Kechen Song

List of Publications by Year
in descending order

53 papers	2,584 citations	279798 23 h-index	189892 50 g-index
54 all docs	54 docs citations	54 times ranked	1136 citing authors

#	Article	IF	Citations
1	An End-to-End Steel Surface Defect Detection Approach via Fusing Multiple Hierarchical Features. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 1493-1504.	4.7	557
2	A noise robust method based on completed local binary patterns for hot-rolled steel strip surface defects. Applied Surface Science, 2013, 285, 858-864.	6.1	481
3	PGA-Net: Pyramid Feature Fusion and Global Context Attention Network for Automated Surface Defect Detection. IEEE Transactions on Industrial Informatics, 2020, 16, 7448-7458.	11.3	246
4	EDRNet: Encoder–Decoder Residual Network for Salient Object Detection of Strip Steel Surface Defects. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 9709-9719.	4.7	132
5	Semi-supervised defect classification of steel surface based on multi-training and generative adversarial network. Optics and Lasers in Engineering, 2019, 122, 294-302.	3.8	109
6	Triplet-Graph Reasoning Network for Few-Shot Metal Generic Surface Defect Segmentation. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	4.7	76
7	CGFNet: Cross-Guided Fusion Network for RGB-T Salient Object Detection. IEEE Transactions on Circuits and Systems for Video Technology, 2022, 32, 2949-2961.	8.3	69
8	Saliency detection for strip steel surface defects using multiple constraints and improved texture features. Optics and Lasers in Engineering, 2020, 128, 106000.	3.8	64
9	Semi-supervised anomaly detection with dual prototypes autoencoder for industrial surface inspection. Optics and Lasers in Engineering, 2021, 136, 106324.	3.8	54
10	Adjacent evaluation of local binary pattern for texture classification. Journal of Visual Communication and Image Representation, 2015, 33, 323-339.	2.8	48
11	Vision-based automatic detection of steel surface defects in the cold rolling process: considering the influence of industrial liquids and surface textures. International Journal of Advanced Manufacturing Technology, 2017, 90, 1665-1678.	3.0	47
12	Deep Metric Learning-Based for Multi-Target Few-Shot Pavement Distress Classification. IEEE Transactions on Industrial Informatics, 2022, 18, 1801-1810.	11.3	47
13	Two Deep Learning Networks for Rail Surface Defect Inspection of Limited Samples With Line-Level Label. IEEE Transactions on Industrial Informatics, 2021, 17, 6731-6741.	11.3	44
14	Fast 3D shape measurement using Fourier transform profilometry without phase unwrapping. Optics and Lasers in Engineering, 2016, 84, 74-81.	3.8	43
15	RENet: Rectangular convolution pyramid and edge enhancement network for salient object detection of pavement cracks. Measurement: Journal of the International Measurement Confederation, 2021, 170, 108698.	5.0	40
16	Multi-Graph Fusion and Learning for RGBT Image Saliency Detection. IEEE Transactions on Circuits and Systems for Video Technology, 2022, 32, 1366-1377.	8.3	35
17	Unsupervised Saliency Detection of Rail Surface Defects using Stereoscopic Images. IEEE Transactions on Industrial Informatics, 2020, , 1-1.	11.3	34
18	MCnet: Multiple Context Information Segmentation Network of No-Service Rail Surface Defects. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	4.7	34

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19	RGB-T Saliency Detection via Low-Rank Tensor Learning and Unified Collaborative Ranking. IEEE Signal Processing Letters, 2020, 27, 1585-1589.	3.6	33
20	Surface Defect Detection Method Using Saliency Linear Scanning Morphology for Silicon Steel Strip under Oil Pollution Interference. ISIJ International, 2014, 54, 2598-2607.	1.4	31
21	Micro Surface Defect Detection Method for Silicon Steel Strip Based on Saliency Convex Active Contour Model. Mathematical Problems in Engineering, 2013, 2013, 1-13.	1.1	28
22	Unified detection method of aluminium profile surface defects: Common and rare defect categories. Optics and Lasers in Engineering, 2020, 126, 105936.	3.8	24
23	An image-level weakly supervised segmentation method for No-service rail surface defect with size prior. Mechanical Systems and Signal Processing, 2022, 165, 108334.	8.0	23
24	Adaptive depth and receptive field selection network for defect semantic segmentation on castings X-rays. NDT and E International, 2020, 116, 102345.	3.7	21
25	NERNet: Noise estimation and removal network for image denoising. Journal of Visual Communication and Image Representation, 2020, 71, 102851.	2.8	21
26	Learning discriminative update adaptive spatial-temporal regularized correlation filter for RGB-T tracking. Journal of Visual Communication and Image Representation, 2020, 72, 102881.	2.8	20
27	Collaborative Learning Attention Network Based on RGB Image and Depth Image for Surface Defect Inspection of No-Service Rail. IEEE/ASME Transactions on Mechatronics, 2022, 27, 4874-4884.	5.8	17
28	Visible and thermal images fusion architecture for few-shot semantic segmentation. Journal of Visual Communication and Image Representation, 2021, 80, 103306.	2.8	15
29	An Adaptive Pyramid Graph and Variation Residual-Based Anomaly Detection Network for Rail Surface Defects. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-13.	4.7	15
30	Graph Embedding and Optimal Transport for Few-Shot Classification of Metal Surface Defect. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	4.7	15
31	Study of oxidative dehydrogenation of ethylbenzene with CO_2 on supported CeO_2-Fe_2O_3 binary oxides. Arabian Journal of Chemistry, 2020, 13, 7357-7369.	4.9	14
32	Research and Perspective on Local Binary Pattern. Zidonghua Xuebao/Acta Automatica Sinica, 2014, 39, 730-744.	0.3	14
33	A three-dimensional inspection system for high temperature steel product surface sample height using stereo vision and blue encoded patterns. Optik, 2017, 130, 131-148.	2.9	13
34	Informed Anytime Fast Marching Tree for Asymptotically Optimal Motion Planning. IEEE Transactions on Industrial Electronics, 2021, 68, 5068-5077.	7.9	13
35	Unidirectional RGB-T salient object detection with intertwined driving of encoding and fusion. Engineering Applications of Artificial Intelligence, 2022, 114, 105162.	8.1	12
36	Noise robust image matching using adjacent evaluation census transform and wavelet edge joint bilateral filter in stereo vision. Journal of Visual Communication and Image Representation, 2016, 38, 487-503.	2.8	11

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37	Inverse Kinematics for 6-DOF Serial Manipulators With Offset or Reduced Wrists via a Hierarchical Iterative Algorithm. IEEE Access, 2018, 6, 52899-52910.	4.2	10
38	Flexible line-scan camera calibration method using a coded eight trigrams pattern. Optics and Lasers in Engineering, 2018, 110, 296-307.	3.8	10
39	Automatic Inspection and Evaluation System for Pavement Distress. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 12377-12387.	8.0	10
40	Unsupervised defect detection with patch-aware mutual reasoning network in image data. Automation in Construction, 2022, 142, 104472.	9.8	7
41	The Line Scan Camera Calibration Based on Space Rings Group. IEEE Access, 2018, 6, 23711-23721.	4.2	6
42	A batch informed sampling-based algorithm for fast anytime asymptotically-optimal motion planning in cluttered environments. Expert Systems With Applications, 2020, 144, 113124.	7.6	6
43	The Strip Steel Surface Defects Classification Method Based on Weak Classifier Adaptive Enhancement. , 2011, , .		5
44	Complex surface ROI detection for steel plate fusing the gray image and 3D depth information. Optik, 2019, 198, 163313.	2.9	5
45	Learning object-centric complementary features for zero-shot learning. Signal Processing: Image Communication, 2020, 89, 115974.	3.2	5
46	SPS-Net: Self-Attention Photometric Stereo Network. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-13.	4.7	5
47	Efficient Optical Measurement of Welding Studs With Normal Maps and Convolutional Neural Network. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-14.	4.7	4
48	3D inspection technology combining passive stereo matching and active structured light for steel plate surface sample. International Journal of Surface Science and Engineering, 2017, 11, 299.	0.4	2
49	Convex Active Contour Segmentation Model of Strip Steel Defects Image Based on Local Information. Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering, 2012, 48, 1.	0.5	2
50	Optical challenging feature inline measurement system based on photometric stereo and HON feature extractor. , 2018, , .		2
51	Neighborhood Estimated Local Binary Patterns for Texture Classification. Applied Mechanics and Materials, 2014, 513-517, 4401-4406.	0.2	1
52	Center-Guided and Connectivity-Preserving Network for Grain Size Measurement. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	4.7	1
53	3D inspection technology combining passive stereo matching and active structured light for steel plate surface sample. International Journal of Surface Science and Engineering, 2017, 11, 299.	0.4	0