

Title (en)
ELECTRONIC DOOR LOCK AND OPERATION METHOD THEREOF

Title (de)
ELEKTRONISCHES TÜRSCHLOSS UND BETRIEBSVERFAHREN DAFÜR

Title (fr)
SERRURE DE PORTE ÉLECTRONIQUE ET SON PROCÉDÉ DE FONCTIONNEMENT

Publication
EP 3188136 A1 20170705 (EN)

Application
EP 16154026 A 20160203

Priority
PT 10905915 A 20151228

Abstract (en)
Electronic door lock and operation method thereof comprising operation under low power mode; waiting for user proximity or user touch; if a user proximity or touch is detected, exiting the low power mode and proceeding; if a user wireless device is available, verifying if the device is authorized to unlock the electronic door lock; if authorized, unlocking the electronic door lock. Furthermore communicating in real-time with a central server for interrogating a database on whether the user wireless device is authorized. Furthermore finding user devices that are in a predetermined number of the most recently authorized devices; and if none is found, searching for other user devices. A capacitive sensor is placed on a front plate of the electronic door lock and the remaining electronic parts on the back, such that the capacitive sensor detects user proximity or touch on the front of the door lock but not on its back.

IPC 8 full level
G07C 9/00 (2006.01)

CPC (source: EP)
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G07C 2209/64 (2013.01); **G07C 2209/65** (2013.01)

Citation (applicant)

- US 2011082882 A1 20110407 - DENISON WILLIAM D [US], et al
- EP 2220811 A2 20100825 - RESONANCE HOLDINGS LTD [NZ]
- WO 2012073265 A1 20120607 - CISA SPA [IT], et al
- WO 2010125306 A2 20101104 - METIVIER PASCAL [FR]
- US 2013088320 A1 20130411 - BLACK HOBSON L [US]
- US 2007204663 A1 20070906 - LEE YONG-JONG [KR]

Citation (search report)

- [X] US 2013176107 A1 20130711 - DUMAS PHILIP C [US], et al
- [X] EP 2434463 A2 20120328 - PHONIRO AB [SE]
- [X] WO 2005073929 A1 20050811 - HARROW PRODUCTS LLC [US], et al

Cited by
CN108806028A; CN112350900A; IT201900011634A1; CN110276873A; EP4036875A1; US2019272694A1; US10706652B2; CN107795199A; CN109493495A; CN107886604A; CN112950815A; US11466473B2; JP2019151993A; US10711489B1; USD934658S; US10914098B2; US11913254B2; WO2021009641A1; US10697203B1; US11933076B2; US11339589B2; US11447980B2; US12031357B2; US12071788B2

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