Instructions for Authors of SBC Conferences Papers and Abstracts

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Abstract. This article describes the building of an IoT system implemented using an ESP8266 microcontroller with FreeRTOS framework. The system uses a DHT11 sensor for temperature and humidity monitoring, then MQTT protocol is used to transmit collected data to a broker. The solution includes Wi-Fi management, real-time status monitoring, and fault tolerance to maintain reliability in data acquisition and transmission. Also a local Frontend was developed using React, to use the data sent to the broker.

Resumo. Este artigo descreve a construção de um sistema de IoT implementado utilizando um microcontrolador ESP8266 com o framework FreeRTOS. O sistema usa um sensor DHT11 para monitoramento de temperatura e umidade e, em seguida, o protocolo MQTT é usado para transmitir os dados coletados a um broker. A solução inclui gerenciamento de Wi-Fi, monitoramento de status em tempo real e tolerância a falhas para manter a confiabilidade na aquisição e transmissão de dados. Também foi desenvolvido um Frontend local utilizando React, para utilizar os dados enviados ao corretor.

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- 2. First Page
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Referências

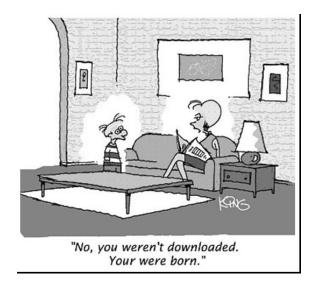


Figura 1. A typical figure

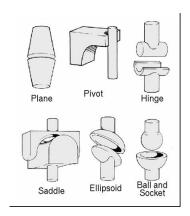


Figura 2. This figure is an example of a figure caption taking more than one line and justified considering margins mentioned in Section 5.

Tabela 1. Variables to be considered on the evaluation of interaction techniques

	Chessboard top view	Chessboard perspective view
Selection with side movements	6.02 ± 5.22	7.01 <u>+</u> 6.84
Selection with in- depth movements	6.29 <u>+</u> 4.99	12.22 <u>+</u> 11.33
Manipulation with side movements	4.66 <u>+</u> 4.94	3.47 <u>+</u> 2.20
Manipulation with in- depth movements	5.71 <u>+</u> 4.55	5.37 <u>+</u> 3.28