Claus A G SÃ¸rensen

List of Publications by Year
in descending order

101 papers	3,749 citations	117571 34 h-index	138417 58 g-index
104 all docs	104 docs citations	104 times ranked	2493 citing authors

#	Article	IF	Citations
1	Conceptual model of a future farm management information system. Computers and Electronics in Agriculture, 2010, 72, 37-47.	3.7	233
2	Farm management information systems: Current situation and future perspectives. Computers and Electronics in Agriculture, 2015, 115, 40-50.	3.7	232
3	Internet of Things in arable farming: Implementation, applications, challenges and potential. Biosystems Engineering, 2020, 191, 60-84.	1.9	204
4	Assessing sustainability at farm-level: Lessons learned from a comparison of tools in practice. Ecological Indicators, 2016, 66, 391-404.	2.6	182
5	Robotics and labour in agriculture. A context consideration. Biosystems Engineering, 2019, 184, 111-121.	1.9	150
6	Conceptual model of fleet management in agriculture. Biosystems Engineering, 2010, 105, 41-50.	1.9	135
7	The vehicle routing problem in field logistics part I. Biosystems Engineering, 2009, 104, 447-457.	1.9	133
8	Agricultural Sustainability: A Review of Concepts and Methods. Sustainability, 2019, 11, 5120.	1.6	99
9	Functional requirements for a future farm management information system. Computers and Electronics in Agriculture, 2011, 76, 266-276.	3.7	83
10	When experts disagree: the need to rethink indicator selection for assessing sustainability of agriculture. Environment, Development and Sustainability, 2017, 19, 1327-1342.	2.7	82
11	The vehicle routing problem in field logistics: Part II. Biosystems Engineering, 2010, 105, 180-188.	1.9	80
12	Agricultural operations planning in fields with multiple obstacle areas. Computers and Electronics in Agriculture, 2014, 109, 12-22.	3.7	77
13	Energy inputs and GHG emissions of tillage systems. Biosystems Engineering, 2014, 120, 2-14.	1.9	74
14	Controlled traffic farming: A review of the environmental impacts. European Journal of Agronomy, 2013, 48, 66-73.	1.9	69
15	Agricultural Workforce Crisis in Light of the COVID-19 Pandemic. Sustainability, 2020, 12, 8212.	1.6	69
16	Scheduling for machinery fleets in biomass multiple-field operations. Computers and Electronics in Agriculture, 2013, 94, 12-19.	3.7	65
17	A Future Internet Collaboration Platform for Safe and Healthy Food from Farm to Fork. , 2014, , .		65
18	In-field and inter-field path planning for agricultural transport units. Computers and Industrial Engineering, 2012, 63, 1054-1061.	3.4	64

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19	A Model for Optimal Selection of Machinery Sizes within the Farm Machinery System. Biosystems Engineering, 2004, 89, 13-28.	1.9	62
20	Mobile Robotics in Agricultural Operations: A Narrative Review on Planning Aspects. Applied Sciences (Switzerland), 2020, 10, 3453.	1.3	61
21	Automated generation of guidance lines for operational field planning. Biosystems Engineering, 2010, 107, 294-306.	1.9	60
22	Organic Farming Scenarios: Operational Analysis and Costs of implementing Innovative Technologies. Biosystems Engineering, 2005, 91, 127-137.	1.9	58
23	Operational Analyses and Model Comparison of Machinery Systems for Reduced Tillage. Biosystems Engineering, 2005, 92, 143-155.	1.9	58
24	Monitoring and modeling temperature variations inside silage stacks using novel wireless sensor networks. Computers and Electronics in Agriculture, 2009, 69, 149-157.	3.7	57
25	A four nation survey of farm information management and advanced farming systems: A descriptive analysis of survey responses. Computers and Electronics in Agriculture, 2011, 77, 7-20.	3.7	57
26	Coverage planning for capacitated field operations, part II: Optimisation. Biosystems Engineering, 2015, 139, 149-164.	1.9	55
27	Optimised schedules for sequential agricultural operations using a Tabu Search method. Computers and Electronics in Agriculture, 2015, 117, 102-113.	3.7	54
28	A flow-shop problem formulation of biomass handling operations scheduling. Computers and Electronics in Agriculture, 2013, 91, 49-56.	3.7	52
29	Benefits from optimal route planning based on B-patterns. Biosystems Engineering, 2013, 115, 389-395.	1.9	52
30	Path planning for in-field navigation-aiding of service units. Computers and Electronics in Agriculture, 2010, 74, 80-90.	3.7	49
31	A DSS for planning of soil-sensitive field operations. Decision Support Systems, 2012, 53, 66-75.	3.5	49
32	Effect of controlled traffic on field efficiency. Biosystems Engineering, 2010, 106, 14-25.	1.9	42
33	Route planning evaluation of a prototype optimised infield route planner for neutral material flow agricultural operations. Biosystems Engineering, 2017, 153, 149-157.	1.9	42
34	Energy Savings from Optimised In-Field Route Planning for Agricultural Machinery. Sustainability, 2017, 9, 1956.	1.6	41
35	A Basic Study of the Influence of Surface Topography on Mechanisms of Liquid Lubrication in Metal Forming. CIRP Annals - Manufacturing Technology, 1999, 48, 203-208.	1.7	35
36	Optimized driving direction based on a three-dimensional field representation. Computers and Electronics in Agriculture, 2013, 91, 145-153.	3.7	35

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37	Assessing the Sustainability Performance of Organic Farms in Denmark. Sustainability, 2016, 8, 957.	1.6	35
38	Generic sustainability assessment themes and the role of context: The case of Danish maize for German biogas. Ecological Indicators, 2015, 49, 143-153.	2.6	34
39	An object-oriented model for simulating agricultural in-field machinery activities. Computers and Electronics in Agriculture, 2012, 81, 24-32.	3.7	33
40	A Case-Based Economic Assessment of Robotics Employment in Precision Arable Farming. Agronomy, 2019, 9, 175.	1.3	33
41	An Assessment Tool applied to Manure Management Systems using Innovative Technologies. Biosystems Engineering, 2003, 86, 315-325.	1.9	30
42	Modelling of material handling operations using controlled traffic. Biosystems Engineering, 2009, 103, 397-408.	1.9	30
43	Tramline establishment in controlled traffic farming based on operational machinery cost. Biosystems Engineering, 2010, 107, 221-231.	1.9	29
44	An environmental life cycle assessment of controlled traffic farming. Journal of Cleaner Production, 2014, 73, 175-182.	4.6	27
45	Orchard Mapping with Deep Learning Semantic Segmentation. Sensors, 2021, 21, 3813.	2.1	27
46	Modelling the readiness of soil for different methods of tillage. Soil and Tillage Research, 2016, 155, 339-350.	2.6	25
47	Conceptual and user-centric design guidelines for a plant nursing robot. Biosystems Engineering, 2010, 105, 119-129.	1.9	24
48	Simulation model for the sequential in-field machinery operations in a potato production system. Computers and Electronics in Agriculture, 2015, 116, 173-186.	3.7	24
49	Coverage planning for capacitated field operations, Part I: Task decomposition. Biosystems Engineering, 2015, 139, 136-148.	1.9	21
50	Modeling cost and energy demand in agricultural machinery fleets for soybean and maize cultivated using a no-tillage system. Computers and Electronics in Agriculture, 2019, 156, 282-292.	3.7	21
51	Energy Footprint of Mechanized Agricultural Operations. Energies, 2020, 13, 769.	1.6	19
52	Feasibility of a modelling suite for the optimised biomass harvest scheduling. Biosystems Engineering, 2010, 107, 283-293.	1.9	17
53	A numerical modelling approach for biomass field drying. Biosystems Engineering, 2010, 106, 458-469.	1.9	17
54	A GIS-Based Multicriteria Index to Evaluate the Mechanisability Potential of Italian Vineyard Area. Land, 2020, 9, 469.	1.2	16

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55	ICT Innovations and Smart Farming. Communications in Computer and Information Science, 2019, , 1-19.	0.4	15
56	Model for Energy Analysis of Miscanthus Production and Transportation. Energies, 2016, 9, 392.	1.6	14
57	The Future of Agricultural Jobs in View of Robotization. Sustainability, 2021, 13, 12109.	1.6	14
58	Route Planning for Agricultural Machines with Multiple Depots: Manure Application Case Study. Agronomy, 2020, 10, 1608.	1.3	13
59	Prediction of quality parameters for biomass silage: A CFD approach. Computers and Electronics in Agriculture, 2013, 93, 209-216.	3.7	12
60	Comparison of distribution systems for biogas plant residual. Biomass and Bioenergy, 2013, 52, 139-150.	2.9	11
61	DSS tool for the implementation and operation of an umbilical system applying organic fertiliser. Biosystems Engineering, 2013, 114, 9-20.	1.9	11
62	Soil water contents for tillage: A comparison of approaches and consequences for the number of workable days. Soil and Tillage Research, 2019, 195, 104384.	2.6	11
63	Novel Route Planning System for Machinery Selection. Case: Slurry Application. AgriEngineering, 2020, 2, 408-429.	1.7	11
64	Robotic weed monitoring. Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 2011, 61, 202-208.	0.3	10
65	Quantifying the benefits of alternative fieldwork patterns in a potato cultivation system. Computers and Electronics in Agriculture, 2015, 119, 228-240.	3.7	10
66	Compaction and sowing date change soil physical properties and crop yield in a loamy temperate soil. Soil and Tillage Research, 2018, 184, 153-163.	2.6	10
67	Field Deployment of Robotic Systems for Agriculture in Light of Key Safety, Labor, Ethics and Legislation Issues. Current Robotics Reports, 0, , 1.	5.1	10
68	A Novel Acoustic Sensor Approach to Classify Seeds Based on Sound Absorption Spectra. Sensors, 2010, 10, 10027-10039.	2.1	9
69	Spatial and temporal variation of temperature and oxygen concentration inside silage stacks. Biosystems Engineering, 2012, 111, 155-165.	1.9	9
70	Temperature-based prediction of harvest date in winter and spring cereals as a basis for assessing viability for growing cover crops. Field Crops Research, 2021, 264, 108085.	2.3	9
71	A Diagnostic System for Improving Biomass Quality Based on a Sensor Network. Sensors, 2011, 11, 4990-5004.	2.1	8
72	An Arable Field for Benchmarking of Metaheuristic Algorithms for Capacitated Coverage Path Planning Problems. Agronomy, 2020, 10, 1454.	1.3	8

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73	Metric Map Generation for Autonomous Field Operations. Agronomy, 2020, 10, 83.	1.3	8
74	In-Field Route Planning Optimisation and Performance Indicators of Grain Harvest Operations. Agronomy, 2022, 12, 1151.	1.3	7
75	Utilising scripting language for unmanned and automated guided vehicles operating within row crops. Computers and Electronics in Agriculture, 2008, 62, 190-203.	3.7	5
76	Infield optimized route planning in harvesting operations for risk of soil compaction reduction. Soil Use and Management, 2021, 37, 810-821.	2.6	5
77	Introduction of a New Index of Field Operations Efficiency. Applied Sciences (Switzerland), 2020, 10, 329.	1.3	5
78	Performance of machinery in potato production in one growing season. Spanish Journal of Agricultural Research, 2015, 13, e0215.	0.3	5
79	A Test Platform for Planned Field Operations Using LEGO Mindstorms NXT. Robotics, 2013, 2, 203-216.	2.1	4
80	Evaluation Of Onion Production On Sandy Soils By Use Of Reduced Tillage And Controlled Traffic Farming With Wide Span Tractors. Acta Technologica Agriculturae, 2015, 18, 74-82.	0.2	4
81	Preprocessed Sentinel-1 Data via a Web Service Focused on Agricultural Field Monitoring. IEEE Access, 2019, 7, 65139-65149.	2.6	4
82	Moisture content evaluation of biomass using CFD approach. Scientia Agricola, 2012, 69, 287-292.	0.6	3
83	Design of a Wildlife Avoidance Planning System for Autonomous Harvesting Operations. International Journal of Advanced Robotic Systems, 2014, 11, 6.	1.3	3
84	Assessing the actions of the farm managers to execute field operations at opportune times. Biosystems Engineering, 2016, 144, 38-51.	1.9	3
85	Hortibot: Feasibility study of a plant nursing robot performing weeding operations - part IV. , 2007, , .		2
86	FeederAnt - An autonomous mobile unit feeding outdoor pigs. , 2007, , .		2
87	Auto-Steering and Controlled Traffic Farming â€" Route Planning and Economics. Progress in Precision Agriculture, 2017, , 129-145.	1.1	2
88	Evaluation of Grain Quality-Based Simulated Selective Harvest Performed by an Autonomous Agricultural Robot. Agronomy, 2021, 11, 1728.	1.3	2
89	The potential of using robotics in data acquisition from multiple sensors. , 2005, , .		1
90	Review of Technological Advances and Technological Needs in Ecological Agriculture (Organic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62		1

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91	User-centered and conceptual technical guidelines of a plant nursing robot. , 2008, , .		1
92	Reducing the risk of soil compaction by applying 'Jordværn Online'® when performing slurry distribution. Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 2011, 61, 209-213.	0.3	1
93	An innovation path in Argentinean cow–calf operations: Insights from participatory farm system modelling. Systems Research and Behavioral Science, 2020, 38, 488.	0.9	1
94	The agricultural occupations landscape in view of work automation. , 2021, , 289-348.		1
95	A Method to Quantify the Detailed Risk of Serious Injury in Agricultural Production. Sustainability, 2021, 13, 3859.	1.6	1
96	A System for Optimizing the Process of Straw Bale Retrieval. Sustainability, 2021, 13, 7722.	1.6	1
97	Intra-row Weed Control in Organic Crops - Technical Perspectives, Capability, and Operational Costs. , 2005, , .		0
98	Sustainability Evaluation of Manure Distribution with DynamicSimulation Model. , 2010, , .		0
99	Design of research platform for integrating ICT and automation in organic arable cropping. , 2010, , .		0
100	Automation of Marginal Grass Harvesting. Advances in Environmental Engineering and Green Technologies Book Series, 2019, , 106-146.	0.3	0
101	Design and Modelling Approaches for Advanced Agricultural Fleet Management Systems. , 0, , 152-171.		0