

IoT Based Urban Climate Monitoring using Raspberry Pi

Abstract:

Internet of Things is the web of physical objects that contain the embedded technology which is helping to develop man to machine or machine to machine communication. This paper mainly propounds a stand-alone system which is providing a dynamic datasheet about the parameters of the city environment. The system is using low cost low power ARM based minicomputer that is Raspberry Pi. It can communicate through Local Area Network (LAN) or the external Wi-Fi module. Commands from user are processed at the Raspberry Pi using Python language. The data can be monitored with other terminal devices like Laptop, Smart Phone and Tablet which is endowed with the internet facility. This framework is giving access to real-time information about an urban environment which includes the parameters: temperature, humidity, pressure, CO and harmful air pollutants.