

# Università degli Studi di Ferrara

#### Università degli Studi di Ferrara

CORSO DI LAUREA IN INFORMATICA

# Data diodes for secure Industry 4.0 networking:

The railway track monitoring use case

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Anno Accademico 2020 - 2021

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#### Chapter 1

# Ringrazia menti

#### Riassunto

Qui, inserire un breve riassunto del lavoro in italiano.

### Introduction

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## Industry 4.0 and cybersecurity

Modern history is often categorized taking

- 4.1 Theory behind the Industry 4.0 movement
- 4.2 Typical use cases
- 4.3 Industrial IoT and the cybersecurity problem

### Alstom group and their problem

- 5.1 Dissecting Alstom as a company
- 5.2 Alstom solution for railway track monitoring

focusing on their shift to computer science oriented solutions

#### Project

- 6.1 Alstom issues with interacting with machines under private networks
- 6.2 Goals of the thesis
- 6.3 Top-down description of the implemented solution

#### Chapter 7

### Conclusion