



- (51) **International Patent Classification:**
H04J 3/06 (2006.01) *G06F 16/178* (2019.01)
A61B 5/24 (2021.01)
- (21) **International Application Number:**
PCT/SG2023/050782
- (22) **International Filing Date:**
24 November 2023 (24.11.2023)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
10202260209Q 25 November 2022 (25.11.2022) SG
- (71) **Applicant:** **AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH** [SG/SG]; 1 Fusionopolis Way, #20-10, Connexis North Tower, Singapore 138632 (SG).
- (72) **Inventors:** **ZHANG, Haihong**; c/o PKM, Institute for Infocomm Research, 1 Fusionopolis Way, #21-01 Con-

nexis (South Tower), Singapore 138632 (SG). **WANG, Chuanchu**; c/o PKM, Institute for Infocomm Research, 1 Fusionopolis Way, #21-01 Connexis (South Tower), Singapore 138632 (SG). **ANG, Kai Keng**; c/o PKM, Institute for Infocomm Research, 1 Fusionopolis Way, #21-01 Connexis (South Tower), Singapore 138632 (SG). **NG, Soon Huat**; c/o PKM, Institute for Infocomm Research, 1 Fusionopolis Way, #21-01 Connexis (South Tower), Singapore 138632 (SG).

(74) **Agent:** **DAVIES COLLISON CAVE ASIA PTE. LTD.**; 10 Collyer Quay #07-01, Ocean Financial Centre, Singapore 049315 (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,

(54) **Title:** PROCESSING TIME-SERIES DATA AND RELATED SYSTEMS AND METHODS

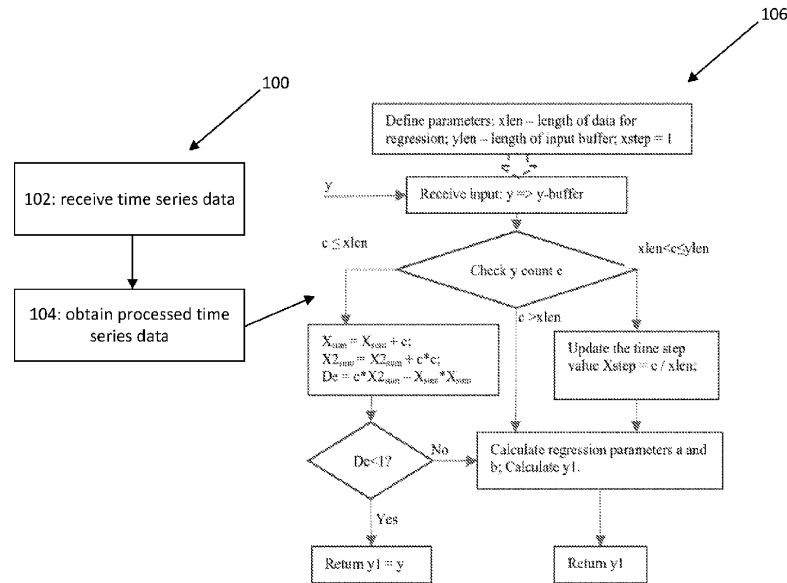


Figure 1

(57) **Abstract:** The disclosure teaches a system and method for producing synchronised time-series data. The system receives a first time-series data from a first measurement device and a second time-series data from a second measurement device. Each time-series data includes a series of data points and an arrival timestamp for each data point. The system processes the time-series data using a regression model to obtain processed time-series data. The regression model performs regression on the received arrival timestamps of the time-series data to generate the processed time-series data that then comprises synchronised timestamps. In so doing, the processed first and second time-series data are synchronised with respect to each other.

[Continued on next page]

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,
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).

Declarations under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

Published:

— *with international search report (Art. 21(3))*