

Torgeir Welo

List of Publications by Year in descending order

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119
papers

2,184
citations

304743

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276875

41
g-index

121
all docs

121
docs citations

121
times ranked

1835
citing authors

#	ARTICLE	IF	CITATIONS
1	Planning unplanned design iterations using risk management and learning strategies. Journal of Engineering Design, 2022, 33, 120-143.	2.3	5
2	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
3	Bridging the "Valley of Death": Can Agile Principles Be Applied in Industry-Academia Research and Innovation Projects?. Journal of the Knowledge Economy, 2022, 13, 3172-3194.	4.4	3
4	A strategy for on-machine springback measurement in rotary draw bending using digital image-based laser tracking. International Journal of Advanced Manufacturing Technology, 2022, 119, 705-718.	3.0	5
5	Influence of deformation prior to ageing on fatigue behavior of extruded AA6082-T6 profiles. International Journal of Fatigue, 2022, 162, 106990.	5.7	0
6	Rapid Manufacturing of Die-casting Tools - a Case Study. Procedia CIRP, 2022, 107, 1565-1570.	1.9	0
7	Using Lean to Transform the Product Development Process in a Marine Company: A Case Study. Procedia CIRP, 2022, 109, 623-628.	1.9	2
8	Protobooth: gathering and analyzing data on prototyping in early-stage engineering design projects by digitally capturing physical prototypes. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2021, 35, 65-80.	1.1	11
9	Analytical springback assessment in flexible stretch bending of complex shapes. International Journal of Machine Tools and Manufacture, 2021, 160, 103653.	13.4	49
10	Wrong, but not failed? A study of unexpected events and project performance in 21 engineering projects. International Journal of Managing Projects in Business, 2021, 14, 1290-1313.	2.5	6
11	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
12	Deformation Characteristics in a Stretch-Based Dimensional Correction Method for Open, Thin-Walled Extrusions. Metals, 2021, 11, 1786.	2.3	3
13	Conceptualizing resilience in engineering systems: An analysis of the literature. Systems Engineering, 2020, 23, 3-13.	2.7	62
14	Managing exploratory projects: A repertoire of approaches and their shared underpinnings. International Journal of Project Management, 2020, 38, 75-84.	5.6	20
15	Flexible 3D stretch bending of aluminium alloy profiles: an experimental and numerical study. Procedia Manufacturing, 2020, 50, 37-44.	1.9	12
16	A new mechanical calibration strategy for U-channel extrusions. International Journal of Advanced Manufacturing Technology, 2020, 110, 241-253.	3.0	4
17	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
18	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

#	ARTICLE	IF	CITATIONS
19	On the mechanical integrity of AA6082 3D structures deposited by hybrid metal extrusion & bonding additive manufacturing. <i>Journal of Materials Processing Technology</i> , 2020, 282, 116684.	6.3	15
20	In-line Springback Measurement for Tube Bending Using a Laser System. <i>Procedia Manufacturing</i> , 2020, 47, 766-773.	1.9	11
21	A feasibility study of continuous grain refinement of sheet metal. <i>Procedia Manufacturing</i> , 2020, 48, 379-387.	1.9	3
22	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
23	An overview and evaluation of alternative forming processes for complex aluminium products. <i>Procedia Manufacturing</i> , 2020, 48, 82-89.	1.9	13
24	Finite element modelling of the filler wire feeding in the hybrid metal extrusion & bonding (HYB) process. <i>Journal of Advanced Joining Processes</i> , 2020, 1, 100006.	2.7	9
25	A new method for assessing anisotropy in fused deposition modeled parts using computed tomography data. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 105, 47-65.	3.0	19
26	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
27	Investigating the Mechanics of Hybrid Metal Extrusion and Bonding Additive Manufacturing by FEA. <i>Metals</i> , 2019, 9, 811.	2.3	3
28	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
29	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
30	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
31	Newness and Outcomes in Commodity-Driven New-Product Development Projects: A Survey in the Norwegian Manufacturing Industry. <i>Procedia CIRP</i> , 2019, 84, 749-754.	1.9	1
32	Resilience in Product Design and Development Processes: A Risk Management Viewpoint. <i>Procedia CIRP</i> , 2019, 84, 412-418.	1.9	7
33	Efforts on Capturing Prototyping and Design Activity in Engineering Design Research. <i>Procedia CIRP</i> , 2019, 84, 566-571.	1.9	6
34	Investigating the Use of Set-Based Concurrent Engineering in Product Manufacturing Companies. <i>Procedia CIRP</i> , 2019, 84, 43-48.	1.9	5
35	Using set-based design for developing a 3D metal forming process. <i>Procedia CIRP</i> , 2019, 84, 149-154.	1.9	5
36	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. <i>Procedia Manufacturing</i> , 2019, 34, 147-153.	1.9	8

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37	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
38	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
39	An experimental study on interference friction welding process. <i>Procedia Manufacturing</i> , 2019, 41, 1149-1155.	1.9	2
40	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
41	Investigating Organizational Knowledge Transformation Capabilities in Integrated Manufacturing and Product Development Companies. <i>Procedia CIRP</i> , 2018, 70, 150-155.	1.9	3
42	The product development learning process and its relation to performance indicators. <i>Procedia Manufacturing</i> , 2018, 26, 107-116.	1.9	6
43	Improving Friction Drilling and Joining through Controlled Material Flow. <i>Procedia Manufacturing</i> , 2018, 26, 663-670.	1.9	10
44	Dimensional accuracy of threads manufactured by fused deposition modeling. <i>Procedia Manufacturing</i> , 2018, 26, 763-773.	1.9	15
45	Hybrid Metal Extrusion & Bonding (HYB) - a new technology for solid-state additive manufacturing of aluminium components. <i>Procedia Manufacturing</i> , 2018, 26, 782-789.	1.9	24
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	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
48	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
49	Exploring the hybrid metal extrusion and bonding process for butt welding of Al-Mg-Si alloys. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 98, 1059-1065.	3.0	30
50	Surface Friction of Rapidly Prototyped Wheels from 3D-Printed Thermoplastic Elastomers: An Experimental Study. <i>Procedia CIRP</i> , 2017, 60, 247-252.	1.9	20
51	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
52	Prototype Experiments: Strategies and Trade-offs. <i>Procedia CIRP</i> , 2017, 60, 554-559.	1.9	8
53	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
54	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

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55	A physics-based approach to relate grinding process parameters to tribological behavior of ground surfaces. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 91, 4151-4161.	3.0	0
56	A heuristic approach for early-stage product development in extreme environments. , 2017, , .		3
57	Knowledge management of university-industry collaboration in the learning economy. , 2017, , .		4
58	Effortless capture of design output a prerequisite for building a design repository with quantified design output. , 2017, , .		6
59	Applicability of lean product development to a company in the marine sector. , 2017, , .		2
60	Multiaxial fatigue strength of titanium alloys. <i>Frattura Ed Integrita Strutturale</i> , 2017, 11, 79-89.	0.9	4
61	Development of Manufacturing Sustainability Assessment Using Systems Thinking. <i>Sustainability</i> , 2016, 8, 5.	3.2	31
62	FE simulation of soft wing impactor for aviation mast frangibility testing " sensitivity to model assumptions. <i>International Journal of Crashworthiness</i> , 2016, 21, 435-451.	1.9	0
63	Analysis of residual stress-induced distortions of thin sheet structures in multi-step milling. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	4
64	Learning and Knowledge Systems in Product Development Environments. <i>Procedia CIRP</i> , 2016, 57, 49-54.	1.9	3
65	Prototyping to Leverage Learning in Product Manufacturing Environments. <i>Procedia CIRP</i> , 2016, 54, 233-238.	1.9	2
66	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
67	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
68	Prediction of residual stress regeneration in multi-pass milling. <i>International Journal of Advanced Manufacturing Technology</i> , 2016, 83, 1153-1160.	3.0	25
69	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
70	Modelling and fatigue assessment of steel rollers with failure occurring at the weld root based on the local strain energy. <i>Procedia Structural Integrity</i> , 2016, 2, 3475-3482.	0.8	0
71	Beyond Waste Elimination: Assessing Lean Practices in Product Development. <i>Procedia CIRP</i> , 2016, 50, 179-185.	1.9	13
72	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

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73	Prototyping in New Product Development: Strategy Considerations. <i>Procedia CIRP</i> , 2016, 50, 117-122.	1.9	28
74	Learning in Product Development: Proposed Industry Experiment Using Reflective Prototyping. <i>Procedia CIRP</i> , 2016, 50, 454-459.	1.9	4
75	Enhancing Integrative Capabilities through Lean Product and Process Development. <i>Procedia CIRP</i> , 2016, 54, 221-226.	1.9	20
76	Evaluation of undesirable deformations in complex, hollow aluminium extrusions due to roll bending. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	3
77	Using prototypes to leverage knowledge in product development: Examples from the automotive industry. , 2016, , .		7
78	Microstructure Texture Prediction in Machining Processes. <i>Procedia CIRP</i> , 2016, 46, 595-598.	1.9	9
79	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
80	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
81	On the Applicability of Sustainability Assessment Tools in Manufacturing. <i>Procedia CIRP</i> , 2015, 29, 621-626.	1.9	42
82	Knowledge based development practices in systems engineering companies: A comparative study. , 2015, , .		8
83	Investigating Lean Development Practices in SE Companies: A Comparative Study Between Sectors. <i>Procedia Computer Science</i> , 2015, 44, 234-243.	2.0	13
84	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
85	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
86	The Role of Early Prototypes in Concept Development: Insights from the Automotive Industry. <i>Procedia CIRP</i> , 2014, 21, 491-496.	1.9	17
87	On Knowledge-based Development: How Documentation Practice Represents a Strategy for Closing Tolerance Engineering Loops. <i>Procedia CIRP</i> , 2014, 21, 318-323.	1.9	0
88	Stabilizing New-product Development Processes â€“ A Prerequisite or a Barrier to Satisfy Customer Wants and Needs?. <i>Procedia CIRP</i> , 2014, 21, 206-211.	1.9	1
89	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
90	Product portfolio map: a visual tool for supporting product variant discovery and structuring. <i>Advances in Manufacturing</i> , 2014, 2, 179-191.	6.1	8

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91	Approaching lean product development using system dynamics: investigating front-load effects. <i>Advances in Manufacturing</i> , 2014, 2, 130-140.	6.1	14
92	Multiple instability-constrained tube bending limits. <i>Journal of Materials Processing Technology</i> , 2014, 214, 445-455.	6.3	48
93	Considering BPR and CE for faster product delivery: a case study in manufacturing firms. <i>International Journal of Productivity and Quality Management</i> , 2014, 13, 349.	0.2	1
94	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
95	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
96	Using contrast material techniques to determine metal flow in screw extrusion of aluminium. <i>Journal of Materials Processing Technology</i> , 2013, 213, 1007-1018.	6.3	25
97	Need Finding for the Development of a Conceptual, Engineering- Driven Framework for Improved Product Documentation. <i>Procedia Computer Science</i> , 2013, 16, 423-432.	2.0	6
98	ENHANCING PRODUCT INNOVATION THROUGH A CUSTOMER-CENTERED, LEAN FRAMEWORK. <i>International Journal of Innovation and Technology Management</i> , 2012, 09, 1250041.	1.4	9
99	System of systems thinking in product development: A system dynamic approach. , 2012, , .		4
100	Maximizing Product Innovation through Adaptive Application of User-Centered Methods for Defining Customer Value. <i>Journal of Technology Management and Innovation</i> , 2011, 6, 172-192.	0.7	20
101	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
102	Springback Control in Industrial Bending Operations: Assessing the Accuracy of Three Commercial FEA Codes. <i>AIP Conference Proceedings</i> , 2011, , .	0.4	1
103	A new method for 3D forming of extrusion-based sheets for light-weight hull applications. <i>International Journal of Material Forming</i> , 2010, 3, 841-844.	2.0	0
104	A new testing machine to determine the behaviour of aluminium granulate under combined pressure and shear. <i>International Journal of Material Forming</i> , 2010, 3, 861-864.	2.0	7
105	Precision bending of high-quality components for volume applications. <i>Transactions of Nonferrous Metals Society of China</i> , 2010, 20, 2100-2110.	4.2	15
106	A new adaptive bending method using closed loop feedback control. <i>Transactions of Nonferrous Metals Society of China</i> , 2010, 20, 2111-2117.	4.2	9
107	On the evaluation of dimensional accuracy in rotary stretch bending. <i>International Journal of Material Forming</i> , 2009, 2, 849-852.	2.0	11
108	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

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109	Parameters Controlling Dimensional Accuracy of Aluminum Extrusions Formed in Stretch Bending. AIP Conference Proceedings, 2007, , .	0.4	0
110	A New Method for Reducing Dimensional Variability of Extruded Hollow Sections. AIP Conference Proceedings, 2007, , .	0.4	3
111	A design method for prediction of dimensions of rectangular hollow sections formed in stretch bending. Journal of Materials Processing Technology, 2002, 128, 48-66.	6.3	32
112	Cross-sectional deformations of rectangular hollow sections in bending: Part I " experiments. International Journal of Mechanical Sciences, 2001, 43, 109-129.	6.7	40
113	Cross-sectional deformations of rectangular hollow sections in bending: Part II " analytical models. International Journal of Mechanical Sciences, 2001, 43, 131-152.	6.7	56
114	A design method for rectangular hollow sections in bending. Journal of Materials Processing Technology, 2001, 113, 699-704.	6.3	20
115	Application of numerical simulation in the bending of aluminium-alloy profiles. Journal of Materials Processing Technology, 1996, 58, 274-285.	6.3	56
116	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
117	Comparison of two commercial FEM codes in cold extrusion simulation. Journal of Materials Processing Technology, 1994, 42, 137-146.	6.3	7
118	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
119	Cold forging and grain size control in an Al-1.2wt%Si alloy. Journal of Materials Processing Technology, 1992, 34, 533-539.	6.3	3