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

Motivations

Objectives

- D-RI5CY Vulnerability Assessment
- Proposed protections against FIAs
- Experimental results
- Conclusion and Perspectives
 - Conclusion
 - Perspectives

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- Proposed protections against FIAs

- 3 Experimental results
- 4 Conclusion and Perspectives

D-RI5CY



- D-RI5CY Vulnerability Assessment
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Introduction

Parity codes

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Simple Parity

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Hamming Code

SECDED

- D-RI5CY Vulnerability Assessment
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- 3 Experimental results
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- 1 D-RI5CY Vulnerability Assessment
- Proposed protections against FIAs

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- 4 Conclusion and Perspectives
 - Conclusion
 - Perspectives

Conclusion





Publications

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Thank you for your attention.









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.