Thomas B Moeslund

List of Publications by Year
in descending order

180 papers	7,543 citations	279798 23 h-index	64796 79 g-index
191 all docs	191 docs citations	191 times ranked	6029 citing authors

#	Article	IF	Citations
1	Automatic estimation of clothing insulation rate and metabolic rate for dynamic thermal comfort assessment. Pattern Analysis and Applications, 2022, 25, 619-634.	4.6	16
2	Realâ€world superâ€resolution of faceâ€images from surveillance cameras. IET Image Processing, 2022, 16, 442-452.	2.5	15
3	Autoencoders for Semi-Supervised Water Level Modeling in Sewer Pipes with Sparse Labeled Data. Water (Switzerland), 2022, 14, 333.	2.7	1
4	Imitating Emergencies: Generating Thermal Surveillance Fall Data Using Low-Cost Human-like Dolls. Sensors, 2022, 22, 825.	3.8	1
5	Clothing Insulation Rate and Metabolic Rate Estimation for Individual Thermal Comfort Assessment in Real Life. Sensors, 2022, 22, 619.	3.8	7
6	Navigation-Oriented Scene Understanding for Robotic Autonomy: Learning to Segment Driveability in Egocentric Images. IEEE Robotics and Automation Letters, 2022, 7, 2913-2920.	5.1	9
7	Semantic Segmentation Guided Real-World Super-Resolution. , 2022, , .		13
8	SieveNet: Estimating the Particle Size Distribution of Kernel Fragments in Whole Plant Corn Silage. , 2022, , .		0
9	Detecting Anomalies Reliably in Long-term Surveillance Systems. , 2022, , .		0
10	Multi-Task Classification of Sewer Pipe Defects and Properties using a Cross-Task Graph Neural Network Decoder. , 2022, , .		3
11	Presenting a Novel Pipeline for Performance Comparison of V-PCC and G-PCC Point Cloud Compression Methods on Datasets with Varying Properties. , 2022, , .		0
12	The Challenge of Data Annotation in Deep Learningâ€"A Case Study on Whole Plant Corn Silage. Sensors, 2022, 22, 1596.	3.8	15
13	Data-Driven Drift Detection in Real Process Tanks: Bridging the Gap between Academia and Practice. Water (Switzerland), 2022, 14, 926.	2.7	1
14	Visual explanation of black-box model:ÂSimilarity Difference and Uniqueness (SIDU) method. Pattern Recognition, 2022, 127, 108604.	8.1	11
15	Computer Vision-Based Adaptive Semi-Autonomous Control of an Upper Limb Exoskeleton for Individuals with Tetraplegia. Applied Sciences (Switzerland), 2022, 12, 4374.	2.5	6
16	Anomaly Detection for Agricultural Vehicles Using Autoencoders. Sensors, 2022, 22, 3608.	3.8	14
17	Supervised versus Self-supervised Assistant for Surveillance of Harbor Fronts. , 2021, , .		1
18	Multi-level Quality Assessment of Retinal Fundus Images using Deep Convolution Neural Networks. , 2021, , .		7

#	Article	IF	Citations
19	Defect or Design? Leveraging the Angle of Opportunity for Detecting Scratches on Brushed Aluminium Surfaces. IEEE Access, 2021, 9, 99526-99538.	4.2	0
20	Sewer Defect Classification using Synthetic Point Clouds. , 2021, , .		5
21	Memory‐and time‐efficient dense network for single‐image super‐resolution. IET Signal Processing, 2021, 15, 141-152.	1.5	4
22	Comprehensive Feature Analysis for Sewer Deterioration Modeling. Water (Switzerland), 2021, 13, 819.	2.7	3
23	3D Sensors for Sewer Inspection: A Quantitative Review and Analysis. Sensors, 2021, 21, 2553.	3.8	21
24	Computer Vision for 3D Perception and Applications. Sensors, 2021, 21, 3944.	3.8	1
25	SoccerNet-v2: A Dataset and Benchmarks for Holistic Understanding of Broadcast Soccer Videos. , 2021, , .		57
26	A 4-DOF Upper Limb Exoskeleton for Physical Assistance: Design, Modeling, Control and Performance Evaluation. Applied Sciences (Switzerland), 2021, 11, 5865.	2.5	27
27	Generalizing Floor Plans Using Graph Neural Networks. , 2021, , .		1
28	Anchor tuning in Faster R-CNN for measuring corn silage physical characteristics. Computers and Electronics in Agriculture, 2021, 188, 106344.	7.7	8
29	Deep Emotion Recognition through Upper Body Movements and Facial Expression. , 2021, , .		5
30	Expert Level Evaluations for Explainable AI (XAI) Methods in the Medical Domain. Lecture Notes in Computer Science, 2021, , 35-46.	1.3	12
31	Evaluation of Edge Platforms for Deep Learning in Computer Vision. Lecture Notes in Computer Science, 2021, , 523-537.	1.3	0
32	Sewer-ML: A Multi-Label Sewer Defect Classification Dataset and Benchmark. , 2021, , .		23
33	Real-World Thermal Image Super-Resolution. Lecture Notes in Computer Science, 2021, , 3-14.	1.3	0
34	Two-Stage Recognition and beyond for Compound Facial Emotion Recognition. Electronics (Switzerland), 2021, 10, 2847.	3.1	23
35	Pose Estimation from RGB Images of Highly Symmetric Objects using a Novel Multi-Pose Loss and Differential Rendering. , 2021, , .		1
36	Population Preferences for Performance and Explainability of Artificial Intelligence in Health Care: Choice-Based Conjoint Survey. Journal of Medical Internet Research, 2021, 23, e26611.	4.3	24

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37	One-To-One Person Re-Identification For Queue Time Estimation. , 2020, , .		0
38	Multimodal and multiview distillation for real-time player detection on a football field. , 2020, , .		12
39	3D-ZeF: A 3D Zebrafish Tracking Benchmark Dataset. , 2020, , .		25
40	Re-Identification of Zebrafish using Metric Learning. , 2020, , .		6
41	SIDU: Similarity Difference And Uniqueness Method for Explainable AI. , 2020, , .		10
42	A Context-Aware Loss Function for Action Spotting in Soccer Videos. , 2020, , .		41
43	Water Level Estimation in Sewer Pipes Using Deep Convolutional Neural Networks. Water (Switzerland), 2020, 12, 3412.	2.7	13
44	Sewer Deterioration Modeling: The Effect of Training a Random Forest Model on Logically Selected Data-groups. Procedia Computer Science, 2020, 176, 291-299.	2.0	3
45	Statistical Machine Learning for Human Behaviour Analysis. Entropy, 2020, 22, 530.	2.2	1
46	Special issue on Advanced Machine Vision. Machine Vision and Applications, 2020, 31, 1.	2.7	4
47	Cycle-consistent generative adversarial neural networks based low quality fingerprint enhancement. Multimedia Tools and Applications, 2020, 79, 18569-18589.	3.9	9
48	Fantastic plastic? An image-based test method to detect aesthetic defects in batches based on reference samples. Polymer Testing, 2020, 89, 106585.	4.8	1
49	A Survey on Image-Based Automation of CCTV and SSET Sewer Inspections. Automation in Construction, 2020, 111, 103061.	9.8	59
50	The Effect of a Diverse Dataset for Transfer Learning in Thermal Person Detection. Sensors, 2020, 20, 1982.	3.8	17
51	Image Acquisition. Undergraduate Topics in Computer Science, 2020, , 7-25.	0.2	1
52	Deep visual unsupervised domain adaptation for classification tasks: a survey. IET Image Processing, 2020, 14, 3283-3299.	2.5	21
53	Geometric Transformations. Undergraduate Topics in Computer Science, 2020, , 131-141.	0.2	0
54	Pixel Classification. Undergraduate Topics in Computer Science, 2020, , 119-129.	0.2	0

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55	Line and Path Detection. Undergraduate Topics in Computer Science, 2020, , 155-167.	0.2	0
56	Generating Synthetic Point Clouds of Sewer Networks: An Initial Investigation. Lecture Notes in Computer Science, 2020, , 364-373.	1.3	3
57	Color Images. Undergraduate Topics in Computer Science, 2020, , 103-117.	0.2	0
58	BLOB Analysis. Undergraduate Topics in Computer Science, 2020, , 87-101.	0.2	0
59	Image Storage and Compression. Undergraduate Topics in Computer Science, 2020, , 27-32.	0.2	0
60	Presenting the Multi-view Traffic Intersection Dataset (MTID): A Detailed Traffic-Surveillance Dataset. , 2020, , .		4
61	Vision-based Individual Factors Acquisition for Thermal Comfort Assessment in a Built Environment. , 2020, , .		4
62	Guest editorial: special issue on human abnormal behavioural analysis. Machine Vision and Applications, 2019, 30, 807-811.	2.7	0
63	Maize Silage Kernel Fragment Estimation Using Deep Learning-Based Object Recognition in Non-Separated Kernel/Stover RGB Images. Sensors, 2019, 19, 3506.	3.8	7
64	A novel deep network architecture for reconstructing RGB facial images from thermal for face recognition. Multimedia Tools and Applications, 2019, 78, 25259-25271.	3.9	13
65	Privacy-Constrained Biometric System for Non-Cooperative Users. Entropy, 2019, 21, 1033.	2.2	8
66	Teaching Pepper Robot to Recognize Emotions of Traumatic Brain Injured Patients Using Deep Neural Networks. , 2019, , .		5
67	Intelligent Injection Curing of Bacon. Procedia Manufacturing, 2019, 38, 148-155.	1.9	1
68	Rain Removal in Traffic Surveillance: Does it Matter?. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 2802-2819.	8.0	54
69	Learning to Remove Rain in Traffic Surveillance by using Synthetic Data. , 2019, , .		3
70	Constrained multi-target tracking for team sports activities. IPSJ Transactions on Computer Vision and Applications, 2018, 10, .	4.4	20
71	Enhancing person re‐identification by late fusion of low‐, mid‐ and high‐level features. IET Biometrics, 2018, 7, 125-135.	2.5	10
72	Automatic Access Control Based on Face and Hand Biometrics in a Non-cooperative Context. , 2018, , .		3

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73	Estimating the Number of Soccer Players Using Simulation-Based Occlusion Handling. , 2018, , .		7
74	Getting Crevices, Cracks, and Grooves in Line: Anomaly Categorization for AQC Judgment Models. , 2018, , .		2
75	LIGHT FIELD BASED FACE RECOGNITION VIA A FUSED DEEP REPRESENTATION. , 2018, , .		12
76	Camera Calibration for Underwater 3D Reconstruction Based on Ray Tracing Using Snellâ€™s Law. , 2018, , .		14
77	Rehabilitation of Traumatic Brain Injured Patients: Patient Mood Analysis from Multimodal Video. , 2018, , .		5
78	Deep Multimodal Pain Recognition: A Database and Comparison of Spatio-Temporal Visual Modalities. , 2018, , .		40
79	Organ Segmentation in Poultry Viscera Using RGB-D. Sensors, 2018, 18, 117.	3.8	10
80	Backâ€dropout transfer learning for action recognition. IET Computer Vision, 2018, 12, 484-491.	2.0	2
81	Changes in Facial Expression as Biometric: A Database and Benchmarks of Identification. , 2018, , .		11
82	Classify Broiler Viscera Using an Iterative Approach on Noisy Labeled Training Data. Lecture Notes in Computer Science, 2018, , 264-273.	1.3	1
83	Locality regularized group sparse coding for action recognition. Computer Vision and Image Understanding, 2017, 158, 106-114.	4.7	6
84	Reducible dictionaries for single image super-resolution based on patch matching and mean shifting. Journal of Electronic Imaging, 2017, 26, 023024.	0.9	5
85	Computer vision for sports: Current applications and research topics. Computer Vision and Image Understanding, 2017, 159, 3-18.	4.7	134
86	Late Fusion in Part-based Person Re-identification. , 2017, , .		5
87	Constraint patch matching for faster person re-identification. , 2017, , .		0
88	A new lowâ€complexity patchâ€based image superâ€resolution. IET Computer Vision, 2017, 11, 567-576.	2.0	14
89	Multimodal Neural Network for Overhead Person Re-Identification. , 2017, , .		7
90	Occupancy analysis of soccer fields using wide-angle lens. , 2017, , .		1

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91	Spatio-temporal Pain Recognition in CNN-Based Super-Resolved Facial Images. Lecture Notes in Computer Science, 2017, , 151-162.	1.3	20
92	Diagnosis of Broiler Livers by Classifying Image Patches. Lecture Notes in Computer Science, 2017, , 374-385.	1.3	3
93	Complementing SRCNN by Transformed Self-Exemplars. Lecture Notes in Computer Science, 2017, , 127-136.	1.3	0
94	Pedestrian Counting with Occlusion Handling Using Stereo Thermal Cameras. Sensors, 2016, 16, 62.	3.8	42
95	Context-Aware Fusion of RGB and Thermal Imagery for Traffic Monitoring. Sensors, 2016, 16, 1947.	3.8	24
96	Analyzing Wheels of Vehicles in Motion Using Laser Scanning. , 2016, , .		0
97	Multi-perspective vehicle detection and tracking: Challenges, dataset, and metrics. , 2016, , .		6
98	Projecting robot intentions into human environments. , 2016, , .		73
99	Initiating GrabCut by color difference for automatic foreground extraction of passport imagery. , 2016, , .		3
100	Thermal super-pixels for bimodal stress recognition. , 2016, , .		12
101	Multi-modal RGBâ€"Depthâ€"Thermal Human Body Segmentation. International Journal of Computer Vision, 2016, 118, 217-239.	15.6	63
102	Guest Editorial: Analysis and Retrieval of Events/Actions and Workflows in Video Streams. Multimedia Tools and Applications, 2016, 75, 14985-14990.	3.9	0
103	Segmentation of RGB-D indoor scenes by stacking random forests and conditional random fields. Pattern Recognition Letters, 2016, 80, 208-215.	4.2	10
104	Facial videoâ€based detection of physical fatigue for maximal muscle activity. IET Computer Vision, 2016, 10, 323-330.	2.0	31
105	Improved RGBâ€Dâ€T based face recognition. IET Biometrics, 2016, 5, 297-303.	2.5	36
106	Task space HRI for cooperative mobile robots in fit-out operations inside ship superstructures. , 2016, , .		12
107	Quality inspection of printed texts. , 2016, , .		4
108	Automatic Analysis of Activities in Sports Arenas Using Thermal Cameras. , 2016, , .		2

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109	Reliable Gait Recognition Using 3D Reconstructions and Random Forests â€" An Anthropometric Approach. Journal of Forensic Sciences, 2016, 61, 637-648.	1.6	5
110	Preventing Drowning Accidents Using Thermal Cameras. Lecture Notes in Computer Science, 2016, , 111-122.	1.3	2
111	Improved interpolation kernels for super resolution algorithms. , 2016, , .		6
112	EREL: Extremal regions of extremum levels. , 2015, , .		9
113	New equations to calculate 3D joint centres in the lower extremities. Medical Engineering and Physics, 2015, 37, 948-955.	1.7	7
114	Quality-Aware Estimation of Facial Landmarks in Video Sequences. , 2015, , .		12
115	Ongoing work on traffic lights: Detection and evaluation. , 2015, , .		6
116	Traffic Light Detection: A Learning Algorithm and Evaluations on Challenging Dataset. , 2015, , .		55
117	Detecting road user actions in traffic intersections using RGB and thermal video. , 2015, , .		3
118	Super-resolution of facial images in forensics scenarios. , 2015, , .		4
119	Chromatic shadow detection and tracking for moving foreground segmentation. Image and Vision Computing, 2015, 41, 42-53.	4.5	23
120	On soft biometrics. Pattern Recognition Letters, 2015, 68, 218-230.	4.2	85
121	Trajectory analysis and prediction for improved pedestrian safety: Integrated framework and evaluations. , 2015, , .		45
122	Day and night-time drive analysis using stereo vision for naturalistic driving studies. , 2015, , .		7
123	Detecting Road Users at Intersections Through Changing Weather Using RGB-Thermal Video. Lecture Notes in Computer Science, 2015, , 741-751.	1.3	1
124	RGB-D-T Based Face Recognition. , 2014, , .		19
125	Contactless measurement of muscles fatigue by tracking facial feature points in a video. , 2014, , .		7
126	Thermal Tracking of Sports Players. Sensors, 2014, 14, 13679-13691.	3.8	19

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127	Adaptive Non-local Means for Cost Aggregation in a Local Disparity Estimation Algorithm. , 2014, , .		0
128	Attention estimation by simultaneous analysis of viewer and view. , 2014, , .		20
129	Taking the Temperature of Pedestrian Movement in Public Spaces. Transportation Research Procedia, 2014, 2, 660-668.	1.5	7
130	Special issue on Multimedia Event Detection. Machine Vision and Applications, 2014, 25, 1-4.	2.7	7
131	Thermal cameras and applications: a survey. Machine Vision and Applications, 2014, 25, 245-262.	2.7	501
132	Abnormal event detection using local sparse representation. , 2014, , .		12
133	Markerless motion capture can provide reliable 3D gait kinematics in the sagittal and frontal plane. Medical Engineering and Physics, 2014, 36, 1168-1175.	1.7	67
134	Super-resolution: a comprehensive survey. Machine Vision and Applications, 2014, 25, 1423-1468.	2.7	505
135	Markerless motion capture systems for tracking of persons in forensic biomechanics: an overview. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2014, 2, 46-65.	1.9	13
136	Classification of Sports Types Using Thermal Imagery. Advances in Computer Vision and Pattern Recognition, 2014, , 209-227.	1.3	2
137	Real-time acquisition of high quality face sequences from an active pan-tilt-zoom camera. , 2013, , .		18
138	Tamper detection for active surveillance systems. , 2013, , .		11
139	Haar-like rectangular features for biometric recognition. , 2013, , .		4
140	Part-Based Pedestrian Detection and Feature-Based Tracking for Driver Assistance: Real-Time, Robust Algorithms, and Evaluation. IEEE Transactions on Intelligent Transportation Systems, 2013, 14, 1346-1359.	8.0	84
141	Sports Type Classification Using Signature Heatmaps. , 2013, , .		10
142	Action recognition using salient neighboring histograms. , 2013, , .		1
143	Fast calibration of industrial mobile robots to workstations using QR codes. , 2013, , .		13
144	Long-Term Occupancy Analysis Using Graph-Based Optimisation in Thermal Imagery. , 2013, , .		75

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145	Haar-like features for robust real-time face recognition. , 2013, , .		6
146	Tri-modal Person Re-identification with RGB, Depth and Thermal Features. , 2013, , .		43
147	Traffic sign detection and analysis: Recent studies and emerging trends. , 2012, , .		9
148	Vision-Based Traffic Sign Detection and Analysis for Intelligent Driver Assistance Systems: Perspectives and Survey. IEEE Transactions on Intelligent Transportation Systems, 2012, 13, 1484-1497.	8.0	484
149	A Local 3-D Motion Descriptor for Multi-View Human Action Recognition from 4-D Spatio-Temporal Interest Points. IEEE Journal on Selected Topics in Signal Processing, 2012, 6, 553-565.	10.8	55
150	Human Pose Estimation and Activity Recognition From Multi-View Videos: Comparative Explorations of Recent Developments. IEEE Journal on Selected Topics in Signal Processing, 2012, 6, 538-552.	10.8	122
151	Evaluation of human body tracking system for gesture-based programming of industrial robots. , 2012, , .		3
152	Introduction to Video and Image Processing. Undergraduate Topics in Computer Science, 2012, , .	0.2	52
153	Selective spatio-temporal interest points. Computer Vision and Image Understanding, 2012, 116, 396-410.	4.7	111
154	Extracting a Good Quality Frontal Face Image From a Low-Resolution Video Sequence. IEEE Transactions on Circuits and Systems for Video Technology, 2011, 21, 1353-1362.	8.3	26
155	Is There Anybody Out There?. , 2011, , 3-9.		0
156	A selective spatio-temporal interest point detector for human action recognition in complex scenes. , 2011, , .		32
157	SUMMARIZATION OF SURVEILLANCE VIDEO SEQUENCES USING FACE QUALITY ASSESSMENT. International Journal of Image and Graphics, 2011, 11, 207-233.	1.5	9
158	3D Human Action Recognition for Multi-view Camera Systems. , 2011, , .		64
159	Hallucination of super-resolved face images. , 2010, , .		1
160	Hybrid super resolution using refined face logs. , 2010, , .		2
161	Finding and improving the key-frames of long video sequences for face recognition. , 2010, , .		10
162	Pose Estimation of Interacting People using Pictorial Structures. , 2010, , .		4

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163	Detection and removal of chromatic moving shadows in surveillance scenarios. , 2009, , .		40
164	Invariant gait continuum based on the duty-factor. Signal, Image and Video Processing, 2009, 3, 391-402.	2.7	10
165	Shadow Detection in Dynamic Scenes Using Dense Stereo Information and an Outdoor Illumination Model. Lecture Notes in Computer Science, 2009, , 110-125.	1.3	15
166	AVSS 2008 Commentary Paper for: "Tracking People in Crowds by a Part Matching Approach". , 2008, , .		0
167	Invariant Classification of Gait Types. , 2008, , .		0
168	Classification of gait types based on the duty-factor. , 2007, , .		7
169	Face Detection Using Multiple Cues. , 2007, , 51-60.		2
170	A survey of advances in vision-based human motion capture and analysis. Computer Vision and Image Understanding, 2006, 104, 90-126.	4.7	2,022
171	Finding Motion Primitives in Human Body Gestures. Lecture Notes in Computer Science, 2006, , 133-144.	1.3	20
172	Modelling the 3D pose of a human arm and the shoulder complex utilising only two parameters. Integrated Computer-Aided Engineering, 2005, 12, 159-175.	4.6	25
173	Pose Estimating the Human Arm Using Kinematics and the Sequential Monte Carlo Framework. , 2005, , .		1
174	3D Pose Estimation of Cactus Leaves using an Active Shape Model. , 2005, , .		5
175	Modelling and estimating the pose of a human arm. Machine Vision and Applications, 2003, 14, 237-247.	2.7	13
176	A Survey of Computer Vision-Based Human Motion Capture. Computer Vision and Image Understanding, 2001, 81, 231-268.	4.7	1,343
177	Interacting with a Virtual World Through Motion Capture. , 2001, , 221-234.		10
178	Deep transfer learning in human–robot interaction for cognitive and physical rehabilitation purposes. Pattern Analysis and Applications, 0, , 1.	4.6	1
179	Effective fusion of deep multitasking representations for robust visual tracking. Visual Computer, 0, , 1.	3.5	1
180	Re-Identification of Giant Sunfish using Keypoint Matching. Proceedings of the Northern Lights Deep Learning Workshop, 0, 3, .	0.0	2