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IMPROVING ACUSTIC SYSTEMS FOR MASS EVENTS BY MEANS OF WIRELESS TELECOMMUNICATIONS

Abstract – The objective is to develop improved acoustic system is controlled by notebook netbook, or smartphone device using wireless IT-technologies.

Keywords – speakers, wireless technology, Bluetooth, Wi-Fi.

I. INTRODUCTION

Since today more and more in all areas of applied wireless communication system, then, of course, users want to reduce to a minimum the number of wires used to connect home appliances. Also, many users want to keep up with the times and not be tied to a particular workstation, remotely manage appliances, including audio, video equipment and other devices, so it can be argued that the theme of the report is relevant.

II. MAIN PART

Suggested research and development of advanced speaker system that is designed to hold any public events, such as a concert, political campaigning, etc. During the events organizers must use high-quality sound system and remote control playback of audio recording, regardless of its location.

To solve this problem was chosen protocol Bluetooth with data transfer rate 3 Mbit / s [1]. The most common format for music is MP3. This standard provides high speed data stream 128, 256, 320 kbit / s [2]. It is advisable to choose a stock for bandwidth several times, which ensures the reliability of the chosen technology transfer and format audio files.

An alternative may be a Bluetooth network Wi-Fi (IEEE 802.11). This technology involves the creation of ad hoc-structures with spontaneous connection and signal access mechanism (Bea co ning Access). However, the practical interest is the modeling of single access points (AP, Access Points) and, especially, cell structures with several similar one cell to another AP with a specific model repetition frequency of transmission.

III.CONCLUSION

This technology can provide data at 100 m under ideal conditions. Given the signal attenuation due to absorption in the objects that are between the device and the audio system can be argued that the actual transmission distance information (audio content) be the distance that is not much different from the ideal. It is enough to control audio streams [3].

Described subscriber devices can be used to control the system as a whole as well as for the transmission of short text messages between the participants and Bute also used as the user's microphone [4, 5].

The described system is equipped with an additional low sizes autonomous power system.

REFERENCES

- [1] Основы построения систем и сетей передачи информации / В. В. Ломовицкий. М:Телеком, 2005. 382 с.
- [2] Основы радиоэлектроники и связи / В. И. Нефедов. Высшая школа, 2009. 735 с.
- [3] The Loudspeaker Design cookbook / Vance Diskason. Amater Press, 2006 307c.
- [4] Digital Voice / Net Performer System Reference. Verso Technologies, 2005. 60 c.
- [5] Основи проектування безпроводових комп'ютерних мереж. / Лунтовський А. О., Мельник І. В. К: Університет «Україна», 2011. 360 с.