Claims

1. An electronic safety system for a vehicle comprising:

a control unit having a processor;

a positioning unit located in the vehicle, operating under control of the control unit, and configured to determine a geographic location of the vehicle;

a sensor unit located in the vehicle and configured to detect a distress signal, the distress signal being determined by the control unit as being indicative of an emergency situation encountered by at least one of a passenger in the vehicle, an operator of the vehicle, and the vehicle itself; and

a telecommunication unit coupled to the positioning unit and the sensor unit, the telecommunication unit being configured to automatically transmit, in response to the distress signal detected by the sensor unit, an alert notification to an emergency service organization, the alert notification including the determined geographic location of the vehicle and the emergency service organization to which the alert notification is transmitted being determined, by the control unit, based on the determined geographic location of the vehicle and a distress signal type associated with the distress signal.

2. An electronic safety system according to claim 1, wherein the sensor unit comprises a passenger sensor configured to detect an input from a passenger indicative of an emergency situation.

3. An electronic safety system according to claim 2, wherein the passenger sensor is coupled to the telecommunication unit via a wireless communication protocol.

4. An electronic safety system according to claim 1, wherein the telecommunication unit, in cooperation with the control unit, is operable to transmit an updated location of the vehicle determined by the positioning unit.

5. An electronic safety system according to claim 1, wherein the sensor unit comprises at least one of (i) a pressure sensor configured to determine an impact associated with the vehicle and (ii) a temperature sensor to detect a temperature of the vehicle.

6. An electronic safety system according to claim 5, wherein the sensor unit comprises the pressure sensor configured to determine an impact associated with the vehicle and the distress signal is indicative of the determined impact being above an impact limit and the emergency service organization comprises an emergency medical service provider.

7. An electronic safety system according to claim 5, wherein the sensor unit comprises the temperature sensor to detect a temperature of the vehicle and the distress signal is indicative of the detected temperature being above a temperature limit and the emergency service organization comprises a civil defense department.

8. An electronic safety system according to claim 1, wherein the telecommunication unit is further configured to transmit the alert notification to a nearest emergency services organization from the geographic location of the vehicle.

9. An electronic safety system according to claim 1, wherein the alert notification comprises an identity of the vehicle.

10. An electronic safety system according to claim 1 further comprising a trip management unit located in the vehicle and configured to receive journey details associated with a trip booking of the vehicle for the passenger, said journey details including an identity of a passenger in the vehicle.

11. An electronic safety system according to claim 10, wherein the alert notification comprises the identity of the passenger.

12. An electronic safety system according to claim 1, wherein the emergency service organization is a police force.

13. An electronic safety system according to claim 1 further comprising a fare calculator configured to determine a fare of a trip.

14. An electronic safety system according to claim 13, wherein the telecommunication unit is configured to receive a payment request for paying the fare over a payment network.

15. An electronic safety system according to claim 14, wherein the telecommunication unit is configured to receive an authentication request to cause the payment to be authorized.

16. An electronic safety system according to claim 1, wherein the alert notification comprises a rescue request for immediate assistance by the emergency service organization.

17. An electronic safety system having a computer processor and a data storage device, the data storage device storing non-transitory instructions executable by the processor to:

receive a geographic location of the vehicle from a positioning unit located in the vehicle and configured to determine a geographic location of the vehicle;

receive data representing a distress signal from a sensor unit located in the vehicle and configured to detect a distress signal, the distress signal being determined by the processor as being indicative of an emergency situation encountered by at least one of a passenger in the vehicle, an operator of the vehicle, and the vehicle itself;

generate, in response to the distress signal detected by the sensor unit, an alert notification including the geographic location of the vehicle; and

cause the alert notification to be automatically transmitted, by a telecommunication unit coupled to the positioning unit and the sensor unit, to an emergency service organization in response to the distress signal, the emergency service organization to which the alert notification is transmitted being determined, by the processor, based on the determined geographic location of the vehicle and a distress signal type associated with the distress signal.

18. The electronic safety system of claim 17, wherein the computer processor and data storage device are mounted on a dashboard of a vehicle.

19. The electronic safety system of claim 18, wherein the electronic safety system is configured to couple to a speed sensor of the vehicle.

20. The electronic safety system of claim 18, wherein the sensor unit comprises a passenger sensor configured to detect an input from a passenger indicative of an emergency situation, wherein the passenger sensor is configured to be accessible to a passenger at a rear passenger seat.

21. A method of generating an alert notification via a vehicle, said vehicle having a positioning unit and a sensor unit coupled to a telecommunication unit and a control unit having a processor, the method comprising:

determining, by the positioning unit operating under control of the control unit, a geographic location of the vehicle;

detecting, by the sensor unit, a distress signal, the distress signal being determined by the control unit as being indicative of an emergency situation encountered by at least one of a passenger in the vehicle, an operator of the vehicle, and the vehicle itself;

generating an alert notification including the determined geographic location of the vehicle; and

automatically transmitting, by the telecommunication unit coupled to the positioning unit and the sensor unit, the alert notification to an emergency service organization in response to the distress signal being detected by the sensor unit, the emergency service organization to which the alert notification is transmitted being determined, by the control unit, based on the determined geographic location of the vehicle and a distress signal type associated with the distress signal.