

**VISVESVARAYA TECHNOLOGICAL  
UNIVERSITYBELGAUM-590002**



**A Project Report  
On  
“Electrical Energy Conservation System using  
LED with LI-FI Visible Light Communication”**

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*Dissertation submitted in partial fulfillment of the requirements*

*For the award of degree of*

**Bachelor of Engineering**

**In**

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## **ABSTRACT:**

Electrical energy is universally accepted as an essential commodity for human beings. Energy is the prime mover of economic growth and is vital to the sustenance of a modern economy. Future economic growth crucially depends on the long-term availability of energy from sources. Areas of application of Energy Conservation are Power Generating Station, Transmission & Distribution system, Consumers premises. Steps are to be taken to enhance the performance efficiency of generating stations. Energy Conservation technology adopted in Transmission & Distribution system may reduce energy losses, which were in tune of 35% of total losses in Power system. Acceptance of Energy conservation technology will enhance the performance efficiency of electrical apparatus used by end users.

Light fidelity (LI-FI) which is related to visible light communication (VLC) offers many key advantages and effective solutions to the issues that have been posed in the last decade. Implementation of Energy conservation technology will lead to energy saving which means increasing generation of energy with available source. Scope of this is about Implementations of Energy conservation technologies, case studies, related to Electrical systems adopted by industries, Municipal Corporation, Hospitals, residential consumers, Utilities. By using LED we can save the energy more than 80%.