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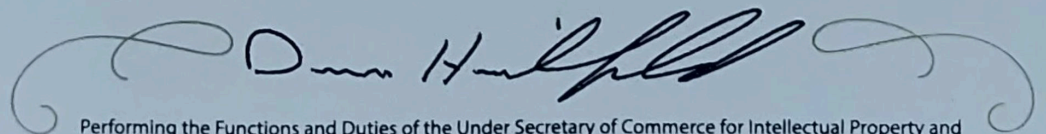
The Director

of the United States Patent and Trademark Office has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this United States

Patent

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(12) **United States Patent**  
**Meshram**

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(54) **TRACKING AND ALERTING TRAFFIC MANAGEMENT SYSTEM USING IOT FOR SMART CITY**

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(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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CPC ..... **G08G 1/005** (2013.01); **G06K 9/00** (2013.01); **G06K 9/0057** (2013.01); **G06K 9/00557** (2013.01); **G06K 9/6289** (2013.01); **G06V 20/53** (2022.01); **G16Y 40/60** (2020.01)

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See application file for complete search history.

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(57) **ABSTRACT**

Tracking and alerting Traffic management system using IoT for smart city to determine a social distance or norms violation between a plurality of communicative pairs, each of the image have plurality of communicative pairs including two communicating entities participating in a corresponding one or more of the communicative acts, the system comprising: CCTV for captured User's data i.e User movements, facial data, Smartphone data in case of accident detection; wireless trans-receiver for event propagation and sending the data to database; Sensor for getting the data of smart phones based on GPS system specially in case of accidental case; processor having CNN technology for analyzing and reverting data to control room based and configured to determine the pairwise social distancing based on particular behavior like movement and stopping or falling; hardware for storing data captured based on classification and analyzed parameters; machine learning for integration of data received from processor or sensors for visualization and processing final data to the citizens or to governments for monitoring and sending data to alarming sensor for non instructive alert if violations of social distancing norms.

**7 Claims, 7 Drawing Sheets**

