **Pr. Eng.** and a **Senior Member of the SAIEE**. We have a proven record of managing complex engineering projects within stringent confidentiality frameworks and Non-Disclosure Agreements (NDAs). We prioritise the protection of client intellectual property as a core component of our service delivery.

Contact Information

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