

Hiroshi Ishida

List of Publications by Year in descending order

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1393
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#	ARTICLE	IF	CITATIONS
1	Super-Resolution for Gas Distribution Mapping: Convolutional Encoder-Decoder Network. , 2022, , .		1
2	Gas Dispersion Simulator with Strong Fluctuations for Developing Gas Source Localization Systems. , 2022, , .		2
3	Human Olfactory Interface for Odor Modulation Utilizing Gas Adsorption and Desorption: Evaluation of Separation Performance of Odorous Substances in Adsorption Process. Lecture Notes in Computer Science, 2021, , 431-435.	1.3	0
4	Applying Odor Preconcentrator for Enhancing Human Olfaction: Feasibility Study. ECS Meeting Abstracts, 2021, MA2021-01, 1652-1652.	0.0	0
5	Recent Progress and Trend of Robot Odor Source Localization. IEEJ Transactions on Electrical and Electronic Engineering, 2021, 16, 938-953.	1.4	44
6	Development of Gas Sensing Drones:. The Proceedings of Mechanical Engineering Congress Japan, 2021, 2021, S115-05.	0.0	0
7	Detection of Gas Drifting Near the Ground by Drone Hovering Over: Using Airflow Generated by Two Connected Quadcopters. Sensors, 2020, 20, 1397.	3.8	9
8	Active Chemical Sampling Using Jet Discharge Inspired by Crayfish: CFD Simulations of the Flow Fields Generated by the Jet Discharge Device. Sensors, 2020, 20, 522.	3.8	1
9	Applying Odor Preconcentrator for Enhancing Human Olfaction: Feasibility Study. ECS Meeting Abstracts, 2020, MA2020-01, 2413-2413.	0.0	0
10	Preface to the Special Issue on "The Technical Meetings on Sensors and Micromachines 2019" IEEJ Transactions on Sensors and Micromachines, 2020, 140, 97-97.	0.1	0
11	Fundamental Study on Odor Reproduction System Using E-Nose. The Proceedings of Mechanical Engineering Congress Japan, 2020, 2020, S12102.	0.0	0
12	On the Tutorials, Sniffest Competition, and Special Session on Olfactory Displays in ISOEN 2019. Journal of Japan Association on Odor Environment, 2020, 51, 26-35.	0.0	1
13	Detection of Chemical Trail on the Floor by Mobile Robot: : Using Fans to Enhance Chemical Reception at Gas Sensors. , 2020, , .		0
14	Application of Sequence Input and Output Long Short-Term Memory Neural Networks for Autonomous Gas Source Localization in an Outdoor Environment. , 2019, , .		0
15	Review on development of devices for amplifying human olfaction: Approaches using real and virtual concentration method. Electronics and Communications in Japan, 2019, 102, 55-60.	0.5	1
16	Experimental Observation of Olfactory Search Behavior of Crayfish in Seven Arm Maze. , 2019, , .		1
17	Smelling Screen: Application to a Museum Exhibition and a Challenge for Scaling Up. , 2019, , .		3
18	Fundamental Study on Simple Chicken Robot for Promoting Chicks' Feeding Behavior. The Proceedings of Mechanical Engineering Congress Japan, 2019, 2019, S11508P.	0.0	0

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19	Application of Convolutional Long Short-Term Memory Neural Networks to Signals Collected from a Sensor Network for Autonomous Gas Source Localization in Outdoor Environments. <i>Sensors</i> , 2018, 18, 4484.	3.8	43
20	Review on Development of Devices for Amplifying Human Olfaction: Approaches using Real and Virtual Concentration Method. <i>IEEJ Transactions on Sensors and Micromachines</i> , 2018, 138, 337-342.	0.1	1
21	Fundamental Study on Designing Multicopter for Gas Sensing Applications. <i>The Proceedings of the Machine Design and Tribology Division Meeting in JSME</i> , 2018, 2018.18, 2A3-1.	0.0	0
22	Preface to the Special Issue on "Sensors, Actuators, and Displays to Realize Virtual Reality" <i>IEEJ Transactions on Sensors and Micromachines</i> , 2018, 138, 329-329.	0.1	0
23	Chemical sampling device for underwater robot: Jet discharge mimicking crayfish. , 2017, , .		1
24	Tracking of a Gas Plume With the Aid of Olfactory Assist Mask. <i>IEEE Sensors Journal</i> , 2017, 17, 5332-5340.	4.7	7
25	Compact Surface Plasmon Resonance Sensor for Underwater Chemical Sensing Robot. <i>Journal of Sensors</i> , 2017, 2017, 1-9.	1.1	2
26	Fundamental Study on Device that can Amplify Odor Intensity:. <i>The Proceedings of Mechanical Engineering Congress Japan</i> , 2017, 2017, S1150201.	0.0	1
27	Active Chemical Sampling System for Underwater Chemical Source Localization. <i>Journal of Sensors</i> , 2016, 2016, 1-11.	1.1	5
28	Devices for Assisting Human Olfaction: Some Fundamental Experiments. <i>Procedia Chemistry</i> , 2016, 20, 60-62.	0.7	3
29	Estimation of Gas Source Location from Fluctuating Readings of Gas Sensors and Anemometer on Mobile Robot in Outdoor Environment. <i>ECS Transactions</i> , 2016, 75, 99-106.	0.5	4
30	Active Airflow Generation to Assist Robotic Gas Source Localization: Initial Experiments in Outdoor Environment. <i>ECS Transactions</i> , 2016, 75, 65-72.	0.5	3
31	Development of Olfactory Sensitivity Amplifier: Fundamental Study on the Use of Thin Film Adsorbent. <i>The Proceedings of the Machine Design and Tribology Division Meeting in JSME</i> , 2016, 2016.16, B3-2.	0.0	2
32	Estimation of Gas Source Location from Fluctuating Readings of Gas Sensors and Anemometer on Mobile Robot in Outdoor Environment. <i>ECS Meeting Abstracts</i> , 2016, , .	0.0	0
33	Portable Display System for Presenting Spatial Odor and/or Airflow Distribution. <i>The Proceedings of Mechanical Engineering Congress Japan</i> , 2016, 2016, S1110204.	0.0	0
34	Portable Display System for Presenting Spatial Odor and/or Airflow Distribution. <i>IEEJ Transactions on Sensors and Micromachines</i> , 2016, 136, 296-302.	0.1	0
35	Active Airflow Generation to Assist Robotic Gas Source Localization: Initial Experiments in Outdoor Environment. <i>ECS Meeting Abstracts</i> , 2016, , .	0.0	0
36	Determination of gas source existence in a specified area by active airflow generator robots. , 2015, , .		2

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37	Robotic gas source localization assisted by active airflow generation. , 2015, , .		3
38	S1180101 Display System for Presenting Spatial Odor and/or Airflow Distribution : Application to Tablet Computer. The Proceedings of Mechanical Engineering Congress Japan, 2015, 2015, _S1180101-_S1180101-.	0.0	0
39	S1110205 Fundamental Study on CFD Simulation of Indoor Airflow Field for Mobile Robot Gas Source Localization. The Proceedings of Mechanical Engineering Congress Japan, 2015, 2015, _S1110205-_S1110205-.	0.0	0
40	Olfactory search behavior of human wearing olfactory assist mask. , 2014, , .		2
41	2111 Fundamental Study on Device that can Amplify Odor Intensity. The Proceedings of the Machine Design and Tribology Division Meeting in JSME, 2014, 2014.14, 121-122.	0.0	1
42	20711 Collecting Database for Development of Gas Source Localization Robots : Collecting Thermal Distribution Data. The Proceedings of Conference of Kanto Branch, 2014, 2014.20, _20711-1-_20711-2_.	0.0	0
43	F111002 Olfaction and its Applications to Human-Machine Interface. The Proceedings of Mechanical Engineering Congress Japan, 2014, 2014, _F111002-1-_F111002-4.	0.0	0
44	Smelling Screen: Development and Evaluation of an Olfactory Display System for Presenting a Virtual Odor Source. IEEE Transactions on Visualization and Computer Graphics, 2013, 19, 606-615.	4.4	83
45	Smelling screen: Presenting a virtual odor source on a LCD screen. , 2013, , .		3
46	Adaptive Chemical Sampling Device Inspired by Crayfish. ECS Transactions, 2013, 50, 259-266.	0.5	4
47	Development of Olfactory Assist Mask. IEJ Transactions on Sensors and Micromachines, 2013, 133, 212-218.	0.1	2
48	Preface to the Special Issue on "Advances in Odor Sensing and Odor Presentation Technologies" IEJ Transactions on Sensors and Micromachines, 2013, 133, 177-177.	0.1	0
49	J113013 Development of Olfactory Display for Virtual Reality Applications : Simultaneous Presentation of Virtual Odor Source and Heat Source. The Proceedings of Mechanical Engineering Congress Japan, 2013, 2013, _J113013-1-_J113013-4.	0.0	0
50	Device for determining gas source direction that uses peltier elements to collect gas samples. , 2012, , .		1
51	Chemical Sensing in Robotic Applications: A Review. IEEE Sensors Journal, 2012, 12, 3163-3173.	4.7	179
52	Fragrant multimedia display system: Presenting odor distribution on display screen. , 2012, , .		2
53	Smelling screen: Technique to present a virtual odor source at an arbitrary position on a screen. , 2012, , .		19
54	Olfactory Display Using Solenoid Valves and Fluid Dynamics Simulation. , 2012, , 140-163.		8

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55	Crayfish Robot That Generates Flow Field to Enhance Chemical Reception. Journal of Sensor Technology, 2012, 02, 185-195.	1.0	7
56	2204 Technique for Presenting Airflow and/or Odor Source in Virtual Reality System by Airflow Manipulation. The Proceedings of the Machine Design and Tribology Division Meeting in JSME, 2012, 2012.12, 141-142.	0.0	0
57	Multi-sensorial field display: Presenting spatial distribution of airflow and odor. , 2011, , .		29
58	Introducing computational fluid dynamics simulation into olfactory display. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2011, 177, 65-72.	0.4	3
59	Effects of Self-generated Heat on Gas Sensing in Mobile Robots and Olfactory Sensing in Humans. , 2011, , .		2
60	Electrochemical sensor to determine direction of chemical flow: Fluid dynamics analysis on sensing probe structure. , 2011, , .		0
61	On the effect of airflow on odor presentation. , 2010, , .		2
62	Synchronized presentation of odor with airflow using olfactory display. Journal of Mechanical Science and Technology, 2010, 24, 253-256.	1.5	5
63	Collecting a Database for Studying Gas Distribution Mapping and Gas Source Localization with Mobile Robots. The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM, 2010, 2010.5, 183-188.	0.0	9
64	Fluid Dynamic Considerations for Realistic Odor Presentation Using Olfactory Display. Presence: Teleoperators and Virtual Environments, 2010, 19, 513-526.	0.6	9
65	Active stereo nose: Using air curtain to enhance the directivity. , 2010, , .		8
66	S1108-4-3 Chemical Source Localization by Underwater Robot Mimicking Crayfish : Improvement of Maxilliped Arms. The Proceedings of the JSME Annual Meeting, 2010, 2010.4, 55-56.	0.0	0
67	1211 Interactive Odor Playback Based on Computational Fluid Dynamics Simulation. The Proceedings of the Machine Design and Tribology Division Meeting in JSME, 2010, 2010.10, 83-84.	0.0	0
68	Estimating gas-source location in outdoor environment using mobile robot equipped with gas sensors and anemometer. , 2009, , .		12
69	Actively Generated Flow Field Helps a Crayfish Robot Collect Chemical Signals. ECS Transactions, 2009, 19, 337-341.	0.5	4
70	Blimp Robot for Three-Dimensional Gas Distribution Mapping in Indoor Environment. , 2009, , .		17
71	Odor Presentation with a Vivid Sense of Reality: Incorporating Fluid Dynamics Simulation into Olfactory Display. Virtual Reality Conference (VR), Proceedings, IEEE, 2009, , .	0.0	10
72	Interactive Odor Playback Based on Fluid Dynamics Simulation. Virtual Reality Conference (VR), Proceedings, IEEE, 2009, , .	0.0	7

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73	Design and implementation of spherical ultrasonic motor. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 2514-2521.	3.0	52
74	S1107-1-2 Chemical Detection and Source Localization by Underwater Crayfish Robot with Maxilliped Arms. The Proceedings of the JSME Annual Meeting, 2009, 2009.4, 181-182.	0.0	0
75	Towards environmental monitoring with mobile robots. , 2008, , .		48
76	Crayfish Robot Equipped with Active Flow Generator to Enhance Chemical Reception. , 2008, , .		3
77	Sensing Array for Coherence Analysis of Modulated Aquatic Chemical Plumes. Analytical Chemistry, 2008, 80, 1012-1018.	6.5	4
78	Chemical Sensing in Spatial/Temporal Domains. Chemical Reviews, 2008, 108, 680-704.	47.7	49
79	Active Stereo Olfactory Sensing System for Localization of Gas/Odor Source. , 2008, , .		9
80	Crayfish Robot Employing Flow Induced by Waving to Locate a Chemical Source. , 2008, , .		1
81	Introducing Computational Fluid Dynamics Simulation into Olfactory Display. IEEJ Transactions on Sensors and Micromachines, 2008, 128, 472-477.	0.1	2
82	1314 Autonomous Wheeled Underwater Robot Mimicking Olfactory Search Behavior of Crayfish. The Proceedings of the Machine Design and Tribology Division Meeting in JSME, 2008, 2008.8, 147-148.	0.0	0
83	3246 Active Stereo Olfactory Sensing System Mimicking Dog Nose. The Proceedings of the JSME Annual Meeting, 2008, 2008.4, 189-190.	0.0	0
84	Compact SPR Gas Sensor for Mobile Robot Olfaction Using Metal Nanostructure and LED Light Source. , 2007, , .		1
85	Development of an MRI Compatible Surgical Assist Manipulator using Spherical Ultrasonic Motor (1st) Tj ETQq1 1 0.784314 rrgBT /Ov	0.1	16
86	Human-Inspired Robots. IEEE Intelligent Systems, 2006, 21, 74-85.	4.0	53
87	Robotic System for Localizing a Chemical Source Underwater by Mimicking Crayfish Behavior. , 2006, , .		3
88	Estimation of Gas-Source Location Using Gas Sensors and Ultrasonic Anemometer. , 2006, , .		8
89	Mobile robot navigation using vision and olfaction to search for a gas/odor source. Autonomous Robots, 2006, 20, 231-238.	4.8	87
90	Analysis of QCM gas sensor transient response by visualizing gas concentration. Electronics and Communications in Japan, 2006, 89, 14-21.	0.2	2

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91	4201 Study on Gas-Source Localization Algorithm for Robot Equipped with Gas Sensors and Anemometer. The Proceedings of the JSME Annual Meeting, 2006, 2006.4, 125-126.	0.0	0
92	Gas sensor network for air-pollution monitoring. Sensors and Actuators B: Chemical, 2005, 110, 304-311.	7.8	222
93	Controlling a gas/odor plume-tracking robot based on transient responses of gas sensors. IEEE Sensors Journal, 2005, 5, 537-545.	4.7	94
94	Improvement of Measurement Accuracy in Environmental Monitoring System Based on Semiconductor Gas Sensor. IEEJ Transactions on Sensors and Micromachines, 2005, 125, 245-252.	0.1	2
95	Sensor Systems for Detecting Gas Plumes-Robots and Sensor Network. IEEJ Transactions on Sensors and Micromachines, 2005, 125, 403-406.	0.1	0
96	2812 Potential Field Method for Navigating Robot with Vision and Olfactory Sensors to Search for a Gas Source. The Proceedings of the JSME Annual Meeting, 2005, 2005.4, 219-220.	0.0	0
97	Compact atmospheric environmental monitoring system using gas sensors and network technology. , 2002, 4935, 132.		0
98	Chemical Plume Tracking. 3. Ascorbic Acid: A Biologically Relevant Marker. Analytical Chemistry, 2002, 74, 3605-3610.	6.5	16
99	Improvement of olfactory video camera: gas/odor flow visualization system. Sensors and Actuators B: Chemical, 2002, 83, 256-261.	7.8	19
100	Title is missing!. Environmental Fluid Mechanics, 2002, 2, 65-94.	1.6	53
101	Chemical Plume Tracking. 2. Multiple-Frequency Modulation. Analytical Chemistry, 2001, 73, 3669-3673.	6.5	6
102	Chemical Plume Tracking. 1. Chemical Information Encoding. Analytical Chemistry, 2001, 73, 3662-3668.	6.5	23
103	Plume-Tracking Robots: A New Application of Chemical Sensors. Biological Bulletin, 2001, 200, 222-226.	1.8	168
104	Improvement of Olfactory Video Camera " Gas/Odor Flow Visualization System ". , 2001, , 1648-1651.		0
105	Virtual Plume. Electroanalysis, 2000, 12, 974-979.	2.9	9
106	Study of real-time visualization of gas/odor flow image using gas sensor array. Sensors and Actuators B: Chemical, 2000, 65, 14-16.	7.8	27
107	Gas/Odor Plume Tracing Robot. Sensors Update, 1999, 6, 397-418.	0.5	10
108	Peer Reviewed: A Sensing System for Odor Plumes.. Analytical Chemistry, 1999, 71, 531A-537A.	6.5	18

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109	Three-dimensional odor compass. IEEE Transactions on Automation Science and Engineering, 1999, 15, 251-257.	2.3	61
110	Study of gas/odor flow visualization system using array of pulse drive semiconductor gas sensors. IEEJ Transactions on Sensors and Micromachines, 1999, 119, 194-200.	0.1	2
111	Analysis of gas sensor transient response by visualizing instantaneous gas concentration using smoke. Sensors and Actuators A: Physical, 1998, 69, 77-81.	4.1	27
112	Remote sensing of gas/odor source location and concentration distribution using mobile system. Sensors and Actuators B: Chemical, 1998, 49, 52-57.	7.8	135
113	Odor-source localization in the clean room by an autonomous mobile sensing system. Sensors and Actuators B: Chemical, 1996, 33, 115-121.	7.8	117
114	An odor compass for localizing an odor source. Sensors and Actuators B: Chemical, 1996, 35, 32-36.	7.8	38
115	Odour-source localization system mimicking behaviour of silkworm moth. Sensors and Actuators A: Physical, 1995, 51, 225-230.	4.1	51
116	Study of autonomous mobile sensing system for localization of odor source using gas sensors and anemometric sensors. Sensors and Actuators A: Physical, 1994, 45, 153-157.	4.1	220
117	Robotic systems to track chemical plumes. , 0, , .		3
118	Machine Olfaction for Mobile Robots. , 0, , 399-417.		3
119	Auto-calibration of dynamic gas sensor network: influence of static sensors. , 0, , .		2
120	Indicators of Gas Source Proximity using Metal Oxide Sensors in a Turbulent Environment. , 0, , .		14
121	Incorporating Fluid Dynamics Considerations into Olfactory Displays. , 0, , 415-428.		1