International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395 -0056
Volume: 04 Issue: 02 | Feb -2017 www.irjet.net p-ISSN: 2395-0072

SMART DRIVING LICENSE RENEWAL MACHINE USING LABVIEW

Prof.S.Rajeshwari/EEE[1],P.Karthika[2] ,V.Jeejesh Kumar[3],P.Sweetha[4]

INFO INSTITUTE OF ENGINEERING, TAMIL NADU, INDIA

Abstract - *In recent times the process involved in renewal of driving license becomes complex (manual) and time consuming. A modified scheme titled* ***"Smart Driving license renewal machine"*** *is proposed to overcome this difficulty. It fetches the information from the database of existing license holders and the verification process is done using biometric sensor through aadhar database .Once the license number is entered this GUI[1] will be respond as per requirement. As soon as the documents are verified the renewal process will be complete and the license will be issued without any delay. The whole system is designed using LabVIEW with the help of myRIO [2]. Hence the whole process involving manual work is done in an automated way.*

Key Words**: Driving License, GUI, LabVIEW, myRIO, Biometric sensor.**

1. INTRODUCTION

A driving license is basically an official document issued by the Government of India, permitting individuals to operate or drive a motorized vehicle such as a car, motorbike, truck, bus, etc., on a public road, without any supervision.

In India, a driving license is issued by the Regional Transport Authority (RTA) or Regional Transport Office (RTO) of that particular state. The Motor Vehicles Act of 1988 states that no individual without the Driving License is authorized to drive a motor vehicle in a public place.

The Driver's License needs to be renewed after expiry of its validity. An expired license is valid for 30 days and can be renewed during this grace period without a penalty. A license expired by more than 30 days can be renewed on payment of a penalty, provided the application is made within a period of five years from the date of expiry. You will have to visit with all the required documents to the District Transport Office in your region. After submission of specified fees and processing all your documents, you will be issued your renewed Driver's License.

The currently existing method of driving license renewal is a long process. The proposed system is an automated process which reduces time delay and man work.

2. BLOCK DIAGRAM OF THE PROPOSED SYSTEM:

The block diagram of the proposed system is shown in fig 1.

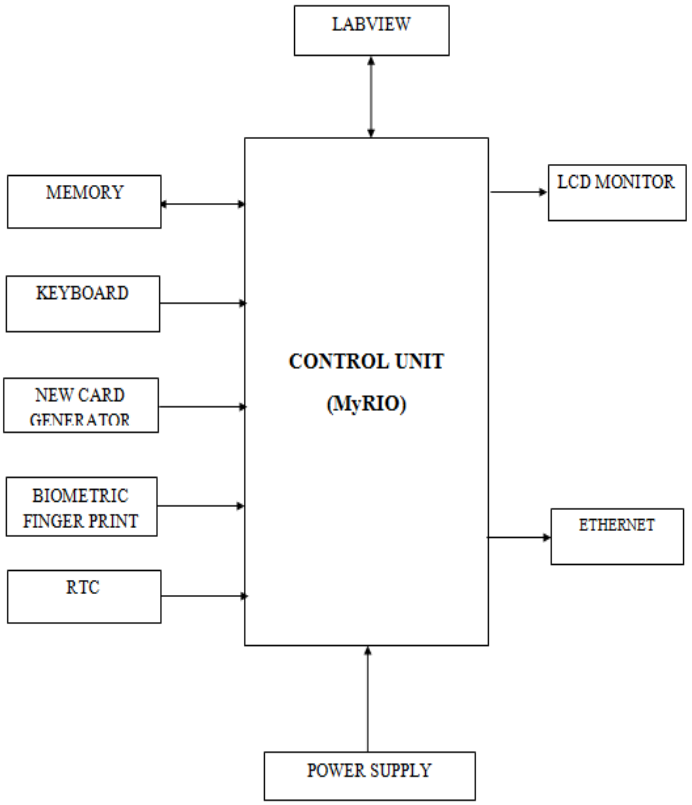

Fig 1 Block diagram of the proposed system

2.1 SYSTEM ARCHITECTURE:

Control Unit (MyRio): MyRIO is a real-time embedded evaluation board made by National Instruments. It is used to develop applications that utilize its on board FPGA and microprocessor. It requires LABVIEW.

LabVIEW: It is an integrated development environment designed specifically for engineers and scientists. Native to LabVIEW is a graphical programming language (G) that uses a dataflow model instead of sequential lines of text code, empowering you to write functional code using a visual layout that resembles your thought process. This means you spend less time worrying about semicolons and syntax and more time solving the problems that matter.

Memory: Memory is the database where the existing license holders & their details are stored. The machine will retrieve the information from memory & process it.

Keyboard: The user's input is through the keyboard. The user has to enter his license number & other details through keyboard.

Card slot: The disposal & generation of driving license takes place through this card slot. It is driven by motor.

Biometric Fingerprint: Biometric fingerprint [3] is required to recognize if the respective license holder is the one who is there for the renewal and is used for security purposes [4].

Cash collector: The cash collector slot is to receive the fees [5] for processing and for the renewed card cost. The cash will be placed in this slot.

Receipt printer: Receipt will be generated here.

3. CONCLUSIONS

The process of renewal of driving license is time consuming. There is difficulty involved in the long time process. To reduce this difficulty a stand-alone embedded machine can be developed using a "LabVIEW" (system design platform). The reason for using this software is its Powerful multi thread execution. A fingerprint sensor is used for identification process. Thus the problems for renewing driving license have been analyzed and a solution is brought out.

REFERENCES

[1] Jesus M.Almedros-Jimenez and Luis Iribrane "Desinging GUI components from UML cases", 2005

[2] Ed Doering "NI MyRIO Project Essentials Guide", 2013

[3] Ajay Singh Paraste and Dr. Shailja Shukla "Finger Print Identification Method", 2014

[4] Rowe et al., "Multispectral Fingerprint Imaging (MSI)", 2005

[5] Nuthan K et al., "An Automated Teller Machine ", 2015

[6] Chandra Prakash Singh, Susheel Jain, Anurag Jain "fingerprint feature extraction method", 2003

[7] Moheb R. et al "Image extraction and accurate skin detection from web pages", 2002

[8] Ratha et al. "Flow orientation based segmentation or binarization algorithm", 2004

[9] Mayank Vatsa et al. "Improved fingerprint verification", 2001

[10] Shunshan li et al "Image Enhancement Method for Fingerprint Recognition System" ,2007