

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411000569 A

(19) INDIA

(22) Date of filing of Application :03/01/2024

(43) Publication Date : 02/02/2024

(54) Title of the invention : FUEL GAS LEAKAGE AND THEFT DETECTION IN VEHICLES

(51) International classification :B60R0025100000, B60R0025102000, G06F0011070000, B60R0025330000, H04W0004020000

(86) International Application No :NA  
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA  
Filing Date :NA

(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

**1)Chitkara University**

Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

**2)Chitkara Innovation Incubator Foundation**

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

**1)SINGH, Jaswinder**

Address of Applicant :Department of Computer Applications, CUIET, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

**2)KAUR, Rajwinder**

Address of Applicant :Department of Computer Applications, CUIET, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

(57) Abstract :

The present disclosure discloses a system (100) designed for the detection of fuel gas leakage and theft in vehicles. The system (100) comprises a server (106) for secure communication with one or more computing devices (110) over a network (108), and a processor (102) with memory (104) containing instructions for operation. The processor (102) is configured to receive an electrical resistance value and oscillation data from a first sensing element (208) and a second sensing element (210), respectively. The processor (102) compares the received values to predefined references stored in a database (218) to determine fuel concentration levels and identify potential leaks, as well as detect glass breakage to identify vehicle theft. Additionally, the processor (102) triggers and correspondingly transmits an alert signal along with the location information of the vehicle, to the one or more computing devices (110).

No. of Pages : 27 No. of Claims : 10