

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局



(10) 国际公布号
WO 2022/227870 A1

(43) 国际公布日
2022 年 11 月 3 日 (03.11.2022)

(51) 国际专利分类号:
H04W 4/40 (2018.01)

(21) 国际申请号: PCT/CN2022/079807

(22) 国际申请日: 2022 年 3 月 9 日 (09.03.2022)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
202110451237.1 2021 年 4 月 25 日 (25.04.2021) CN

(71) 申请人: 腾讯科技(深圳)有限公司 (TENCENT TECHNOLOGY (SHENZHEN) COMPANY LIMITED) [CN/CN]; 中国广东省深圳市南山区高新区科技中一路腾讯大厦 35 层, Guangdong 518057 (CN)。

(72) 发明人: 张云飞 (ZHANG, Yunfei); 中国广东省深圳市南山区高新区科技中一路腾讯大厦 35 层, Guangdong 518057 (CN)。

(74) 代理人: 北京德琦知识产权代理有限公司 (DEQI INTELLECTUAL PROPERTY LAW CORPORATION); 中国北京市海淀区知春路 1 号学院国际大厦 7 层, Beijing 100083 (CN)。

(81) 指定国(除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW。

(84) 指定国(除另有指明, 要求每一种可提供的地区保护): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), 欧亚 (AM, AZ, BY, KG, KZ, RU, TJ, TM), 欧洲 (AL, AT, BE, BG,

(54) Title: VEHICLE-ROAD COLLABORATIVE PROCESSING METHOD AND APPARATUS, AND ELECTRONIC DEVICE AND STORAGE MEDIUM

(54) 发明名称: 车路协同处理方法及装置、电子设备、存储介质

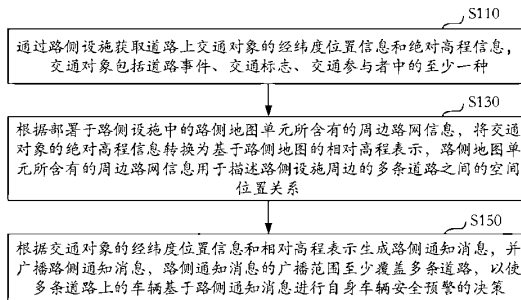


图 4A

S110 Acquire longitude and latitude position information and absolute elevation information of a traffic object on a road by means of a road side facility, wherein the traffic object comprises at least one of a road event, a traffic sign and a traffic participant

S130 According to surrounding road network information contained in a road side map unit that is deployed in the road side facility, convert the absolute elevation information of the traffic object into a relative elevation representation based on a road side map, the surrounding road network information contained in the road side map unit used to describe spatial position relationships between a plurality of roads around the road side facility

S150 Generate a road side notification message according to the longitude and latitude position information and the relative elevation representation of the traffic object, and broadcast the road side notification message, wherein the broadcast range of the road side notification message at least covers a plurality of roads, so that vehicles on the plurality of roads make decisions regarding their own vehicle safety early warning on the basis of the road side notification message

(57) Abstract: Disclosed in the embodiments of the present application are a vehicle-road collaborative processing method and apparatus, and an electronic device and a computer-readable storage medium. The method comprises: acquiring longitude and latitude position information and absolute elevation information of a traffic object on a road by means of a road side facility, wherein the traffic object comprises at least one of a road event, a traffic sign and a traffic participant; according to surrounding road network information contained in a road side map unit that is deployed in the road side facility, converting the absolute elevation information of the traffic object into a relative elevation representation based on a road side map; and generating a road side notification message according to the longitude and latitude position information and the relative elevation representation of the traffic object, and broadcasting the road side notification message, wherein the broadcast range of the road side notification message at least covers a plurality of roads, so that vehicles on the plurality of roads make decisions regarding their own vehicle safety early warning on the basis of the road side notification message. By means of the technical solution in the embodiments of the present application, more accurate vehicle safety early warning can be realized.

[见续页]

WO 2022/227870 A1

CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT,
RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI,
CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG)。

本国际公布：

— 包括国际检索报告(条约第21条(3))。

(57) 摘要：本申请的实施例揭示了一种车路协同处理方法及装置、电子设备、计算机可读存储介质。该方法包括：通过路侧设施获取道路上交通对象的经纬度位置信息和绝对高程信息，交通对象包括道路事件、交通标志、交通参与者中的至少一种；根据部署于路侧设施中的路侧地图单元所含有的周边路网信息，将交通对象的绝对高程信息转换为基于路侧地图的相对高程表示；根据交通对象的经纬度位置信息和相对高程表示生成路侧通知消息，并广播路侧通知消息，路侧通知消息的广播范围至少覆盖多条道路，以使多条道路上的车辆基于路侧通知消息进行自身车辆安全预警的决策。本申请实施例的技术方案能够实现更加准确的车辆安全预警。