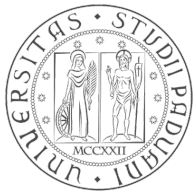

University of Padova

Engineering Departement

Computer Engineering Master Degree

Invisible CAPPCHA

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To my parents, that always help
me to be happy doing what I love
and support me reaching my goals.

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Chapter 1

Introduction

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CAPTCHA type	Usability issues	Security
Arithmetic		
Audio-based	Issues of recognition: • Previous knowledge of English dictionary by the user. • Some character sounds very similar to others.	
Game-based		
Image-based	Difficulty of identification of images caused by: • Blur of images. • Low vision condition.	
Puzzle-based	It takes too much time to solve the puzzle and to identify the arrangement of puzzles.	
Text-based	Many problems have to be solved by user: • Multiple fonts. • Font size. • Blurred Letters • Wave Motion.	It can be identified by OCR (Optical Character
Video-based	Issues downloading videos to find correct captcha because of large size of files.	