

Torgeir Welo

List of Publications by Year in descending order

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Version: 2024-02-01

119
papers

2,184
citations

304743

22
h-index

276875

41
g-index

121
all docs

121
docs citations

121
times ranked

1835
citing authors

#	ARTICLE	IF	CITATIONS
1	The concept of sustainable manufacturing and its definitions: A content-analysis based literature review. <i>Journal of Cleaner Production</i> , 2017, 166, 744-755.	9.3	209
2	Analytical modelling of residual stress in additive manufacturing. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2017, 40, 971-978.	3.4	124
3	A Holistic approach to corporate sustainability assessment: Incorporating sustainable development goals into sustainable manufacturing performance evaluation. <i>Journal of Manufacturing Systems</i> , 2019, 50, 53-68.	13.9	117
4	Fatigue of additively manufactured 316L stainless steel: The influence of porosity and surface roughness. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2019, 42, 2043-2052.	3.4	114
5	Additive manufacturing of fine-grained and dislocation-populated CrMnFeCoNi high entropy alloy by laser engineered net shaping. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 761, 138056.	5.6	94
6	Environmental assessment of solid state recycling routes for aluminium alloys: Can solid state processes significantly reduce the environmental impact of aluminium recycling?. <i>CIRP Annals - Manufacturing Technology</i> , 2015, 64, 37-40.	3.6	90
7	The effects of voids on structural properties of fused deposition modelled parts: a probabilistic approach. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 97, 3607-3618.	3.0	82
8	EMS and sustainability: experiences with ISO 14001 and Eco-Lighthouse in Norwegian metal processing SMEs. <i>Journal of Cleaner Production</i> , 2014, 64, 194-204.	9.3	62
9	Conceptualizing resilience in engineering systems: An analysis of the literature. <i>Systems Engineering</i> , 2020, 23, 3-13.	2.7	62
10	Application of numerical simulation in the bending of aluminium-alloy profiles. <i>Journal of Materials Processing Technology</i> , 1996, 58, 274-285.	6.3	56
11	Cross-sectional deformations of rectangular hollow sections in bending: Part II " analytical models. <i>International Journal of Mechanical Sciences</i> , 2001, 43, 131-152.	6.7	56
12	Analytical springback assessment in flexible stretch bending of complex shapes. <i>International Journal of Machine Tools and Manufacture</i> , 2021, 160, 103653.	13.4	49
13	Multiple instability-constrained tube bending limits. <i>Journal of Materials Processing Technology</i> , 2014, 214, 445-455.	6.3	48
14	On the Applicability of Sustainability Assessment Tools in Manufacturing. <i>Procedia CIRP</i> , 2015, 29, 621-626.	1.9	42
15	Cross-sectional deformations of rectangular hollow sections in bending: Part I " experiments. <i>International Journal of Mechanical Sciences</i> , 2001, 43, 109-129.	6.7	40
16	On the application of lean principles in Product Development: a commentary on models and practices. <i>International Journal of Product Development</i> , 2011, 13, 316.	0.2	38
17	A design method for prediction of dimensions of rectangular hollow sections formed in stretch bending. <i>Journal of Materials Processing Technology</i> , 2002, 128, 48-66.	6.3	32
18	Development of Manufacturing Sustainability Assessment Using Systems Thinking. <i>Sustainability</i> , 2016, 8, 5.	3.2	31

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19	Exploring the hybrid metal extrusion and bonding process for butt welding of Al-Mg-Si alloys. International Journal of Advanced Manufacturing Technology, 2018, 98, 1059-1065.	3.0	30
20	Prototyping in New Product Development: Strategy Considerations. Procedia CIRP, 2016, 50, 117-122.	1.9	28
21	The behaviour of thin-walled, aluminium alloy profiles in rotary draw bending—A comparison between numerical and experimental results. Journal of Materials Processing Technology, 1994, 45, 173-180.	6.3	25
22	Using contrast material techniques to determine metal flow in screw extrusion of aluminium. Journal of Materials Processing Technology, 2013, 213, 1007-1018.	6.3	25
23	Prediction of residual stress regeneration in multi-pass milling. International Journal of Advanced Manufacturing Technology, 2016, 83, 1153-1160.	3.0	25
24	Hybrid Metal Extrusion & Bonding (HYB) - a new technology for solid-state additive manufacturing of aluminium components. Procedia Manufacturing, 2018, 26, 782-789.	1.9	24
25	A design method for rectangular hollow sections in bending. Journal of Materials Processing Technology, 2001, 113, 699-704.	6.3	20
26	Maximizing Product Innovation through Adaptive Application of User-Centered Methods for Defining Customer Value. Journal of Technology Management and Innovation, 2011, 6, 172-192.	0.7	20
27	Enhancing Integrative Capabilities through Lean Product and Process Development. Procedia CIRP, 2016, 54, 221-226.	1.9	20
28	Surface Friction of Rapidly Prototyped Wheels from 3D-Printed Thermoplastic Elastomers: An Experimental Study. Procedia CIRP, 2017, 60, 247-252.	1.9	20
29	Managing exploratory projects: A repertoire of approaches and their shared underpinnings. International Journal of Project Management, 2020, 38, 75-84.	5.6	20
30	A new method for assessing anisotropy in fused deposition modeled parts using computed tomography data. International Journal of Advanced Manufacturing Technology, 2019, 105, 47-65.	3.0	19
31	The Role of Early Prototypes in Concept Development: Insights from the Automotive Industry. Procedia CIRP, 2014, 21, 491-496.	1.9	17
32	Precision bending of high-quality components for volume applications. Transactions of Nonferrous Metals Society of China, 2010, 20, 2100-2110.	4.2	15
33	Dimensional accuracy of threads manufactured by fused deposition modeling. Procedia Manufacturing, 2018, 26, 763-773.	1.9	15
34	On the mechanical integrity of AA6082 3D structures deposited by hybrid metal extrusion & bonding additive manufacturing. Journal of Materials Processing Technology, 2020, 282, 116684.	6.3	15
35	The impact of thermo-mechanical processing routes on product quality in integrated aluminium tube bending process. Journal of Manufacturing Processes, 2021, 67, 503-512.	5.9	15
36	Approaching lean product development using system dynamics: investigating front-load effects. Advances in Manufacturing, 2014, 2, 130-140.	6.1	14

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37	Lean Systems Engineering (LSE): Hands-on Experiences in Applying LSE to a Student Eco-Car Build Project. <i>Procedia Computer Science</i> , 2013, 16, 492-501.	2.0	13
38	Investigating Lean Development Practices in SE Companies: A Comparative Study Between Sectors. <i>Procedia Computer Science</i> , 2015, 44, 234-243.	2.0	13
39	Leveraging prototypes to generate value in the concept-to-production process: a qualitative study of the automotive industry. <i>International Journal of Production Research</i> , 2016, 54, 3006-3018.	7.5	13
40	Beyond Waste Elimination: Assessing Lean Practices in Product Development. <i>Procedia CIRP</i> , 2016, 50, 179-185.	1.9	13
41	An overview and evaluation of alternative forming processes for complex aluminium products. <i>Procedia Manufacturing</i> , 2020, 48, 82-89.	1.9	13
42	Fatigue Strength Assessment of Steel Rollers: On the Reliability of the Strain Energy Density Approach on Real Components. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1015.	2.5	12
43	Flexible 3D stretch bending of aluminium alloy profiles: an experimental and numerical study. <i>Procedia Manufacturing</i> , 2020, 50, 37-44.	1.9	12
44	On the evaluation of dimensional accuracy in rotary stretch bending. <i>International Journal of Material Forming</i> , 2009, 2, 849-852.	2.0	11
45	Bridging the Gap between High and Low-volume Production through Enhancement of Integrative Capabilities. <i>Procedia Manufacturing</i> , 2016, 5, 26-40.	1.9	11
46	Testing and Verification of a New Corporate Sustainability Assessment Method for Manufacturing: A Multiple Case Research Study. <i>Sustainability</i> , 2018, 10, 4121.	3.2	11
47	First demonstration of a new additive manufacturing process based on metal extrusion and solid-state bonding. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 105, 2523-2530.	3.0	11
48	In-line Springback Measurement for Tube Bending Using a Laser System. <i>Procedia Manufacturing</i> , 2020, 47, 766-773.	1.9	11
49	Protobooth: gathering and analyzing data on prototyping in early-stage engineering design projects by digitally capturing physical prototypes. <i>Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM</i> , 2021, 35, 65-80.	1.1	11
50	A new testing machine to determine the behaviour of aluminium granulate under combined pressure and shear. <i>International Journal of Material Forming</i> , 2013, 6, 199-208.	2.0	10
51	FROM LEAN PRODUCT DEVELOPMENT TO LEAN INNOVATION: SEARCHING FOR A MORE VALID APPROACH FOR PROMOTING UTILITARIAN AND EMOTIONAL VALUE. <i>International Journal of Innovation and Technology Management</i> , 2014, 11, 1450008.	1.4	10
52	Improving Friction Drilling and Joining through Controlled Material Flow. <i>Procedia Manufacturing</i> , 2018, 26, 663-670.	1.9	10
53	Assessment of the Mechanical Integrity of a 2 mm AA6060-T6 Butt Weld Produced Using the Hybrid Metal Extrusion & Bonding (HYB) Process – Part II: Tensile Test Results. <i>Procedia Structural Integrity</i> , 2019, 17, 632-642.	0.8	10
54	Local strain energy density to assess the multiaxial fatigue strength of titanium alloys. <i>Frattura Ed Integrita Strutturale</i> , 2016, 10, 69-79.	0.9	10

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55	A new adaptive bending method using closed loop feedback control. Transactions of Nonferrous Metals Society of China, 2010, 20, 2111-2117.	4.2	9
56	ENHANCING PRODUCT INNOVATION THROUGH A CUSTOMER-CENTERED, LEAN FRAMEWORK. International Journal of Innovation and Technology Management, 2012, 09, 1250041.	1.4	9
57	Microstructure Texture Prediction in Machining Processes. Procedia CIRP, 2016, 46, 595-598.	1.9	9
58	Finite element modelling of the filler wire feeding in the hybrid metal extrusion & bonding (HYB) process. Journal of Advanced Joining Processes, 2020, 1, 100006.	2.7	9
59	Product portfolio map: a visual tool for supporting product variant discovery and structuring. Advances in Manufacturing, 2014, 2, 179-191.	6.1	8
60	Knowledge based development practices in systems engineering companies: A comparative study. , 2015, , .		8
61	Prototype Experiments: Strategies and Trade-offs. Procedia CIRP, 2017, 60, 554-559.	1.9	8
62	Assessment of the Mechanical Integrity of a 2 mm AA6060-T6 Butt Weld Produced Using the Hybrid Metal Extrusion & Bonding (HYB) Process – Part I: Bend Test Results. Procedia Manufacturing, 2019, 34, 147-153.	1.9	8
63	Fatigue properties of AA6060-T6 butt welds made by hybrid metal extrusion & bonding. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 2349-2358.	3.4	8
64	Comparison of two commercial FEM codes in cold extrusion simulation. Journal of Materials Processing Technology, 1994, 42, 137-146.	6.3	7
65	Local flange buckling and its relation to elastic springback in forming of aluminium extrusions. Journal of Materials Processing Technology, 1996, 60, 149-154.	6.3	7
66	A new testing machine to determine the behaviour of aluminium granulate under combined pressure and shear. International Journal of Material Forming, 2010, 3, 861-864.	2.0	7
67	Using prototypes to leverage knowledge in product development: Examples from the automotive industry. , 2016, , .		7
68	Resilience in Product Design and Development Processes: A Risk Management Viewpoint. Procedia CIRP, 2019, 84, 412-418.	1.9	7
69	On the fatigue properties of a third generation aluminium-steel butt weld made by Hybrid Metal Extrusion & Bonding (HYB). International Journal of Fatigue, 2022, 155, 106586.	5.7	7
70	Need Finding for the Development of a Conceptual, Engineering- Driven Framework for Improved Product Documentation. Procedia Computer Science, 2013, 16, 423-432.	2.0	6
71	Effortless capture of design output a prerequisite for building a design repository with quantified design output. , 2017, , .		6
72	The product development learning process and its relation to performance indicators. Procedia Manufacturing, 2018, 26, 107-116.	1.9	6

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73	Efforts on Capturing Prototyping and Design Activity in Engineering Design Research. <i>Procedia CIRP</i> , 2019, 84, 566-571.	1.9	6
74	Exploring the Influence of Pre/Post-Aging on Springback in Al-Mg-Si Alloy Tube Bending. <i>Procedia Manufacturing</i> , 2020, 47, 774-780.	1.9	6
75	Wrong, but not failed? A study of unexpected events and project performance in 21 engineering projects. <i>International Journal of Managing Projects in Business</i> , 2021, 14, 1290-1313.	2.5	6
76	Investigating the Use of Set-Based Concurrent Engineering in Product Manufacturing Companies. <i>Procedia CIRP</i> , 2019, 84, 43-48.	1.9	5
77	Using set-based design for developing a 3D metal forming process. <i>Procedia CIRP</i> , 2019, 84, 149-154.	1.9	5
78	Planning unplanned design iterations using risk management and learning strategies. <i>Journal of Engineering Design</i> , 2022, 33, 120-143.	2.3	5
79	A strategy for on-machine springback measurement in rotary draw bending using digital image-based laser tracking. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 119, 705-718.	3.0	5
80	Adaptive Bending of Aluminium Extrusions Using an Automated Closed-Loop Feedback Approach. <i>International Journal of Material Forming</i> , 2008, 1, 197-200.	2.0	4
81	System of systems thinking in product development: A system dynamic approach. , 2012, , .		4
82	Analysis of residual stress-induced distortions of thin sheet structures in multi-step milling. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	4
83	Learning in Product Development: Proposed Industry Experiment Using Reflective Prototyping. <i>Procedia CIRP</i> , 2016, 50, 454-459.	1.9	4
84	Knowledge management of university-industry collaboration in the learning economy. , 2017, , .		4
85	The Cost of Learning from Failures and Mistakes in Product Design: Reviewing the Literature. <i>Proceedings of the Design Society International Conference on Engineering Design</i> , 2019, 1, 1653-1662.	0.6	4
86	Rapid prototyping and physical modelling in the development of a new additive manufacturing process for aluminium alloys. <i>Procedia Manufacturing</i> , 2019, 34, 489-496.	1.9	4
87	A new mechanical calibration strategy for U-channel extrusions. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 110, 241-253.	3.0	4
88	Multiaxial fatigue strength of titanium alloys. <i>Frattura Ed Integrita Strutturale</i> , 2017, 11, 79-89.	0.9	4
89	Cold forging and grain size control in an Al-1.2wt%Si alloy. <i>Journal of Materials Processing Technology</i> , 1992, 34, 533-539.	6.3	3
90	A New Method for Reducing Dimensional Variability of Extruded Hollow Sections. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	3

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91	Design for Automated Assembly of Large and Complex Products: Experiences from a Marine Company Operating in Norway. <i>Procedia Computer Science</i> , 2015, 44, 254-265.	2.0	3
92	Learning and Knowledge Systems in Product Development Environments. <i>Procedia CIRP</i> , 2016, 57, 49-54.	1.9	3
93	On the use of product portfolio and variant maps as visualization tools to support platform-based development strategies. <i>Concurrent Engineering Research and Applications</i> , 2016, 24, 211-226.	3.2	3
94	A framework for integrating reliability and systems engineering: proof-of-concept experiences. <i>In cose International Symposium</i> , 2016, 26, 1059-1073.	0.6	3
95	Evaluation of undesirable deformations in complex, hollow aluminium extrusions due to roll bending. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	3
96	A heuristic approach for early-stage product development in extreme environments. , 2017, , .		3
97	Investigating Organizational Knowledge Transformation Capabilities in Integrated Manufacturing and Product Development Companies. <i>Procedia CIRP</i> , 2018, 70, 150-155.	1.9	3
98	Investigating the Mechanics of Hybrid Metal Extrusion and Bonding Additive Manufacturing by FEA. <i>Metals</i> , 2019, 9, 811.	2.3	3
99	A feasibility study of continuous grain refinement of sheet metal. <i>Procedia Manufacturing</i> , 2020, 48, 379-387.	1.9	3
100	Deformation Characteristics in a Stretch-Based Dimensional Correction Method for Open, Thin-Walled Extrusions. <i>Metals</i> , 2021, 11, 1786.	2.3	3
101	Bridging the "Valley of Death": Can Agile Principles Be Applied in Industry-Academia Research and Innovation Projects?. <i>Journal of the Knowledge Economy</i> , 2022, 13, 3172-3194.	4.4	3
102	Prototyping to Leverage Learning in Product Manufacturing Environments. <i>Procedia CIRP</i> , 2016, 54, 233-238.	1.9	2
103	Design of a Modular Extrusion-based Aluminum Monorail System for Highly Accurate Car Positioning. <i>Procedia CIRP</i> , 2017, 60, 8-13.	1.9	2
104	Applicability of lean product development to a company in the marine sector. , 2017, , .		2
105	An experimental study on interference friction welding process. <i>Procedia Manufacturing</i> , 2019, 41, 1149-1155.	1.9	2
106	Using Lean to Transform the Product Development Process in a Marine Company: A Case Study. <i>Procedia CIRP</i> , 2022, 109, 623-628.	1.9	2
107	Springback Control in Industrial Bending Operations: Assessing the Accuracy of Three Commercial FEA Codes. <i>AIP Conference Proceedings</i> , 2011, , .	0.4	1
108	Stabilizing New-product Development Processes " A Prerequisite or a Barrier to Satisfy Customer Wants and Needs?. <i>Procedia CIRP</i> , 2014, 21, 206-211.	1.9	1

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109	Considering BPR and CE for faster product delivery: a case study in manufacturing firms. International Journal of Productivity and Quality Management, 2014, 13, 349.	0.2	1
110	Newness and Outcomes in Commodity-Driven New-Product Development Projects: A Survey in the Norwegian Manufacturing Industry. Procedia CIRP, 2019, 84, 749-754.	1.9	1
111	INFLUENCE OF INNOVATION, COMPLEXITY AND NEWNESS ON SUCCESS IN NEW PRODUCT DEVELOPMENT PROJECTS: A SURVEY IN NORWEGIAN MANUFACTURING INDUSTRY. Proceedings of the Design Society DESIGN Conference, 2020, 1, 511-520.	0.8	1
112	Parameters Controlling Dimensional Accuracy of Aluminum Extrusions Formed in Stretch Bending. AIP Conference Proceedings, 2007, , .	0.4	0
113	A new method for 3D forming of extrusion-based sheets for light-weight hull applications. International Journal of Material Forming, 2010, 3, 841-844.	2.0	0
114	On Knowledge-based Development: How Documentation Practice Represents a Strategy for Closing Tolerance Engineering Loops. Procedia CIRP, 2014, 21, 318-323.	1.9	0
115	FE simulation of soft wing impactor for aviation mast frangibility testing " sensitivity to model assumptions. International Journal of Crashworthiness, 2016, 21, 435-451.	1.9	0
116	Modelling and fatigue assessment of steel rollers with failure occurring at the weld root based on the local strain energy. Procedia Structural Integrity, 2016, 2, 3475-3482.	0.8	0
117	A physics-based approach to relate grinding process parameters to tribological behavior of ground surfaces. International Journal of Advanced Manufacturing Technology, 2017, 91, 4151-4161.	3.0	0
118	Influence of deformation prior to ageing on fatigue behavior of extruded AA6082-T6 profiles. International Journal of Fatigue, 2022, 162, 106990.	5.7	0
119	Rapid Manufacturing of Die-casting Tools - a Case Study. Procedia CIRP, 2022, 107, 1565-1570.	1.9	0