

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
30 May 2024 (30.05.2024)



(10) International Publication Number
WO 2024/110784 A1

(51) International Patent Classification:

G06Q 10/0639 (2023.01) G08B 21/04 (2006.01)
G06V 20/52 (2022.01) H04L 67/50 (2022.01)
G06V 40/20 (2022.01)

(21) International Application Number:

PCT/IB2023/000706

(22) International Filing Date:

22 November 2023 (22.11.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/428,000 25 November 2022 (25.11.2022) US

(71) Applicant: IRON HORSE AI PRIVATE LIMITED

[SG/SG]; 79 Robinson Road, Singapore 068897 (SG).

(72) Inventors: SZU, Clifford; c/o Iron Horse AI Private Limited, 79 Robinson Road, Singapore 068897 (SG). SZU, Evan; c/o Iron Horse AI Private Limited, 79 Robinson Road, Singapore 068897 (SG). CHU, Michael; c/o Iron Horse AI Private Limited, 79 Robinson Road, Singapore 068897 (SG).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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,

(54) Title: COMPUTERIZED SYSTEMS AND METHODS FOR LOCATION MANAGEMENT

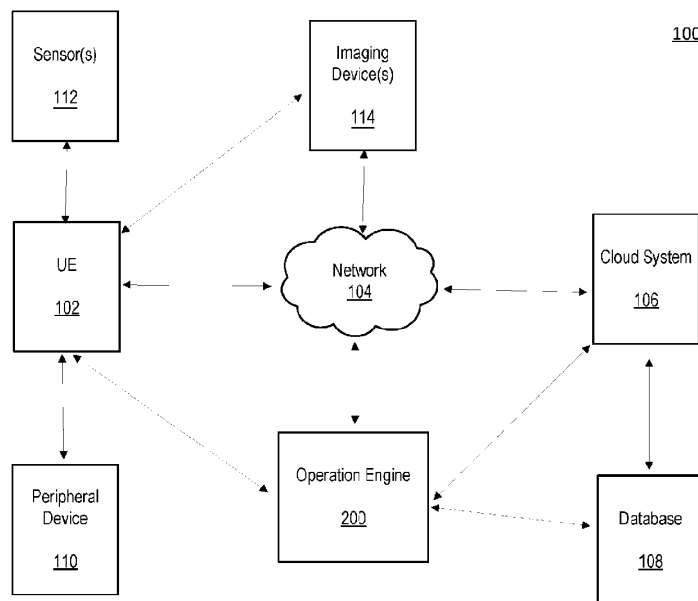


FIG. 1

(57) Abstract: Disclosed are systems and methods that provide a novel framework for centralized management of a location (e.g., jobsite, for example) and/or the users operating therein. The disclosed framework can operate so as to monitor the performance of tasks performed by users at a location, which can enable the determination of how effective, efficient, compliant and/or safe the user is being. Such information can be utilized to train machine learning and/or artificial intelligence (ML/AI) models that can be recursively applied to ensure performance levels and safety measures of each users' operation at the location. The framework can further be applied to compile learned activity behaviors into computer-executable instructions that can be used to automate certain tasks at the location via specifically configured real-world and/or digital assets (e.g., machinery or robotics at the jobsite, for example).

[Continued on next page]

TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS,
ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, 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).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*