

Yi Chao Huang

List of Publications by Year in descending order

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116
papers

2,782
citations

126708

33
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214527

47
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116
all docs

116
docs citations

116
times ranked

1499
citing authors

#	ARTICLE	IF	CITATIONS
1	Smart semiconductor manufacturing for pricing, demand planning, capacity portfolio and cost for sustainable supply chain management. International Journal of Logistics Research and Applications, 2024, 27, 193-216.	5.6	2
2	An integrated framework of Industry 3.5 and an empirical study of simulation-based automated material handling system for semiconductor manufacturing. International Journal of Logistics Research and Applications, 2024, 27, 309-325.	5.6	1
3	A Two-stage Multi-population Genetic Algorithm with Heuristics for Workflow Scheduling in Heterogeneous Distributed Computing Environments. IEEE Transactions on Cloud Computing, 2023, 11, 1446-1460.	3.1	24
4	Pitfalls and protocols of data science in manufacturing practice. Journal of Intelligent Manufacturing, 2022, 33, 1189-1207.	4.4	26
5	Redefining Monitoring Rules for Intelligent Fault Detection and Classification via CNN Transfer Learning for Smart Manufacturing. IEEE Transactions on Semiconductor Manufacturing, 2022, 35, 158-165.	1.4	15
6	Sources of Care Stress of Nursing Staff for Patients with Infectious Diseases during the Prevalence of COVID-19: A Case Study of Some Regional Teaching Hospitals in Southern Taiwan. Healthcare (Switzerland), 2021, 9, 462.	1.0	0
7	How Smart Manufacturing Can Help Combat the COVID-19 Pandemic. Diagnostics, 2021, 11, 885.	1.3	2
8	Taiwan Drought was a Microcosm of Climate Change Adaptation Challenges in Complex Island Economies. Process Integration and Optimization for Sustainability, 2021, 5, 317-318.	1.4	8
9	The Optimization between Physician Satisfaction and Hospital Profit in Cross-Hospital Scheduling—A Case Study of Some Hospitals in Taiwan. Healthcare (Switzerland), 2021, 9, 1004.	1.0	0
10	Agent-based approach integrating deep reinforcement learning and hybrid genetic algorithm for dynamic scheduling for Industry 3.5 smart production. Computers and Industrial Engineering, 2021, 162, 107782.	3.4	21
11	Production-Level Artificial Intelligence Applications in Semiconductor Manufacturing. , 2021, , .		2
12	Tool allocation to smooth work-in-process for cycle time reduction and an empirical study. Annals of Operations Research, 2020, 290, 1009-1033.	2.6	16
13	A simulation-based dynamic scheduling and dispatching system with multi-criteria performance evaluation for Industry 3.5 and an empirical study for sustainable TFT-LCD array manufacturing. International Journal of Production Research, 2020, 58, 7531-7547.	4.9	15
14	Dynamic coordinated scheduling for supply chain under uncertain production time to empower smart production for Industry 3.5. Computers and Industrial Engineering, 2020, 142, 106375.	3.4	40
15	Deep reinforcement learning for selecting demand forecast models to empower Industry 3.5 and an empirical study for a semiconductor component distributor. International Journal of Production Research, 2020, 58, 2784-2804.	4.9	72
16	Artificial intelligence in manufacturing and logistics systems: algorithms, applications, and case studies. International Journal of Production Research, 2020, 58, 2730-2731.	4.9	49
17	A bi-objective genetic algorithm for intelligent rehabilitation scheduling considering therapy precedence constraints. Journal of Intelligent Manufacturing, 2018, 29, 973-988.	4.4	21
18	Hybrid Particle Swarm Optimization Combined With Genetic Operators for Flexible Job-Shop Scheduling Under Uncertain Processing Time for Semiconductor Manufacturing. IEEE Transactions on Semiconductor Manufacturing, 2018, 31, 32-41.	1.4	107

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19	An empirical study of demand forecasting of non-volatile memory for smart production of semiconductor manufacturing. International Journal of Production Research, 2018, 56, 4629-4643.	4.9	28
20	Application of the autocorrelation function to working-day calculation in power management. Applied Soft Computing Journal, 2018, 68, 923-931.	4.1	2
21	A hybrid genetic algorithm with 2D encoding for the scheduling of rehabilitation patients. Computers and Industrial Engineering, 2018, 125, 221-231.	3.4	18
22	Modelling and analysis of semiconductor supply chains. International Journal of Production Research, 2018, 56, 4521-4523.	4.9	6
23	Embedding ant system in genetic algorithm for re-entrant hybrid flow shop scheduling problems with time window constraints. Journal of Intelligent Manufacturing, 2017, 28, 1915-1931.	4.4	42
24	Analysing semiconductor manufacturing big data for root cause detection of excursion for yield enhancement. International Journal of Production Research, 2017, 55, 5095-5107.	4.9	66
25	Exploit the Value of Production Data to Discover Opportunities for Saving Power Consumption of Production Tools. IEEE Transactions on Semiconductor Manufacturing, 2017, 30, 345-350.	1.4	24
26	An empirical study for smart production for TFT-LCD to empower Industry 3.5. Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an, 2017, 40, 552-561.	0.6	59
27	User-experience-based design of experiments for new product development of consumer electronics and an empirical study. Journal of Industrial and Production Engineering, 2017, 34, 504-519.	2.1	17
28	Big data analytic for multivariate fault detection and classification in semiconductor manufacturing. , 2017, , .		5
29	Modeling collinear WATs for parametric yield enhancement in semiconductor manufacturing. , 2017, , .		6
30	Big data analytics for modeling WAT parameter variation induced by process tool in semiconductor manufacturing and empirical study. , 2016, , .		4
31	A Novel Route Selection and Resource Allocation Approach to Improve the Efficiency of Manual Material Handling System in 200-mm Wafer Fabs for Industry 3.5. IEEE Transactions on Automation Science and Engineering, 2016, 13, 1567-1580.	3.4	47
32	Overall Space Effectiveness (OSE) for Enhancing Fab Space Productivity. IEEE Transactions on Semiconductor Manufacturing, 2016, , 1-1.	1.4	6
33	An Algorithm of Multi-Subpopulation Parameters With Hybrid Estimation of Distribution for Semiconductor Scheduling With Constrained Waiting Time. IEEE Transactions on Semiconductor Manufacturing, 2015, 28, 353-366.	1.4	33
34	Multistage production distribution under uncertain demands with integrated discrete particle swarm optimization and extended priority-based hybrid genetic algorithm. Fuzzy Optimization and Decision Making, 2015, 14, 265-287.	3.4	40
35	A back-propagation neural network with a distributed lag model for semiconductor vendor-managed inventory. Journal of Industrial and Production Engineering, 2015, 32, 149-161.	2.1	13
36	Re-entrant flow shop scheduling problem with time windows using hybrid genetic algorithm based on auto-tuning strategy. International Journal of Production Research, 2014, 52, 2612-2629.	4.9	43

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37	A simulation analysis for evaluating TFT-LCD fab capacity expansion with a distant transportation problem. International Journal of Production Research, 2014, 52, 1868-1885.	4.9	17
38	Efficient development of cycle time response surfaces using progressive simulation metamodeling. International Journal of Production Research, 2014, 52, 3097-3109.	4.9	29
39	Inventory survival analysis for semiconductor memory manufacturing. , 2014, , .		2
40	The construction of a hospital disease tracking and control system with a disease infection probability model. Journal of Intelligent Manufacturing, 2014, 25, 983-992.	4.4	6
41	An empirical study of design-of-experiment data mining for yield-loss diagnosis for semiconductor manufacturing. Journal of Intelligent Manufacturing, 2014, 25, 961-972.	4.4	45
42	Hierarchical indices to detect equipment condition changes with high dimensional data for semiconductor manufacturing. Journal of Intelligent Manufacturing, 2014, 25, 933-943.	4.4	23
43	Determining the operator-machine assignment for machine interference problem and an empirical study in semiconductor test facility. Journal of Intelligent Manufacturing, 2014, 25, 899-911.	4.4	10
44	The cooperative estimation of distribution algorithm: a novel approach for semiconductor final test scheduling problems. Journal of Intelligent Manufacturing, 2014, 25, 867-879.	4.4	37
45	The train fueling cost minimization problem with fuzzy fuel prices. Flexible Services and Manufacturing Journal, 2014, 26, 249-267.	1.9	6
46	Similarity Searching for Defective Wafer Bin Maps in Semiconductor Manufacturing. IEEE Transactions on Automation Science and Engineering, 2014, 11, 953-960.	3.4	36
47	Overlay Error Compensation Using Advanced Process Control With Dynamically Adjusted Proportional-Integral R2R Controller. IEEE Transactions on Automation Science and Engineering, 2014, 11, 473-484.	3.4	41
48	An effective Markov network based EDA for flexible job shop scheduling problems under uncertainty. , 2014, , .		4
49	Stochastic programming for vendor portfolio selection and order allocation under delivery uncertainty. OR Spectrum, 2014, 36, 761-797.	2.1	28
50	Manufacturing intelligence and innovation for digital manufacturing and operational excellence. Journal of Intelligent Manufacturing, 2014, 25, 845-847.	4.4	14
51	Data Mining for Optimizing IC Feature Designs to Enhance Overall Wafer Effectiveness. IEEE Transactions on Semiconductor Manufacturing, 2014, 27, 71-82.	1.4	31
52	A Multiobjective Hybrid Genetic Algorithm for TFT-LCD Module Assembly Scheduling. IEEE Transactions on Automation Science and Engineering, 2014, 11, 692-705.	3.4	55
53	Master production schedule and system for excelling enterprise resources (SEER) in the LED industry. , 2013, , .		0
54	Semiconductor manufacturing. Flexible Services and Manufacturing Journal, 2013, 25, 283-285.	1.9	3

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55	Semiconductor fault detection and classification for yield enhancement and manufacturing intelligence. <i>Flexible Services and Manufacturing Journal</i> , 2013, 25, 367-388.	1.9	105
56	Beyond make-or-buy: cross-company short-term capacity backup in semiconductor industry ecosystem. <i>Flexible Services and Manufacturing Journal</i> , 2013, 25, 310-342.	1.9	20
57	A two-stage stochastic programming approach for new tape-out allocation decisions for demand fulfillment planning in semiconductor manufacturing. <i>Flexible Services and Manufacturing Journal</i> , 2013, 25, 286-309.	1.9	21
58	Feature extraction for defect classification and yield enhancement in color filter and micro-lens manufacturing: An empirical study. <i>Journal of Industrial and Production Engineering</i> , 2013, 30, 510-517.	2.1	14
59	A system for online detection and classification of wafer bin map defect patterns for manufacturing intelligence. <i>International Journal of Production Research</i> , 2013, 51, 2324-2338.	4.9	76
60	Mining Association Rules between Abnormal Health Examination Results and Outpatient Medical Records. <i>Health Information Management Journal</i> , 2013, 42, 23-30.	0.9	10
61	Cluster policies and industry development in the Hsinchu Science Park: A retrospective review after 30 years. <i>Innovation: Management, Policy and Practice</i> , 2013, 15, 416-436.	2.6	13
62	Coordinating strategic outsourcing decisions for semiconductor assembly using a bi-objective genetic algorithm. <i>International Journal of Production Research</i> , 2012, 50, 235-260.	4.9	48
63	A cut-to-order strategy for one-dimensional cable cutting and a case study. <i>Journal of the Chinese Institute of Industrial Engineers</i> , 2012, 29, 572-586.	0.5	2
64	Manufacturing intelligence for Hsinchu Science Park semiconductor sales prediction. <i>Journal of the Chinese Institute of Industrial Engineers</i> , 2012, 29, 98-110.	0.5	2
65	Manufacturing intelligence for early warning of key equipment excursion for advanced equipment control in semiconductor manufacturing. <i>Journal of the Chinese Institute of Industrial Engineers</i> , 2012, 29, 303-313.	0.5	11
66	Decision support system for rehabilitation scheduling to enhance the service quality and the effectiveness of hospital resource management. <i>Journal of the Chinese Institute of Industrial Engineers</i> , 2012, 29, 348-363.	0.5	10
67	Advanced decision and intelligence technologies for manufacturing and logistics. <i>Journal of Intelligent Manufacturing</i> , 2012, 23, 2133-2135.	4.4	19
68	Mini-max regret strategy for robust capacity expansion decisions in semiconductor manufacturing. <i>Journal of Intelligent Manufacturing</i> , 2012, 23, 2151-2159.	4.4	45
69	A novel bi-vector encoding genetic algorithm for the simultaneous multiple resources scheduling problem. <i>Journal of Intelligent Manufacturing</i> , 2012, 23, 2255-2270.	4.4	52
70	Manufacturing intelligence to forecast and reduce semiconductor cycle time. <i>Journal of Intelligent Manufacturing</i> , 2012, 23, 2281-2294.	4.4	77
71	A new morphology-based approach for similarity searching on wafer bin maps in semiconductor manufacturing. , 2012, , .		4
72	Manufacturing intelligence for determining machine subgroups to enhance yield in semiconductor manufacturing. , 2011, , .		0

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73	Evaluating capacity pooling strategy in semiconductor manufacturing: a productivity perspective study. International Journal of Production Research, 2011, 49, 3635-3652.	4.9	8
74	Manufacturing Intelligence to Exploit the Value of Production and Tool Data to Reduce Cycle Time. IEEE Transactions on Automation Science and Engineering, 2011, 8, 103-111.	3.4	75
75	Manufacturing intelligence for class prediction and rule generation to support human capital decisions for high-tech industries. Flexible Services and Manufacturing Journal, 2011, 23, 263-289.	1.9	26
76	UNISON analysis to model and reduce step-and-scan overlay errors for semiconductor manufacturing. Journal of Intelligent Manufacturing, 2011, 22, 399-412.	4.4	42
77	Measuring relative performance of wafer fabrication operations: a case study. Journal of Intelligent Manufacturing, 2011, 22, 447-457.	4.4	9
78	Modeling order assignment for semiconductor assembly hierarchical outsourcing and developing the decision support system. Flexible Services and Manufacturing Journal, 2010, 22, 109-139.	1.9	12
79	Data mining for yield enhancement in TFT-LCD manufacturing: an empirical study. Journal of the Chinese Institute of Industrial Engineers, 2010, 27, 140-156.	0.5	13
80	A simulation optimization-based framework for capacity planning under uncertainty. , 2010, , .		3
81	Requirement estimation for indirect workforce allocation in semiconductor manufacturing. International Journal of Production Research, 2010, 48, 6959-6976.	4.9	8
82	A multi-period inventory model to incorporate with inventory age, accounting principle, and product structure: A case study in a make-to-stock semiconductor integrated device manufacturer. , 2010, , .		0
83	A conceptual methodology of “industrial engineering” for “the industry as a whole”; Semiconductor industry as illustration. , 2010, , .		0
84	A SCADA system for on-line battery early faults precaution. , 2009, , .		0
85	PSO algorithm applications in optimal demand decision. , 2009, , .		0
86	CSO and PSO to solve optimal contract capacity for high tension customers. , 2009, , .		8
87	A load management method to reduce the power energy cost for glass industry. , 2009, , .		2
88	OR in the electronics industry. OR Spectrum, 2008, 30, 397-399.	2.1	1
89	Modeling strategic semiconductor assembly outsourcing decisions based on empirical settings. OR Spectrum, 2008, 30, 401-430.	2.1	45
90	An evolutionary approach to rehabilitation patient scheduling: A case study. European Journal of Operational Research, 2008, 189, 1234-1253.	3.5	75

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91	Economic efficiency analysis of wafer fabrication facilities. , 2008, , .		1
92	Demand forecast of semiconductor products based on technology diffusion. , 2008, , .		1
93	An indirect workforce (re)allocation model for semiconductor manufacturing. , 2008, , .		3
94	Economic Efficiency Analysis of Wafer Fabrication. IEEE Transactions on Automation Science and Engineering, 2007, 4, 501-512.	3.4	58
95	Constructing the OGE for promoting tool group productivity in semiconductor manufacturing. International Journal of Production Research, 2007, 45, 509-524.	4.9	49
96	Using Rough Set Theory to Recruit and Retain High-Potential Talents for Semiconductor Manufacturing. IEEE Transactions on Semiconductor Manufacturing, 2007, 20, 528-541.	1.4	66
97	A Case Study to Evaluate the Productivity Changes of the Thermal Power Plants of the Taiwan Power Company. IEEE Transactions on Energy Conversion, 2007, 22, 680-688.	3.7	25
98	A novel timetabling algorithm for a furnace process for semiconductor fabrication with constrained waiting and frequency-based setups. OR Spectrum, 2007, 29, 391-419.	2.1	70
99	Data mining for improving the solder bumping process in the semiconductor packaging industry. Intelligent Systems in Accounting, Finance and Management, 2006, 14, 43-57.	2.8	6
100	A novel method for determining machine subgroups and backups with an empirical study for semiconductor manufacturing. Journal of Intelligent Manufacturing, 2006, 17, 429-439.	4.4	40
101	Segmented WIP Control for Cycle Time Reduction. Semiconductor Manufacturing, Proceedings of the IEEE International Symposium on, 2006, , .	0.0	5
102	CONSTRUCTING SEMICONDUCTOR MANUFACTURING PERFORMANCE INDEXES AND APPLYING DATA MINING FOR MANUFACTURING DATA ANALYSIS. Journal of the Chinese Institute of Industrial Engineers, 2004, 21, 313-327.	0.5	20
103	Using dea to measure the relative efficiency of the service center and improve operation efficiency through reorganization. IEEE Transactions on Power Systems, 2003, 18, 366-373.	4.6	50
104	Analyzing repair decisions in the site imbalance problem of semiconductor test machines. IEEE Transactions on Semiconductor Manufacturing, 2003, 16, 704-711.	1.4	28
105	Using Bayesian network for fault location on distribution feeder. IEEE Transactions on Power Delivery, 2002, 17, 785-793.	2.9	107
106	DEVELOPING A DATA MINING METHOD FOR WAFER BINMAP CLUSTERING AND AN EMPIRICAL STUDY IN A SEMICONDUCTOR MANUFACTURING FAB. Journal of the Chinese Institute of Industrial Engineers, 2002, 19, 23-38.	0.5	8
107	A DEA study to evaluate the relative efficiency and investigate the district reorganization of the Taiwan Power Company. IEEE Transactions on Power Systems, 2001, 16, 170-178.	4.6	58
108	A cutting algorithm for optimizing the wafer exposure pattern. IEEE Transactions on Semiconductor Manufacturing, 2001, 14, 157-162.	1.4	21

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109	DEVELOPING DATA MINING FRAMEWORK AND METHODS FOR DIAGNOSING SEMICONDUCTOR MANUFACTURING DEFECTS AND AN EMPIRICAL STUDY OF WAFER ACCEPTANCE TEST DATA IN A WAFER FAB. Journal of the Chinese Institute of Industrial Engineers, 2001, 18, 37-48.	0.5	7
110	MODELING OVERLAY ERRORS AND SAMPLING STRATEGIES TO IMPROVE YIELD. Journal of the Chinese Institute of Industrial Engineers, 2001, 18, 95-103.	0.5	15
111	Optimization of Wafer Exposure Patterns Using a Two-Dimensional Cutting Algorithm. International Transactions in Operational Research, 2001, 8, 535-545.	1.8	4
112	æœå«™ç³»çµ±æœœå«™å“è³ªæ»žæ„¸ ä¹¸ç¿Œ©¶-ä»¥æŸŒåŒšåœ-æ,é“ç²²å“ è%ç¿Œ©¶. Journal of the Chinese Institute of Industrial Engineers, 2001, 18, 105-110.	0.5	15
113	Evaluating the desirability of meals: an illustrative multiattribute decision analysis procedure to assess portfolios with interdependent items. Journal of Multi-Criteria Decision Analysis, 1998, 7, 230-238.	1.0	13
114	A cost-based heuristic for statistically determining sampling frequency in a wafer fab. , 0, , .		3
115	Machine grouping algorithm for stepper back-up and an empirical study. , 0, , .		0
116	Decision support system for delivery mode of backend. , 0, , .		0