# VOICE SIGNAL DETECTION SYSTEM

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**Project relevance**. Currently there is the need in the various fields of activity to identify the user authenticity with his voice, that in some cases ensures his authentication, and in other cases, ensures his anonymity. For example, a very acute problem is the simultaneous identification of respondents and ensuring their anonymity in social surveys on web portals. This problem can be solved using voice respondent signal analysis. On the one hand it allows you to uniquely identify each unique user, and on the other hand, it is very difficult to find a person by his/her voice, so that it ensures anonymity. In addition, manufacturers of various equipment, including home appliances, are increasingly adopting voice interface. It is also planned to implement a voice interface in computer education systems. This will improve their adaptation to students with special needs, as well as improve the efficiency of foreign language teaching. The existing solutions have private nature, they are expensive and often not adapted to functioning in the common computer software.

**Project result**. The cross-platform software package that allows to recognize voice commands and the user.

**Implementation area**. Appliances with voice interface, biometric authentication systems, remote education systems, web-based social surveys.

**Academic achievements of the author**. There published about 10 articlesin the area of voice signal recognition systems development.

**Practical achievements of the author**. There is developed a software complexes for recognizing voice commands.

**Expected scientific value**. There will be developed a methodology to create a tool that allows you to effectively address a number of pressing theoretical problems: the formation of a training sample using expert data, paralleling the work of recognition means.

**Expected practical efficiency**. The system is cross-platform and have sufficient accuracy in voice recognition (0.1-10%),user recognition (0.1-10%). Moreover, it can be adapted to different conditions of use (hardware, user change, noise, change of the input language).

**Development time**.The theme has a fundamental character, but the first practical results can be obtained throughout the year.

**Development cost**. Salaries for workers, engaged in the process, payment of patent search.