CLAIMS:

1. A method for detecting location and/or path of event comprising:

(a) obtaining input data comprising optical input data from at least one optical sensor arrangement (camera) and acoustic input data from an acoustic sensor arrangement comprising two or more acoustic sensors;

(b) processing said input data, said processing comprising detecting a first signal indicative of one or more selected events in at least one of the optical input data and acoustic input data;

(c) in response to detecting an event in said at least one of the optical input data and acoustic input data, registering a time of collection of said first signal and determining an estimated location of said event,

(d) processing input data of other one of said optical input data and acoustic input data for determining input signal indicative of a second signal associated with said event,

(e) determining time of collected data indicative of said second signal detected in said at least one of the optical input data and acoustic input data and determining a time difference between time of collected data indicative of said event; and

(f) utilizing said time difference and determining location of said event.

2. The method of claim 1, further comprising obtaining location data from one or more locations sensors, determining change in location during time between time of collected data indicative of said event in said optical input data and said acoustic input data, and determining location of said event in accordance with said time difference and said change in location.

3. The method of claim 1 or 2, further comprising obtaining location data from one or more orientation sensors, determining change in orientation during time between time of collected data indicative of said event in said optical input data and said acoustic input data, and determining location of said event in accordance with said time difference and said change in orientation.

4. The method of any one of claims 1 to 3, wherein said at least one first signal is indicative of one or more of the following: launch flash, launch blast, detonation flash, detonation blast, detonation impact, flight flare, flight sound, projectile’s movement, and

wherein said second signal is indicative of a common event or is indicative of a continuation event associated with event detected in said first signal.

5. The method of any one of claims 1 to 4, further comprising processing said input data for classifying said at least first signal and obtaining pre-stored data indicative of one or more items associated with said at least one first signal and determining data on object type of said at least one first signal, and using one or more pre-stored parameters of an item associated with said at least one first signal for determining at least one of anticipated path and anticipated impact position of said item.

6. The method of any one of claims 1 to 5, further comprising determining location of one or more events in accordance with time difference of data indicative of said one or more events in said optical input data and acoustic input data at a selected processing rate, thereby determining path of movement of said one or more events.

7. The method of any one of claims 1 to 6, wherein said second signal being a continuous signal, said method comprising determining data on angular velocity of source of said second signal by determining Doppler shift variation of said second continuous signal and determining closing velocity of said event, and determining correspondence between said second signal and said first signal in accordance with event characteristics and said angular velocity.

8. The method of claim 7, further comprising processing data of said first signal for determining one or more event characteristics and determining correlation between said second signal and said first signal in accordance with at least one of typical projectile velocity and path curve variation.

9. The method of any one of claims 6 to 8, further comprising processing data on said path of movement of said one or more events and using at least one of physical pre-stored model and path history of said one or more events and determining expected future path of said one or more events, and determining expected impact point based on determined path of a projectile associated with said event.

10. The method of any one of claims 1 to 9, wherein said detecting input signal indicative of at least one first signal in at least one of the optical input data and acoustic input data comprises processing said input data using machine learning classification for detecting said at least one first signal.

11. The method of any one of claims 1 to 10, wherein said determining an estimated location of said at least one first signal comprises processing optical input data and

determining at least angular location of said at least one first signals in said optical input data.

12. The method of any one of claims 1 to 11, wherein said determining an estimated location of said at least one first signal comprises processing acoustic input data collected by said two or more acoustic sensors and determining relative angular position of source of acoustic signal indicative of said at least one first signals using phase relations of acoustic signals collected by said two or more acoustic sensors.

13. The method of any one of claims 1 to 12, wherein said determining input signal indicative of a second signal associated with said at least one first signal comprises determining correlation between estimated location of said at least one first signal and estimate location of said second signal and determining that said second signal is associated with said at least one first signal in response to correlation exceeding an event correlation threshold.

14. A system comprising at least one optical sensor arrangement, an acoustic sensor arrangement comprising two or more acoustic sensors, and a control unit adapted for receiving optical input data from said at least one camera unit and acoustic input data from said acoustic sensor arrangement;

the control unit comprises at least one processor and memory unit and is configured for:

(a) obtaining input data comprising optical input data from at least one optical sensor arrangement (camera) and acoustic input data from an acoustic sensor arrangement comprising two or more acoustic sensors;

(b) processing said input data, said processing comprising detecting input signal indicative of at least one first signal in at least one of the optical input data and acoustic input data;

(c) in response to detecting an event in said at least one of the optical input data and acoustic input data, registering a time of collection of said event and determining an estimated location of said at least one first signal,

(d) processing input data of other one of said optical input data and acoustic input data to determine input signal indicative of a second signal associated with said at least one first signal,

(e) determining time of collected data indicative of said second signal detected in said at least one of the optical input data and acoustic input data and

determining a time difference between time of collected data indicative of said at least one first signal and said second signal; and

(f) utilizing said time difference and determining location of said at least one first signal; and

generating output data indicative of at least location of said at least one first signal.

15. The system of claim 14, further comprising one or more location sensors configured to provide location data of the system, and wherein said control unit is adapted to receive said location data and to determine change in location during time between time of collected data indicative of said event in said optical input data and said acoustic input data, and determining location of said event in accordance with said time difference and said change in location.