

Ananya Sen Gupta

List of Publications by Year in descending order

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109
papers

2,270
citations

394421

19
h-index

254184

43
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119
all docs

119
docs citations

119
times ranked

2112
citing authors

#	ARTICLE	IF	CITATIONS
1	Robust Localization in Map Changing Environments Based on Hierarchical Approach of Sliding Window Optimization and Filtering. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 3783-3789.	8.0	8
2	Geometric Feature Representation in Active Sonar Signal Processing. , 2022, , .		2
3	A MUD-Enhanced Multi-Beam Approach for Increasing Throughput of Dense Wireless Networks. IEEE Sensors Journal, 2021, 21, 5454-5466.	4.7	1
4	Design Methodology for Industrial Internet-of-Things Wireless Systems. IEEE Sensors Journal, 2021, 21, 5529-5542.	4.7	9
5	In-cylinder pressure-based convolutional neural network for real-time estimation of low-pressure cooled exhaust gas recirculation in turbocharged gasoline direct injection engines. International Journal of Engine Research, 2021, 22, 815-826.	2.3	2
6	Comparative Study of Markov Chain With Recurrent Neural Network for Short Term Velocity Prediction Implemented on an Embedded System. IEEE Access, 2021, 9, 24755-24767.	4.2	22
7	Employing and Interpreting a Machine Learning Target-Cognizant Technique for Analysis of Unknown Signals in Multiple Reaction Monitoring. IEEE Access, 2021, 9, 24727-24737.	4.2	0
8	Underwater channel estimation exploiting multipath feature morphology. Journal of the Acoustical Society of America, 2021, 149, 983-996.	1.1	4
9	Limited Visibility Aware Motion Planning for Autonomous Valet Parking Using Reachable Set Estimation. Sensors, 2021, 21, 1520.	3.8	3
10	Seminal article about model-based space-time array processing. Journal of the Acoustical Society of America, 2021, 149, R9-R10.	1.1	0
11	Autonomous learning and interpretation of channel multipath scattering using braid manifolds in underwater acoustic communications. Journal of the Acoustical Society of America, 2021, 150, 906-919.	1.1	5
12	Chorus Element Properties: Statistics From Automated Chorus Detection. , 2021, , .		0
13	Interpreting the Underwater Acoustic Channel Impulse Response and Doppler Spread Using Braid Representations. , 2021, , .		2
14	Feature Engineering and Interpretation of Active Sonar Data Using Geometric Wavelets and Support Vector Machines. , 2021, , .		0
15	Sonar target representation using two-dimensional Gabor wavelet features. Journal of the Acoustical Society of America, 2020, 148, 2061-2072.	1.1	12
16	Driver Characteristics Oriented Autonomous Longitudinal Driving System in Car-Following Situation. Sensors, 2020, 20, 6376.	3.8	9
17	Support-Constrained Mixed-Norm Optimization Techniques for Estimating Multipath Activity in Shallow Water Acoustic Channels. IEEE Journal of Oceanic Engineering, 2020, 45, 683-698.	3.8	3
18	Semantic Point Cloud Mapping of LiDAR Based on Probabilistic Uncertainty Modeling for Autonomous Driving. Sensors, 2020, 20, 5900.	3.8	10

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19	Signal Processing Methods to Interpret Polychlorinated Biphenyls in Airborne Samples. IEEE Access, 2020, 8, 147738-147755.	4.2	2
20	Robust Parking Path Planning with Error-Adaptive Sampling under Perception Uncertainty. Sensors, 2020, 20, 3560.	3.8	6
21	Emerging Priorities for Microbiome Research. Frontiers in Microbiology, 2020, 11, 136.	3.5	113
22	Vehicle Deceleration Prediction Based on Deep Neural Network at Braking Conditions. International Journal of Automotive Technology, 2020, 21, 91-102.	1.4	10
23	Automatic Transmission Shift Strategy Based on Greedy Algorithm Using Predicted Velocity. International Journal of Automotive Technology, 2020, 21, 159-168.	1.4	7
24	Peak-cognizant Signal Processing of Raw Instrument Signals to Quantify Environmental Weathering of Contaminants from the Deepwater Horizon Spill. , 2020, , .		0
25	Harnessing Gabor Wavelet Feature Localization with Diverse Machine Learning Techniques for Sonar Target Classification. , 2020, , .		1
26	Tracking Multipath Structures in Shallow Water Acoustic Channels using Nonlinear Feature Representations. , 2020, , .		0
27	Disentangling high energy chorus elements against structured background interference in the Van Allen radiation belts using braid manifolds. , 2020, , .		2
28	Spatiotemporal Tracking of SARS-CoV-2 Variants using informative subtype markers and association graphs. , 2020, , .		1
29	Probabilistic Occupancy Filter for Parking Slot Marker Detection in an Autonomous Parking System Using AVM. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 2389-2394.	8.0	14
30	Evidence Filter of Semantic Segmented Image From Around View Monitor in Automated Parking System. IEEE Access, 2019, 7, 92791-92804.	4.2	10
31	Autonomous Detection and Disambiguation of Martian Ion Trails Using Geometric Signal Processing Techniques. , 2019, , .		0
32	Diesel Engine Model with Multi-Model Correction of Intake Manifold Pressure. International Journal of Automotive Technology, 2019, 20, 779-787.	1.4	0
33	Ego-Vehicle Speed Prediction Using a Long Short-Term Memory Based Recurrent Neural Network. International Journal of Automotive Technology, 2019, 20, 713-722.	1.4	63
34	Hybrid Local Route Generation Combining Perception and a Precise Map for Autonomous Cars. IEEE Access, 2019, 7, 120128-120140.	4.2	4
35	Deceleration Planning Algorithm Based on Classified Multi-Layer Perceptron Models for Smart Regenerative Braking of EV in Diverse Deceleration Conditions. Sensors, 2019, 19, 4020.	3.8	3
36	Guest Editorial Underwater Acoustic Propagation Physics and Signal Processing Techniques for Shallow Water Acoustic Communications. IEEE Journal of Oceanic Engineering, 2019, 44, 818-819.	3.8	0

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37	Vehicle Deceleration Prediction Model to Reflect Individual Driver Characteristics by Online Parameter Learning for Autonomous Regenerative Braking of Electric Vehicles. <i>Sensors</i> , 2019, 19, 4171.	3.8	9
38	Rapid Motion Segmentation of LiDAR Point Cloud Based on a Combination of Probabilistic and Evidential Approaches for Intelligent Vehicles. <i>Sensors</i> , 2019, 19, 4116.	3.8	5
39	Fast Online Coordinate Correction of a Multi-Sensor for Object Identification in Autonomous Vehicles. <i>Sensors</i> , 2019, 19, 2006.	3.8	5
40	Shallow water channel estimation with energy efficient transmitted signal design. <i>Journal of the Acoustical Society of America</i> , 2019, 145, 2955-2970.	1.1	1
41	Power Management Strategy for the 48 V Mild Hybrid Electric Vehicle Based on the Charge-Sustaining Control. <i>International Journal of Automotive Technology</i> , 2019, 20, 37-49.	1.4	7
42	Robust Lane-Change Recognition Based on An Adaptive Hidden Markov Model Using Measurement Uncertainty. <i>International Journal of Automotive Technology</i> , 2019, 20, 255-263.	1.4	13
43	Sonar Signaling Employing Braid-encoded Features on Sparse Gabor Dictionaries. , 2019, , .		1
44	Ego-Vehicle Speed Prediction Using Fuzzy Markov Chain With Speed Constraints. , 2019, , .		7
45	Vehicle Speed Prediction Using a Markov Chain With Speed Constraints. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2019, 20, 3201-3211.	8.0	72
46	Semantic segmentation-based parking space detection with standalone around view monitoring system. <i>Machine Vision and Applications</i> , 2019, 30, 309-319.	2.7	24
47	Development of localisation and mapping software for autonomous cars. <i>IET Intelligent Transport Systems</i> , 2019, 13, 406-416.	3.0	9
48	Hierarchical Trajectory Planning of an Autonomous Car Based on the Integration of a Sampling and an Optimization Method. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2018, 19, 613-626.	8.0	165
49	L-Shape Model Switching-Based Precise Motion Tracking of Moving Vehicles Using Laser Scanners. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2018, 19, 598-612.	8.0	39
50	A probabilistic optimization approach for motion planning of autonomous vehicles. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2018, 232, 632-650.	1.9	14
51	Crowd-Sourced Mapping of New Feature Layer for High-Definition Map. <i>Sensors</i> , 2018, 18, 4172.	3.8	26
52	Quantifying weathering profiles of environmental contaminants from marine and coastal oil spills using signal processing techniques. , 2018, , .		3
53	Temporal local route modeling using the recognized lane for autonomous driving comfort. , 2018, , .		0
54	Multi-beam uncoordinated random access MAC for underwater communication networks. , 2018, , .		1

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55	Cloud Update of Tiled Evidential Occupancy Grid Maps for the Multi-Vehicle Mapping. Sensors, 2018, 18, 4119.	3.8	11
56	Simultaneous Localization and Map Change Update for the High Definition Map-Based Autonomous Driving Car. Sensors, 2018, 18, 3145.	3.8	55
57	Interpreting Different Features of Shallow Water Acoustic Channels Using Braid Manifolds. , 2018, , .		5
58	Adaptation Strategy for Exhaust Gas Recirculation and Common Rail Pressure to Improve Transient Torque Response in Diesel Engines. International Journal of Automotive Technology, 2018, 19, 585-595.	1.4	0
59	Track Fusion and Behavioral Reasoning for Moving Vehicles Based on Curvilinear Coordinates of Roadway Geometries. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 3068-3075.	8.0	13
60	Iterative Learning Control Algorithm for Feedforward Controller of EGR and VGT Systems in a CRDI Diesel Engine. International Journal of Automotive Technology, 2018, 19, 433-442.	1.4	2
61	Fecal Fingerprints of Enteric Pathogen Contamination in Public Environments of Kisumu, Kenya, Associated with Human Sanitation Conditions and Domestic Animals. Environmental Science & Technology, 2018, 52, 10263-10274.	10.0	61
62	A Real-Time Combustion Control With Reconstructed In-Cylinder Pressure by Principal Component Analysis for a CRDI Diesel Engine. Journal of Engineering for Gas Turbines and Power, 2017, 139, .	1.1	5
63	Gain-scheduled EGR control algorithm for light-duty diesel engines with static-gain parameter modeling. International Journal of Automotive Technology, 2017, 18, 579-587.	1.4	4
64	Construction process of a three-dimensional roadway geometry map for autonomous driving. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2017, 231, 1414-1434.	1.9	11
65	Automated Identification and Shape Analysis of Chorus Elements in the Van Allen Radiation Belts. Journal of Geophysical Research: Space Physics, 2017, 122, 12,353.	2.4	8
66	Signal variability and data compression considerations for petroleum forensics in two-dimensional gas chromatography. , 2017, , .		0
67	Tracking and Behavior Reasoning of Moving Vehicles Based on Roadway Geometry Constraints. IEEE Transactions on Intelligent Transportation Systems, 2017, 18, 460-476.	8.0	60
68	Collision risk assessment for possible collision vehicle in occluded area based on precise map. , 2017, , .		20
69	Optimal smoothing based mapping process of road surface marking in urban canyon environment. , 2017, , .		1
70	Interpreting comprehensive two-dimensional gas chromatography using peak topography maps with application to petroleum forensics. Chemistry Central Journal, 2016, 10, 75.	2.6	15
71	Shallow water acoustic channel estimation using two-dimensional frequency characterization. Journal of the Acoustical Society of America, 2016, 140, 3995-4009.	1.1	10
72	Control of the air system of a diesel engine using the intake oxygen concentration and the manifold absolute pressure with nitrogen oxide feedback. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2016, 230, 240-257.	1.9	11

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73	Fast GPS-DR Sensor Fusion Framework: Removing the Geodetic Coordinate Conversion Process. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 2008-2013.	8.0	13
74	Tracking the underwater acoustic channel using two-dimensional frequency sampling. , 2015, , .		3
75	Coordinated control strategy for the common-rail pressure using a metering unit and a pressure control valve in diesel engines. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2015, 229, 898-911.	1.9	10
76	Characterization of sonar target data using Gabor wavelet features. , 2015, , .		5
77	Characterization and classification of sonar targets using ellipsoid features. , 2015, , .		7
78	Curvilinear-Coordinate-Based Object and Situation Assessment for Highly Automated Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 1559-1575.	8.0	43
79	Probabilistic lane detection and lane tracking for autonomous vehicles using a cascade particle filter. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2015, 229, 1656-1671.	1.9	5
80	Precise Localization of an Autonomous Car Based on Probabilistic Noise Models of Road Surface Marker Features Using Multiple Cameras. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 3377-3392.	8.0	83
81	Fault Diagnosis of Exhaust Gas Recirculation and Variable Geometry Turbocharger Systems in a Passenger Car Diesel Engine Based on a Sliding Mode Observer for Air System States Estimation. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2014, 136, .	1.6	10
82	Road-model-based and graph-structure-based hierarchical path-planning approach for autonomous vehicles. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2014, 228, 909-928.	1.9	20
83	Robust Air-to-Fuel Ratio and Boost Pressure Controller Design for the EGR and VGT Systems Using Quantitative Feedback Theory. IEEE Transactions on Control Systems Technology, 2014, 22, 2218-2231.	5.2	29
84	Generation of a Precise Roadway Map for Autonomous Cars. IEEE Transactions on Intelligent Transportation Systems, 2014, 15, 925-937.	8.0	81
85	Dynamic target identification and classification based on resonance topography grouping. , 2014, , .		4
86	GPS-bias correction for precise localization of autonomous vehicles. , 2013, , .		44
87	Mass air flow control of common-rail diesel engines using an artificial neural network. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2013, 227, 299-310.	1.9	2
88	Time-frequency localization issues in the context of sparse process modeling. Proceedings of Meetings on Acoustics, 2013, , .	0.3	8
89	Sonar target detection and classification against non-stationary interference using dynamic time-frequency localization. , 2013, , .		2
90	Common rail pressure controller for diesel engines using an empirical model. , 2012, , .		5

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91	Erratum for “Interacting Multiple Model Filter-Based Sensor Fusion of GPS With In-Vehicle Sensors for Real-Time Vehicle Positioning” [Mar 12 329-343]. IEEE Transactions on Intelligent Transportation Systems, 2012, 13, 973-973.	8.0	2
92	Local Path Planning for Off-Road Autonomous Driving With Avoidance of Static Obstacles. IEEE Transactions on Intelligent Transportation Systems, 2012, 13, 1599-1616.	8.0	254
93	A geometric mixed norm approach to shallow water acoustic channel estimation and tracking. Physical Communication, 2012, 5, 119-128.	2.1	34
94	Enhanced Road Boundary and Obstacle Detection Using a Downward-Looking LIDAR Sensor. IEEE Transactions on Vehicular Technology, 2012, 61, 971-985.	6.3	152
95	Interacting Multiple Model Filter-Based Sensor Fusion of GPS With In-Vehicle Sensors for Real-Time Vehicle Positioning. IEEE Transactions on Intelligent Transportation Systems, 2012, 13, 329-343.	8.0	234
96	Distributed vehicle state estimation system using information fusion of GPS and in-vehicle sensors for vehicle localization. , 2011, , .		13
97	FlexRay Network Parameter Optimization Method for Automotive Applications. IEEE Transactions on Industrial Electronics, 2011, 58, 1449-1459.	7.9	73
98	Integration of multiple vehicle models with an IMM filter for vehicle localization. , 2010, , .		39
99	Interference Suppression for Memoryless Nonlinear Multiuser Systems Using Constellation Structure. IEEE Transactions on Signal Processing, 2008, 56, 5589-5604.	5.3	2
100	Design of a networked traction control system using a real-time operating system. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2008, 222, 1395-1408.	1.9	3
101	Successive Interference Cancellation Using Constellation Structure. IEEE Transactions on Signal Processing, 2007, 55, 5716-5730.	5.3	14
102	Design of a network-based traction control system considering temporal behaviors. , 2006, , .		1
103	Water Transport Experiment of the PEFC based on a Generic Experimental Method. , 2006, , .		0
104	Closed-loop control of start of combustion using difference pressure management. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2006, 220, 1615-1628.	1.9	19
105	A study on the injection characteristics of a liquid-phase liquefied petroleum gas injector for air-fuel ratio control. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2005, 219, 1037-1046.	1.9	11
106	Development of a Sensorless Estimation Algorithm of the Injection Timing and Rate for an HSDI Common-Rail Injector. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 2004, 47, 882-888.	0.3	4
107	An application of sliding horizon control to an electro-hydraulic automotive seat simulator. Journal of Mechanical Science and Technology, 2002, 16, 283-291.	0.4	0
108	Cylinder Pressure-Based Spark Advance Control for SI Engines.. JSME International Journal Series B, 2001, 44, 305-312.	0.3	7

#	ARTICLE	IF	CITATIONS
109	Design and development of an ECU anti its air-fuel ratio control scheme for an LPG engine with a bypass injector. , 0 , , .		6