

**West Visayas State University**  
**COLLEGE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY**  
**La Paz, Iloilo City, Philippines**

COUNTME: A HUMAN COUNTING FOR CROWD CONTROL AND SOCIAL  
DISTANCING SYSTEM USING IMAGE RECOGNITION

An Undergraduate Thesis  
Presented to the Faculty of the  
College of Information and Communications Technology  
West Visayas State University  
La Paz, Iloilo City

In Partial Fulfillment of the  
Requirements for the Degree  
Bachelor of Science in Information Technology  
by

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Jhemer Cris B. Colas  
Albert Anthony F. Polong  
J-Anne S. Soliva  
Charles D. Villafuerte

June 2023

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COLLEGE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY  
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Approval Sheet

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Sheina A. Arlanza; Jhemer B. Colas; Albert Anthony Polong;  
J-Anne S. Soliva; Charles D. Villafuerte; A Human Counting  
for Crowd Control and Social Distancing System using Image  
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Abstract

COVID - 19 became a global pandemic in 2020 pausing all social interactions and activities creating a global health emergency crisis that disrupted different living conditions and brought havoc in the midst of uncertainties. Various countermeasures were introduced to limit the transmission such as the use of face masks and face shields and limiting person to person distances. Social distancing was introduced to the general public to provide assurance, and security from acquiring the virus; thus, the whole foundation of this study was formulated with the idea of providing technological innovations and inputs that are relevant in the current real world scenarios. This research aimed to develop a system that would benefit organizations in monitoring crowd control and social distancing, particularly during this pandemic. This study may provide help in

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monitoring the crowd and social distancing of people within the establishment to prevent the rapid spread of the virus.

A system has been created to restrict the spread of the COVID virus in enclosed or public places meant for gatherings, such as malls and various establishments that people come to individually or in groups. Installing the system will enable establishments to monitor the number of people entering the establishment, clumping together or walking in huge groups to avoid close-contact interactions due to the COVID virus. As the pandemic continues, it is the people's job to prevent any more COVID patients. Therefore, social distancing is highly recommended to reduce the risk of catching the virus. Although it is a challenge to distance yourself in public places such as establishments where the path inside is limited and people cannot avoid getting too close to each other.

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**Ia Paz, Iloilo City, Philippines**

Table of Contents

	Page
Title Page	i
Approval Sheet	ii
Acknowledgment	iii
Abstract	vi
Table of Contents	viii
List of Figures	x
List of Tables	xi
List of Appendices	xii
Chapter	
1 Introduction to the Study	
Background of the Study and Theoretical	
Framework	1
Objectives of the Study	8
Significance of the Study	9
Definition of Terms	11
Delimitation of the Study	14
2 Review of Related Studies	
Review Of Existing and Related Studies	15



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**COLLEGE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY**  
**Ia Paz, Iloilo City, Philippines**

3	Research Design and Methodology	
	Description of the Proposed Study	37
	Methods and Proposed Enhancements	39
	Components and Design	
	Software Architecture	44
	System Architecture	45
	Procedural and Object-Oriented Design	46
	Methodology	
	System Development Life Cycle	50
4	Results and Discussion	
	Implementation	53
	Results Interpretation and Analysis	61
	System Evaluation Results	62
5	Summary, Conclusions and Recommendations	
	Summary of Proposed Study Design	
	and Implementations	65
	Summary of Findings	67
	Conclusions	68
	Recommendations	70
	References	71
	Appendices	81

List of Figures

Figure		Page
1	Software Architecture of the Proposed System	44
2	System Architecture of the Proposed System	45
3	Procedural Design of the Proposed System	46
4	Object-Oriented Design of the Proposed System	49
5	Agile Model of the Proposed System	50
6	Login Page	55
7	Homepage	56
8	Real-time Crowd Counting and Control Monitoring Dashboard	57
9	Violator Reports Overview	58
10	Real-time Violator Detection and Notification	59
11	Gallery	60

**West Visayas State University**  
**COLLEGE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY**  
**Ia Paz, Iloilo City, Philippines**

List of Tables

Table	Page
1 Evaluation Rating Scale	63
2 Evaluation Results	64

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**COLLEGE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY**  
**Ia Paz, Iloilo City, Philippines**

List of Appendices

Appendix	Page
A Letter to the Adviser	82
B Letter to the Intended User/Respondent	83
C Letter to Conduct the Study	84
D Adviser's Endorsement Form	85
E Technical Editor's Endorsement Form	86
F English Editor's Endorsement Form	87
G Certification for Bookbinding	88
H Gantt Chart	89
I System/Software Evaluation Form for Users	90
J Disclaimer	98