

## **2.59 Energy saving with special attention to the factor of electricity ; a case study on the university of Kelaniya, Sri Lanka.**

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### **ABSTRACT**

The aim of this study is to find some ways to reduce cost of energy with special attention to the factor of electricity. “Energy” has become a very crucial factor today since its scarcity in nature on one hand and the growing demand as an essential part of the modern global development on the other hand. As a result of the lesser supply and higher demand, the price of “Energy” is increasing gradually and users have to pay more for it.

Data on electric items used was collected through data sheets by a university wide survey and data related to consumption behaviour was collected through previous electricity bills for past three years. Analysis of electricity items was done in order to justify their consumption. In another way the breakdown of the main electricity bills was analyzed. Though “Energy” consists of a variety of factors, this paper only discusses the factor of electricity. Secondly this study is limited only to find possible ways to reduce cost of electricity by reducing wastes. Waste in consumption of electricity was found in three categories, maintaining the bills, use of energy wasting items and bad conduct of discipline in using electricity. In order to reduce the waste in the above categories these suggestions are made to conduct an energy audit, explore the possibility of going for energy bank to reduce consumption demand, Introducing automation or *Poka-Yoke* methods, empowering the rules and regulations with regard to use of electricity and creating waste eliminating culture in the university.

**Key words:** Energy, Electricity, Energy bank, Energy audit, Waste, *Poka-Yoke*, Automation