

Title (en)
A NEURAL MODEL-BASED CONTROLLER

Title (de)
AUF NEURONALEM MODELL BASIERENDES STEUERGERÄT

Title (fr)
CONTRÔLEUR BASÉ SUR UN MODÈLE NEURONAL

Publication
EP 3602287 A4 20210106 (EN)

Application
EP 18775291 A 20180119

Priority

- US 201762478020 P 20170328
- US 201715682065 A 20170821
- US 201762570663 P 20171011
- US 2018014533 W 20180119

Abstract (en)
[origin: WO2018182827A1] Described is a system for memory improvement intervention. Based on both real-time EEG data and a neural model, the system simulates replay of a person's specific memory during a sleep state. Using the neural model, a prediction of behavioral performance of the replay of the specific memory is generated. If the prediction is below a first threshold, then using a memory enhancement intervention system, the system applies an intervention during the sleep state to improve consolidation of the specific memory. If the prediction is below a second threshold, the system reduces the intervention performed using the memory enhancement intervention system.

IPC 8 full level
G16H 20/70 (2018.01); **A61B 5/00** (2006.01); **A61B 5/16** (2006.01); **G06F 3/01** (2006.01); **G06N 3/04** (2006.01); **G06N 3/08** (2006.01); **G16H 40/60** (2018.01); **G16H 50/50** (2018.01)

CPC (source: EP)
A61B 5/369 (2021.01); **G06F 3/015** (2013.01); **G06N 3/044** (2023.01); **G06N 3/049** (2013.01); **G06N 3/088** (2013.01); **G16H 20/70** (2017.12); **G16H 40/60** (2017.12); **G16H 50/50** (2017.12); **Y02A 90/10** (2017.12)

Citation (search report)

- [I] US 2014057232 A1 20140227 - WETMORE DANIEL Z [US], et al
- [I] US 2011015469 A1 20110120 - WALTER TIMOTHY J [US], et al
- [I] WO 2016102602 A1 20160630 - ICM INST DU CERVEAU ET DE LA MOELLE ÉPINIÈRE [FR], et al
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- [I] WO 2015191628 A1 20151217 - UNIV CALIFORNIA [US]
- [A] SCHOUTEN DAPHNE I ET AL: "State of the art on targeted memory reactivation: Sleep your way to enhanced cognition", SLEEP MEDICINE REVIEWS, W.B. SAUNDERS, AMSTERDAM, NL, vol. 32, 21 April 2016 (2016-04-21), pages 123 - 131, XP029919632, ISSN: 1087-0792, DOI: 10.1016/J.SMRV.2016.04.002
- See references of WO 2018182827A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2018182827 A1 20181004; CN 110337638 A 20191015; CN 110337638 B 20230217; EP 3602287 A1 20200205; EP 3602287 A4 20210106

DOCDB simple family (application)
US 2018014533 W 20180119; CN 201880013960 A 20180119; EP 18775291 A 20180119