

COMPUTER INTERFACE OF BIOMETRICS AS A TOOL TO SUPPORT THE EXPERTISE OF CLASH OF VOICE

Gustavo Moreira da SILVA¹
Ângela Abreu Rosa de SÁ¹
Vinícius Naves Rezende FARIA¹
Alcimar Barbosa SOARES¹
Issa Khalil Georges DIB NETO¹
Hélio PEIXOTO²

- **ABSTRACT:** *The Biomedical Engineering Forensic uses the assignments of Biomedical Engineering for legal purposes, encompassing issues addressed by the biometrics human identification. As biometrics a science that promotes processes of identifying individuals based on physiological or behavioral characteristics, presenting several applications, among them the elucidation of crimes. Among the various types of existing biometrics, biometrics voice consists of an identification process that assesses the individual's speech, as well as their behavioral characteristics during speech. In this context, Forensic Phonetics is a science that seeks to determine the authenticity of audio files presented to investors of the Law. This subject doesn't present their current methodologies and techniques completely grounded. This work presents an investigation of the entire history of this science, checks the current point of development in the same place and a review of current speaker recognition techniques. In addition, this paper proposes the development of a computational tool that integrates multiple complementary acoustic parameters of speech, a simple interface to expedite recognition of the expertise of the speaker. The results showed that the tool is efficient representation of a comparison between the acoustic parameters of the analyzed audio.*
- **KEYWORDS:** *Biometrics; voice identification; forensics; forensic engineering.*

¹ Universidade Federal de Uberlândia – UFU, Faculdade de Engenharia Elétrica, Laboratório de Engenharia Biomédica – BioLab, CEP: 38400-000, Uberlândia, MG, Brasil. E-mail: angela@eletrica.ufu.br

² Perícia Criminal, Departamento de Polícia Federal, Brasília, DF, Brasil.