

Università degli Studi di Ferrara

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CORSO DI LAUREA IN INFORMATICA

Data diodes for secure Industry 4.0 networking:

The railway track monitoring use case

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Contents

		Pa	age		
1	Rin	graziamenti	5		
2	Ria	ssunto	7		
3	Intr	roduction	9		
4 Industry 4.0 and cybersecurity					
	4.1	Theory behind the Industry 4.0 movement	11		
	4.2	Typical use cases	11		
	4.3	Industrial IoT and the cybersecurity problem	11		
5	Alst	tom group and their problem	13		
	5.1	Dissecting Alstom as a company	13		
	5.2	Alstom solution for railway track monitoring	13		
6	Pro	Project			
	6.1	Alstom issues with interacting with machines under private networks	15		
	6.2	Goals of the thesis	15		
	6.3	Top-down description of the implemented solution	15		
7	Cor	nelusion	17		

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 into account the revolutions in the means of production, also known as industrial revolutions. The three main industrial revolutions range from

- 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