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(54) Title (EN): SMART CITY DATA ANALYTICS FOR IMPROVED ACCIDENT RECONSTRUCTION AND SOLUTIONS

(54) Title (FR): ANALYSE DE DONNÉES DE VILLE INTELLIGENTE POUR UNE RECONSTITUTION D'ACCIDENT ET DES SOLUTIONS AMÉLIORÉES

(57) Abstract:

(EN): Using object detection in potentially dangerous areas (such as road crossings, intersections, streets with high pedestrian or cyclist activity) and existing vulnerable road user EBA algorithms, the events leading up to a collision, as well as the actual collision event may be recorded such that an accurate account of the accident is achieved, and local law enforcement agencies may be immediately notified. Since EBA systems have sensors that may accurately determine the location, speed, and direction of objects (pedestrians, cyclists, etc), and may be equipped with V2x technologies and communicate with the smart city infrastructures, key information may be obtained and sent to various servers for companies to determine pre-crash scenario accidents occurring in near real-time using cloud type services via cellular, wifi, and other networks, such that developers of safety technologies may use this information quickly implement new safety technologies or improve existing ones.

(FR): L'invention se rapporte à l'utilisation de la détection d'objet dans des zones potentiellement dangereuses (telles que des intersections de route, des croisements, des rues avec une activité élevée de piétons ou de cyclistes) et d'algorithmes EBA d'usagers de la route vulnérables existants en vue de pouvoir enregistrer les événements conduisant à une collision, ainsi que l'événement de collision réel, de telle sorte qu'un compte précis de l'accident est obtenu et des agences d'application de la loi locale peuvent être immédiatement notifiées. Du fait que les systèmes EBA possèdent des capteurs qui peuvent déterminer avec précision l'emplacement, la vitesse et la direction d'objets (piétons, cyclistes, etc.) et peuvent être équipés de technologies V2x et communiquer avec les infrastructures de ville intelligente, des informations clés peuvent être obtenues et envoyées à divers serveurs afin que des entreprises puissent déterminer des accidents avec scénario de pré-collision qui se produisent en temps quasi réel en faisant appel à des services de type infonuagique par le biais de réseaux cellulaires, Wifi et autres, ce qui permet aux développeurs de technologies de sécurité d'utiliser ces informations pour mettre en œuvre rapidement de nouvelles technologies de sécurité ou améliorer les technologies existantes.

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Declarations:

Declaration made as to the identity of the inventor (PCT Rules 4.17(i) and 51bis.1(a)(i))

Declaration made as applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate

Declaration made as applicant's entitlement, as at the international filing date, to claim the priority of the earlier application, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(iii) and 51bis.1(a)(iii))