

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
26 January 2023 (26.01.2023)



(10) International Publication Number
WO 2023/003913 A1

(51) International Patent Classification:

G05B 19/418 (2006.01) G06F 40/279 (2020.01)
G10L 15/22 (2006.01) G10L 15/18 (2006.01)
H01L 21/67 (2006.01)

(21) International Application Number:

PCT/US2022/037642

(22) International Filing Date:

19 July 2022 (19.07.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/223,905 20 July 2021 (20.07.2021) US
17/868,694 19 July 2022 (19.07.2022) US

(71) Applicant: **LAVORRO, INC.** [US/US]; 3790 El Camino
Real, Suite 540, Palo Alto, CA 94306 (US).

(72) Inventors: **BHATTACHERJEE, Arya, Priya**; 3790 El
Camino Real, Suite 540, Palo Alto, CA 94306 (US). **WE-
BSTER, David, Harrison**; 3790 El Camino Real, Suite
540, Palo Alto, CA 94306 (US). **BRAUN, Scott, Michael**;
3790 El Camino Real, Suite 540, Palo Alto, CA 94306 (US).

(74) Agent: **JUREK, Keith**; Baker Botts L.L.P., 1001 Page Mill
Road, Building One, Suite 200, Palo Alto, CA 94304 (US).

(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, 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,

(54) Title: VIRTUAL ASSISTANT ARCHITECTURE WITH ENHANCED QUERIES AND CONTEXT-SPECIFIC RESULTS FOR SEMICONDUCTOR-MANUFACTURING EQUIPMENT

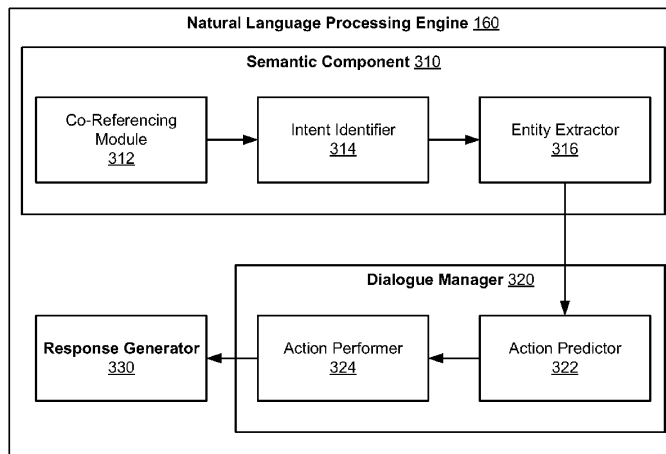


FIG. 3

(57) Abstract: In one embodiment, a system includes a wafer handling system, processing components, a controller, a virtual assistant, and a natural language processing (NLP) engine. The wafer handling system is configured to hold one or more wafers for processing. The processing components is configured to physically treat the one or more wafers. The controller is configured to operate the processing components. The virtual assistant, in communication with the NLP engine, is configured to receive a user query from a user, understand an intent or context of the user query, and provide a context-specific response to the user query.

[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, GH, GM, KE, LR, LS, MW, MZ, NA, RW, 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, 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))*