TomÃ¡s Norton

List of Publications by Year
in descending order

83 papers	3,939 citations	147566 31 h-index	128067 60 g-index
115 all docs	115 docs citations	115 times ranked	3367 citing authors

#	Article	IF	Citations
1	Recent Advances in the Use of High Pressure as an Effective Processing Technique in the Food Industry. Food and Bioprocess Technology, 2008, 1, 2-34.	2.6	356
2	Computational fluid dynamics (CFD) – an effective and efficient design and analysis tool for the food industry: A review. Trends in Food Science and Technology, 2006, 17, 600-620.	7.8	314
3	Precision fish farming: A new framework to improve production in aquaculture. Biosystems Engineering, 2018, 173, 176-193.	1.9	303
4	Applications of computational fluid dynamics (CFD) in the modelling and design of ventilation systems in the agricultural industry: A review. Bioresource Technology, 2007, 98, 2386-2414.	4.8	282
5	Novel Drying Techniques for the Food Industry. Food Engineering Reviews, 2014, 6, 43-55.	3.1	190
6	Dynamic Neural Network Modelling of Soil Moisture Content for Predictive Irrigation Scheduling. Sensors, 2018, 18, 3408.	2.1	139
7	Advanced Monitoring and Management Systems for Improving Sustainability in Precision Irrigation. Sustainability, 2017, 9, 353.	1.6	117
8	Recording behaviour of indoor-housed farm animals automatically using machine vision technology: A systematic review. PLoS ONE, 2019, 14, e0226669.	1.1	115
9	Novel disinfectants for fresh produce. Trends in Food Science and Technology, 2013, 34, 54-61.	7.8	114
10	Assessing the ventilation effectiveness of naturally ventilated livestock buildings under wind dominated conditions using computational fluid dynamics. Biosystems Engineering, 2009, 103, 78-99.	1.9	100
11	Optimising the ventilation configuration of naturally ventilated livestock buildings for improved indoor environmental homogeneity. Building and Environment, 2010, 45, 983-995.	3.0	95
12	Review: Precision livestock farming: building 'digital representations' to bring the animals closer to the farmer. Animal, 2019, 13, 3009-3017.	1.3	85
13	Behaviour recognition of pigs and cattle: Journey from computer vision to deep learning. Computers and Electronics in Agriculture, 2021, 187, 106255.	3.7	82
14	Appropriate data visualisation is key to Precision Livestock Farming acceptance. Computers and Electronics in Agriculture, 2017, 138, 1-10.	3.7	76
15	A computer vision-based method for spatial-temporal action recognition of tail-biting behaviour in group-housed pigs. Biosystems Engineering, 2020, 195, 27-41.	1.9	70
16	Modelling of ammonia emissions from naturally ventilated livestock buildings. Part 3: CFD modelling. Biosystems Engineering, 2013, 116, 259-275.	1.9	67
17	Recognition of aggressive episodes of pigs based on convolutional neural network and long short-term memory. Computers and Electronics in Agriculture, 2020, 169, 105166.	3.7	67
18	Computational Fluid Dynamics in the Design and Analysis of Thermal Processes: A Review of Recent Advances. Critical Reviews in Food Science and Nutrition, 2013, 53, 251-275.	5.4	58

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19	Detection of aggressive behaviours in pigs using a RealSence depth sensor. Computers and Electronics in Agriculture, 2019, 166, 105003.	3.7	48
20	Development of sound-based poultry health monitoring tool for automated sneeze detection. Computers and Electronics in Agriculture, 2019, 162, 573-581.	3.7	48
21	Validation of an open source CFD code to simulate natural ventilation for agricultural buildings. Computers and Electronics in Agriculture, 2017, 138, 80-91.	3.7	47
22	Real-time monitoring of broiler flock's welfare status using camera-based technology. Biosystems Engineering, 2018, 173, 103-114.	1.9	45
23	Simulation of high pressure freezing processes by enthalpy method. Journal of Food Engineering, 2009, 91, 260-268.	2.7	44
24	Predicting broiler gait scores from activity monitoring and flock data. Biosystems Engineering, 2018, 173, 93-102.	1.9	43
25	Classification of drinking and drinker-playing in pigs by a video-based deep learning method. Biosystems Engineering, 2020, 196, 1-14.	1.9	42
26	Recognition of feeding behaviour of pigs and determination of feeding time of each pig by a video-based deep learning method. Computers and Electronics in Agriculture, 2020, 176, 105642.	3.7	41
27	Review of Sensor Technologies in Animal Breeding: Phenotyping Behaviors of Laying Hens to Select Against Feather Pecking. Animals, 2019, 9, 108.	1.0	40
28	Information Technologies for Welfare Monitoring in Pigs and Their Relation to Welfare QualityÂ®. Sustainability, 2021, 13, 692.	1.6	40
29	Improving the representation of thermal boundary conditions of livestock during CFD modelling of the indoor environment. Computers and Electronics in Agriculture, 2010, 73, 17-36.	3.7	39
30	Automatic cough detection for bovine respiratory disease in a calf house. Biosystems Engineering, 2018, 173, 45-56.	1.9	37
31	Assessment of Laying Hensâ€™ Thermal Comfort Using Sound Technology. Sensors, 2020, 20, 473.	2.1	37
32	Modelling of ammonia emissions from naturally ventilated livestock buildings. Part 1: Ammonia release modelling. Biosystems Engineering, 2013, 116, 232-245.	1.9	36
33	A computer vision approach for recognition of the engagement of pigs with different enrichment objects. Computers and Electronics in Agriculture, 2020, 175, 105580.	3.7	32
34	Sound analysis to model weight of broiler chickens. Poultry Science, 2017, 96, 3938-3943.	1.5	29
35	Assessing the ventilation performance of a naturally ventilated livestock building with different eave opening conditions. Computers and Electronics in Agriculture, 2010, 71, 7-21.	3.7	27
36	Developing precision livestock farming tools for precision dairy farming. Animal Frontiers, 2017, 7, 18-23.	0.8	27

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37	Automatic estimation of dairy cattle body condition score from depth image using ensemble model. Biosystems Engineering, 2020, 194, 16-27.	1.9	27
38	A blueprint for developing and applying precision livestock farming tools: A key output of the EU-PLF project. Animal Frontiers, 2017, 7, 12-17.	0.8	26
39	An ethogram of biter and bitten pigs during an ear biting event: first step in the development of a Precision Livestock Farming tool. Applied Animal Behaviour Science, 2019, 215, 26-36.	0.8	24
40	Learning patterns from time-series data to discriminate predictions of tail-biting, fouling and diarrhoea in pigs. Computers and Electronics in Agriculture, 2019, 163, 104878.	3.7	23
41	Application note: Labelling, a methodology to develop reliable algorithm in PLF. Computers and Electronics in Agriculture, 2017, 142, 424-428.	3.7	21
42	The computational fluid dynamic modeling of downwash flow field for a six-rotor UAV. Frontiers of Agricultural Science and Engineering, 2018, .	0.9	21
43	A computational fluid dynamics study of air mixing in a naturally ventilated livestock building with different porous eave opening conditions. Biosystems Engineering, 2010, 106, 125-137.	1.9	20
44	An automatic ear base temperature extraction method for top view piglet thermal image. Computers and Electronics in Agriculture, 2018, 155, 339-347.	3.7	20
45	Managing respiratory disease in finisher pigs: Combining quantitative assessments of clinical signs and the prevalence of lung lesions at slaughter. Preventive Veterinary Medicine, 2021, 186, 105208.	0.7	20
46	Possibilities for IPM Strategies in European Laying Hen Farms for Improved Control of the Poultry Red Mite (Dermanyssus gallinae): Details and State of Affairs. Frontiers in Veterinary Science, 2020, 7, 565866.	0.9	19
47	Airborne pollutant emissions from naturally ventilated buildings: Proposed research directions. Biosystems Engineering, 2013, 116, 214-220.	1.9	18
48	Methodologies for Assessing Disease Tolerance in Pigs. Frontiers in Veterinary Science, 2018, 5, 329.	0.9	18
49	A computational analysis of a fully-stocked dual-mode ventilated livestock vehicle during ferry transportation. Computers and Electronics in Agriculture, 2013, 93, 217-228.	3.7	17
50	Automated real-time stress monitoring of police horses using wearable technology. Applied Animal Behaviour Science, 2018, 198, 67-74.	0.8	17
51	Dynamic modelling of lettuce transpiration for water status monitoring. Computers and Electronics in Agriculture, 2018, 155, 50-57.	3.7	17
52	How Are Information Technologies Addressing Broiler Welfare? A Systematic Review Based on the Welfare Quality® Assessment. Sustainability, 2020, 12, 1413.	1.6	17
53	Dynamic modelling of the baseline temperatures for computation of the crop water stress index (CWSI) of a greenhouse cultivated lettuce crop. Computers and Electronics in Agriculture, 2018, 153, 102-114.	3.7	16
54	Construction of sheep forage intake estimation models based on sound analysis. Biosystems Engineering, 2020, 192, 144-158.	1.9	15

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55	Modelling of ammonia emissions from naturally ventilated livestock buildings: Part 2, air change modelling. Biosystems Engineering, 2013, 116, 246-258.	1.9	13
56	An Automatic Head Surface Temperature Extraction Method for Top-View Thermal Image with Individual Broiler. Sensors, 2019, 19, 5286.	2.1	13
57	Computational fluid dynamics for non-experts: Development of a user-friendly CFD simulator (HNVR-SYS) for natural ventilation design applications. Biosystems Engineering, 2020, 193, 232-246.	1.9	13
58	A PCA-based frame selection method for applying CNN and LSTM to classify postural behaviour in sows. Computers and Electronics in Agriculture, 2021, 189, 106351.	3.7	13
59	A CFD based approach for determination of ammonia concentration profile and flux from poultry houses with natural ventilation. Revista Facultad Nacional De Agronomia Medellin, 2016, 69, 7825-7834.	0.2	12
60	Contactless Video-Based Heart Rate Monitoring of a Resting and an Anesthetized Pig. Animals, 2021, 11, 442.	1.0	11
61	A Systematic Review of the Use of Technology to Monitor Welfare in Zoo Animals: Is There Space for Improvement?. Animals, 2021, 11, 3048.	1.0	11
62	An Approach towards Motion-Tolerant PPG-Based Algorithm for Real-Time Heart Rate Monitoring of Moving Pigs. Sensors, 2020, 20, 4251.	2.1	10
63	Aiding the understanding of novel freezing technology through numerical modelling with visual basic for applications (VBA). Computer Applications in Engineering Education, 2013, 21, 530-538.	2.2	8
64	Real-time modelling of indoor particulate matter concentration in poultry houses using broiler activity and ventilation rate. Biosystems Engineering, 2019, 187, 214-225.	1.9	8
65	Separate weighing of male and female broiler breeders by electronic platform weigher using camera technologies. Computers and Electronics in Agriculture, 2021, 182, 106009.	3.7	8
66	Evaporative pad cooling model validation in a closed dairy cattle building. Biosystems Engineering, 2020, 198, 147-162.	1.9	7
67	Environmental Risk Factors Influence the Frequency of Coughing and Sneezing Episodes in Finisher Pigs on a Farm Free of Respiratory Disease. Animals, 2022, 12, 982.	1.0	7
68	A tristimulus-formant model for automatic recognition of call types of laying hens. Computers and Electronics in Agriculture, 2021, 187, 106221.	3.7	6
69	Short-term feeding behaviour sound classification method for sheep using LSTM networks. International Journal of Agricultural and Biological Engineering, 2021, 14, 43-54.	0.3	6
70	Real-time modelling of individual weight response to feed supply for fattening pigs. Computers and Electronics in Agriculture, 2019, 162, 895-906.	3.7	5
71	Extracting body surface dimensions from top-view images of pigs. International Journal of Agricultural and Biological Engineering, 2018, 11, 182-191.	0.3	5
72	Non-Invasive PPG-Based System for Continuous Heart Rate Monitoring of Incubated Avian Embryo. Sensors, 2020, 20, 4560.	2.1	4

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73	CFD: An Innovative and Effective Design Tool for the Food Industry. Food Engineering Series, 2010, , 45-68.	0.3	4
74	Renal and Extra Renal Manifestations in Adult Zebrafish Model of Cystinosis. International Journal of Molecular Sciences, 2021, 22, 9398.	1.8	3
75	Canopy Segmentation Method for Determining the Spray Deposition Rate in Orchards. Agronomy, 2022, 12, 1195.	1.3	3
76	Bioenvironmental Zonal Controlling of Incubated Avian Embryo Using Localised Infrared Heating. Processes, 2019, 7, 651.	1.3	2
77	CFD modeling of air quality inside naturally ventilated broiler barns as a function of barn spatial arrangement. , 2012, , .		1
78	Effect of lower temperature stimuli during incubation on fear and social-related behaviours in broilers. Applied Animal Behaviour Science, 2022, 248, 105572.	0.8	1
79	Influence of temperature during incubation on the mRNA levels of temperature sensitive ion channels in the brain of broiler chicken embryos. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2022, 268, 111199.	0.8	1
80	Inserts. , 2013, , 1-8.		0
81	In situ observation of thermal and hydraulic responses of sunflower stem to cold water irrigation using embedded thermocouples. Computers and Electronics in Agriculture, 2014, 109, 195-199.	3.7	0
82	MONITORING OF LITTER QUALITY IN BROILER COMMERCIAL FARMS USING CAMERA-BASED TECHNOLOGY. , 2016, , .		0
83	Real-time monitoring of the horse-rider dyad using body sensor network technology. , 2016, , .		0