Gmail Luís Henrique Puhl <luispuhl@gmail.com>

Wifi Distance Meter

4 messages

Luís Henrique Puhl <luispuhl@gmail.com> Thu, Aug 18, 2016 at 5:53 PM
To: kuikiker@gmail.com

Hello,

My name is Luís Puhl and I'm a Computer Scientist doing some research on Internet of Things in a university in Brazil called UNESP.

My laboratory is called LITA (http://www.ltia.fc.unesp.br/) and my profile is (http://www.ltia.fc.unesp.br/equipe/luis-puhl/).

I`m using your android app "Wifi Distance Calculator" (https://play.google.com/store/apps/details?id=com.kuik.wifi) and got really interested in the way you calculate the distance.

How do you do it? Is there any research about this that I can use as reference in my work?

Thank you for your time.
Have a great day.

Grato,
Luís HP Souza

Kuik <kuikiker@gmail.com> Fri, Aug 19, 2016 at 7:39 AM
To: Luís Henrique Puhl <luispuhl@gmail.com>

Hi there,

I used the formula detailed here: https://en.wikipedia.org/wiki/Free-space_path_loss#Free-space_path_loss_in_decibels

In particular: *distance = 10 ^ ((**27.55** - (20 * log10(frequency)) + signalLevel)/20)*

However, this formula doesn't take into consideration obstacles, such as walls, and so on.

Regards

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Luís Henrique Puhl <luispuhl@gmail.com> Fri, Aug 19, 2016 at 11:53 AM
To: Kuik Kuik <kuikiker@gmail.com>

Hello,

I've found via other sources this formula too so it seems the way to go.

I was wondering if someone implemented in other way such as measure round-trip time at the Data Link layer.
Maybe it's not possible for any hardware or it's just too much of a headache to get just a little improvement from measuring time of arrival in each frame.

Thank you for your time and knowledge. Can I cite your app and method in my research paper?

Thanks,
Luís H Puhl

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Kuik <kuikiker@gmail.com> Fri, Aug 19, 2016 at 12:56 PM
To: Luís Henrique Puhl <luispuhl@gmail.com>

Sure, you can cite me or my app without problem.

Regards

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