

Modern methods of automation of speech records authenticity in forensic investigation

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The state of the procedure and software for forensic investigation of speech records in Russia today.

- a brief summary of statutory requirements
- a brief summary of used forensic methods
- a brief summary of used software
- main advantages and disadvantages of used methods and software

Development and using of STC original procedure of speech records authenticity in forensic investigation.

- publication of procedure for experts, brief summary
- possibility of using STC products in analog and digital records investigation

IKAR Lab - professional hardware and software set for advanced audio/speech signal analysis, short summary.

- description
- applications
- highlights
- delivery set

EdiTracker – as a part of IKAR Lab set, system for audio information analysis. Authentication (tracing of digital tampering) of digital and analog recordings, automation of research and analysis operations.

- Analysis of the technical characteristics of an expert play-back device (Amplitude modulation, Level of detonation, Coefficient of non-linear distortion, Structure and level of inherent noise, Gain-frequency characteristics)
- Tracing signs of digital tampering in recordings and measuring sampling rate of tampering device
- Precise spectrum evaluation in the given frequency range, in particular from 48 to 62 Hz harmonics range with a resolution not worse than 0.01 Hz
- Module of stationary harmonic phase scanning for control of continuous recording
- Scanning of the background noise's characteristic changes
- Support of expert audio-linguistic authenticity analysis
- Generation of the Analysis Report

EdiTracker helps an expert to automate the most of analysis steps, a final decision – a prerogative of an expert.

Some examples of the EdiTracker using in the STC forensic practice.

References

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