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Control and monitoring of air-conditioning units through cloud storage and control operations

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Abstract

Temperature control and monitoring of the air conditioning units is critically important towards energy savings. The developed system uses an integrated mobile app using a cloud service that enables users to monitor and control its operations. A hybrid mobile app is also developed with an Ionic framework. The mobile app can display the data stored in cloud storage. The data is fetched from the cloud storage by using the REST API. The system developed can monitor several critical parameters from the air conditioner which are differential air pressure, refrigerant pressure, power, angle of vibration on the x-axis, angle of vibration on the y-axis, temperature and humidity. With the data collected, an algorithm to monitor and control the performance of such an air conditioning system through this embedded module is envisioned to be part of the energy efficient systems.

Keywords

condition monitoring, Internet of Things, mobile app, cloud storage

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