IJARSCT



International Journal of Advanced Research in Science, Communication and Technology

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 5, Issue 5, June 2025



GSM Based Prepaid Energy Meter Using 8051 Microcontroller

Dr. K. D. Vidhate, Reshma Ithape, Nikita Navgire

Department of Electrical Engineering Dr. Vithalrao Vikhe Patil College of Engineering, Ahmednagar, Maharashtra, India reshmaithape2014@gmail.com, nikitanavgire103@gmail.com

Abstract: This paper presents the design and implementation of a GSM-based prepaid energy meter using the 8051 microcontroller. The system enables users to recharge credit remotely and monitor energy consumption in real-time via GSM communication. It uses the AT89S52 microcontroller, GSM modem, and MAX232 level converter, integrating them into a robust prepaid metering system. Once the prepaid credit depletes, the system automatically disconnects the power supply and notifies the user via SMS. This approach provides a reliable, efficient, and user- friendly energy billing solution that eliminates manual meter reading.

Keywords: GSM, Prepaid Meter, 8051 Microcontroller, Energy Billing, SMS Alert

Copyright to IJARSCT www.ijarsct.co.in



DOI: 10.48175/IJARSCT-27737



265