Klevis Resuli

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EDUCATION

MS, Embedded Computing Systems (EMECS)

- *Norwegian University of Science and Technology (NTNU)*, **Trondheim, Norway**
  First Year: August 2023 – June 2024
- *Rheinland-Pfalz Technical University (RPTU)*, **Kaiserslautern, Germany**
  Second Year: August 2024 – Present

  Erasmus Mundus full scholarship holder

  Coursework: Microcontrollers, C/C++, ARM assembly, RTOS, FPGA/Verilog HDL, Communication protocols, Compilers, Computer Architecture

BS, Electronic Engineering

Polytechnic University of Tirana • Tirana, Albania • 2022

- Final Grade 9.66/10
- Coursework: Microcontrollers, C/C++, Algorithms and Data Structures, FPGA/VHDL HDL, Classical Control Systems, Data Communication & Networking

EXPERIENCE

Student Assistant

NTNU   **June 2024 - September 2024, Trondhiem, NO**

- Implemented a telecommunication system using ESP32-WiFi-MESH, deploying 17 nodes across the campus.
- Achieved a 95% success rate in data delivery to the root node and enhanced real-time data access for Madagascar Nanogrids by Nanoe.
- Mapped the campus network, showcasing the system's scalability and potential for broader applications.

Test Engineer

Kineton Albania   **September 2022 - August 2023, Tirana, AL**

- Collaborated with Maserati on the M189 project, providing automotive consulting services as part of Kineton.
- Applied V-Cycle methodology to develop comprehensive Verification and Validation tests for advanced automotive software.
- Executed tests in a hybrid environment, identifying and reporting 90% of critical software bugs within set deadlines.

PROJECTS

Ping Pong game

github.com/klevisresuli/PingPongGame • September 2023 - November 2023

- Developed a distributed embedded control system for a Ping Pong game using CAN protocol, connecting 2 nodes and achieving 99% data transmission accuracy.
- Designed and implemented Node 1 with ATMEGA162, USB gaming board, CAN interface, SRAM, and A/D converter; constructed Node 2 with Arduino Due, custom I/O shield, motorbox, and servo, resulting in precise control of 5 game variables.
- Ensured real-time communication between nodes with less than 20ms latency, enhancing gameplay responsiveness and accuracy.

Alarm System Powered by Solar Energy

github.com/klevisresuli/Alarm-System-Powered-by-Solar-Energy • April 2022 - July 2022

- Built a solar-powered home alarm system with Arduino Uno, ensuring 100% renewable energy.
- Integrated six sensors for monitoring temperature, humidity, LPG levels, water levels, flame detection, and door status, ensuring 24/7 safety.
- Programmed the system to trigger alarms and send mobile notifications within 2 seconds, using Bluetooth for real-time alerts.

  For more projects and details check my website.

SKILLS, CERTIFICATIONS & INTERESTS

Technical Skills: Microcontrollers, C, C++, Python, Assembly, HDL, RTOS, Communication Protocols(I2C, SPI, CAN, UART, RS485), Build Tools, Git, MATLAB, Simulink, Linux, HIL testing, Problem Solving

Language Skills: Albanian(Native), English(Advanced professional proficiency), Italian(Limited working proficiency), German(Limited working proficiency)

Certifications: nRF Connect SDK Fundamentals and Bluetooth Low Energy Fundamentals (Expertise in Zephyr RTOS, nRF Connect SDK, hardware interfacing, devicetree, Kconfig, Bluetooth LE prototyping, secure data channels, nRF52 Series)

Interests: Electronics, Technology, Sustainability, Reading, Traveling, Training