**ABSTRACT**

**Title**: Designing Cloud Gauge Indicators for IOT Data Loggers

**Project idea**: Data-logging equipment for monitoring and recording events isn’t new. The earliest data-logging process involved manually recorded sensor readings that were then plotted on graph paper. Strip-chart recorders arrived next; they plotted sensor readings with ink on printed charts. Today, virtually all data logging is electronic.

Innovative electronic developments over the years have significantly advanced data-logging techniques. Now, products targeting the growing Internet of Things (IoT) movement are finding their way into next-generation data-logging equipment. Actually, we could define data logging as one segment of the huge industrial IoT market. Here’s a review of data-logging fundamentals.

The On-Board Diagnostics (ODB) port on most cars and trucks can utilize a data logger not only for trouble diagnosis, but also to monitor key vehicle performance factors. A small data logger can be plugged into the ODB port connecter under the dash near the steering wheel to capture vehicle usage, speed, stops and starts, location, braking, acceleration, and other driving factors.

Weather stations are important data loggers. The U.S Weather Service as well as state and local governments support many sophisticated weather stations that collect data for the record and for prediction purposes.

Environmental monitoring is another similar application. Such data loggers identify pollutant levels, allergens, and related factors for regulatory compliance and consumer reporting.

Cold-chain monitoring is another interesting and useful data-logging use. Cloud chain management  is a form of asset tracking that helps ensure a product temperature remains at a desired or lower temperature to avoid spoilage.

Block Diagram

