

A Smart Approach on Collecting Working Condition Data from Home Appliances under the Field Test

ABSTRACT

This study presents management of the data that are taken from the home appliances which are in the field test process. Field test process means collecting the data from the device by sensors, the measurement from environment, then evaluation of this information. This information depends on climate, altitude, user profile etc. Major application area of this study is home appliances sets and their domestic field test process. Also, this smart approach can be applied to any system including any electrical equipment in smart grid. Only 2 different requirements should be covered. Device Under Test (DUT) should work with the specialized test box to send working condition data and environmental measurements. GSM network should be alive in field test location. This study shows a new smart approach which relies on sending the field test data and environmental conditions over the GSM. The selection reason of GSM communication protocol in this study is the coverage percentage of this protocol is wider than others.

EXISTING SYSTEM

In the existing system, once we come out of the home we don't know what is going on at home like whether we switch off the lights or fans or any other appliances. In some cases it leads to a drastic effect to the home if we forgot to switch off the switches. This causes many problems to the users.

DRAWBACKS

- Security is less.
- It causes inconvenience to the user.

PROPOSED SYSTEM

The proposed system shows a smart approach for field test process including easy to remote control and tracking for the devices, energy monitoring at high safety level. By this approach, it is possible to solve remotely the bugs which occurred depending on the environmental conditions and usage profiles. During field test process, if a critical condition occurs (for instance, the temperature of device surface is increasing) the device electricity can be cut off. This means, some alarm condition definitions related to safety issues can be set separately.

ADVANTAGES

- User can cut off the electricity if any problem occurs.
- Safety is provided as we are using alarms.

SYSTEM REQUIREMENTS

H/W System Configuration:-

- Processor - Pentium –IV
- RAM - 4 GB (min)
- Hard Disk - 20 GB
- Key Board - Standard Windows Keyboard
- Mouse - Two or Three Button Mouse
- Monitor - SVGA

S/W System Configuration:-

- Operating System : Windows 7 or 8 32 bit
- Application Server : Tomcat5.0/6.X
- Programming Language : Java
- Java Version : JDK 1.6 and above