## **BSc Final Year Project**

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## **CAPTCHA SAM**

**Baldeep Birak** 

Supervisor: Chi Nguyen

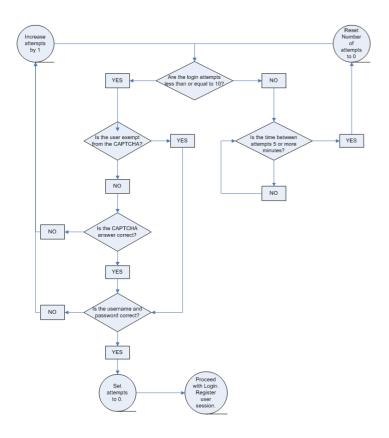
Course Code: CNMD, Student ID No. 232149

Moderator: Dr Vuksanovic

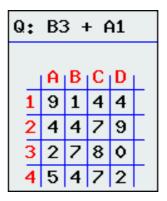
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## Introduction

This project is about making an authentication system that makes the University Intranet login more secure. The problem with the current system is that anyone can keep trying to login (human or bot using brute force methods). There is <u>no limit</u> on the amount of guesses a user can make. This adds a security vulnerability with the possibility of University content (such as the new forum) leaking out.



## What is the answer?



## **CAPTCHA SAM**

Subtraction Addition Multiplication

## Abstract

This project looks into the ECE Intranet and reveals a security vulnerability with the current system. It looks into the implementation of a CAPTCHA with a web based login page. There was a feedback questionnaire that required the participation of staff and students of the department. Questions were asked about the use of a new system and the analysis goes into detail about how the respondents would feel if there was a possible switch over.

CAPTCHAs are given a bad name because of how big companies implement them on their websites. This project reveals both good and bad examples of CAPTCHAs from some of the big companies around and explains why this is the case. It also looks into alternative methods for companies that wish to use CAPTCHAs to help pass the authentication process of a registration, system login or even a blog post.

There are some alternative methods to CAPTCHAs mentioned in the report that maybe workarounds, however there are also reasons why these are not so good in a real world example. This would raise questions to some of the articles on the subject matter from large organisations (such as W3C) and why they may wish to retract their statements.

## Want to find out more?

If you wish to find out more about this final year project, including the Project Presentation, Report and the Survey please feel free to contact me. Please take a business card or send an email to <u>b\_birak@hotmail.com</u>. Thank you.



Department of Electronic and Computer Engineering

## BSc Final Year Project

## Home About Contact Us Help

## **User Home**

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Change Password

## Leave Feedback

Please use this form to send your opinions and comments to the website admin. Please test the system a couple of times before leaving feedback. Most of the questions have 3-5 possible answers.

Feedback

If you wish to receive a response afterwards, please leave your name and email address and I will get back to you

# Log out Name: Email: Email: Q1: Before today, I knew what a CAPTCHA is? Q2: I found the numbers in the grid easy to read? Q3: I found the equations easy to solve? Q4: Did you need a calculator to work out the answer? Q5: Before you pressed login, what was the most time consuming Q6: What would have helped you answer the CAPTCHA question Q7: As a student, which of the following would you like most? Q7: As a student, which of the following would you like most?

Q7: As a student, which of the following would you like most? Q8: If the CAPTCHA was implemented on the ECE Intranet, would your level of usage:

### Comments:

Please let me know what you like most, liked least and what you believe should be changed? Other comments are also welcome.

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Passwords	<u>63</u>	2008-04-28 20:36:22	148.197.104.59	user	2	5	5	1	1	3	2	2							
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	<u>68</u>	2008-04-29 08:52:48	148.197.67.37	user	1	5	4	1	2	3	2	2							
Indiv Result	<u>69</u>	2008-04-29 11:56:05	148.197.64.109	staff	2	3	5	1	2	2	2	2							
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	<u>72</u>	2008-05-02 15:10:32	148.197.34.124	user	1	5	4	1	2	2	2	2							
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	<u>75</u>	2008-05-06 14:44:42	148.197.34.51	staff	1	4	5	1	1	2	3	2							

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