WILLEM CORNELIS ROSSOUW

Final Year E&E Engineering Student

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An enthusiastic student engineer passionate about microcontrollers and all things Internet of Things

WORDS TO LIVE BY

"When you want to know how things really work, study them when they're coming apart."

–William Gibson, Zero History

PROJECTS

ESP8266 PWM and WS2812B integrated control
Personal project

Integrated 25kHz PWM control and fan selection along with ws2812b lights into the ESP8266 microcontroller for a computer during lock-down. Completed project has integration with Home Assistant and website control.

Java and C Emulation of Space Invaders
Course content

As part of a CS module, an emulation of the original space invaders was coded in Java, and then ported for C in another module, to run on an ARM microcontroller.

Reverse engineering and Design
Booysen

Reverse engineered PurpleAir sensors and created and printed safer enclosures for long term use.

LiFePO4 Battery System Design
Kookwater

Design and implementation of a small UPS solution to provide longer lasting backup power to various devices.

Development of an air-quality solution for taxis and taxi ranks
Final Year Thesis

Development of standalone sensor modules and sensor network with local and off-site data storage.

STRENGTHS

Hard-working   Eye for detail

C/C++   Embedded Systems   Java

LANGUAGES

English   ●●●●●

Afrikaans   ●●●●◑

EDUCATION

High School
Huguenot High School

📅 2014 – 2018   📍 Wellington

Academic Honorary colours

First team Hockey

BEng E&E
Stellenbosch University

📅 2019 – 2023

Golden Key Society - 2020

INTERESTS

</> Microcontroller System Design
🔗 Integration
◠ Automation

REFEREES

Prof. MJ Booysen (Thinus)
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Additional documents and information available on request. If Github contents are private, they can be released once all assessments are completed.