Smart Milk Quality Detection System

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Abstract: There has become an ever increasing need for detecting good quality of milk against the bad one because of the vast number of methods now known and used for milk adulteration. Especially since India has a vast and thriving dairy industry committing an adulteration fraud can reap rich profits and exploit poor people. Such methods lead to large amount of wastage of milk since the reliability seen thus far does not guarantee accurate adulteration detection within short number of tests completely non-contact type method for detection of milk adulteration, preserving the consistency and quality of milk sample and making it reusable for testing again. The results obtained detected the adulteration with an accuracy.They have adapted new technology in milk production and collection. But still analyzing the quality of milk and calculating the accurate price of milk according to its quality is challenging task.

I. INTRODUCTION

This System is going to elaborate introduction of the proposed system. This factor includes overview of the system, motivation and objective of the system. This chapter also explain how the report is organize. Chemical and microbiological analyses of cheese milk, nished cheese and cheese whey are required to maintain efficient operations and to ensure food safety and quality. This chapter describes some analytical procedures relevant to cheese making operations, but it is not intended to be a comprehensive process and quality control manual.

II. LITERATURE SURVEY:

This system provides a detailed literature survey of proposed system. Agriculture is the backbone of our country and dairy farming is joint business of indian farmer. Dairies collect milk from farmer everyday and payments for this milk are done according to rates per liter. This rate depends on various factors like weight, fat SNF of the milk. Thus, a system which is simple in construction, easy to operate and which measures parameters such as FAT,PH,SNF and display it on mobile application. In earlier days the process of testing of milk was done by measuring FAT, density, SNF and weight separately. So to measures each quantity is very time consuming and also all farmer has to stay in line for whole procedure. Hence the proposed system is going to used directly by the user instead of dairy staff.

Fig: Previous Technique.

Previous Technique of Milk Analysis: In this previous system dairy user can test the milk FAT with the help of centrifugal action. and this system does not measure the pH of milk. it measure the quantity by using the weight machine. It does not maintain the any type of record with monthly basis.
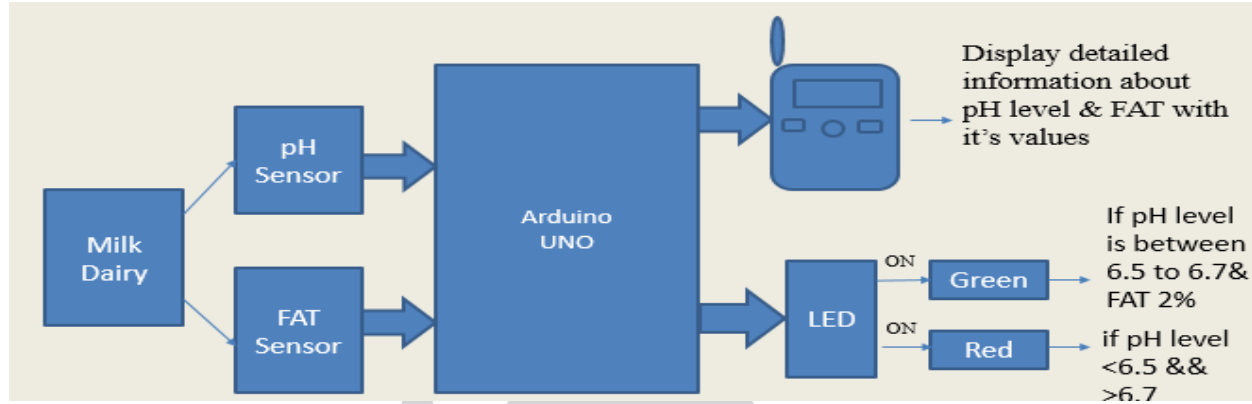
III. PROPOSED SYSTEM:

Figure. Architecture Of SMQD

Working:

In this project we are going to calculate the milk quality of milk by using sensors. in which we use the four types of sensor. pH sensor is use to measuring the pH value. we are set the pH value ,according to that value the quality of milk is measure. The appropriate value of pH is 6.5 to 6.7. By using the LDR sensor we are measure FAT .In LDR we passes the LED through the milk and according to that transparency of light we can get understand the actual FAT level. the actual FAT value is in between 0-2 percent. And all these values are displayed on LED and LCD too. According to pH level and FAT level we calculate the actual quality of milk.

IV. CONCLUSION:

The development and application of low cost and efficient milk parameter detection and analyzing system using arduino controller has been presented in this paper. The system allows the measurement of qualitative parameters (pH, Fat and SNF). The developed system is smaller in size and weight; it works with low power consumption and has a fast response. Thus it can be implemented for portable applications. Future work will be focused on improving overall accuracy of the system. So that it could be freely implemented in field operations.

V. REFERENCES

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