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## (54) Title of the invention : VEHICLE COMMUNICATION SYSTEM AND METHOD THEREOF (71)Name of Applicant : 1)Chitkara University Address of Applicant : Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, :G08G0001160000, G06F0003041000, India. Patiala ------ -----(51) International G08G0001096700, H04N0021436000, classification 2)Chitkara Innovation Incubator Foundation E01F0015040000 Name of Applicant : NA (86) International :NA Address of Applicant : NA Application No :NA (72)Name of Inventor : Filing Date 1)RANI, Shalli (87) International Address of Applicant : Chitkara University, Chandigarh-Patiala : NA **Publication No** National Highway, Village Jhansla, Rajpura, Punjab - 140401, (61) Patent of Addition :NA India. Patiala -----to Application Number :NA 2)KUMAR, Ishan Filing Date Address of Applicant : Chitkara University, Chandigarh-Patiala (62) Divisional to National Highway, Village Jhansla, Rajpura, Punjab - 140401, :NA Application Number India. Patiala -----:NA Filing Date 3)GOEL, Kavya Address of Applicant : Chitkara University, Chandigarh-Patiala

(57) Abstract :

The system (100) incorporates a display device (102), transmitter (104), radar sensors(106), and receiver (112) within vehicles, fostering wireless communication among proximate vehicles on the road. The system include a touch-sensitive interface and microphone integration in the display device, allowing versatile user inputs. The transmitter modulates carrier signals based on generated data, considering priority levels for efficient communication. The display device offers visual alerts and notifications based on received information. Furthermore, the system utilizes a collision avoidance algorithm that utilizes radar data to generate warnings displayed on the device. These functionalities collectively contribute to an advanced vehicular communication ecosystem, promising enhanced road safety, traffic efficiency, and driver experience.

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