CLAIMS

1. A system to detect events by monitoring sound signals of an environment, wherein the system comprises:

a processor;

a memory coupled to the processor;

a receiver, executable by the processor, to receive input signals from a configured sensor network, wherein the input signals comprises a combination of sound signals and location data of the environment;

a frame analyzer, executable by the processor, to create and compare sound frames for predefined time intervals from the input signals received by the receiver, wherein the frame analyzer compares adjacent set of sound frames (F_1, F_2, ...F_N) comprising knowledge data (K) to determine deviation in sound signals and time (t) of occurrence;

a context builder, executable by the processor, to associate contextual information and apply at least one rule from a rule builder to the sound frames to determine the context;

an alert generator, executable by the processor, to flag an event, generate alerts and communicate with authorities regarding the event;

an action logger, executable by the processor, to record the at least one sound associated with the event and contextual information associated with the event in a central server; and

the central server to store at least one sound frame and contextual information of the event, for continual learning.

2. The system as claimed in claim1, wherein the configured sensor network comprises a network of fixed and mobile sensors, wherein the mobile sensors further comprise wearable devices affixed to an object being monitored in the environment.

3. The system as claimed in claim 1, wherein the receiver on receiving input signals from the configured sensor network, creates a sensor map to indicate sound activity of a cluster of sensors in monitored zone of the environment.

4. The system as claimed in claim 1, wherein the rule builder comprises a configured rule data that can be modified; further the configured rule data can be re-configured from observed sound signals.

5. The system as claimed in claim 5, wherein the configured rule data comprises rule elements of location, time, sound attributes and a priority.

6. The system as claimed in claim 3, wherein the alert generator signals an alert on the sensor map generated by the receiver.

7. A computer-implemented method to detect events by monitoring sound signals of an environment, wherein the method comprises:

receiving, by a receiver, at least one input signal from a configured sensor network;

creating and analyzing sound frames, by a frame analyzer for the at least one input signal received by the receiver, wherein the frame analyzer compares adjacent set of sound frames (F_1, F_2, ...F_N) comprising knowledge data (K) to determine deviation in sound signals and time (t) of occurrence;

associating a contextual data set, by a context builder to the sound frames to determine an event;

generating at least one alert, by an alert generator to flag an event;

recording details of an event, by an event logger to record time, place, type and priority of an event for continuous learning; and

storing at least one sound frame and associated contextual data, by a central server for continual learning.

8. The computer implemented method as claimed in claim 8, wherein the at least one input signals comprise a combination of sound signals and location data.

9. The computer implemented method as claimed in claim 8, wherein the receiving of input signals by the receiver further comprises creation of a sensor map to indicate

monitored zone of the environment indicating sound activity of a cluster of networked sensors.

10. The computer implemented method as claimed claim 8, wherein associating of a contextual data set comprises superimposing contextual data set, wherein the contextual data set further comprises a schedule, time of the day, priority, sound activity from sensor map and application of at least one rule to the sound frames being compared.

11. The computer implemented method, as claimed in claim 12, wherein the application of at least one rule further comprises creating of a rule data, wherein the rule data further comprises at least one of schedule, location, time of the day, sound attributes and assigning of a priority.

12. The computer implemented method as claimed in claim 9, wherein, generating an alert comprises indicating an alert on the sensor map for a cluster of sensors and communicating to authorities via communication means.

13. A computer program product comprising a non-transitory computer readable medium having a computer readable program embodied therein, wherein the computer readable program, when executed on a computing device causes the computing device to:

receive at least one input signal from a configured sensor network;

create and analyze sound frames for the at least one input signal received, wherein adjacent set of sound frames (F_1, F_2, ...F_N) comprising knowledge data (K) are compared to determine deviation in sound signals and time (t) of occurrence;

associate a contextual data set to determine an event;

generate at least one alert to flag an event;

record details of an event pertaining to time, place, type and priority of an event for continuous learning; and

store at least one sound frame by a central server for continual learning.