

ABSTRACT

Finding a secret fact that is known to one person but kept from others is the aim of lie detection. When it comes to security and legal concerns, it is crucial to be able to analyze human deceptive behavior. Based on the idea that lying causes specific emotions, which in turn cause certain physiological reactions depending on a person's level of stress, psychological lie detection is based on this premise. Modern lie detectors measure things like skin conductance, respiration, and blood pressure. The intended study presents a lie detection system that uses fuzzy analysis to integrate many factors, including skin conductance, facial expressions (eye blinking), and voice frequency, which is actually influenced by a person's degree of stress. Fuzzy is an AI technique based on graphical representations and mathematical calculations of an output which is affected by input parameters. In comparison to employing a single indicator alone, the integration of skin analysis, voice level, and facial expression using fuzzy analysis may improve the accuracy of lie detection. This analysis provides a way to predict that a person is lying when all three parameters i.e., Skin conductance, voice frequency, and blinking of eye increases which effect on stress level of a body and gives accuracy of 99.08%.