Implementation of an IoT Sensor Data Collection and Analysis Library

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Abstract : Due to the development of information technology and wireless Internet technology, various data are being generated in various fields. These data are advantageous in that they provide real-time information to the users themselves. However, when the data are accumulated and analyzed, more various information can be extracted. In addition, development and dissemination of boards such as Arduino and Raspberry Pie have made it possible to easily test various sensors, and it is possible to collect sensor data directly by using database application tools such as MySQL. These directly collected data can be used for various research and can be useful as data for data mining. However, there are many difficulties in using the board to collect data, and there are many difficulties in using it when the user is not a computer programmer, or when using it for the first time. Even if data are collected, lack of expert knowledge or experience may cause difficulties in data analysis and visualization. In this paper, we aim to construct a library for sensor data collection and analysis to overcome these problems.

Keywords : clustering, data mining, DBSCAN, k-means, k-medoids, sensor data

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