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Review on Module of Identifying Fault in Transmission Line

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ABSTRACT: To a transmit electricity for a transmission lines is the most important system. Transmission lines principal amount of power. A requirement of power and its allegiance has grown up exponentially over the modern era, and the major role of a transmission line to transmit electricity power from the source area to Distribution network exploded between limited production, and a tremendous claim has grown to focus on minimizing power losses. Losses like transmission loss and also conjecture factors Transmission lines faults are an inevitable part of any power system. They cause a interruption in the power supply, which is undesirable. With an ever-increasing demand for better performance and minimal interruptions, accurate fault analysis is very needy to restore a system to its normal operation by detecting and clearing the transmission line fault

KEYWORDS: transmission Sensing, power system, System Security.

I. INTRODUCTION

Regarding the distribution system, transmission lines perform the most important part that is to transfer electric power from the generating station to load centre Since the development of the distribution and transmission system power system engineers have been an object for locating and detecting faults. As long as the fault detected in short duration, it provides a good service for protecting the apparatus as well as an open way for disconnecting the part where this incident happened at fault, and with the help of this, it gives safe way to the system from any damages. So it is needed to detect the fault otherwise due to fault it causes Any disturbance which further tough time to the interconnected system that based on limitations. The structure of the transmission line constructed to investigate the location of the fault and can give separation only the part where the fault occurs. Stimulating method help in identify and isolate the fault in short period. A stable voltage can be achieved by the use of a series capacitor achieved. Series capacitors line inductance can be reduced by line If the line current leads the voltage, mean voltage increase. On the other side, there could be a voltage drop if line voltage is lagging by the line current. In this outlook, the voltage that has been boosted up and the voltage dropped decreased by the series capacitor as if the line inductance is smaller for the series recompensed line as associated with the unpaid line.

Suppose when more than two conductors develop contact each other or with the Contac take place on the ground to 3 phase systems that are considered at fault which could be a balanced fault or unbalanced fault [2]. Due to these faults stresses are produced in power system equipment that could damage the power system components [3-5]. So to avoid these harms and to make power quality better, it is essential to know the reasons of fault as well as the location of the transmission lines and solve it properly. The problem of finding the type of

II. LITERATURE SURVAY

- Three Phase Transmission line fault detection and analysis system in about power transmission system I show a prototype model of 3 phase power transmission line faults detection system In electricity journey of generation transmission distribution and utilization of electric power is called Electrical technology in power generation transmission and distribution many components are involved For example Power houses (power station) like thermal power plant hydro power plant nuclear power plants etc in power generation.
- Transmission towers or poles and transmission line grid station etc in power transmission system and

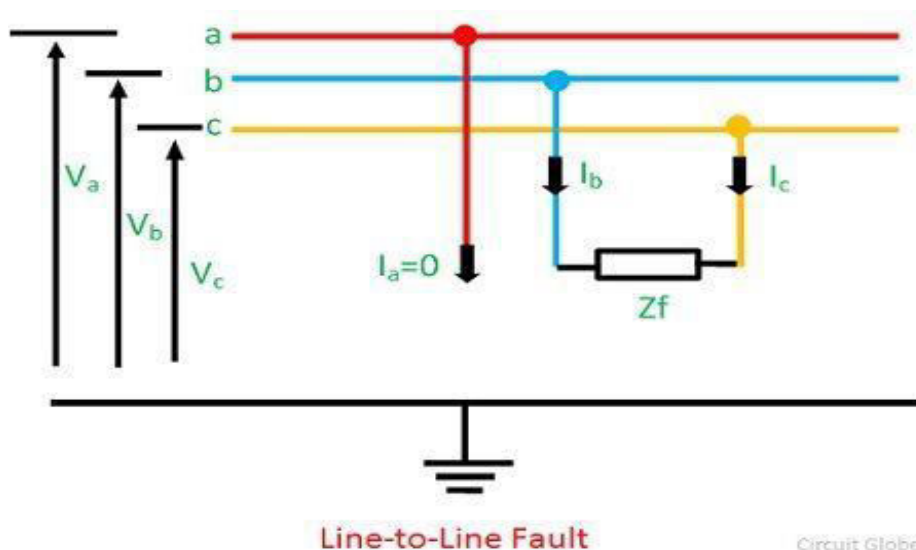


substations power transformers distribution transformers in electricity distribution system.

- In utilization of electrical energy there are many distribution companies are involved and responsible for electricity bills and make sure electric supply to consumers So there are many types of electrical faults or faults in transmission lines occurs in transmission system some in power system like (line to line fault) and line to ground fault in power system etc .For line to ground fault analysis and transmission line fault detection show a prototype fault detection project which is basically about three phase transmission line fault detection system in which we do three phase transmission line fault

II. PRINCIPLE FOLLOWING TO MODULE

In this our module there are some examples and here we are done you will see how the fault occur in the system by this diagram



So here we can see how the fault occur in the transmission line here the we had done the research and then we done here we can see how when the fault occur how the current of the remaining phase will become zero

II. EXPERIMENTAL COMPONETS

The proposed robot is composed of several components and they are: Arduino Uno R3, Arduino IDE, Ultrasonic Sensor(HC-SR04), IR Sensor Array, motor driver (L298N), Li ion Battery, TT gear motors with wheels.



Fig. Arduino uno R3

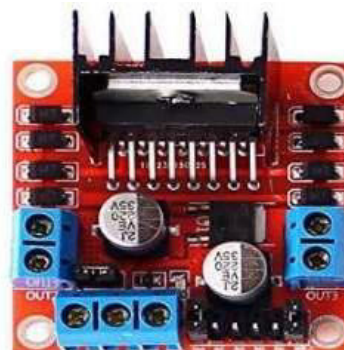


Fig. Motor driver module



Fig. Ultrasonic sensor

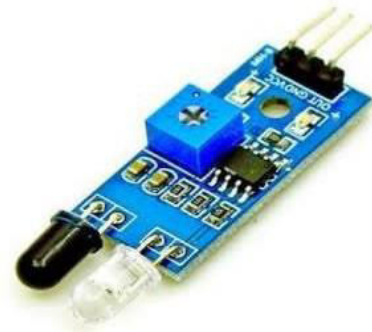
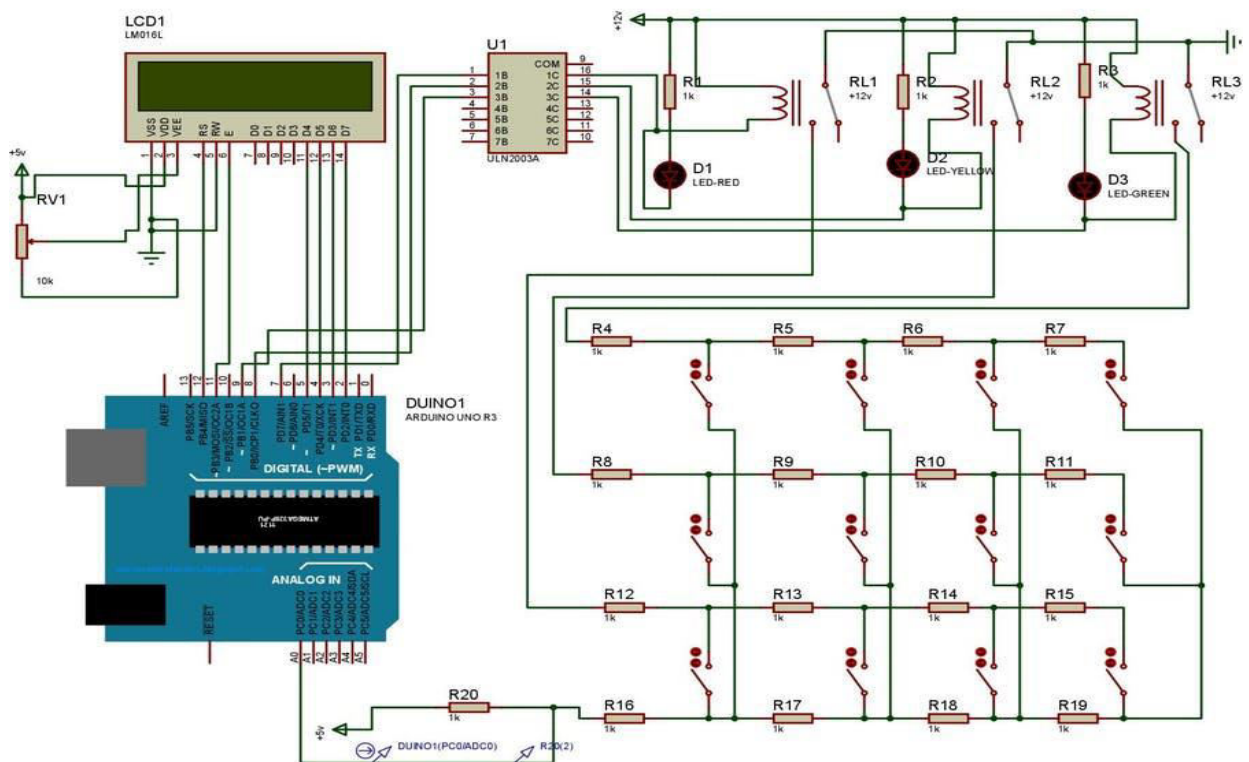


Fig. IR Sensor 2

Fig. Li ion Battery

III. CIRCUIT DIAGRAM



Here we can take an information about the circuit and how the circuit is work on by the above diagram we can see the circuit in connection and it can how the circuit it work there are node points and a starting and the



arduino how it done and detect a fault in the power system

IV. APPLICATIONS

The applications of transmission line are following

- Power transmission line
- Telephone lines
- Printed circuit board
- Cables
- Connectors (PCI, USB)

V. CONCLUSION

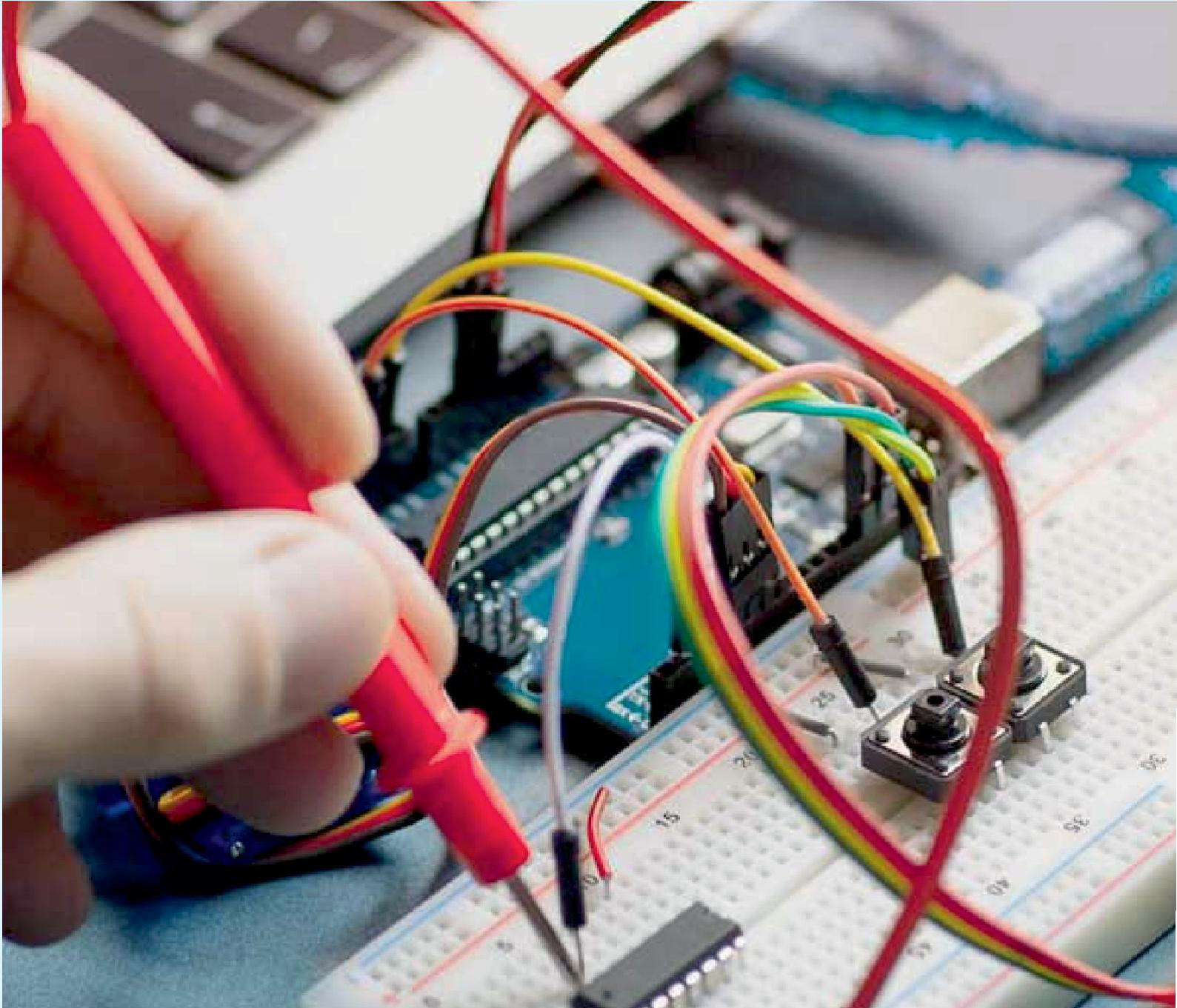
Here we can find the fault in the system by the module of identifying fault in the transmission line and we can increase an efficiency of the transmission and distribution losses and here some information below

In the above work, LG and LL faults have been dealt with using DWT based statistical analysis of the outgoing currents from the generator buses and faults are considered at the load buses.

Total six parameters are considered-skew loses of 1 approximate coefficient, skew losses of detail coefficient, kurtosis of approximate coefficient, kurtosis of detail coefficient, RMS of approximate coefficient and RMS of detail coefficient. IEEE standard 9 bus system has been utilized for this purpose. Using the method proposed here, type and location of a fault can be found out by monitoring the outgoing currents from the generator buses. Present work only considers two types of faults and fault locations to be the load buses. However, this work can be extended for other type of faults occurring at locations other than load buses.

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