

## Automation: Advance Trends in Engineering and Technology

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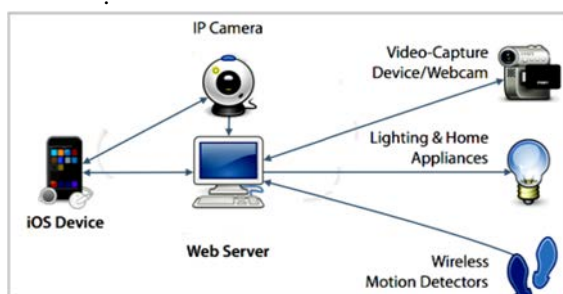
### ABSTRACT

Due to automation the efforts of human decreased in high amount. Advantages of automation is not limited up to only efforts but also time, money etc. are affected. In this paper authors introduced the recent techniques of automation. In that seven to eight terms are discussed briefly, how was traditional methods and what recent technique ton that. Here marketing automation, banking automation is discussed which we experience in daily life.

**Keywords** Automation, marketing, trends

### I. INTRODUCTION

The automation of home is possible using one personal computer, microcontrollers, sensors etc. For more security and identification of persons the cameras are also in home automation.



### II. MOTOR AUTOMATION

As we press button 1 of your mobile then motor will start automatically, as press 2 motor will stop automatically [3]. It is not magic, this is possible only & only due to Information Technology. On starting and stopping of motor message will be sent to the motor user. If water level of water decreases below particular level it will stop motor automatically [3].

### III. MOISTURE SENSOR AND AUTOMATION

The term farm automation regard the sprinklers in the farm can automated. The moisture sensor is introduced in the soil of farm. Moisture level decreases below particular level system will send SMS to user and user can start sprinklers through mobile [3].

### IV. STREET LIGHT AUTOMATION

The human efforts are decreasing day by day and human is dominated by automation very much. In our daily life there is no any field in that field automation is not available. We can see. automation in school, companies, offices, industries etc. [2]. Even out controlling action takes place automatically. This research paper to introduce an overview of automation. That is street light is made automatically, where due to careless nature of human the large amount of electricity is wasted due to street light. Due to automation the wastage of electricity reduced as well as human efforts are also reduced.

### V. TRAFFIC SIGNAL AUTOMATION

Traffic signal system in used is control the traffic but if any vehicle is pass during red signal then this system is not useful and as result there is chances of accidents. And to avoid this it requires a traffic police

at the every way of signal in this way human efforts is increase and it needs more manpower for controlling traffic in better way. Smart signal device is essential to make the traffic signal robust, secure and safe, to reduce human efforts and to increase the efficiency of traffic signal for detecting the vehicles which are breaking the signal [4].

#### **VI. AUTOMATION FOR NOISE DETECTION IN SCHOOLS AND COLLEGE**

Noise pollution is defined as unwanted sound that is unreasonably introduced in our daily life .This can be produced due to humans, animals, vehicles, industries etc. Traditionally hospitals, school, colleges, banks etc. are lass only with cameras, there is no any system used for detection of noise with camera [5]. It is stopped by using the technique Noise Detection and Image Capturing Using MATLAB.

When students make noise greater than programmed value the camera will capture the image

#### **VII. LIBRARY AUTOMATION**

Traditionally the record of each student is taken by using library cards but now this technique is replaced new technique called Library Automation. The student have to select the books which he want and scan thumb. Then scan the barcode by using barcode reader the entry of books made automatically. This is one technique there are many techniques for library automation.

#### **VIII. CLASSROOM AUTOMATION**

The attendance of student is made automatically by capturing image of class. Then using image processing detailed explanation of each student is available from database. Due to this technique attendance of each lecture is possible means the time for attendance got for teaching etc.

#### **IX. AUTOMATION IN MARKETING**

The price on anything in the supermarket, malls etc. read out by barcode reader. This technique is fast and human effort decreases as a result less time required at cash counter. The another advantage of this technique is there is fixed value of any product, the retailers cannot change price of product fixed by producing company

#### **X. AUTOMATION IN BANKING SECTOR**

In previous days, there are lines of men in banks for depositing and withdraw of money. In today's day withdraw of money in done in few minutes due to ATM machines. For the depositing money counting machined are available. So, there time required is very less as well as human efforts also reduced. By adopting an automated process for submission of returns, the banks would be able to submit accurate and timely data without any manual intervention [2]. This process would also enable the banks to improve

upon their MIS and Decision Support Systems (DSS), etc. Benefits of automation to bank

- Improved Timelines • Enhanced Data Quality
- Improved Efficiency of Processes
- Reduced Costs
- Use of the CDR for MIS Purposes

#### **XI. CONCLUSION**

Here we have discussed around ten automation terms. The automation is not limited up to these areas only. The details of that automation is detailed in research papers given in references. Banking sector has been achieved lot of economical profit because of automation because less human efforts, more work in less time. Another one due to online banking paper less transections are possible. As a result no wastage of paper. In future there will be automation in each and every things.

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