

Nicolas Vargas

Search history

Search 1: STAC=(refrigeration or air condition*) (Results 501333)
Search 2: 1 and (power or energy) (Results 150884)
Search 3: 2 and expert system* (Results 79)
Search 4: 3 and modbus (Results 4)
Search 5: 4 and pd<20180704 (Results 2)

1) Family number: 59226448 (US2015134123A)

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Title: PREDICTIVE MONITORING AND CONTROL OF AN ENVIRONMENT USING CFD

Abstract: Computational fluid dynamics (CFD) can be used for modeling environment characteristics and for controlling instrumentation in sensitive environments, such as in an office building, datacenter, hospital, enclosed arena, airport, or other environment. In an example, **power** consumption characteristics from physical equipment assets in an environment can be used by a CFD circuit to improve accuracy of a CFD model. Information from a CFD model can be used to optimize efficiency of HVAC or other air-moving systems serving an environment. In an example, CFD analyses can be performed substantially in real-time when one or more inputs to a CFD model change, relative to a baseline value, by more than a specified threshold amount. An **energy** efficient and cost efficient response to a change in infrastructure of an environment can be identified based on a CFD model of the environment.

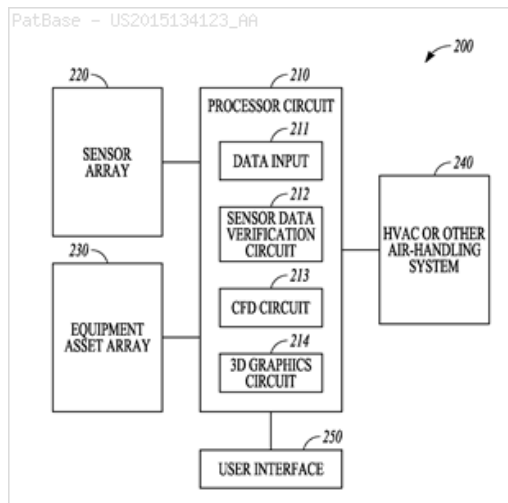
Classifications:

International (IPC 8-9): F24F11/00 G05B13/04

G06F17/50 (Advanced/Invention)

CPC: G05B15/02 G06F17/5009 F24F11/62 F24F11/30

US: 700/276 700/277



Family:

Publication number	Publication date	Application number	Application date
CA2891802 AA	20150515	CA20142891802	20141113
US2015134123 AA	20150514	US20140540918	20141113
WO15073702 A1	20150521	WO2014US65510	20141113

Priority:

US20130904228P 20131114 US20140540918 20141113 WO2014US65510 20141113

Probable Assignee: NORTEK AIR SOLUTIONS LLC

Assignee(s): (std): NORTEK AIR SOLUTIONS LLC ; OBINELLO IZUH ; CES GROUP LLC

Assignee(s): CORE BRANDS LLC ; BANK OF AMERICA NA ; BROAN NUTONE LLC ; ERGOTRON INC ; GTO ACCESS SYSTEMS LLC ; NORTEK GLOBAL HVAC LLC ; NORTEK INC ; NORTEK SECURITY AND CONTROL LLC ; REZNOR LLC ; WELLS FARGO BANK NATIONAL ASSOCIATION COLLATERAL AGENT AS

Inventor(s): (std): OBINELLO IZUH

Agent(s): FINLAYSON AND SINGLEHURST; ARORA SUNEEL ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SYSTEM AND METHOD FOR HOME **ENERGY** MONITOR AND CONTROL

Abstract: The invention generally concerns systems and methods for monitoring and controlling the **power** consumption of a **power**-consuming device. The system and method may connect to a **power** source and a **power**-consuming device, connecting the **power**-consuming device to the **power** source. The **power** usage of the **power**-consuming device may then be measured and monitored. This monitoring data may then be stored and optionally sent to a controlling device on a data network. The location of the **power**-consuming device may also be determined, recorded, and sent to a controlling device. The system may also control the **power** usage of the **power**-consuming device. In some cases, a remote server may connect multiple **energy** monitoring systems in order to gain additional efficiencies and foster a community-based social network.

Classifications:

International (IPC 8-9): G01D4/00 G01R11/56 G01R15/00 G01R21/00 G01R21/06 G01R21/133 G01R22/00 G01R22/10 G05B23/02 G05D11/00 G05D17/00 G05D3/12 G05D5/00 G05D9/00 G06F11/00 G06F15/173 G06F17/00 G06F19/00 G06F3/048 G06Q20/00 G06Q30/00 G06Q50/06 G08B1/00 G08B23/00 H02J13/00 H04L12/16 H04L29/06 (Advanced/Invention);

G01D4/02 G05B11/01 G08C15/06 G08C19/16 H02J3/00

H04L12/28 (Advanced/Non-invention);

G01R15/00 G05B23/02 (Core/Invention)

CPC: Y02B90/246 Y04S20/42 G06Q30/0277 H04L12/14 H02J3/008

Y02B70/3208 Y02B70/343 Y02B90/241 Y02B90/245 Y04S20/32

Y04S20/34 Y04S20/40 Y04S20/46 Y04S50/10 G01R21/00 G01D4/002

G01R21/133 Y02A20/218

European: G01D4/00R G06Q30/0277 H04L12/14 T02J3/00T Y02B70/32B

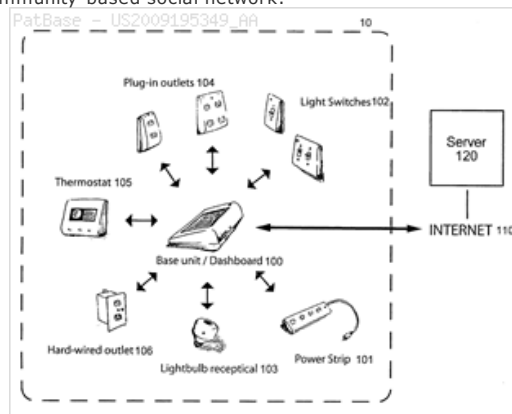
Y02B70/34B Y02B90/24D Y04S20/34 Y04S20/40 Y04S20/46

US: 340/12.32 340/12.320S 340/3.1 340/3.100P 340/310.11

340/310.110S 340/870.02 340/870.020P 700/291 700/295 702/188

702/61 702/62 705/14.73 705/14.730S 705/412 705/63 709/224 715/771

715/771P



Family:

Publication number	Publication date	Application number	Application date
CA2713702 AA	20090806	CA20092713702	20090129
CA2713702 C	20180313	CA20092713702	20090129
CA2749628 AA	20120226	CA20112749628	20110818
CA2749628 C	20151124	CA20112749628	20110818
CA2749659 AA	20120226	CA20112749659	20110819
CA2749659 C	20171017	CA20112749659	20110819
US2009195349 AA	20090806	US20080024957	20080201
US2011061014 AA	20110310	US20100946011	20101115
US2011063126 AA	20110317	US20100946028	20101115
US2012316808 AA	20121213	US20120557144	20120724
US2015185261 AA	20150702	US20150663381	20150319
US8255090 BB	20120828	US20080024957	20080201
US8996188 BB	20150331	US20120557144	20120724
WO09097400 A1	20090806	WO2009US32389	20090129

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US20080024957	20080201	WO2009US32389	20090129	US20100377347P	20100826
US20100946011	20101115	US20100946028	20101115	CA20112749628	20110818
CA20112749659	20110819	US20120557144	20120724	US20150663381	20150319

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Agent(s): MCCARTHY TETRAULT LLP; SMART AND BIGGAR; GOODWIN PROCTER LLP; TUROCY AND WATSON LLP; AMIN TUROCY AND WATSON LLP; SCHREINER STEPHEN T

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW