Enhanced Processor Defence Against Physical and Software Threats by Securing DIFT Against Fault Injection Attacks

PhD Dissertation Defense

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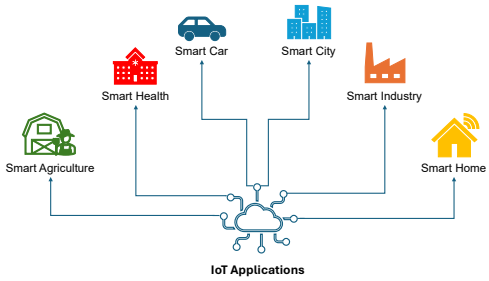
Context: IoT and Embedded Systems

- Rapid expansion of connected objects.
- Objects with physical proximity.
- Several fault injection attack vulnerabilities revealed



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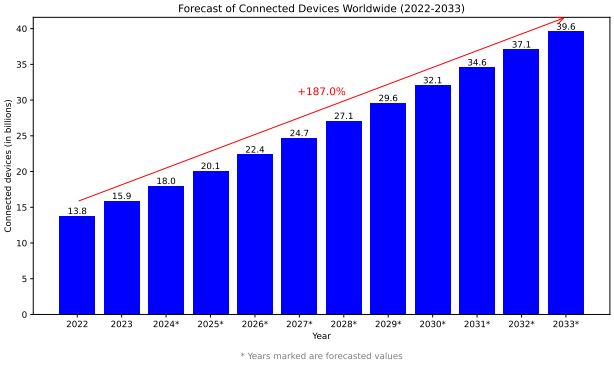

Motivations

Objectives

Outline

Outline

D-RI5CY

Vulnerability Assessment

Outline

Introduction

Parity codes

Simple Parity

Hamming Code

SECDED

Outline

Experimental setup

Outline

Conclusion

Perspectives

Publications

Publications

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Thank you for your attention.

References

References

[1] Transforma Insights; Exploding Topics. *Number of Internet of Things (IoT) connections worldwide from 2022 to 2023, with forecasts from 2024 to 2033*. Online. Accessed 13th August 2024. 2024. URL: https://www.statista.com/statistics/1183457/iot-connected-devices-worldwide/.

[2] Muhammad Zia Ur Rahman et al. "Real-time artificial intelligence based health monitoring, diagnosing and environmental control system for COVID-19 patients". In: *Mathematical Biosciences and Engineering* (2022). DOI: 10.3934/mbe.2022357.