Gunshot Detection System

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1. ABSTRACT

This paper presents a new approach to determine the direction of arrival of gunshots, which will highlight the novel state of the art algorithm, is proposed. Array of microphones is used to compute the path of gunshot and exhibit it in a clockwise manner. Each microphone acts as a sensor node to compute angle of arrival and time of arrival information. The proposed algorithm use the angle of arrival information gathered from multiple sources to determine the direction of shooter. Experimental result shows that to improve accuracy, time of arrival information comes in handy. We can achieve greater precision and accuracy by merging both techniques .i.e. angle of arrival and time of arrival.

***Keywords*—Gunshot detection, microphones array, angle of arrival, time of arrival, signal processing**