Name: **Yves Matanga**
Role: **Research and Technology Specialist**

Expertise

- PhD in Electrical Engineering, Optimisation Theory, Control Systems, Artificial Intelligence
- Data Scientist – Supervised and Unsupervised Learning, Reinforcement Learning, Text Analysis
- Embedded Electronic Engineer – Microcontroller programming and Embedded Systems Design
- Technical Programmer - Scientific Computing in MATLAB and Python
- Software Developper – C#. NET, .NET MAUI Mobile Dev, .NET MVC, SQL , Java EE

Technology Projects

Research Publications

- **N. Y. Matanga**, K. Djouani, A Kurien, "A Matlab/Simulink framework for real-time implementation of endogenous brain computer interfaces", 13th IEEE Africon Conference, September 2017
- **N. Y. Matanga**, K. Djouani, A Kurien, "Analysis of User Control Attainment in SMR-based Brain Computer Interfaces", Innovation and Research in Biomedical Engineering, Elsevier, September 2018
- **N. Y. Matanga**, Y. Sun, Z Wang, "Hybrid PSO-αBB global optimisation for C2 box-constrained multimodal NLPs", IEEE Access, IEEE, December 2021
- **N. Y. Matanga**, Y. Sun, Z Wang, "Nonlinear optimal control using sequential niching differential evolution and parallel workers", Journal of Advanced in Information Technology, November 2022
- **N. Y. Matanga**, Y. Sun, Z Wang, "Globally convergent Fractional Order PID tuning for AVR systems using sequentially niching metaheuristics", 7th ICRAE IEEE International Conference on Robotics and Automation Engineering, November 2022
- **N. Y. Matanga**, Y. Sun, Z Wang, "Nonlinear system identification using a semi concurrent sequential niching framework", 7th International Conference on Computer Science and Artificial Intelligence, December 2023
- **N. Y. Matanga**, "Analysis of Control Attainment in Endogenous Electroencephalogram based Brain Computer Interfaces", Tshwane University of Technology, October 2017, Masters Dissertation
- **N. Y. Matanga**, "Convergence improvement in Global optimisation with applications to control systems", University of Johannesburg, December 2022, PhD Thesis