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FACULTY OF ENGINEERING TECHNOLOGY

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Low-energy communication backup system for hydrogen racecar

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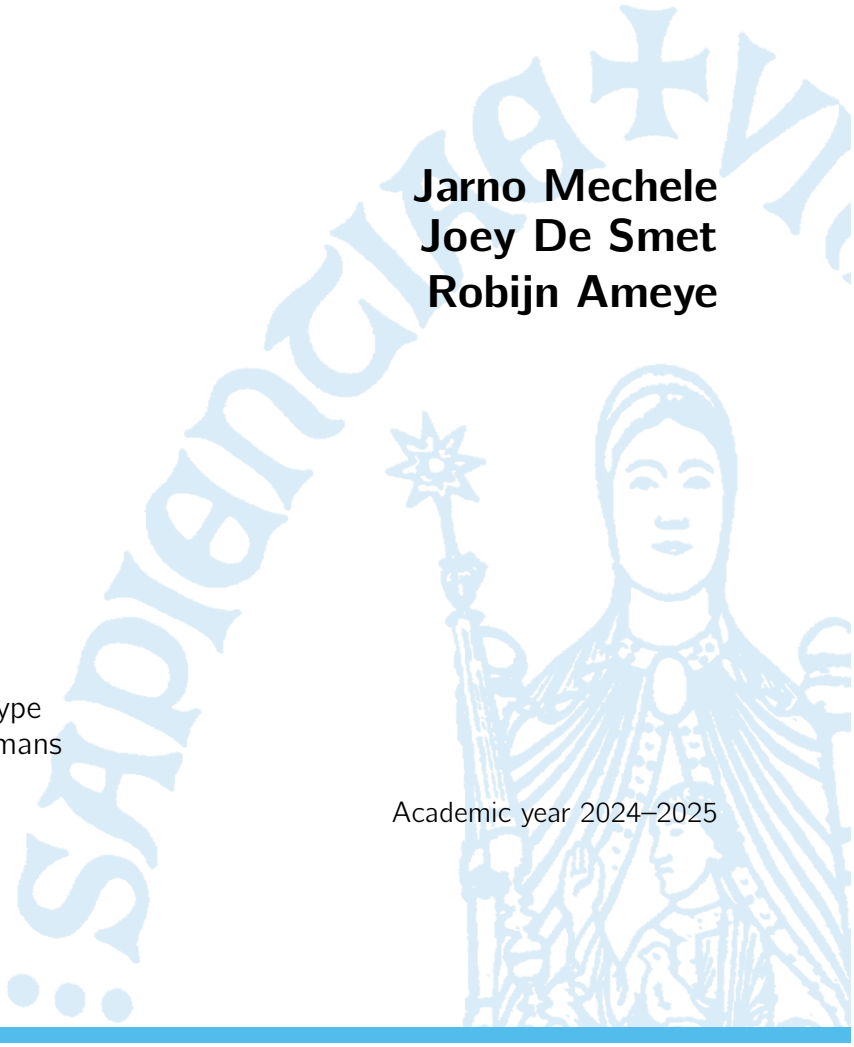

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Academic year 2024–2025

Abstract

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1 Firmware Design and Implementation

In this section, we present the design and implementation of the firmware for the STM32U5, which enables two-way raw LoRa communication, real time speech syntesis,

1.1 System Overview

[Describe the overall system architecture. Mention hardware components, communication methods, and high-level software structure. Include a figure if possible.]

1.2 Firmware Design

[Describe the structure of the firmware. Mention FreeRTOS (if used), key modules/tasks, inter-process communication, power handling, interrupt strategies, etc.]

1.3 Testing and Results

[Discuss how you verified the system. Include relevant metrics: timing, memory usage, communication robustness, etc. Optionally describe test setups.]

1.4 Conclusion

[Summarize what you built, how well it works, and potential areas for improvement or future work.]

References

[1] Author Name, *Title of the Book or Article*, Publisher or Journal, Year.

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