

## THE EXPLINER ( THE FAULT REMOVER)

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### Abstract

We hear of many 'casualties of death and hazardous damage due faulty electric wiring and damaged wires. The rate of such accidents much high then statistical date because most of the case are from rural or non-developed areas in India. In such places people still uses the unauthorized way of using government or private electricity which results in accidents. Not only the unauthorized ways are the reason but also the use of non-standard cables also result the same. To maintain a proper quality through-out the electric supply system there should be regular check-up and immediate actions should be taken. Also many electric fatalities happen every year in industries. This paper deals with a modern and advance solution of managing the electric supply or electric wiring system in India. Through this paper we tried to demonstrate a better option for optimization of all the adverse effect due to miss-management of the system.

### Introduction

The present electric wire management system in India is based on observe and complain, but this method results in many fatalities. Transformer shunt down, short circuit at distributing line and many other incidence we have faced or heard in our day to day life, when such situation arises around our community or in our society we usually ignore the incident after making a pause we should do something. It is a habit of doing thing as we do daily until something affect you hard. The delay in our action may not have any effect on our life but it affect others life a lot because it may result in casualty which could left a unforgettable mark on his life. We purpose a better solution to stop such casualities not only because of unawareness but also from the wrong distribution and any other manufacturing defect which may not have any hazardous effect now but result in casualty. A smart device to check through the connection rehabilitee, wiring and also defected or cracked wires which may seem right. The device Expliner is capable of not only analyzing the grid distribution of wires but also check for any minor faults which may result in future disaster.

At the same time the device is capable of informing the nearest authorities about the fault and give a better way of analyzing the problem. The device works on many principles combined together to



become a better option to save the lives. The device is fully automatic and resistant to climate change any other problems that may be faced. It is fully loaded with tools and cameras to analyze the fault and take immediate and fast action to solve the problem.

### Problem Statement

Electricity is now a-days a major part of our day to day life and we all are now so independent on that we forget to take care of the service we are provided with. The overuse and ignorance with maintenance result in many casualties even death. Electric supply lines are provided in every small to large industries having a voltage flowing through them at the same time they come across populated area. A ignorance attitude results in many big accidents and result in many unforgettable events. According to the TIMES OF INDIA article on Jan 4, 2014 Bangalore, the electric department admitted that there are more than 1400 deaths across the state in last 3 years due to electric accidents.



Many other fire accidents are result of small short circuits, the events can be reduced but proper check of wire and the distribution system but by the time human may identify the problem the disaster results may have seen. So, there is a need of better and a smart way of controlling the things and managing the system.

### Solution

Expliner is the solution of all the problems that we have discussed above a smart, intelligent and accurate system which can identify the small problems and take immediate actions before it's too late. The idea is derived from the Expliner of Hibot Corporation the use of a smart machine to inspect the power lines process the data collected from different cameras at different angles. The principle of operation is image processing which is very accurate and using world wide at large scale in various applications. Along with abilities of analyze through image processing the device is capable of moving on the transmission

FATAL ACCIDENTS IN MAJOR STATES			
STATE	FATALITIES		
	2010-11	2011-12	2012-13
Andhra Pradesh	635	722	880
Tamil Nadu	533	535	483
Karnataka	307	110	175
Kerala	85	215	161
Gujarat	207	89	177
Madhya Pradesh	383	304	369
Rajasthan	351	240	504
West Bengal	122	117	17
Chhattisgarh	0	171	192
Delhi	45	14	9

line without affecting them. It is light weight need no assistance to work under human supervision. The need of such a device is high as it may result in large decrease in casualties due power failure or fault in wires. The device is not limited to only one pole to other it can shift from one side of pole to other with its mechanical ability and smart choice making decisions. The Expliner work through image processing it record the images at different angles and identifies even a small fault in the wire or line. After the full analysis it contact the nearest help station to inform about the problem and update the result to service station. The electricity board can take immediate actions and protect the casualties to occur. The device works independently and capable of making right decision due to sudden change in climate or any other factor. It travel over the transmission wire without affecting the living population and work on chargeable batteries it can also sent emergency signal in case of major fault in device or in the wire.

### Result

The device Expliner by Hibot Corporation is the sole company who has introduced such device in the market. It state working in 2014 at commercial level but in starting phase. The device is more reliable than any other factor that make the device more favorable and easily application and used by all. The future incidences due improper management or care can be taken care of in a better and a more reliable way then the traditional ways.

### Conclusion

The device like Expliner will change the many approaches of problem solving in India and will reduce the casualties at great extent. Such device should be promoted and being used in India may bring a new revolution not only in managing but also in technology.



### References

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