# MINI-PROJECT REPORT

# GO- SIGN TO TEXT TRANSCRIPT

# Submitted by: DEEPAK V LMC21MCA2017



DEPARTMENT OF COMPUTER APPLICATIONS (Affiliated to APJ Abdul Kalam Technological University, Kerala (KTU))

LOURDES MATHA COLLEGE OF SCIENCE AND TECHNOLOGY KUTTICHAL, THIRUVANANTHAPURAM-695574 (MANAGED BY THE ARCHDIOCESE OF CHANGANASSERY)

# **GO-SIGN TO TEXT TRANSCRIPT**

**A Project Report** 

Submitted By:

## **DEEPAK V - LMC21MCA2017**

in partial fulfillment of the requirements for the award of the degree in

# MASTER OF COMPUTER APPLICATIONS

at



# DEPARTMENT OF COMPUTER APPLICATIONS LOURDES MATHA COLLEGE OF SCIENCE AND TECHNOLOGY KUTTICHAL, THIRUVANANTHAPURAM-695574

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, KERALA)

**NOVEMBER 2022** 

# LOURDES MATHA COLLEGE OF SCIENCE AND TECHNOLOGY KUTTICHAL, THIRUVANANTHAPURAM – 695574

(Affiliated to APJ Abdul Kalam Technological University, Kerala)

### DEPARTMENT OF COMPUTER APPLICATIONS



# **CERTIFICATE**

This is to certify that the project work entitled "GO – SIGN LANGUAGE TO TEXT TRANSCRIPT" is a Bona fide record of the work done by Mr. DEEPAK V, Reg No LMC21MCA2017, student of Department of Computer Applications, Lourdes Matha College Of Science And Technology, Kuttichal, Thiruvananthapuram, affiliated to the APJ Abdul Kalam Technological University, Kerala from August 2022 to November 2022 in partial fulfillment of the requirements for the award of the Degree of Master of Computer Applications from APJ Abdul Kalam Technological University, Kerala.

Prof. Bismi K Charleys	Date:
(Internal Guide)	

**Internal Examiner** 

Prof. Bismi K Charleys (Head of the Department)

### **DECLARATION**

I undersigned here by declared that the project report "GO – SIGN TO TEXT TRANSCRIPT" submitted for partial fulfilment of the requirements for the award of degree of Master of Computer Applications of the APJ Abdul Kalam Technological University, Kerala. This submission represents my idea in my own words and, I have adequately and accurately cited and referenced the original sources. I also declare that I have adhered to ethics of academic honesty and integrity and have not misrepresented or fabricated any data or idea or fact of source in my submission. I understand that any violation of the above will be a cause for disciplinary action by the institute and/or the University.

Place: Trivandrum DEEPAK V

Date: \_\_/\_\_/2022

### ACKNOWLEDGEMENT

An endeavour over a long time can be successful only with advice and support of many well-wishers. I wish to place on record my profound indebtedness and gratitude to all those who have contributed directly or indirectly to make this project work a success.

At the very onset, I express my gratitude to God Almighty who sheltered me under his protective wings and showered on innumerable blessings throughout the period of this Master of Computer Application.

It is a great pleasure to express my sincere gratitude to **Rev.Fr.Bejoy Arackal**, Director and **Dr.Beshiba Wilson**, Principal Lourdes Matha College of Science and Technology for permitting to do this project with the fullest spirit.

I am highly obliged to **Prof.Bismi K charleys** Head of the Department of Computer Applications of Lourdes Matha College of Science and Technology, for being the source of inspiration throughout the course and for her valuable guidance.

With heart full of thanks, I would like to take up this opportunity to wish my Internal guide **Prof.Bismi K charleys**, Assistant Professor and all staffs of Department of Computer Applications for their endless support, encouragements and suggestions in various stages of the development of this project.

With immense love and gratitude, I thank every unknown member of numerous amounts of open-source communities for all the selfless works and contributions they've made. Without them and their help, I wouldn't have made it here. Finally, I wish to express my sincere gratitude to all our friends who directly or indirectly contributed in this venture.

## **CONTENTS**

C	ontent	Page No
Al	BSTRACT	1
CHAPTER 1		2
1.	INTRODUCTION	2
	1.1. General Introduction	3
	1.2. Goal of the Project	3
CI	HAPTER 2	4
2.	LITERATURE SURVEY	4
	2.1. Study of Similar Work	5
	2.1.1. Existing System	5
	2.1.2. Drawback of Existing System	5
CI	HAPTER 3	6
3.	OVERALL DESCRIPTION	6
	3.1. Proposed System	7
	3.2. Features of Proposed System	7
	3.3. Functions of Proposed System	7
	3.4. Requirements Specification	8
	3.5. Feasibility Study	8
	3.5.1. Technical Feasibility	8
	3.5.2. Operational Feasibility	8
	3.5.3. Economical Feasibility	9
	3.5.4. Behavioral Feasibility	9

CHAPTER 4	10
4. OPERATING ENVIORNMENT	10
4.1. Hardware Requirements	11
4.2. Software Requirements	11
4.3. Tools and Platforms	11
4.3.1. Pycharm	11
4.3.2. Python 3.8	11
4.3.3. Tkinter	11
4.3.4. Open CV	12
4.3.5. Deep Learning	12
4.3.6. CNN	12
4.3.7. TensorFlow 2 and Keras	13
4.3.8. Jupyter Notebook	13
4.3.9. Nvidia Cuda	13
4.3.10. Canva	14
CHAPTER 5	15
5. DESIGN	15
5.1. System Design	16
5.2. Program Design	16
5.3. Use case Diagram	17
5.4. Activity Diagram	17
5.5. Proposed Project Pipeline	18
5.5.1. Pipeline for Pre processing	18
5.5.2. Pipeline for Proposed System	19
5.6. Model Architecture	20
5.6.1. Layered View	20
5.6.2. Model Summary	20

5.6.3. Model Accuracy	21
5.7. Input Design	22
5.8. Output Design	22
CHAPTER 6	23
6. FUNCTIONAL AND NON FUNCTIONAL REQUIREMENTS	23
6.1. Functional Requirement	24
6.2. Non Functional Requirement	24
CHAPTER 7	25
7. TESTING	25
7.1. Testing Strategies	26
7.2. Unit Testing	26
7.3. Integration Testing	27
7.4. System Testing	27
7.5. Testing Results	28
CHAPTER 8	29
8. RESULTS AND DISCUSSION	29
8.1. Results (Salient Features)	30
8.2. Screen shots	31
CHAPTER 9	34
9. CONCLUSION	34
9.1. System Implementation	35
9.2. Conclusion	35
9.3. Future Scope	36
BIBILOGRAPHY	37
APPENDICES	38
GIT HISTORY	39