Title (en)

BLOCKCHAIN-BASED REAL-TIME CONTROL NETWORK, REAL-TIME CONTROL SYSTEM AND REAL-TIME CONTROL METHOD

Title (de)

AUF BLOCKCHAIN BASIERENDES ECHTZEITSTEUERUNGSNETZWERK, ECHTZEITSTEUERSYSTEM UND ECHTZEIT-STEUERVERFAHREN

Title (fr)

RÉSEAU DE COMMANDE EN TEMPS RÉEL BASÉ SUR UNE CHAÎNE DE BLOCS, SYSTÈME DE COMMANDE EN TEMPS RÉEL ET PROCÉDÉ DE COMMANDE EN TEMPS RÉEL

Publication

EP 3656084 A1 20200527 (EN)

Application

EP 17788324 A 20170831

Priority

RU 2017000635 W 20170831

Abstract (en)

[origin: WO2019045589A1] A real-time control network (1) for controlling one or more controlled devices (21, 22) in real time comprises a plurality of nodes (11-15) being interconnected and configured to host a blockchain (3), wherein the blockchain (3) is a distributed consensus-based database configured to store a plurality of transactions (41-46), and to act as a distributed virtual machine configured to execute a distributed control application for controlling the one or more controlled devices (21, 22) in real time, the distributed control application being stored in one or more contract transactions (41, 42) of the plurality of transactions (41-46). Further, a real-time control system (100, 200, 300) and a real-time control method based on the blockchain (3) and the distributed virtual machine are proposed. The real-time control network (1), system (100, 200, 300) and method may achieve high redundancy, fault tolerance, security, crypto immunity and transparency of the real-time control performed on the controlled devices (21, 22).

IPC 8 full level

H04L 9/32 (2006.01)

CPC (source: EP)

H04L 9/3239 (2013.01); **H04L 9/50** (2022.05)

Citation (search report)

See references of WO 2019045589A1

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