**DOCUMENT** : **MEASURE ENERGY CONSUMPTION**

**PROBLEM DEFINITION:**

**The problem at hand is to create an automated system that measures energy consumption, analyzes the data, and provides visualizations for informed decision-making. This solution aims to enhance efficiency, accuracy, and ease of understanding in managing energy consumption across various sectors. The ratio of the energy consumption (E) of a society to its economic output (gross domestic product, GDP), measured in dollars of constant purchasing power (the E/GDP ratio).**

**DESIGN THINKING**

**❖ Data source :**

**A data source may be the initial location where data is born or where physical information is first digitized, however even the most refined data may serve as a source, as long as another** [**process accesses and utilizes**](https://www.talend.com/resources/what-is-data-integration/) **it. Concretely, a data source may be a database, a flat file, live measurements from physical devices, scraped web data, or any of the myriad static and** [**streaming data services**](https://www.talend.com/resources/stream-processing-defined/) **which abound across the internet**

**❖ Data preprocessing :**

**Data preprocessing is an important step in the data mining process. It refers to the cleaning, transforming, and integrating of data in order to make it ready for analysis**

**❖ Feature extraction :**

**Feature extraction is a process of dimensionality reduction by which an initial set of raw data is reduced to more manageable groups for processing.**

**❖ Model development :**

**Model development is an iterative process, in which**

**many models are derived, tested and built upon until a model fitting .**

**❖ visualization**



**❖ Automation :**

**Automation is the use of technology to perform tasks with where human input is minimized**

**CONCLUSION :**

**Sentiment analysis is a marketing tool that helps you examine the way people interact with a brand online. This method is more comprehensive than traditional online marketing tracking, which measures the number of online interactions that customers have with a bran**d