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Automatic meter reading system for TANESCO

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Automatic Meter Reading (AMR) system is the latest advance in the telemetry field. It utilizes already available fixed communication networks (e.g., the cellular network) for exchanging data to minimize cost and human effort. The purpose of this dissertation is to introduce an Automatic Meter Reading (AMR) system for TANESCO that manages the reading of the electricity meters at the consumers' side. This system is intended to replace the existing manual methods of meter reading. The approach to the solution for this problem is made with the use of the GSM network and different hardware hardware modules are introduced to help transmitting of meter data between a central office and customer's side. The achieved results are encouraging. The meter reading was gathered and certain wireless processes were controlled. The GSM communication media were fully utilized by introducing GSM protocols. Computer software was developed to run the overall process. The results obtained stand as a proof of concept for the credibility of implementing such AMR system. Yet, the results still need further analysis and improvements to be made. Using other chips and advanced microcontrollers can help in gathering more data and control further process.