# DIGITIZATION OF INDIAN DOCUMENTS USING OPTICAL CHARACTER RECOGNITION

#### A PROJECT REPORT

Submitted by

#### HARI KRISHNAN S G

In partial fulfillment for the award of the degree

Of

#### MASTER OF COMPUTER APPLICATIONS



#### HAJI C.H.M.M. COLLEGE FOR ADVANCED STUDIES

CHAVARCODE, PALAYAMKUNNU P O – 695146
THIRUVANANTHAPURAM DIST
KERALA

UNIVERSITY OF KERALA, THIRUVANANTHAPURAM

DECEMBER 2021

# HAJI C.H.M.M. COLLEGE FOR ADVANCED STUDIES CHAVARCODE, PALAYAMKUNNU P O – 695146 THIRUVANANTHAPURAM DIST KERALA

#### MASTER OF COMPUTER APPLICATIONS

### BONAFIDE CERTIFICATE

Certified that this project report "DIGITIZATION OF INDIAN DOCUMENTS USING OPTICAL CHARACTER RECOGNITION" is the bonafide work of HARI KRISHNAN who carried out the project work under my supervision.

HARI KRISHNAN S G: 95518801003

HEAD OF THE DEPARTMENT & INTERNAL GUIDE

Mr. RAJESH S

Associate Professor

**EXTERNAL EXAMINER** 

#### **ACKNOWLEDGEMENT**

I would like to express our gratitude to God for giving us good health and better courage to accomplish this project successfully.

I express my sincere gratitude to the Director of MCA **Prof.(Dr).SIRAJUDEEN.M**, for providing us an opportunity for doing this project work.

Special thanks to **Mr. RAJESH S**., Associate Professor, Head of Department for his expert and valuable advice, inspiration and facilities rendered throughout for successful completion of the project.

I express my sincere thanks to our internal guide **Mr. RAJESH S, Associate** Professor, for her expert and valuable advice, inspiration and facilities rendered throughout for successful completion of the project.

With great pleasure we may record our deep gratitude to our parents, friends and to all staff members of **MCA Department** for the immensurable help rendered to us during the course of the project.

HARI KRISHNAN S G

# **TABLE OF CONTENTS**

| A CIVALO | W ED CEMENT                           |     | PAGES |
|----------|---------------------------------------|-----|-------|
|          | WLEDGEMENT                            |     |       |
|          | FIGURES                               |     |       |
|          | CT                                    |     | V11   |
| CHAPTE   |                                       |     | 1     |
| 1.       | INTRODUCTION.                         |     | 1     |
| 2        | 1.1 Statement of the problem          |     | 2     |
| 2.       |                                       |     | 3     |
|          | 2.1 Present System.                   | 03  |       |
|          | 2.2 Limitations of present system     | 03  |       |
|          | 2.3 Proposed system.                  | 04  |       |
|          | 2.4 Advantages of Proposed system     | 04  |       |
|          | 2.5 Feasibility Study                 | 06  |       |
| 3.       | SYSTEM SPECIFICATION                  |     | 8     |
|          | 3.1 Hardware Requirements             | 08  |       |
|          | 3.2 Software Requirements             | 08  |       |
| 4.       | SYSTEM DESIGN                         |     | 9     |
|          | 4.1 Context Level Diagram             | 09  |       |
|          | 4.2 Data Flow Diagram                 | 10  |       |
|          | 4.3 Data Base Diagram                 | 11  |       |
|          | 4.4 Normalization                     | 13  |       |
|          | 4.5 Design of Each Subsystem          | 15  |       |
|          | 4.6 UML Diagram                       | 16  |       |
| 5.       | CODING.                               |     | 18    |
|          | 5.1. Features of Language             | .18 |       |
|          | 5.2 Functional Description.           | 21  |       |
| 6.       | IMPLEMENTATION                        |     | 55    |
|          | 6.1 Implementation of Proposed System | 55  |       |
| 7.       | CONCLUSION                            |     | 56    |
| 8.       | FUTURE ENHANCEMENT.                   |     | 57    |
|          | APPENDIX                              |     | 58    |
|          | BIBII IOCD ADHV                       |     | 6     |

# LIST OF FIGURES

|     | Figures                   | Page |
|-----|---------------------------|------|
| 4.1 | Context Level Diagram     | 09   |
| 4.2 | Data Flow Diagram         | 10   |
|     | 4.2.1 Level 1 DFD.        | 10   |
| 4.5 | Design of Each Subsystem. | 15   |
| 4.6 | UML Diagram               | 16   |
|     | 4.6.1 Use Case Diagram    | 16   |
|     | 4.6.2 Sequence Diagram    | 17   |

#### **ABSTRACT**

There is an increasing demand for robust identification methods in a more digital world. DID system offers a unique identity verification service platform that allows identity document verification at high accuracy and high speed with use of optical character recognition. In DID system document of a person scanned through a camera or upload from system and data is extracted from this document after extraction the data is cross checked to ensure that applicants are who they claim to be.