

Title (en)

SENSOR SYSTEM AND METHOD FOR RECORDING A HAND VEIN PATTERN

Title (de)

SENSORSYSTEM UND VERFAHREN ZUR AUFNAHME EINES HANDVENENMUSTERS

Title (fr)

SYSTÈME DE DÉTECTION ET PROCÉDÉ DE CARTOGRAPHIE DU RÉSEAU VEINEUX D'UNE MAIN

Publication

**EP 2994850 A1 20160316 (DE)**

Application

**EP 14721381 A 20140505**

Priority

- DE 102013208654 A 20130510
- EP 2014059058 W 20140505

Abstract (en)

[origin: WO2014180765A1] The invention relates to a sensor system for recording a hand vein pattern. The sensor system comprises: – a first light source, which is designed to emit, during operation, electromagnetic waves in the near infrared range, which are able to be reflected by veins in a hand, over the entire surface, – a camera having a camera chip for recording reflection signals for electromagnetic waves and for delivering image data that correspond to the reflection signals, – a topography sensor for sensing three-dimensional topographies and – a first processor unit, which is connected to the camera chip and to the topography sensor. The first processor unit is designed to generate from the image data from the camera and the three-dimensional topography data from the topography sensor, during operation, a normalised vein pattern for a hand or a feature vector that corresponds to the vein pattern.

IPC 8 full level

**G06K 9/00** (2006.01)

CPC (source: EP US)

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**G06V 40/1312** (2022.01 - EP US); **H04N 5/33** (2013.01 - US); **H04N 23/21** (2023.01 - EP); **G06T 2207/10152** (2013.01 - US);  
**G06T 2207/30101** (2013.01 - US); **G06V 40/14** (2022.01 - EP US)

Citation (examination)

- WEI LI ET AL: "Three dimensional palmprint recognition", SYSTEMS, MAN AND CYBERNETICS, 2009. SMC 2009. IEEE INTERNATIONAL CONFERENCE ON, IEEE, PISCATAWAY, NJ, USA, 11 October 2009 (2009-10-11), pages 4847 - 4852, XP031574693, ISBN: 978-1-4244-2793-2
- JUNTA DOI ET AL: "Discrete finger and Palmar feature extraction for personal authentication", INTELLIGENT SIGNAL PROCESSING, 2003 IEEE INTERNATIONAL SYMPOSIUM ON 4-6 SEPT. 2003, PISCATAWAY, NJ, USA, IEEE, 4 September 2003 (2003-09-04), pages 37 - 42, XP010688397, ISBN: 978-0-7803-7864-3, DOI: 10.1109/ISP.2003.1275810
- See also references of WO 2014180765A1

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Designated extension state (EPC)

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