



Secured Area Gateway Passage and Access Control



SGK - Security Gate Keeper

- Airport check-in, boarding gates
- Customs checkpoints, border controls
- Prison contraband detection efforts
- Government building access and exits
- Public transportation facilities

The Layered Voice Analysis (LVA) technology provides the means to examine not only what subjects are carrying, but to highlight and determine their actual intentions in advance.

Recent terror attacks have proven that the rules of the game have changed, and that the willingness of terrorists to lose their own lives has made deterrence and prevention significantly more complicated. The search for concealed weapons, explosives and sharp objects is no longer sufficient. We are now compelled to examine not only what subjects are carrying, but to discover their motivations in advance.

The Layered Voice Analysis (LVA) technology now allows us to do that. By having your subjects answer three to five yes-no questions, it is now possible to reveal their true intentions.

SGK

SGK is a security access control system, providing an easy-to-use voice analysis solution to determine whether or not the purpose of an individual's access to a secured area is legitimate.

SGK provides instant security verification and threat assessment before allowing access to high-risk facilities and secured and sterile zones.

Designed for rapid intention verification using input from only 3 to 5 questions, SGK will identify the overall emotional state of the subject during interrogation, allowing its operators to single out potential harmful intentions.

SGK is a state-of-the-art, reliable security measure, which significantly reduces embarrassing and unnecessary inconveniences to the largely legitimate public. In border control scenarios, one encounters diverse emotional structures that are not associated with criminal intent, e.g. exhausted travelers, excited vacationers, etc. The uniqueness of the SGK system is its ability to cluster and categorize these different emotional structures by learning to identify those that signal true intention to commit crimes or acts of terror.

Different locations require different means and methods for security checks, and SGK is primed to meet a variety of challenges. The diversity and flexibility ranges from a single language manually operated system to multilingual automated posts. The system can operate from a noisy and public high traffic area to a closed intimate checkpoint. SGK is specifically designed to meet your needs for any level of security.

SGK Operation

A series of 3 to 5 specific questions are presented to the subject. The response to each question is recorded and analyzed automatically by the system. Once the questionnaire has been completed (up to 60 seconds for a full 5 question questionnaire), SGK will produce a result: either "Green" or "Red", indicating to what degree the subject fits the expected emotional profile for non-criminal intent.

SGK is intended for use in: airport check-in areas; airplane boarding gates; customs checkpoints; border controls; security stations; drug smuggling and interdiction efforts; prison contraband detection efforts and any entrance / exit environment that requires heightened security.

Layered Voice Analysis (LVA) Technology

The Layered Voice Analysis technology enables a quick and effective decision making process based on any available audio data. LVA has the ability to identify various types of stress, cognitive processes and emotional reactions which combine to build the complete "emotional structure" of an individual at the time of voice capture.

LVA uses a series of patented signal processing algorithms to detect different emotional levels within a given voice sample, and subsequently identify deceptive motivation, criminal intention, and general credibility. These tools will simplify any investigative procedure.

LioNet Technology

LioNet is a powerful learning engine designed to increase the accuracy in the identification of specific emotional signatures. The technology begins with an empty knowledge base and is trained to recognize various emotional signatures that are of interest to a particular site. Recognition accuracy and reliability increase as the knowledge base becomes more robust. LioNet technology is designed to work in tandem with these kind of security-related products.



Providing all Safeguards

As a psychological evaluator, SGK can go far beyond any physical security equipment that is currently available. Combining SGK with traditional metal detectors and “sniffers” further tightens security.

SGK is constructed to ensure the highest reliability in the detection of threats. Three independent algorithms are used to ensure that each result is verified:

- A polygraph-like analysis, comparing emotional reactions to known questions
- An emotional profile-match test using a sophisticated learning system
- "Extreme Behavior" indicator - to flag any unknown or rare emotional profile that may indicate criminal intent with catastrophic consequences

While “Green-Lighted” individuals are processed swiftly, “Red-Lighted” subjects receive further attention and are forwarded to a secondary LVA / SGK station for further examination.

At that stage, subjects are either fully cleared or detained for a more in-depth inspection.

Advantages

- No gender, orientation, ethnicity, or age bias
- Determines criminal / wrongful intent in a non-intrusive manner, in less than 60 seconds
- Functions in tandem with additional security measures to deliver an efficient, nonintrusive and easy-to-use investigation technique for threat identification
- Reduces unnecessary inconvenience to the legitimate public
- Learns emotional patterns using a heuristic system to constantly improve measurement accuracy