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Railway Tunnel Intelligent Lighting Using Microcontroller and Solar Panel

Atharva V. Matere, Tejas B. Dheringe, Atharva J. Dube, Pranav V. Nemade
materea999@gmail.com, tejasdheringe.17@gmail.com, atharvadube2003@gmail.com,
pranavnemade58@gmail.com

Abstract: *With the growing urban population and the concern for traffic congestion and pollution (emissions control), public transportation is becoming more and more attractive to both city dwellers and managers. To gain access to the central area of the city, the subway remains the most viable alternative, despite its higher cost when compared to above ground or elevated transportation systems. There are relatively few regulations and criteria for subway ventilation, particularly when compared with mine ventilation. The main document that provides guidance and general recommendations for subway ventilation and environmental control is the Subway Environmental Design Handbook, published in 1976 (2nd edition) by the U.S. Department of Transportation, Office of Research and Development. Many of the subway systems in existence today have been designed and built with ventilation features adequate for normal train operation, but their design does not consider stringent criteria for such emergency conditions as a train fire in a tunnel.*

Keywords: IR-Sensor, Relay, LED, Microcontroller AT89S52

REFERENCES

[1]. Let Us C -Fifth Edition --Yashavant P. Kanetkar
[2]. Principles of electronics -v. k. mehta Illuminating Engineering Society of North
[3]. America: ANSI/IESNA RP-22-96 American National Standard Practice for Tunnel Lighting. American National Standards Institute, Washington(1996)
[4]. British Technical Committee: BS 5489-2 Code of practice for the design of road lighting - Lighting of tunnels. British Standards Institution, London (2003)
[5]. Huang, T.S., Luo, F.: Energy saving tunnel lighting system based on PLC. In: 2006 China International Conference on Electricity Distribution (CICED 2006), Beijing, China, pp. 527–533 (2006) (in Chinese)
[6]. Nagai, S., Ishida, S., Shinji, M., Nakagawa, K.: Energy- saving lighting system for road tunnel. In: Underground Space Use: Analysis of the Past and Lessons for the Future, Istanbul, Turkey, pp. 625–631 (2005)