

# Ghulam Hussain

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7009233/publications.pdf>

Version: 2024-02-01

95  
papers

2,305  
citations

236612

25  
h-index

264894

42  
g-index

96  
all docs

96  
docs citations

96  
times ranked

1136  
citing authors

#	ARTICLE	IF	CITATIONS
1	A novel method to test the thinning limits of sheet metals in negative incremental forming. International Journal of Machine Tools and Manufacture, 2007, 47, 419-435.	6.2	197
2	Electric hot incremental forming: A novel technique. International Journal of Machine Tools and Manufacture, 2008, 48, 1688-1692.	6.2	174
3	Tool and lubrication for negative incremental forming of a commercially pure titanium sheet. Journal of Materials Processing Technology, 2008, 203, 193-201.	3.1	99
4	Formability evaluation of a pure titanium sheet in the cold incremental forming process. International Journal of Advanced Manufacturing Technology, 2008, 37, 920-926.	1.5	87
5	A new formability indicator in single point incremental forming. Journal of Materials Processing Technology, 2009, 209, 4237-4242.	3.1	77
6	An experimental study on some formability evaluation methods in negative incremental forming. Journal of Materials Processing Technology, 2007, 186, 45-53.	3.1	68
7	The performance of flat end and hemispherical end tools in single-point incremental forming. International Journal of Advanced Manufacturing Technology, 2010, 46, 1113-1118.	1.5	62
8	Wear performance of Al/TiN dispersion strengthened surface composite produced through friction stir process: A comparison of tool geometries and number of passes. Wear, 2015, 324-325, 45-54.	1.5	61
9	Forming Parameters and Forming Defects in Incremental Forming of an Aluminum Sheet: Correlation, Empirical Modeling, and Optimization: Part A. Materials and Manufacturing Processes, 2011, 26, 1546-1553.	2.7	56
10	Threshold tool-radius condition maximizing the formability in SPIF considering a variety of materials: Experimental and FE investigations. International Journal of Machine Tools and Manufacture, 2015, 88, 82-94.	6.2	56
11	Guidelines for Tool-Size Selection for Single-Point Incremental Forming of an Aerospace Alloy. Materials and Manufacturing Processes, 2013, 28, 324-329.	2.7	51
12	The formability of annealed and pre-aged AA-2024 sheets in single-point incremental forming. International Journal of Advanced Manufacturing Technology, 2010, 46, 543-549.	1.5	49
13	Biocompatibility and corrosion resistance of metallic biomaterials. Corrosion Reviews, 2020, 38, 381-402.	1.0	43
14	Improving profile accuracy in SPIF process through statistical optimization of forming parameters. Journal of Mechanical Science and Technology, 2011, 25, 177-182.	0.7	42
15	On the comparison of formability of roll-bonded steel-Cu composite sheet metal in incremental forming and stamping processes. International Journal of Advanced Manufacturing Technology, 2016, 87, 267-278.	1.5	39
16	The effect of variation in the curvature of part on the formability in incremental forming: An experimental investigation. International Journal of Machine Tools and Manufacture, 2007, 47, 2177-2181.	6.2	37
17	Establishing Mathematical Models to Predict Grain Size and Hardness of the Friction Stir-Welded AA 7020 Aluminum Alloy Joints. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2015, 46, 357-365.	1.0	36
18	A comparative study on the forming limits of an aluminum sheet-metal in negative incremental forming. Journal of Materials Processing Technology, 2007, 187-188, 94-98.	3.1	34

#	ARTICLE	IF	CITATIONS
19	Forming Parameters and Forming Defects in Incremental Forming Process: Part B. Materials and Manufacturing Processes, 2014, 29, 454-460.	2.7	34
20	Prediction and control of pillow defect in single point incremental forming using numerical simulations. Journal of Mechanical Science and Technology, 2016, 30, 2151-2161.	0.7	33
21	Readiness of subtractive and additive manufacturing and their sustainable amalgamation from the perspective of Industry 4.0: a comprehensive review. International Journal of Advanced Manufacturing Technology, 2020, 111, 2475-2498.	1.5	33
22	High-Speed Incremental Forming Process: A Trade-Off Between Formability and Time Efficiency. Materials and Manufacturing Processes, 2015, 30, 1354-1363.	2.7	31
23	An experimental study on multi-pass friction stir processing of Al/TiN composite: some microstructural, mechanical, and wear characteristics. International Journal of Advanced Manufacturing Technology, 2016, 84, 533-546.	1.5	30
24	On the Effects of Process Parameters and Optimization of Interlaminar Bond Strength in 3D Printed ABS/CF-PLA Composite. Polymers, 2020, 12, 2155.	2.0	30
25	A rule-based system for trade-off among energy consumption, tool life, and productivity in machining process. Journal of Intelligent Manufacturing, 2015, 26, 1217-1232.	4.4	29
26	SPIF of Cu/Steel Clad Sheet: Annealing Effect on Bond Force and Formability. Materials and Manufacturing Processes, 2016, 31, 758-763.	2.7	29
27	The pillowing tendency of materials in single-point incremental forming: Experimental and finite element analyses. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2015, 229, 744-753.	1.5	26
28	Effects of tool life criterion on sustainability of milling. Journal of Cleaner Production, 2016, 139, 1105-1117.	4.6	26
29	An experimental study on the effect of thinning band on the sheet formability in negative incremental forming. International Journal of Machine Tools and Manufacture, 2008, 48, 1170-1178.	6.2	24
30	The state of residual stresses in the Cu/Steel bonded laminates after ISF deformation: An experimental analysis. Journal of Manufacturing Processes, 2017, 30, 14-26.	2.8	24
31	Machinability comparison of AISI 4340 and Ti-6Al-4V under cryogenic and hybrid cooling environments: A knowledge engineering approach. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2015, 229, 2144-2164.	1.5	23
32	Thermal Model of Rotary Friction Welding for Similar and Dissimilar Metals. Metals, 2017, 7, 224.	1.0	23
33	Energy, exergy, exergo-economic and exergo-environmental analyses of solar based hydrogen generation system. International Journal of Hydrogen Energy, 2021, 46, 29049-29064.	3.8	23
34	Fabrication of metal-matrix AL7075T651/TiN nano composite employing friction stir process. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2017, 231, 1319-1331.	1.5	22
35	Mechanical properties of an additive manufactured CF-PLA/ABS hybrid composite sheet. Journal of Thermoplastic Composite Materials, 2021, 34, 1577-1596.	2.6	22
36	Pyramid as test geometry to evaluate formability in incremental forming: Recent results. Journal of Mechanical Science and Technology, 2012, 26, 2337-2345.	0.7	21

#	ARTICLE	IF	CITATIONS
37	Optimization of abrasive water jet cutting of ductile materials. Journal Wuhan University of Technology, Materials Science Edition, 2011, 26, 88-92.	0.4	20
38	The Friction and Wear Properties of Ti-Al-Nb Intermetallics by Plasma Surface Alloying. Tribology Letters, 2008, 30, 61-67.	1.2	19
39	Study on formability of vertical parts formed by multi-stage incremental forming. International Journal of Advanced Manufacturing Technology, 2014, 75, 1049-1053.	1.5	19
40	Appropriate heat treatment and incremental forming route to produce age-hardened components of Al-2219 alloy with minimized form error and high formability. Journal of Materials Processing Technology, 2018, 256, 262-273.	3.1	19
41	Fabrication of UHMW polyethylene/nano-hydroxyapatite biocomposite via heat-assisted friction stir processing. International Journal of Advanced Manufacturing Technology, 2018, 96, 3651-3663.	1.5	19
42	Surface roughness as the function of friction indicator and an important parameters-combination having controlling influence on the roughness: recent results in incremental forming. International Journal of Advanced Manufacturing Technology, 2019, 101, 2533-2545.	1.5	19
43	Progress on single-point incremental forming of polymers. International Journal of Advanced Manufacturing Technology, 2021, 114, 1-26.	1.5	19
44	Empirical modelling of the influence of operating parameters on the spifability of a titanium sheet using response surface methodology. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2009, 223, 73-81.	1.5	18
45	On the CO <sub>2</sub> characterization in incremental forming of roll bonded laminates. Journal of Cleaner Production, 2017, 156, 214-225.	4.6	18
46	Mechanical properties and microstructure evolution in incremental forming of AA5754 and AA6061 aluminum alloys. Transactions of Nonferrous Metals Society of China, 2020, 30, 51-64.	1.7	18
47	Parameter-formability relationship in ISF of tri-layered Cu-Steel-Cu composite sheet metal: Response surface and microscopic analyses. International Journal of Precision Engineering and Manufacturing, 2016, 17, 1633-1642.	1.1	17
48	Trade-off among mechanical properties and energy consumption in multi-pass friction stir processing of Al7075 alloy employing neural network-based genetic optimization. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2017, 231, 129-139.	1.5	16
49	Holistic sustainability assessment of hybrid Al-GnP-enriched nanofluids and textured tool in machining of Ti-6Al-4V alloy. International Journal of Advanced Manufacturing Technology, 2021, 112, 731-743.	1.5	16
50	Forming forces in incremental forming of a geometry with corner feature: investigation into the effect of forming parameters using response surface approach. International Journal of Advanced Manufacturing Technology, 2015, 76, 2185-2197.	1.5	15
51	Response surface analysis of cold formability of polymers in Incremental Sheet Forming: Effect of parameters and associated thermal softening. International Journal of Precision Engineering and Manufacturing, 2016, 17, 613-621.	1.1	14
52	An investigation on the effects of tool rotational speed and material temper on post-ISF tensile properties of Al2219 alloy. Journal of Materials Research and Technology, 2021, 10, 853-867.	2.6	14
53	Nano-mechanical characterization of plasma surface tungstenized layer by depth-sensing nano-indentation measurement. Applied Surface Science, 2015, 324, 160-167.	3.1	12
54	Investigation of Impact Strength and Hardness of UHMW Polyethylene Composites Reinforced with Nano-Hydroxyapatite Particles Fabricated by Friction Stir Processing. Polymers, 2019, 11, 1041.	2.0	12

#	ARTICLE	IF	CITATIONS
55	Post-Forming Mechanical Properties of a Polymer Sheet Processed by Incremental Sheet Forming: Insights into Effects of Plastic Strain, and Orientation and Size of Specimen. <i>Polymers</i> , 2020, 12, 1870.	2.0	12
56	Experimental investigations on the role of tool size in causing and controlling defects in single point incremental forming process. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2014, 228, 266-277.	1.5	11
57	Stress gradient due to incremental forming of bonded metallic laminates. <i>Materials and Manufacturing Processes</i> , 2017, 32, 1384-1390.	2.7	11
58	Microstructure and micro-hardness analysis of friction stir welded bi-layered laminated aluminum sheets. <i>International Journal of Lightweight Materials and Manufacture</i> , 2019, 2, 123-130.	1.3	11
59	A new parameter and its effect on the formability in single point incremental forming: A fundamental investigation. <i>Journal of Mechanical Science and Technology</i> , 2010, 24, 1617-1621.	0.7	10
60	Influence of Tool Material, Tool Geometry, Process Parameters, Stacking Sequence, and Heat Sink on Producing Sound Al/Cu Lap Joints through Friction Stir Welding. <i>Metals</i> , 2019, 9, 875.	1.0	10
61	Butt Joining of Bi-Layered Aluminum Sheets through Friction Stir Welding: Tensile Stresses, Bending Stresses, Residual Stresses, and Fractography. <i>Metals</i> , 2019, 9, 384.	1.0	10
62	Failure and strain gradient analyses in incremental forming using GTN model. <i>International Journal of Lightweight Materials and Manufacture</i> , 2019, 2, 177-185.	1.3	10
63	Experimental Investigations on the Effects of Rotational Speed on Temperature and Microstructure Variations in Incremental Forming of T6- Tempered and Annealed AA2219 Aerospace Alloy. <i>Metals</i> , 2020, 10, 809.	1.0	10
64	Prediction of Single Point Incremental Forming Limit. <i>Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering</i> , 2010, 46, 102.	0.7	10
65	Finite element and experimental analyses of cylindrical hole flanging in incremental forming. <i>Transactions of Nonferrous Metals Society of China</i> , 2016, 26, 2419-2425.	1.7	9
66	Bulging in incremental sheet forming of cold bonded multi-layered Cu clad sheet: Influence of forming conditions and bending. <i>Transactions of Nonferrous Metals Society of China</i> , 2019, 29, 112-122.	1.7	9
67	On the Free-Surface Roughness in Incremental Forming of a Sheet Metal: A Study from the Perspective of ISF Strain, Surface Morphology, Post-Forming Properties, and Process Conditions. <i>Metals</i> , 2019, 9, 553.	1.0	9
68	Formability of Materials with Small Tools in Incremental Forming. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , 2020, 33, .	1.9	9
69	Impact Toughness of Hybrid Carbon Fiber-PLA/ABS Laminar Composite Produced through Fused Filament Fabrication. <i>Polymers</i> , 2021, 13, 3057.	2.0	8
70	Aerodynamic Analyses of Airfoils Using Machine Learning as an Alternative to RANS Simulation. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 5194.	1.3	8
71	Force Variations with Defects and a Force-based Strategy to Control Defects in SPIF. <i>Materials and Manufacturing Processes</i> , 2014, 29, 1197-1204.	2.7	7
72	Plasma surface Cu alloyed layer as a lubricant on stainless steel sheet: Wear characteristics and on-job performance in incremental forming. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2016, 31, 422-428.	0.4	7

#	ARTICLE	IF	CITATIONS
73	Determination of Optimum Process Parameters for Cutting Hole in a Randomly-oriented Glass Fiber Reinforced Epoxy Composite by Milling Process: Maximization of Surface Quality and Cut-hole Strength. <i>Polymers and Polymer Composites</i> , 2016, 24, 81-89.	1.0	6
74	Influence of Forming Parameters on the Mechanical Behavior of a Thin Aluminum Sheet Processed through Single Point Incremental Forming. <i>Metals</i> , 2020, 10, 1461.	1.0	6
75	Investigation on the effects of the processing parameters and the number of passes on the flexural properties of polymer nanocomposite fabricated through FSP method. <i>Materials Research Express</i> , 2020, 7, 055310.	0.8	6
76	Delamination analysis in single-point incremental forming of steel/steel bi-layer sheet metal. <i>Archives of Civil and Mechanical Engineering</i> , 2020, 20, 1.	1.9	6
77	Fuzzy Logic-Based Prediction of Drilling-Induced Temperatures at Varying Cutting Conditions along with Analysis of Chips Morphology and Burrs Formation. <i>Metals</i> , 2021, 11, 277.	1.0	6
78	On the Effect of Curvature Radius on the Spif-Ability. <i>Advanced Materials Research</i> , 0, 129-131, 1222-1227.	0.3	5
79	PEO coating as lubrication means for SPIF of titanium sheet: characteristics and performance. <i>Materials Research Innovations</i> , 2014, 18, S2-727-S2-733.	1.0	5
80	Empirical modeling and simultaneous optimization of energy efficiency/demand, cost and productivity in incremental forming of metallic clad composite. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 20375-20385.	3.8	5
81	Experimental and numerical simulation of steel/steel (St/St) interface in bi-layer sheet metal. <i>International Journal of Lightweight Materials and Manufacture</i> , 2019, 2, 89-96.	1.3	5
82	Characterization of residual stresses in an asymmetrical shape produced through incremental forming. <i>CIRP Journal of Manufacturing Science and Technology</i> , 2020, 31, 478-491.	2.3	5
83	Analysis of wall curling in incremental forming of a sheet metal: role of residual stresses, stretching force and process conditions. <i>Journal of Materials Research and Technology</i> , 2021, 11, 1548-1558.	2.6	5
84	Mechanical Characteristics of a Roll-Bonded Cu-Clad Steel Sheet Processed Through Incremental Forming. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 4594-4607.	1.1	4
85	New Methodologies for the Determination of Precise Forming Limit Curve in Single Point Incremental Forming Process. <i>Advanced Materials Research</i> , 0, 97-101, 126-129.	0.3	3
86	Effect of pre-rolling temperature on the interfacial properties and formability of steel-steel bilayer sheet in Single Point Incremental Forming. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2021, 235, 406-416.	1.5	3
87	Energy consumption, carbon emissions, product cost, and process time in incremental sheet forming process: A holistic review from sustainability perspective. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2022, 236, 1683-1705.	1.5	3
88	Artificial neural network modelling and optimization of elastic and an-elastic spring back in polymer parts produced through ISF. <i>International Journal of Advanced Manufacturing Technology</i> , 0, , 1.	1.5	2
89	Fundamental Studies on Incremental Forming of Titanium Sheet-Metal. , 2006, , 135.		1
90	Role of Material Properties in Improving Sheet Formability in SPIF Process. <i>Advanced Materials Research</i> , 0, 139-141, 600-604.	0.3	1

#	ARTICLE	IF	CITATIONS
91	Role of Tool Size in Suppressing Defects in SPIF Process. <i>Advanced Materials Research</i> , 0, 746, 167-172.	0.3	1
92	A Fundamental Investigation on the Formability of a Commercially-Pure Titanium Sheet-Metal in the Incremental Forming and Stamping Processes. , 2007, , 943.		0
93	Prediction and Research of Single Point Incremental Forming Limit. <i>Advanced Materials Research</i> , 2010, 97-101, 4005-4009.	0.3	0
94	Nanomechanical and Macrotribological Properties of CVD-Grown Graphene as a Middle Layer between Metal Pt Cylinders and SiO <sub>2</sub> /Si Substrate. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-7.	1.5	0
95	Life Cycle Assessment and Feasibility Study of Solar Based Multi- Generation System. <i>Sustainable Energy Technologies and Assessments</i> , 2021, 47, 101321.	1.7	0