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Naboulsi

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(54) **SAFETY CONTROL SYSTEM FOR VEHICLES**

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This patent is subject to a terminal disclaimer.

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CPC **G06F 17/00** (2013.01); **B60R 11/0264** (2013.01); **B60R 2011/001** (2013.01); **G08B 21/06** (2013.01)

(58) **Field of Classification Search**

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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,103,438 A 7/1914 Scheibert
3,223,926 A 12/1965 Maugans

(Continued)

FOREIGN PATENT DOCUMENTS

DE 10352733 A1 10/2004
JP 62-048845 3/1987

(Continued)

OTHER PUBLICATIONS

Delphi Corporation Selected to Lead Comprehensive Driver Distraction Research Program; Delphi News Release; Oct. 30, 2002; (3 pages), Troy, Michigan.

(Continued)

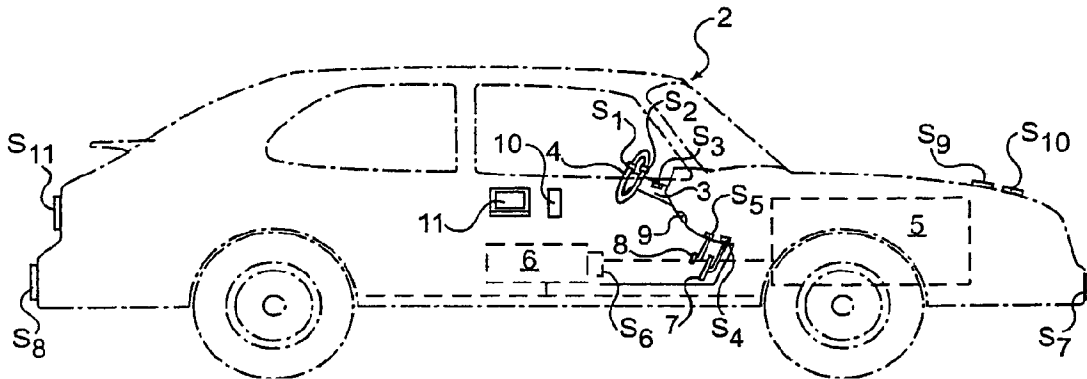
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(57) **ABSTRACT**

According to one aspect of one embodiment of the present invention, a safety control system for vehicles, includes, a communication device having at least one of an input accessible from within the vehicle and an output communicated within the vehicle, at least one sensor operable to sense at least one condition related to vehicle operation, and a controller communicated with the sensor and the communication device to selectively suppress at least one of said input and said output in response to a sensed parameter of said at least one condition being outside of a threshold. When an input is suppressed, the driver is prevented from accessing or inputting information into the communication device. When an output is suppressed, communication between the device and the driver of a vehicle is suppressed to, among other things, avoid distracting the driver during certain driving situations or conditions relating to the driver, vehicle and/or environment.

31 Claims, 5 Drawing Sheets



Related U.S. Application Data

continuation of application No. 10/287,299, filed on Nov. 4, 2002, now Pat. No. 6,731,925, which is a continuation of application No. 10/279,447, filed on Oct. 24, 2002, now abandoned.

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(56)

References Cited

U.S. PATENT DOCUMENTS

4,485,375	A	11/1984	Hershberger	6,610,936	B2	8/2003	Gillespie et al.
4,572,207	A	2/1986	Yoshimi et al.	6,611,752	B1	8/2003	Bartlett
4,649,282	A	3/1987	Ota et al.	6,665,600	B2	12/2003	Miller et al.
5,266,922	A	11/1993	Smith et al.	6,675,082	B2	1/2004	Galli et al.
5,301,227	A	4/1994	Kamei et al.	6,687,497	B1	2/2004	Parvulescu et al.
5,453,929	A	9/1995	Stove	6,732,534	B2	5/2004	Spry
5,521,580	A	5/1996	Kaneko et al.	6,756,903	B2	6/2004	Omry et al.
5,543,591	A	8/1996	Gillespie et al.	6,771,946	B1	8/2004	Oyaski
5,812,698	A	9/1998	Platt et al.	6,775,603	B2	8/2004	Yester et al.
5,813,989	A	9/1998	Saitoh et al.	6,791,462	B2	9/2004	Choi
5,855,144	A	1/1999	Parada	6,810,309	B2	10/2004	Sadler et al.
5,880,411	A	3/1999	Gillespie et al.	6,812,942	B2	11/2004	Ribak
5,897,505	A	4/1999	Feinberg et al.	D500,639	S	1/2005	Cauchy et al.
5,915,561	A	6/1999	Lorenzana et al.	6,842,677	B2	1/2005	Pathare
5,936,518	A	8/1999	Fukui et al.	6,871,067	B2	3/2005	Clark et al.
5,978,737	A	11/1999	Pawlowski et al.	6,880,941	B2	4/2005	Suggs
6,028,271	A	2/2000	Gillespie et al.	6,882,906	B2	4/2005	Geisler et al.
6,085,078	A	7/2000	Stamegna	6,886,060	B2	4/2005	Wang et al.
6,085,278	A	7/2000	Gates et al.	6,886,653	B1	5/2005	Bellehumeur
6,104,101	A	8/2000	Miller et al.	6,892,116	B2	5/2005	Geisler et al.
6,107,922	A	8/2000	Bryuzgin	6,895,316	B2	5/2005	Chen et al.
6,114,949	A	9/2000	Schmitz et al.	6,909,650	B2	6/2005	Ryu et al.
6,145,082	A	11/2000	Gannon et al.	6,909,947	B2	6/2005	Douros et al.
6,147,315	A	11/2000	Rudolph et al.	6,946,966	B2	9/2005	Koenig
6,148,251	A	11/2000	Downs	6,968,311	B2	11/2005	Knockeart et al.
6,154,123	A	11/2000	Kleinberg	6,973,323	B2	12/2005	Oesterling et al.
6,154,658	A	11/2000	Caci	6,974,414	B2	12/2005	Victor
6,166,656	A	12/2000	Okada et al.	7,006,793	B2	2/2006	Himmel et al.
6,188,315	B1	2/2001	Herbert et al.	7,009,488	B2	3/2006	Schwartz et al.
6,209,767	B1	4/2001	Liou	7,019,623	B2	3/2006	Klausner et al.
6,240,347	B1	5/2001	Everhart et al.	7,020,499	B2	3/2006	Moffi et al.
6,246,933	B1	6/2001	Bague	7,049,941	B2	5/2006	Rivera-Cintron et al.
6,249,720	B1	6/2001	Kubota et al.	7,054,723	B2	5/2006	Seto et al.
6,253,131	B1	6/2001	Qugley et al.	7,062,365	B1	6/2006	Fei
6,256,558	B1	7/2001	Sugiura et al.	7,068,167	B2	6/2006	Brunner
6,263,190	B1	7/2001	Mamori et al.	7,084,773	B2	8/2006	Oyama
6,282,906	B1	9/2001	Cauchy	7,116,989	B2	10/2006	Mazzara et al.
6,292,719	B1	9/2001	Seto et al.	7,120,785	B1	10/2006	Bowers et al.
6,308,115	B1	10/2001	Yamaguchi et al.	7,133,753	B2	11/2006	Nakajima et al.
6,335,689	B1	1/2002	Mine	7,194,347	B2	3/2007	Harumoto et al.
6,339,700	B1	1/2002	Tsai	7,218,213	B2	5/2007	Katagiri et al.
6,353,778	B1	3/2002	Brown	7,243,012	B2	7/2007	Miyake et al.
6,373,472	B1	4/2002	Palalay et al.	7,280,852	B2	10/2007	Shimizu et al.
6,380,931	B1	4/2002	Gillespie et al.	7,295,904	B2	11/2007	Kanevsky et al.
6,381,966	B1	5/2002	Barrow	7,308,247	B2	12/2007	Thompson et al.
6,414,671	B1	7/2002	Gillespie et al.	7,321,825	B2	1/2008	Ranalli
6,418,362	B1	7/2002	St. Pierre et al.	7,349,782	B2	3/2008	Churchill et al.
6,430,488	B1	8/2002	Goldman et al.	7,627,427	B2*	12/2009	Nichols et al. 701/517
6,434,450	B1	8/2002	Griffin, Jr. et al.	7,688,244	B2	3/2010	Lee et al.
6,434,459	B2	8/2002	Wong et al.	2001/0002449	A1	5/2001	Eisenmann et al.
6,438,465	B2	8/2002	Obradovich et al.	2001/0016789	A1	8/2001	Staiger
6,502,022	B1	12/2002	Chastain et al.	2002/0069071	A1	6/2002	Knockeart et al.
6,526,762	B1	3/2003	Barrow	2002/0075168	A1	6/2002	Ablay et al.
6,556,810	B2	4/2003	Suzuki	2002/0091706	A1	7/2002	Anderson et al.
6,575,902	B1	6/2003	Burton	2002/0111725	A1	8/2002	Burge
6,580,973	B2	6/2003	Leivian et al.	2002/0116156	A1	8/2002	Remboski et al.
				2002/0120371	A1	8/2002	Leivian et al.
				2002/0120374	A1	8/2002	Douros et al.
				2002/0180608	A1	12/2002	Omry et al.
				2003/0014521	A1	1/2003	Elson et al.
				2003/0065432	A1	4/2003	Shuman et al.
				2003/0073406	A1	4/2003	Benjamin et al.
				2003/0169181	A1	9/2003	Taylor
				2003/0169522	A1	9/2003	Schofield et al.
				2003/0179233	A1	9/2003	McWalter et al.
				2003/0179773	A1	9/2003	Mocek et al.
				2003/0182032	A1	9/2003	McWalter et al.
				2003/0182233	A1	9/2003	Mocek et al.
				2003/0182360	A1	9/2003	Mocek et al.
				2003/0187571	A1	10/2003	Impson et al.
				2003/0191569	A1	10/2003	Su et al.
				2003/0210150	A1	11/2003	Benedict
				2003/0216136	A1	11/2003	McBrearty et al.
				2004/0000992	A1	1/2004	Cuddihy et al.
				2004/0039509	A1	2/2004	Breed
				2004/0044454	A1	3/2004	Ross et al.
				2004/0088084	A1	5/2004	Geisler et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

2004/0198306	A1	10/2004	Singh et al.
2004/0204795	A1	10/2004	Harvey et al.
2004/0204796	A1	10/2004	Harvey et al.
2004/0236474	A1	11/2004	Chowdhary et al.
2004/0236475	A1	11/2004	Chowdhary
2004/0236476	A1	11/2004	Chowdhary
2004/0243292	A1	12/2004	Roy
2005/0021190	A1	1/2005	Worrell et al.
2005/0030184	A1	2/2005	Victor
2006/0094412	A1	5/2006	Nonoyama et al.
2006/0095848	A1	5/2006	Naik
2006/0202842	A1	9/2006	Sofer
2007/0073944	A1	3/2007	Gormley
2007/0152803	A1	7/2007	Huang et al.
2007/0167147	A1	7/2007	Krasner et al.
2008/0125102	A1	5/2008	Abel et al.
2009/0006678	A1	1/2009	Mishima

FOREIGN PATENT DOCUMENTS

JP	09-011772	1/1997
JP	09-292261	11/1997
JP	2000-172195	6/2000
JP	2000-301964	10/2000
JP	2001-045181	2/2001
JP	2001-239897	9/2001

OTHER PUBLICATIONS

Volvo Owners Club, Volvo Press Releases; Sep. 8, 2003; (9 pages) United Kingdom.

UK Debut for All-New Volvo S40 at Scottish Motor Show; Oct. 20, 2003; (2 pages), United Kingdom.

Duncan Graham-Rowe; Smart Assistant Will Cut Driver Distraction (NewScientist.com); Dec. 7, 2003 (2 pages).

Edwin Bastiaensen; PReVENT Intergrated Project for Active Safety Gets Underway (its@ertico); Feb. 3, 2004; (3 pages), Europe.

Memorandum of Understanding for Realisation of Interoperable In-Vehicle eCall (Safety Forum eCall Driving Group); May 28, 2004; (7 pages), Europe.

Dr. Juergen Schwarz; Response 3—Code of Practice for Development, Validation and Market Introduction of ADAS—A PReVENT Project (DaimlerChrysler AG); Jun. 3, 2005; (9 pages), Stuttgart, Germany.

Maria Rimini-Doering, et al.; I-TSA Traffic Safety Assessment in a Simulator Experiment with Integrated Information and Assistance Systems (Fourth International Driving Symposium on Human Factors in Driver Assessment, Training and Vehicle Design); Jul. 9-12, 2007; (9 pages), Stevenson, Washington.

New Solution to Texting While Driving can Save Lives (CummingHome); Jul. 11, 2007; (2 pages), Georgia.

Wheel (Version: 12); Author Unknown, Date Unknown, Where Published Unknown.

* cited by examiner

FIG - 1

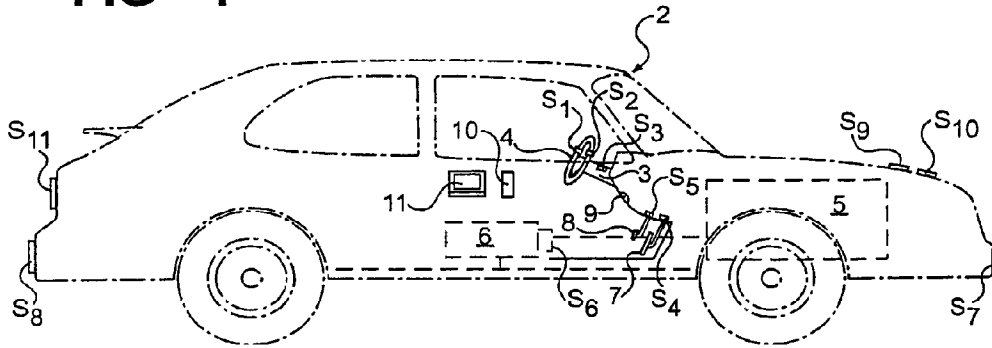
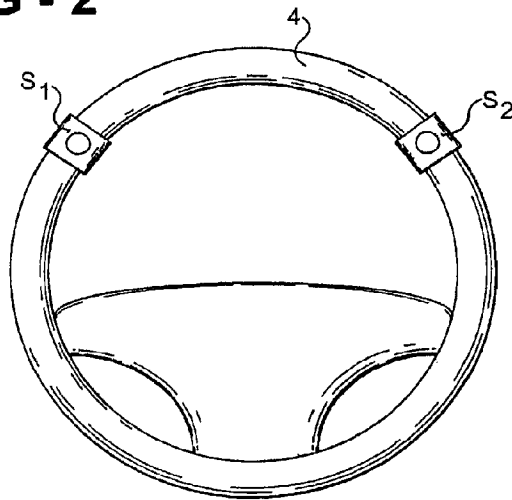


FIG - 2



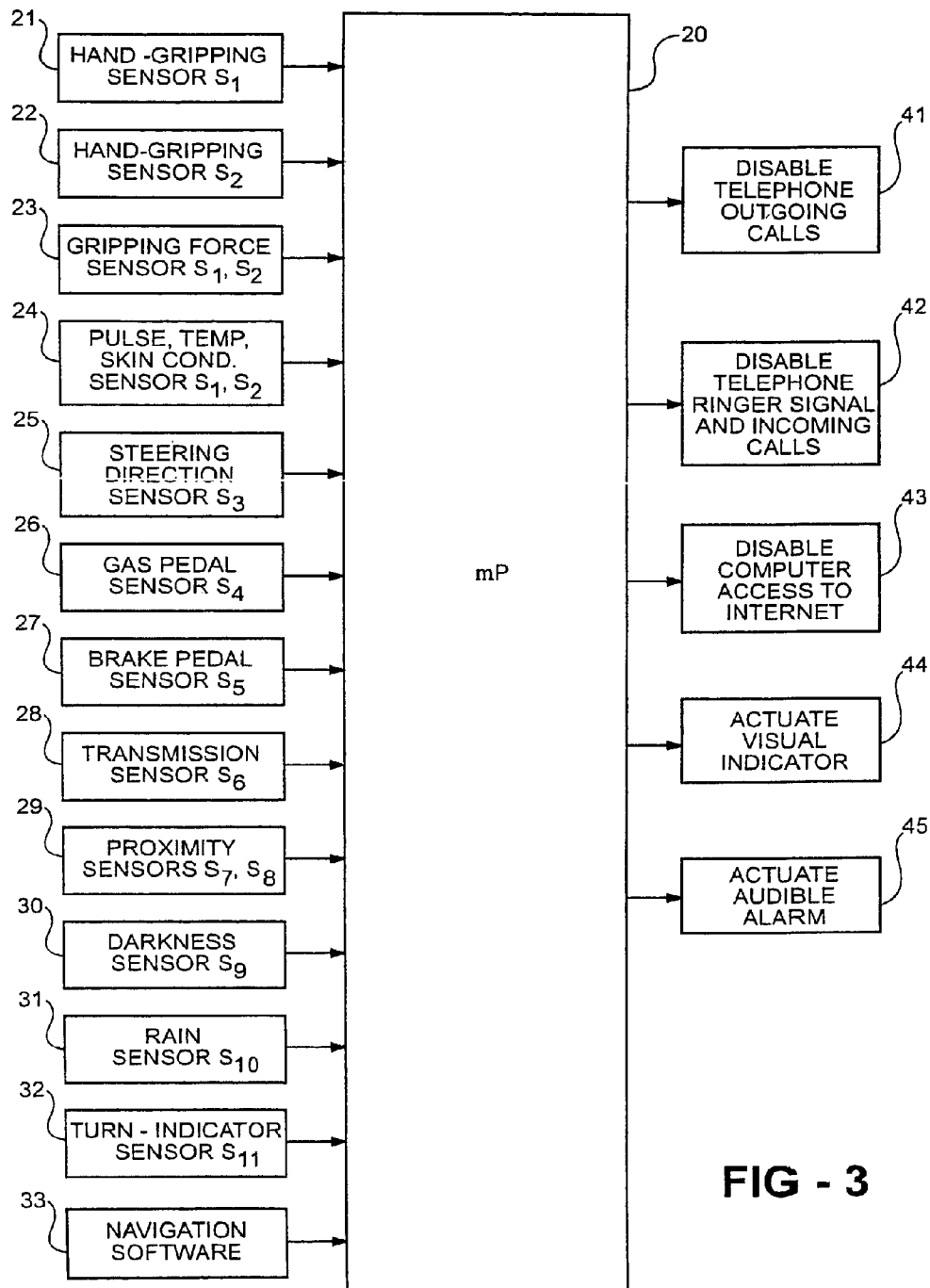


FIG - 3

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