Title	Authors	Publication Year	Filter
A new embedded vision system for monitoring tool conditions in production lines using a combination of direct and indirect methods	Scharf, Henry Peterson; Cambraia, Heraldo Nelio; da Costa, Dalberto Dias	2023	Abstract: Algorithm
The future of manufacturing industry: a strategic roadmap toward Industry 4.0	Ghobakhloo, Morteza	2018	Title: strategic
A Generalized Data-Driven Energy Prediction Model with Uncertainty for a Milling Machine Tool using Gaussian Process	Park, Jinkyoo; Law, Kincho H.; Bhinge, Raunak; Biswas, Nishant; Srinivasan, Amrita; Dornfeld, David A.; Helu, Moneer; Rachuri, Sudarsan	2015	Title: Process
Application of supervised machine learning for defect detection during metallic powder bed fusion additive manufacturing using high resolution imaging	Gobert, Christian; Reutzel, Edward W.; Petrich, Jan; Nassar, Abdalla R.; Phoha, Shashi	2018	Title: additive
A state-of-the-art survey of Digital Twin: techniques, engineering product lifecycle management and business innovation perspectives	Lim, Kendrik Yan Hong; Zheng, Pai; Chen, Chun-Hsien	2020	Title: digital twin
A toolbox for the design, planning and operation of manufacturing networks in a mass customisation environment	Mourtzis, Dimitris; Doukas, Michalis; Psarommatis, Foivos	2015	Abstract: Algorithm
Analysis of Feature Extracting Ability for Cutting State Monitoring Using Deep Belief Networks	Fu, Yang; Zhang, Yun; Qiao, Haiyu; Li, Dequn; Zhou, Huamin; Leopold, Juergen	2015	Title: Algorithm
A blockchain enabled Cyber-Physical System architecture for Industry 4.0 manufacturing systems	Lee, Jay; Azamfar, Moslem; Singh, Jaskaran	2019	Title: blockchain
Artificial intelligence for an energy and resource efficient manufacturing chain design and operation	Rentsch, Ruediger; Heinzel, Carsten; Brinksmeier, E.	2015	Abstract: Process
Design of a high performance predictive tool for forging operation	Ciancio, Claudio; Ambrogio, Teresa Citrea Giuseppina; Filice, Luigi; Musmanno, Roberto	2015	Abstract: Product
Intelligent CNC Tool Path Optimization for Sculptured Surface Machining Through a Virus-Evolutionary Genetic Algorithm	Fountas, Nikolaos A.; Vaxevanidis, Nikolaos M.; Stergiou, Constantinos I.; Benhadj-Djilali, Redha	2015	Title: Algorithm
A big data-driven framework for sustainable and smart additive manufacturing	Majeed, Arfan; Zhang, Yingfeng; Ren, Shan; Lv, Jingxiang; Peng, Tao; Waqar, Saad; Yin, Enhuai	2021	Title: additive

A digital twin to train deep reinforcement learning agent for smart manufacturing plants: Environment, interfaces and intelligence	Xia, Kaishu; Sacco, Christopher; Kirkpatrick, Max; Saidy, Clint; Nguyen, Lam; Kircaliali, Anil; Harik, Ramy	2021	Title: digital twin
From Artificial Intelligence to Explainable Artificial Intelligence in Industry 4.0: A Survey on What, How, and Where	Ahmed, Imran; Jeon, Gwanggil; Piccialli, Francesco	2022	Title: survey
Investigating the effects of Smart Production Systems on sustainability elements	Waibel, M. W.; Steenkamp, L. P.; Moloko, N.; Oosthuizen, G. A.	2017	Title: sustainab
Barriers to big data analytics in manufacturing supply chains: A case study from Bangladesh	Moktadir, Md Abdul; Ali, Syed Mithun; Paul, Sanjoy Kumar; Shukla, Nagesh	2019	Title: supply chain
Intelligent Sensitivity Tracking of Manufacturing Tool Tuning	Chuang, C. J.; Ho, C. T.; Tsai, P. F.; Liu, W. P.; Hsieh, C. R.; Mou, J. I.	2015	Abstract: Process
Data-driven cost estimation for additive manufacturing in cybermanufacturing	Chan, Siu L.; Lu, Yanglong; Wang, Yan	2018	Title: additive
A nonparametric EWMA control chart for monitoring mixed continuous and count data	Xue, Li; Wang, Qiuyu; He, Zhen; Qiu, Peihua	2023	Abstract: No DAS for ML
On knowledge reuse for manufacturing systems design and planning: A semantic technology approach	Efthymiou, Konstantinos; Sipsas, Konstantinos; Mourtzis, Dimitris; Chryssolouris, George	2015	Abstract: No DAS for ML
Hybrid multiobjective genetic algorithms for integrated dynamic scheduling and routing of jobs and automated-guided vehicle (AGV) in flexible manufacturing systems (FMS) environment	Umar, Umar Ali; Ariffin, M. K. A.; Ismail, N.; Tang, S. H.	2015	Title: AGV
Digital twin-driven supervised machine learning for the development of artificial intelligence applications in manufacturing	Alexopoulos, Kosmas; Nikolakis, Nikolaos; Chryssolouris, George	2020	Title: digital twin
Tool Life of Coated Carbide Cutting Tool when Turning Hardened Stainless Steel under Minimum Quantity Lubricant using Castor Oil	Elmunafi, Mohamed Handawi Saad; Noordin, M. Y.; Kurniawan, D.	2015	Title: Process
A Cyber-Physical Production System Framework of Smart CNC Machining Monitoring System	Zhu, Kunpeng; Zhang, Yu	2018	Included in investigation
Use of Castor Oil as Cutting Fluid in Machining of Hardened Stainless Steel with Minimum Quantity of Lubricant	Elmunafi, Mohamed Handawi Saad; Kurniawan, D.; Noordin, M. Y.	2015	Title: fluid

Digital Twin-enabled Collaborative Data Management for Metal Additive Manufacturing Systems	Liu, Chao; Le Roux, Leopold; Korner, Carolin; Tabaste, Olivier; Lacan, Franck; Bigot, Samuel	2022	Title: additive
Challenges and Opportunities of Condition-based Predictive Maintenance: A Review	Sakib, Nazmus; Wuest, Thorsten	2018	Title: review
Digital Twin for Machining Tool Condition Prediction	Qiao, Qianzhe; Wang, Jinjiang; Ye, Lunkuan; Gao, Robert X.	2019	Title: digital twin
A Data-Driven Approach to Predict Hand Positions for Two-Hand Grasps of Industrial Objects	Arisoy, Erhan Batuhan; Ren, Guannan; Ulu, Erva; Ulu, Nurcan Gecer; Musuvathy, Suraj	2016	Title: Process
Aquaculture Production Processes and Training Validation Through Serious Games	Marcelino-Jesus, Elsa; Artifice, Andreia; Sarraipa, Joao; Luis-Ferreira, Fernando; Ilie-Zudor, Elisabeth; Jardim-Goncalves, Ricardo	2016	Title: Process
Cognitive decision-making systems for scraps control in aerospace turbine blade casting	Matarazzo, Davide; D'Addona, Doriana M.; Caramiello, Ciro; Di Foggia, Michele; Teti, Roberto	2016	Title: Product
Comparative analysis of the properties of the nodular cast iron with carbides and the austempered ductile iron with use of the machine learning and the support vector machine	Wilk-Kolodziejczyk, Dorota; Regulski, Krzysztof; Gumienny, Grzegorz	2016	Title: Algorithm
A deep learning approach to electric load forecasting of machine tools	Dietrich, B.; Walther, J.; Chen, Y.; Weigold, M.	2021	Abstract: Algorithm
Digital manufacturing and flexible assembly technologies for reconfigurable aerospace production systems	Jackson, Keith; Efthymiou, Konstantinos; Borton, John	2016	Title: Process
Enhancing Spindle Power Data Application with Neural Network for Real-Time Tool Wear/Breakage Prediction during Inconel Drilling	Corne, Raphael; Nath, Chandra; El Mansori, Mohamed; Kurfess, Thomas	2016	Title: Process
A fog computing-based framework for process monitoring and prognosis in cyber-manufacturing	Wu, Dazhong; Liu, Shaopeng; Zhang, Li; Terpenny, Janis; Gao, Robert X.; Kurfess, Thomas; Guzzo, Judith A.	2017	Included in investigation
A framework to guide the selection and configuration of machine-learning-based data analytics solutions in manufacturing	Zacarias, Alejandro Gabriel Villanueva; Reimann, Peter; Mitschang, Bernhard	2018	Included in investigation
Deep Learning of Variant Geometry in Layerwise Imaging Profiles for Additive Manufacturing Quality Control	Imani, Farhad; Chen, Ruimin; Diewald, Evan; Reutzel, Edward; Yang, Hui	2019	Title: additive
Failure analysis of jaw crusher and its components using ANOVA	Sinha, R. S.; Mukhopadhyay, A. K.	2016	Title: Process

Hamiltonian dynamics and control of a joint autonomous land-air operation	Ivancevic, Vladimir; Yue, Yi	2016	Title: Process
Incorporating design improvement with effective evaluation using the Manufacturing System Design Decomposition (MSDD)	Cochran, David S.; Jafri, Mohammad Umair; Chu, Alex K.; Bi, Zhuming	2016	Title: Process
Residual stresses in wire-arc additive manufacturing - Hierarchy of influential variables	Wu, Q.; Mukherjee, T.; De, A.; DebRoy, T.	2020	Title: additive
Machine learning and knowledge graph based design rule construction for additive manufacturing	Ko, Hyunwoong; Witherell, Paul; Lu, Yan; Kim, Samyeon; Rosen, David W.	2021	Title: additive
A Predictive Maintenance Approach in Manufacturing Systems via AI-based Early Failure Detection	Hosseinzadeh, Ali; Chen, F. Frank; Shahin, Mohammad; Bouzary, Hamed	2023	Abstract: Algorithm
A Hybrid Machine Learning Approach for Predictive Maintenance in Smart Factories of the Future	Cho, Sangje; May, Gokan; Tourkogiorgis, Ioannis; Perez, Roberto; Lazaro, Oscar; de la Maza, Borja; Kiritsis, Dimitris	2018	Included in investigation
Intelligent optimization for sculptured surface CNC tool-paths	Fountas, N. A.; Stergiou, C. I.; Majstorovic, V. D.; Vaxevanidis, N. M.	2016	Title: Process
Machine Condition Detection for Milling Operations Using Low Cost Ambient Sensors	Narayanan, Anantha; Kanyuck, Alec; Gupta, Satyandra K.; Rachuri, Sudarsan	2016	Title: Process
Maintenance of Virtual Metrology Models	Iskandar, Jimmy; Moyne, James	2016	Title: Process
Multiobjective optimization of torch brazing process by a hybrid of fuzzy logic and multiobjective artificial bee colony algorithm	Alvarado-Iniesta, Alejandro; Garcia-Alcaraz, Jorge L.; Pina-Monarrez, Manuel; Perez-Dominguez, Luis	2016	Title: Algorithm
Simultaneous monitoring of mean vector and covariance matrix shifts in bivariate manufacturing processes using hybrid ensemble learning-based model	Yang, Wen-An	2016	Title: Algorithm
Spare Part Stock Modeling and Cost Optimization	Turpela, Joel; Lehtinen, Timo	2016	Abstract: No relation to ML
A New Approach to Develop an Intelligent Manufacturing System Using Virtual Tools	Guerra-Zubiaga, David; Morton, Corey; Stacey, Derrick; Peach, Virginia; Ham, Chan; Escobar, Diego Escobar; Hitchcock, Noah	2021	Abstract: Digital Twin
Supporting the Engineering of Cyber-Physical Production Systems with the AutomationML Analyzer	Sabou, Marta; Ekaputra, Fajar; Kovalenko, Olga; Biffl, Stefan	2016	Abstract: No relation to ML

The effect of geometrical parameters on the characteristics of ultrasonic processing for metal matrix nanocomposites (MMNCs)	Pasumarthi, Pavan; Absar, Saheem; Choi, Hongseok	2016	Title: Product
Digital twin for cutting tool: Modeling, application and service strategy	Xie, Yang; Lian, Kunlei; Liu, Qiong; Zhang, Chaoyong; Liu, Hongqi	2021	Title: digital twin
The effect of minimum quantity lubrication under different parameters in the turning of AA7075 and AA2024 aluminium alloys	Cakir, A.; Yagmur, S.; Kavak, N.; Kucukturk, G.; Seker, U.	2016	Title: Process
A Comparative Study on Machine Learning Algorithms for Smart Manufacturing: Tool Wear Prediction Using Random Forests	Wu, Dazhong; Jennings, Connor; Terpenny, Janis; Gao, Robert X.; Kumara, Soundar	2017	Title: Algorithm
A decision-making tool based on decision trees for roughness prediction in face milling	Rodriguez, Juan J.; Quintana, Guillem; Bustillo, Andres; Ciurana, Joaquim	2017	Title: Algorithm
A Generalized Method for Featurization of Manufacturing Signals, With Application to Tool Condition Monitoring	Ferguson, Max; Law, Kincho H.; Bhinge, Raunak; Lee, Yung-Tsun Tina	2017	Abstract: Process
A neural network based approach for background noise reduction in airborne acoustic emission of a machining process	Zafar, T.; Kamal, K.; Sheikh, Z.; Mathavan, S.; Ali, U.; Hashmi, H.	2017	Title: Process
Agent Based Framework to Support Manufacturing Problem Solving Integrating Product Lifecycle Management and Case-Based Reasoning	Camarillo, Alvaro; Rios, Jose; Althoff, Klaus-Dieter	2017	Title: Process
An application of Industry 4.0 to the production of packaging films	Caricato, Pierpaolo; Grieco, Antonio	2017	Title: Product
A novel material removal prediction method based on acoustic sensing and ensemble XGBoost learning algorithm for robotic belt grinding of Inconel 718	Gao, Kaiyuan; Chen, Huabin; Zhang, Xiaoqiang; Ren, XuKai; Chen, Junqi; Chen, Xiaoqi	2019	Title: robot
Deep Learning-based Human Motion Prediction considering Context Awareness for Human-Robot Collaboration in Manufacturing	Liu, Zitong; Liu, Quan; Xu, Wenjun; Liu, Zhihao; Zhou, Zude; Chen, Jie	2019	Title: robot
An Artificial Intelligence Prediction Method of Bottomhole Flowing Pressure for Gas Wells Based on Support Vector Machine	Di, Qin-Feng; Chen, Wei; Zhang, Jing-Nan; Wang, Wen-Chang; Chen, Hui-Juan	2017	Title: Algorithm

A proposal for improving production efficiency of existing machining line through a hybrid monitoring and optimisation process	Herwan, Jonny; Misaka, Takashi; Furukawa, Yoshiyuki; Ogura, Ichiro; Komoto, Hitoshi	2023	Abstract: Algorithm
Big Data Analytics to Improve Photomask Manufacturing Productivity	Fan, Xiaoming; Zhu, Xuan; Kuo, Kuei Chi; Lu, Cong; Wu, Jason	2017	Title: Process
Cutting Process Monitoring System Using Audible Sound Signals and Machine Learning Techniques: An Application to End Milling	Kothuru, Achyuth; Nooka, Sai Prasad; Liu, Rui	2017	Title: Process
A state-of-the-art on production planning in Industry 4.0	Luo, Dan; Thevenin, Simon; Dolgui, Alexandre	2023	Abstract: Survey
A Review of Current Machine Learning Techniques Used in Manufacturing Diagnosis	Ademujimi, Toyosi Toriola; Brundage, Michael P.; Prabhu, Vittaldas V.	2017	Title: review
Building free-form thin shell parts using supportless extrusion-based additive manufacturing	Bhatt, Prahar M.; Malhan, Rishi K.; Rajendran, Pradeep; Gupta, Satyandra K.	2020	Title: additive
Data-Driven Prognostics Using Random Forests: Prediction of Tool Wear	Wu, Dazhong; Jennings, Connor; Terpenny, Janis; Gao, Robert; Kumara, Soundar	2017	Title: Algorithm
Design for reduced resource consumption during the use phase of products	Shu, L. H.; Duflou, Joost; Herrmann, Christoph; Sakao, Tomohiko; Shimomura, Yoshiki; De Bock, Yannick; Srivastava, Jayesh	2017	Title: No relation to ML
Big Data and the Precision Medicine Revolution	Hopp, Wallace J.; Li, Jun; Wang, Guihua	2018	Title: medicine
Eco-Intelligent Factories: Timescales for Environmental Decision Support	Woolley, Elliot; Simeone, Alessandro; Rahimifard, Shahin	2017	Abstract: No DAS for ML
Estimating high precision hole diameters of aerospace alloys using artificial intelligence systems: a comparative analysis of different techniques	Aguiar, P. R.; Da Silva, R. B.; Gernimo, T. M.; Franchin, M. N.; Bianchi, E. C.	2017	Title: Product
Exploit the Value of Production Data to Discover Opportunities for Saving Power Consumption of Production Tools	Yu, Chih-Min; Chien, Chen-Fu; Kuo, Chung-Jen	2017	Abstract: Product
A Predictive Maintenance System Design and Implementation for Intelligent Manufacturing	Cinar, Eyup; Kalay, Sena; Saricicek, Inci	2022	Included in investigation
A statistical method for build orientation determination in additive manufacturing	Zhang, Yicha; Harik, Ramy; Fadel, Georges; Bernard, Alain	2019	Title: additive

Fault Diagnosis of Single Point Cutting Tool through Discrete Wavelet Features of Vibration Signals Using Decision Tree Technique and Multilayer Perceptron	Gangadhar, N.; Vernekar, Kiran; Kumar, Hemantha; Narendranath, S.	2017	Title: Algorithm
Blockchain-Empowered Digital Twins Collaboration: Smart Transportation Use Case	Sahal, Radhya; Alsamhi, Saeed H.; Brown, Kenneth N.; O'Shea, Donna; McCarthy, Conor; Guizani, Mohsen	2021	Title: blockchain
Continuous Eulerian tool path strategies for wire-arc additive manufacturing of rib-web structures with machine-learning-based adaptive void filling	Nguyen, Lam; Buhl, Johannes; Bambach, Markus	2020	Title: additive
Finish turning of Ti-6Al-4V with the atomization-based cutting fluid (ACF) spray system	Nath, Chandra; Kapoor, Shiv G.; Srivastava, Anil K.	2017	Title: fluid
A Trust-Based Team Formation Framework for Mobile Intelligence in Smart Factories	Fortino, Giancarlo; Messina, Fabrizio; Rosaci, Domenico; Sarne, Giuseppe M. L.; Savaglio, Claudio	2020	Abstract: AGV
Maintenance in digitalised manufacturing: Delphi-based scenarios for 2030	Bokrantz, Jon; Skoogh, Anders; Berlin, Cecilia; Stahre, Johan	2017	Abstract: No DAS for ML
Manufacturing data analytics using a virtual factory representation	Jain, Sanjay; Shao, Guodong; Shin, Seung-Jun	2017	Abstract: Simulation
Microstructure-Informed Cloud Computing for Interoperability of Materials Databases and Computational Models: Microtextured Regions in Ti	Salem, Ayman A.; Shaffer, Joshua B.; Kublik, Richard A.; Wuertemberger, Luke A.; Satko, Daniel P.	2017	Title: Algorithm
Modeling of a production system using the multi-agent approach	Gwiazda, A.; Sekala, A.; Banas, W.	2017	Abstract: Simulation
Multisensory fusion based virtual tool wear sensing for ubiquitous manufacturing	Wang, Jinjiang; Xie, Junyao; Zhao, Rui; Zhang, Laibin; Duan, Lixiang	2017	Abstract: Process
Performance assessment of permeability index prediction in an ironmaking process via soft computing techniques	Tunckaya, Yasin	2017	Title: Process
Random Forest ensemble prediction of stent dimensions in microfabrication processes	Maudes, Jesus; Bustillo, Andres; Guerra, Antonio J.; Ciurana, Joaquim	2017	Title: Algorithm
Simplified MQL system for drilling AISI 304 SS using cryogenically treated drills	Naveena, B.; Thaslima, S. S. Mariyam; Savitha, V.; Krishna, B. Naveen; Raj, D. Samuel; Karunamoorthy, L.	2017	Title: Process
Study of spindle power data with neural network for predicting real-time tool wear/breakage during inconel drilling	Corne, Raphael; Nath, Chandra; El Mansori, Mohamed; Kurfess, Thomas	2017	Title: Process

Torque based defect detection and weld quality modelling in friction stir welding process	Das, Bipul; Pal, Sukhomay; Bag, Swarup	2017	Title: Process
Toward a Generalized Energy Prediction Model for Machine Tools	Bhinge, Raunak; Park, Jinkyoo; Law, Kincho H.; Dornfeld, David A.; Helu, Moneer; Rachuri, Sudarsan	2017	Title: energy
Integrated Tool Condition Monitoring Systems and Their Applications: A Comprehensive Review	Nath, Chandra	2020	Title: review
Using graph-based design languages to enhance the creation of virtual commissioning models	Kiesel, Markus; Klimant, Philipp; Beisheim, Nicolai; Rudolph, Stephan; Putz, Matthias	2017	Title: Process
Wear Prediction of Woodworking Cutting Tools based on History Data	Lenz, Juergen; Westkaemper, Engelbert	2017	Title: Process
In-situ droplet inspection and closed-loop control system using machine learning for liquid metal jet printing	Wang, Tianjiao; Kwok, Tsz-Ho; Zhou, Chi; Vader, Scott	2018	Title: Process
Digital design and manufacturing on the cloud: A review of software and services	Wu, Dazhong; Terpenny, Janis; Schaefer, Dirk	2017	Title: review
A Data Processing Pipeline for Prediction of Milling Machine Tool Condition from Raw Sensor Data	Ferguson, M.; Bhinge, R.; Park, J.; Lee, Y. T.; Law, K. H.	2018	Abstract: No DAS for ML
A machine learning approach to detect changes in gait parameters following a fatiguing occupational task	Baghdadi, Amir; Megahed, Fadel M.; Esfahani, Ehsan T.; Cavuoto, Lora A.	2018	Title: Process
A Minimal-Sensing Framework for Monitoring Multistage Manufacturing Processes Using Product Quality Measurements	Ardakani, Hossein Davari; Lee, Jay	2018	Title: Process
A novel approach for data-driven process and condition monitoring systems on the example of mill-turn centers	Kisskalt, Dominik; Fleischmann, Hans; Kreitlein, Sven; Knott, Manuel; Franke, Joerg	2018	Title: Process
Operator 4.0 or Maker 1.0? Exploring the implications of Industrie 4.0 for innovation, safety and quality of work in small economies and enterprises	Taylor, Mark P.; Boxall, Peter; Chen, John J. J.; Xu, Xun; Liew, Angela; Adeniji, Adebayo	2020	Title: safety
An adaptive self-learning compensation approach for thermal errors on 5-axis machine tools handling an arbitrary set of sample rates	Mayr, Josef; Blaser, Philip; Ryser, Adrian; Hernandez-Becerro, Pablo	2018	Title: Process
Predictive modeling of material removal rate in chemical mechanical planarization with physics-informed machine learning	Yu, Tianyu; Li, Zhixiong; Wu, Dazhong	2019	Title: chemical

Application of Cause-Effect-Networks for the process planning in laser rod end melting	Rippel, Daniel; Schattmann, Christine; Jahn, Mischa; Luetjen, Michael; Schmidt, Alfred	2018	Title: Process
Deep Convolutional Neural Networks as a Rapid Screening Tool for Complex Additively Manufactured Structures	Garland, Anthony P.; White, Benjamin C.; Jared, Bradley H.; Heiden, Michael; Donahue, Emily; Boyce,	2020	Title: additive
Assessing near-dry lubrication (35 ml/h) performance in hard turning process of hardened (48 HRC) AISI 1060 carbon steel	Panday, Goutam; Ashraf, Md. Zurais Ibne; Ibn Muneer, Khalid; Hossain, Khandaker Shamail; Ashik, Md. Fardian Kabir; Kamruzzaman, M.	2018	Title: Process
An explainable artificial intelligence approach for unsupervised fault detection and diagnosis in rotating machinery	Brito, Lucas C.; Susto, Gian Antonio; Brito, Jorge N.; Duarte, Marcus A., V	2022	Abstract: Algorithm
Big data analytics for operations management in engineer-to -order manufacturing	Kozjek, Dominik; Vrabic, Rok; Rihtarsic, Borut; Butala, Peter	2018	Abstract: Survey
Cloud-Based Parallel Machine Learning for Tool Wear Prediction	Wu, Dazhong; Jennings, Connor; Terpenny, Janis; Kumara, Soundar; Gao, Robert X.	2018	Abstract: Algorithm
Cluster Analysis for Enhancing Process Quality in Jobshop Production	Fels, Antonia; Ellerich, Max; Schmitt, Robert	2018	Abstract: Algorithm
Porosity segmentation in X-ray computed tomography scans of metal additively manufactured specimens with machine learning	Gobert, Christian; Kudzal, Andelle; Sietins, Jennifer; Mock, Clara; Sun, Jessica; McWilliams, Brandon	2020	Title: additive
A hybrid deep learning model of process-build interactions in additive manufacturing	Yazdi, Reza Mojahed; Imani, Farhad; Yang, Hui	2020	Title: additive
Cluster identification of sensor data for predictive maintenance in a Selective Laser Melting machine tool	Uhlmann, Eckart; Pontes, Rodrigo Pastl; Geisert, Claudio; Hohwieler, Eckhard	2018	Title: Process
A systematic development method for cyber-physical machine tools	Liu, Chao; Vengayil, Hrishikesh; Zhong, Ray Y.; Xu, Xun	2018	Included in investigation
An intelligent decision support system for production planning based on machine learning	Gonzalez Rodriguez, German; Gonzalez-Cava, Jose M.; Mendez Perez, Juan Albino	2020	Included in investigation
Conceptual Design of a Digital Shadow for the Procurement of Stocked Products	Pause, Daniel; Blum, Matthias	2018	Title: No relation to ML
Cyber-Physical Manufacturing Metrology Model (CPM³) - Big Data Analytics Issue	Majstorovic, Vidosav; Stojadinovic, Slavenko; Jakovljevic, Zivana; Zivkovic, Srdjan; Djurdjanovic, Dragan; Kostic, Julija; Gligorijevic, Nemanja	2018	Title: Process

Framework for Identifying Cybersecurity Risks in Manufacturing	Hutchins, Margot J.; Bhinge, Raunak; Micali, Maxwell K.; Robinson, Stefanie L.; Sutherland, John W.; Dornfeld, David	2015	Title: secur*
Development of Six Sigma methodology to improve grinding processes A change management approach	Noori, Behrooz; Latifi, Mana	2018	Title: No relation to ML
Big data analytics energy-saving strategies for air compressors in the semiconductor industry - an empirical study	Chang, Kuo-Hao; Sun, Yi-Jyun; Lai, Chi-An; Chen, Li-Der; Wang, Chih-Hung; Chen, Chung-Jung; Lin, Chih-Ming	2022	Title: empirical
Digitalization of the power business: How to make this work?	Svendsen, A. B.; Tollefsen, T.; Gjengedal, T.; Goodwin, M.; Antonsen, S.	2018	Title: Process
Systematic Literature Review of Industry 4.0 Maturity Model for Manufacturing and Logistics Sectors	Angreani, Linda Salma; Vijaya, Annas; Wicaksono, Hendro	2020	Title: review
Disruptive data visualization towards zero-defects diagnostics	Ferreira, Luis; Putnik, Goran D.; Lopes, Nuno; Garcia, Wiley; Cruz-Cunha, Maria M.; Castro, Helio; Varela, Maria L. R.; Moura, Joao M.; Shah, Vaibhav; Alves, Catia; Putnik, Zlata	2018	Title: Process
A STEP-NC compliant robotic machining platform for advanced manufacturing	Toquica, Juan S.; Zivanovic, Sasa; Alvares, Alberto J.; Bonnard, Renan	2018	Title: robot
Fatigue-life prediction of additively manufactured metals by continuous damage mechanics (CDM)-informed machine learning with sensitive features	Wang, Haijie; Li, Bo; Xuan, Fu-Zhen	2022	Title: additive
Durability analysis of forging tools after different variants of surface treatment using a decision-support system based on artificial neural networks	Mrzyglod, Barbara; Hawryluk, Marek; Gronostajski, Zbigniew; Opalinski, Andrzej; Kaszuba, Marcin; Polak, Slawomir; Widomski, Pawel; Ziemba, Jacek; Zwierzchowski, Maciej	2018	Title: Process
A Big Data Analytics-driven Lean Six Sigma framework for enhanced green performance: a case study of chemical company	Belhadi, Amine; Kamble, Sachin S.; Gunasekaran, Angappa; Zkik, Karim; Kumar, Dileep M.; Touriki, Fatima Ezahra	2023	Title: chemical
Towards AI driven environmental sustainability: an application of automated logistics in container port	Tsolakis, Naoum; Zissis, Dimitris; Papaefthimiou, Spiros; Korfiatis, Nikolaos	2022	Title: sustainab
Dynamization of Value Stream Management by technical and managerial approach	Lugert, Andreas; Voelker, Kevin; Winkler, Herwig	2018	Title: No relation to ML

EDM Drilling optimisation using stochastic techniques	Maradia, Umang; Benavoli, Alessio; Boccadoro, Marco; Bonesana, Claudio; Kliuev, Mikhail; Zaffalon, Marco; Gambardella, Luca; Wegener, Konrad	2018	Title: Process
Experimental study of oil particle emission rate and size distribution during milling	Wang, Fei; Li, Zhenhai; Wang, Peng; Zhang, Ruiyan	2018	Title: Process
Application of audible sound signals for tool wear monitoring using machine learning techniques in end milling	Kothuru, Achyuth; Nooka, Sai Prasad; Liu, Rui	2018	Abstract: Algorithm
High-Performance Computing Based Big Data Analytics for Smart Manufacturing	Yang, Yuhang; Cai, Y. Dora; Lu, Qiyue; Zhang, Yifang; Koric, Seid; Shao, Chenhui	2018	Abstract: 3D
Machine learning in cutting processes as enabler for smart sustainable manufacturing	du Preez, Anli; Oosthuizen, Gert Adriaan	2019	Title: sustainab
An implementation model for digitisation of visual management to develop a smart manufacturing process	Trubetskaya, Anna; Ryan, Alan; Murphy, Frank	2023	Abstract: Digital Twin
Intelligent CAD/CAM system for programming of CNC machine tools	Klancnik, S.; Brezocnik, M.; Balic, J.	2016	Title: CAD
Intelligent additive manufacturing and design state of the art and future perspectives	Xiong, Yi; Tang, Yunlong; Zhou, Qi; Ma, Yongsheng; Rosen, David W.	2022	Title: additive
A comprehensive review on the grinding process: Advancements, applications and challenges	Kishore, Kamal; Sinha, Manoj K.; Singh, Amarjit; Archana; Gupta, Munish K.; Korkmaz, Mehmet Erdi	2022	Title: review
Exploring relationships between Lean 4.0 and manufacturing industry	Javaid, Mohd; Haleem, Abid; Singh, Ravi Pratap; Rab, Shanay; Suman, Rajiv; Khan, Shahbaz	2022	Title: lean
Human-System Cooperative Hybrid Augmented Intelligence Based Dynamic Dispatching Framework of Semiconductor Wafer Fabrication Facility	Li, Li; Cui, Meiji	2018	Title: Process
Identifying the business and social networks in the domain of production by merging the data from heterogeneous internet sources	Kozjek, Dominik; Vrabic, Rok; Erzen, Gregor; Butala, Peter	2018	Title: Process
Self-Adaptive Traffic Control Model With Behavior Trees and Reinforcement Learning for AGV in Industry 4.0	Hu, Hao; Jia, Xiaoliang; Liu, Kuo; Sun, Bingyang	2021	Title: AGV
Matching functions of supply chain management with smart and sustainable Tools: A novel hybrid BWM-QFD based method	Gunduz, Mehmet Akif; Demir, Sercan; Paksoy, Turan	2021	Title: supply chain

An intelligent recommender system for tool selection in conventional machining	Muhammed, Bilal; Srimannarayana, P.; Das, Prasenjit; Gautham, B. P.	2023	Abstract: Algorithm
Intelligent Weld Manufacturing: Role of Integrated Computational Welding Engineering	David, S. A.; Chen, Jian; Gibson, Brian T.; Feng, Zhili	2018	Title: Process
Machine learning algorithms in production: A guideline for efficient data source selection	Stanula, Patrick; Ziegenbein, Amina; Metternich, Joachim	2018	Title: Process
Machine Learning and Big Data in optical CD metrology for process control	Bringoltz, Barak; Rothstein, Eitan; Rubinovich, Ilya; Kim, YongHa; Tal, Noam; Cohen, Oded; Yogev, Shay; Broitman, Ariel; Rabinovich, Eylon; Zaharoni, Tal	2018	Title: Process
Machine learning methods for short-term bid forecasting in the renewable energy market: A case study in Italy	Cocchi, Guido; Galli, Leonardo; Galvan, Giulio; Sciandrone, Marco; Cantu, Matteo; Tomaselli, Giuseppe	2018	Title: energy
An Intelligent Maintenance Planning Framework Prototype for Production Systems	Kranzer, Simon; Prill, Dorian; Aghajanpour, Davood; Merz, Robert; Strasser, Rafaela; Mayr, Reinhard; Zoerrer, Helmut; Plasch, Matthias; Steringer, Robert	2017	Included in investigation
Maintenance Management of Mining Belt Conveyor System Based on Data Fusion and Advanced Analytics	Stefaniak, Pawel; Wodecki, Jacek; Zimroz, Radoslaw	2018	Title: Process
Cybersecurity Challenges for Manufacturing Systems 4.0: Assessment of the Business Impact Level	Corallo, Angelo; Lazoi, Mariangela; Lezzi, Marianna; Pontrandolfo, Pierpaolo	2023	Title: secur
Meta-Model Based on Artificial Neural Networks for Tooth Root Stress Analysis of Micro-Gears	Haefner, Benjamin; Biehler, Michael; Wagner, Raphael; Lanza, Gisela	2018	Title: Process
Modelling of a post-combustion CO₂ capture process using deep belief network	Li, Fei; Zhang, Jie; Shang, Chao; Huang, Dexian; Oko, Eni; Wang, Meihong	2018	Title: Process
Data-driven characterization of thermal models for powder-bed-fusion additive manufacturing	Yan, Wentao; Lu, Yan; Jones, Kevontrez; Yang, Zhuo; Fox, Jason; Witherell, Paul; Wagner, Gregory; Liu, Wing Kam	2020	Title: additive
Multi-Sensor Data Analytics for Grinding Wheel Redress Life Estimation- An Approach towards Industry 4.0	Kannan, Kalpana; Arunachalam, N.; Chawla, Aakash; Natarajan, Sundararajan	2018	Title: Process
Automatic root cause analysis in manufacturing: an overview & conceptualization	Eduardo e Oliveira; Migueis, Vera L.; Borges, Jose L.	2023	Abstract: Review
Non-linear Theory of Regenerative Chatter in Cutting Processes (I)	Shi, Hanmin	2018	Title: Process

On DSS Implementation in the Dynamic Model of the Digital Oil field	Korovin, Iakov S.; Khisamutdinov, Maksim V.; Kalyaev, Anatoly I.	2018	Title: Process
Online lead time prediction supporting situation-aware production control	Gyulai, David; Pfeiffer, Andras; Bergmann, Julia; Gallina, Viola	2018	Title: Process
A computational fluid dynamics based artificial neural network model to predict solid particle erosion	Pandya, D. A.; Dennis, B. H.; Russell, R. D.	2017	Title: fluid
Online Tool Wear Classification during Dry Machining Using Real Time Cutting Force Measurements and a CNN	Terrazas, German; Martinez-Arellano, Giovanna; Benardos, Panorios; Ratchev, Svetan	2018	Title: Algorithm
Automated Tradeoff Analysis of Cost Versus Machinability for Design Feedback	Grier, Alan T.; Campbell, Matthew I.	2020	Abstract: CAD
Optimisation of manufacturing process parameters using deep neural networks as surrogate models	Pfrommer, Julius; Zimmerling, Clemens; Liu, Jinzhao; Kaerger, Luise; Henning, Frank; Beyerer, Juergen	2018	Title: Algorithm
Performance Measurement of Building Sheet-Metal Ductwork Prefabrication under Batch Production Settings	Said, Hisham M.; Kandimalla, Prathyaj	2018	Title: Process
Predictive Maintenance of Machine Tool Linear Axes: A Case from Manufacturing Industry	Schmidt, Bernard; Wang, Lihui	2018	Abstract: Process
Communication of Design Data in Manufacturing Democratization	Ghorpade, Bhairavsingh; Raman, Shivakumar	2023	Abstract: CAD
Smart Sampling Methodology for Yield Defect Inspection in a 200mm Foundry Wafer Fab	Huat, Ang Kian; Yap, Jonathan; Ning, Ning; Fen, Tan Siew; Mani, Shakar Govindasamy; Terredano, Myla	2018	Title: Process
Use of chemical oxidizers with alumina slurry in Double Disk Magnetic Abrasive Finishing for improving surface finish of Si (100)	Pandey, Kheelraj; Pandey, Pulak M.	2018	Title: chemical
Block Hunter: Federated Learning for Cyber Threat Hunting in Blockchain-Based IIoT Networks	Yazdinejad, Abbas; Dehghantanha, Ali; Parizi, Reza M.; Hammoudeh, Mohammad; Karimipour, Hadis; Srivastava, Gautam	2022	Title: blockchain
Computational modular system configuration with backward compatibility	Yoo, John Jung-Woon	2023	Abstract: Process
Big data and stream processing platforms for Industry 4.0 requirements mapping for a predictive maintenance use	Sahal, Radhya; Breslin, John G.; Ali, Muhammad Intizar	2020	Abstract: Review
Impedance controlled human-robot collaborative tooling for edge chamfering and polishing applications	Kana, Sreekanth; Lakshminarayanan, Srinivasan; Mohan, Dhanya Menoth; Campolo, Domenico	2021	Title: robot

Towards the Generation of Setup Matrices from Route Sheets and Feedback Data with Data Analytics	Schroeter, Moritz; Luetkehoff, Ben; Fischer, Markus; Blum, Matthias; Stich, Volker	2018	Title: Process
Using artificial intelligence models for the prediction of surface wear based on surface isotropy levels	Bustillo, A.; Pimenov, D. Yu; Matuszewski, M.; Mikolajczyk, T.	2018	Title: Process
A case study of SOS-SVR model for PCB throughput estimation in SMT production lines	Li, Debiao; Wang, Liting; Huang, Qingxian	2019	Title: Process
Concept and development of IoT-based e-maintenance platform for demonstrated system	Sawangsri, Worapong; Prasithmett, Peerapol	2023	Full text: Process
Federated learning-based collaborative manufacturing for complex parts	Deng, Tianchi; Li, Yingguang; Liu, Xu; Wang, Lihui	2023	Abstract: Process
A Deep Learning-based Approach to Anomaly Detection with 2-Dimensional Data in Manufacturing	Maggipinto, Marco; Beghi, Alessandro; Susto, Gian Antonio	2019	Title: Process
Classification and regression models of audio and vibration signals for machine state monitoring in precision machining systems	Han, Seulki; Mannan, Nasir; Stein, Daryl C.; Pattipati, Krishna R.; Bollas, George M.	2021	Abstract: Algorithm
Classification Framework for Machine Learning Support in Manufacturing	Ordek, Baris; Borgianni, Yuri; Coatanea, Eric	2022	Full text: Review
A Generalized Multisensor Real-Time Tool Condition-Monitoring Approach Using Deep Recurrent Neural Network	Hassan, M.; Sadek, A.; Attia, M. H.	2019	Title: Algorithm
A neural network approach for chatter prediction in turning	Cherukuri, Harish; Perez-Bernabeu, E.; Selles, M. A.; Schmitz, Tony L.	2019	Title: Process
A novel method for tool condition monitoring based on long short-term memory and hidden Markov model hybrid framework in high-speed milling Ti-6Al-4V	Tao, Zhengrui; An, Qinglong; Liu, Gongyu; Chen, Ming	2019	Title: Algorithm
A Prediction Method of Five-Axis Machine Tool Energy Consumption with GBRT Algorithm	Chen, Tao; Shang, Hai; Bi, Qingzhen	2019	Title: energy
A Semantic Workbench for Editing, Querying, Navigating and Distributing Ontologies for Cognitive Manufacturing	Ferrer, Borja Ramis; Mohammed, Wael M.; Lastra, Jose L. Martinez; Strzelczak, Stanislaw	2019	Title: Process
A Sensor Reduced Machine Learning Approach for Condition-based Energy Monitoring for Machine Tools	Sossenheimer, Johannes; Walther, Jessica; Fleddermann, Jan; Abele, Eberhard	2019	Title: energy
A Standardized PMML Format for Representing Convolutional Neural Networks with Application to Defect Detection	Ferguson, Max; Lee, Yung-Tsun Tina; Narayanan, Anantha; Law, Kincho H.	2019	Title: Algorithm

Activity recognition in manual manufacturing: Detecting screwing processes from sensor data	Guenther, Lisa C.; Kaercher, Susann; Bauernhansl, Thomas	2019	Title: Process
An intelligent monitoring system of grinding wheel wear based on two-stage feature selection and Long Short-Term Memory network	Guo, Weicheng; Li, Beizhi; Zhou, Qinzhi	2019	Title: Algorithm
Hybrid Modeling Approach for Melt-Pool Prediction in Laser Powder Bed Fusion Additive Manufacturing	Moges, Tesfaye; Yang, Zhuo; Jones, Kevontrez; Feng, Shaw; Witherell, Paul; Lu, Yan	2021	Title: additive
Architecture Model for a Holistic and Interoperable Digital Energy Management Platform	Senna, Pedro P.; Almeida, Antonio H.; Barros, Ana C.; Bessa, Ricardo J.; Azevedo, Americo L.	2020	Included in investigation
Application of Data Mining Tools in Shrink Sleeve Labels Converting Process	Krystosiak, Krzysztof	2019	Title: Process
Assisted setup of forming processes: architecture for the integration of non-adjustable disturbances	Graeler, Manuel; Wallow, Astrid; Henke, Christian; Traechtler, Ansgar	2019	Title: Process
Concurrent fixture design for automated manufacturing process planning	Fu, Wentao; Campbell, Matthew I.	2015	Abstract: CAD
Contribution to the development of a Digital Twin based on product lifecycle to support the manufacturing process	Schuetzer, Klaus; Bertazzi, Julia de Andrade; Sallati, Carolina; Anderl, Reiner; Zancul, Eduardo	2019	Title: digital twin
Base types selection of PSS based on a priori algorithm and knowledge-based ANN	Zhang, Zaifang; Chai, Nana; Liu, Yuan; Xia, Beixin	2019	Title: Algorithm
Determination of pressure drops in flowing geothermal wells by using artificial neural networks and wellbore simulation tools	Bassam, A.; Alvarez del Castillo, A.; Garcia-Valladares, O.; Santoyo, E.	2015	Title: simulation
When Federated Learning Meets Game Theory: A Cooperative Framework to Secure IIoT Applications on Edge Computing	Houda, Zakaria Abou El; Brik, Bouziane; Ksentini, Adlen; Khoukhi, Lyes; Guizani, Mohsen	2022	Title: secur
Tribology and machinability performance of hybrid Al₂O₃ -MWCNTs nanofluids-assisted MQL for milling Ti-6Al-4 V	Jamil, Muhammad; He, Ning; Zhao, Wei; Khan, Aqib Mashood; Laghari, Rashid Ali	2022	Title: fluid
Monitoring and Predicting the Surface Generation and Surface Roughness in Ultraprecision Machining: A Critical Review	Manjunath, K.; Tewary, Suman; Khatri, Neha; Cheng, Kai	2021	Title: review

Integrated numerical modelling and deep learning for multi-layer cube deposition planning in laser aided additive manufacturing	Ren, K.; Chew, Y.; Liu, N.; Zhang, Y. F.; Fuh, J. Y. H.; Bi, G. J.	2021	Title: additive
How Do Manufacturing Firms Manage Artificial Intelligence to Drive Iterative Product Innovation?	Jiang, Xu; Jiang, Xiaoxian; Sun, Wei; Fan, Weiguo	2023	Abstract: No DAS for ML
Using lean manufacturing and machine learning for improving medicines procurement and dispatching in a hospital	Jordon, Kaio; Dossou, Paul-Eric; Chang Junior, Joao	2019	Title: lean
Chatter Analysis and Stability Prediction of Milling Tool Based on Zero-Order and Envelope Methods for Real-Time Monitoring and Compensation	Chang, Wen-Yang; Chen, Chung-Cheng; Wu, Sheng-Jhih	2019	Title: Process
In-process quality improvement: Concepts, methodologies, and applications	Shi, Jianjun	2023	Abstract: Review
Computational Tool for the Intelligent Design of Gearboxes of Cylindrical Gears and Welded Housing	Franco, Rosendo; Blas, Michael A.; Inafuku, Luis H.; Peinado, Angel A. C.; Soto, Jean C.; Solano, Alberto E.; Fernandez, Daniel H.; Lopez, Alexander R.; Montalvan, Jose F.; Yepez, Herbert; Valverde, Quino	2019	Title: Process
Integration of discrete-event dynamics and machining dynamics for machine tool: modeling, analysis and algorithms	Ma, Mason; Ren, Alisa; Tyler, Christopher; Karandikar, Jaydeep; Gomez, Michael; Shi, Tony; Schmitz, Tony	2023	Abstract: Process
Human work sustainability tool	Ciccarelli, Marianna; Papetti, Alessandra; Germani, Michele; Leone, Alessandro; Rescio, Gabriele	2022	Title: sustainab
Interoperable System for Automated Extraction and Identification of Machine Control Data in Brownfield Production	Goennheimer, Philipp; Stroebel, Robin; Doerflinger, Roman; Mattes, Marcel; Fleischera, Jurgen	2023	Abstract: Algorithm
A perturbation signal based data-driven Gaussian process regression model for in-process part quality prediction in robotic countersinking operations	Leco, Mateo; Kadirkamanathan, Visakan	2021	Title: robot
Learning with supervised data for anomaly detection in smart manufacturing	He, Meiling; Petering, Matthew; LaCasse, Phillip; Otieno, Wilkistar; Maturana, Francisco	2023	Abstract: Review
A Framework of Dynamic Data Driven Digital Twin for Complex Engineering Products: the Example of Aircraft Engine Health Management	Wu, Zhenhua; Li, Jianzhi	2021	Title: digital twin

Data-driven smart manufacturing: Tool wear monitoring with audio signals and machine learning	Li, Zhixiong; Liu, Rui; Wu, Dazhong	2019	Title: Process
Dimension reduction and 2D-visualization for early change of state detection in a machining process with a variational autoencoder approach	Proteau, Antoine; Zemouri, Ryad; Tahan, Antoine; Thomas, Marc	2020	Title: 2D
Data Visualization of Anomaly Detection in Semiconductor Processing Tools	Fan, Shu-Kai S.; Tsai, Du-Ming; Jen, Chih-Hung; Hsu, Chia-Yu; He, Fei; Juan, Li-Ting	2022	Abstract: Algorithm
Machine Learning for Machine Tools	Sinkora, Ed	2023	Abstract: Review
Intelligent process planning for smart manufacturing systems: a state-of-the-art review	Besharati-Foumani, Hossein; Lohtander, Mika; Varis, Juha	2019	Title: review
A road map for applied data sciences supporting sustainability in advanced manufacturing: the information quality dimensions	Kenett, Ron S.; Zonnenshain, Avigdor; Fortuna, Gilead	2018	Title: sustainab
Machine-learning based process monitoring for automated composites manufacturing	Mujtaba, Ahmed; Islam, Faisal; Kaeding, Patrick; Lindemann, Thomas; Prusty, B. Gangadhara	2023	Abstract: Process
Development of soft computing tools and IoT for improving the performance assessment of analysers in a clinical laboratory	Packianather, Michael S.; Munizaga, Nury Leon; Zouwail, Soha; Saunders, Mark	2019	Title: No manufacturing
Design Considerations for Building Distributed Supply Chain Management Systems Based on Cloud Computing	Radke, Andreas M.; Tseng, Mitchell M.	2015	Title: supply chain
Digital technologies and green human resource management: Capabilities for GSCM adoption and enhanced performance	Trujillo-Gallego, Mariana; Sarache, William; Jabbour, Ana Beatriz Lopes de Sousa	2022	Title: green
Next generation DES simulation: A research agenda for human centric manufacturing systems	Turner, Chris J.; Garn, Wolfgang	2022	Title: simulation
Digitalized automated welding systems for weld quality predictions and reliability	Gyasi, Emmanuel Afrane; Kah, Paul; Penttila, Sakari; Ratava, Juho; Handroos, Heikki; Sanbao, Lin	2019	Title: Process
Electrostatic high-velocity solid lubricant machining system for performance improvement of turning Ti-6Al-4V alloy	Gunda, Rakesh Kumar; Narala, Suresh Kumar Reddy	2019	Title: Process
Energy efficiency analysis modelling system for manufacturing in the context of industry 4.0	Adenuga, Olukorede Tijani; Mpofu, Khumbulani; Boitumelo, Ramatsetse Innocent	2019	Title: energy
The prediction method of tool life on small lot turning process - Development of Digital Twin for production	Bazaz, Sara Moghadaszadeh; Lohtander, Mika; Varis, Juha	2020	Title: digital twin

Optimal machine learning for detecting lathe machining parameters	Rall, Keven; Loker, David; Nikhare, Chetan P.	2023	Abstract: Process
Fuzzy modeling of dependability optimization for supporting the production-quality strategies - case study in technical field	Vilcu, A.; Verzea, I.; Pislaruand, M.; Herghiligiu, I.	2019	Title: Process
Deep learning for smart manufacturing: Methods and applications	Wang, Jinjiang; Ma, Yulin; Zhang, Laibin; Gao, Robert X.; Wu, Dazhong	2018	Abstract: Survey
Hybrid Approach Using Ontology-Supported Case-Based Reasoning and Machine Learning for Defect Rate Prediction	Ji, Bongjun; Ameri, Farhad; Choi, Junhyuk; Cho, Hyunbo	2019	Title: Process
Innovative Solutions of the Automated Guided Vehicles in Industrial Manufacturing	Bizubac, Dan; Hormann, Bernd Otto; Popa, Marcel Sabin	2019	Title: AGV
deepKnit: Learning-based Generation of Machine Knitting Code	Scheidt, Fabian; Ou, Jifei; Ishii, Hiroshi; Meisen, Tobias	2020	Abstract: Algorithm
Physics-guided neural operator for data-driven composites manufacturing process modelling	Chen, Gengxiang; Li, Yingguang; Liu, Xu; Mehdi-Souzani, Charyar; Meng, Qinglu; Zhou, Jing; Hao,	2023	Abstract: Algorithm
Predictive models in digital manufacturing: research, applications, and future outlook	Kusiak, Andrew	2023	Abstract: Review
Interaction in Project Management Approach Within Industry 4.0	Cakmakci, Mehmet	2019	Title: No relation to ML
A generalizable artificial intelligence tool for identification and correction of self-supporting structures in additive manufacturing processes	Johnson, Marshall, V; Garanger, Kevin; Hardin, James O.; Berrigan, J. Daniel; Feron, Eric; Kalidindi, Surya R.	2021	Title: additive
The application of machine learning to sensor signals for machine tool and process health assessment	Moore, James; Stammers, Jon; Dominguez-Caballero, Javier	2021	Title: health
Linking data science to lean production: a model to support lean practices	Pozzi, Rossella; Cannas, Violetta Giada; Ciano, Maria Pia	2022	Title: lean
Towards manufacturing robotics accuracy degradation assessment: A vision-based data-driven implementation	Izagirre, Unai; Andonegui, Imanol; Eciolaza, Luka; Zurutuza, Urko	2021	Title: robot
Process control combining machine learning and fingerprint approaches	Garnier, A.; Cecchinel, C.; Beudaert, X.	2023	No access
Machine learning classification for tool life modeling using production shop-floor tool wear data	Karandikar, Jaydeep	2019	Title: Process

Comparative performance studies of turning 4140 steel with TiC/TiCN/TiN-coated carbide inserts using MQL, flooding with vegetable cutting fluids, and dry machining	Revuru, Rukmini Srikant; Zhang, Julie Zhe; Posinasetti, Nageswara Rao	2020	Title: fluid
Prognostic Health Management of Production Systems. New Proposed Approach and Experimental Evidences	Calabrese, Francesca; Regattieri, Alberto; Botti, Lucia; Galizia, Francesco Gabriele	2019	Title: health
Realising the promises of artificial intelligence in manufacturing by enhancing CRISP-DM	Bokrantz, Jon; Subramaniyan, Mukund; Skoogh, Anders	2023	Abstract: Concept
Machine learning for multi-criteria inventory classification applied to intermittent demand	Lolli, F.; Balugani, E.; Ishizaka, A.; Gamberini, R.; Rimini, B.; Regattieri, A.	2019	Title: Process
Symbolic Artificial Intelligence Methods for Prescriptive Analytics	Friedrich, Gerhard; Gebser, Martin; Teppan, Erich C.	2023	Abstract: Review
Machine Tools Anomaly Detection Through Nearly Real-Time Data Analysis	Herranz, Gorka; Antolinez, Alfonso; Escartin, Javier; Arregi, Amaia; Kepa Gerrikagoitia, Jon	2019	Title: Process
The artificial intelligence technologies in Industry 4.0: A taxonomy, approaches, and future directions	Alenizi, Farhan A.; Abbasi, Shirin; Mohammed, Adil Hussein; Rahmani, Amir Masoud	2023	Abstract: Review
Development capabilities for smart products	Tomiyama, Tetsuo; Lutters, Eric; Stark, Rainer; Abramovici, Michael	2019	Abstract: Survey
Using machine learning to predict dimensions and qualify diverse part designs across multiple additive machines and materials	McGregor, Davis J.; Bimrose, Miles, V; Shao, Chenhui; Tawfick, Sameh; King, William P.	2022	Title: additive
Managing Human Errors: Augmented Reality systems as a tool in the quality journey	Qeshmy, Danial Etemady; Makdisi, Jacob; Dener Ribeiro da Silva, Elias Hans; Angelis, Jannis	2019	Title: No manufacturing
Manufacturing Analytics for problem-solving processes in production	Meister, Maximilian; Bessle, Julia; Cviko, Amir; Boeing, Tobias; Metternich, Joachim	2019	Title: No relation to ML
The ASSISTANT project: AI for high level decisions in manufacturing	Castane, G.; Dolgui, A.; Kousi, N.; Meyers, B.; Thevenin, S.; Vyhmeister, E.; Ostberg, P-O	2023	Full text: Concept
Multilayer CMP Hotspot Modeling Through Deep Learning	Francisco, Luis; Mao, Rui; Katakamsetty, Ushasree; Verma, Piyush; Pack, Robert	2019	Title: Algorithm
A scheduling method for multi-robot assembly of aircraft structures with soft task precedence constraints	Tereshchuk, Veniamin; Bykov, Nikolay; Pedigo, Samuel; Devasia, Santosh; Banerjee, Ashis G.	2021	Title: robot
Multi-objective optimization of machining parameters to minimize surface roughness and power consumption using TOPSIS	Pawanr, Shailendra; Garg, Girish Kant; Routroy, Srikanta	2019	Title: Algorithm

The benefits of predictive maintenance in manufacturing excellence: a case study to establish reliable methods for predicting failures	Meddaoui, Anwar; Hain, Mustapha; Hachmoud, Adil	2023	Abstract: Review
Optimization of Silicone 3D Printing with Hierarchical Machine Learning	Menon, Aditya; Poczos, Barnabas; Feinberg, Adam W.; Washburn, Newell R.	2019	Title: Process
Systematic manufacturability evaluation using dimensionless metrics and singular value decomposition: a case study for additive manufacturing	Coatanea, Eric; Nagarajan, Hari P. N.; Panicker, Suraj; Prod'hon, Romaric; Mokhtarian, Hossein; Chakraborti, Ananda; Paris, Henri; Ituarte, Inigo Flores; Haapala, Karl R.	2021	Title: additive
Autonomous Navigation of mobile robots in factory environment	Harapanahalli, Suman; Mahony, Niall O.; Hernandez, Gustavo Velasco; Campbell, Sean; Riordan, Daniel; Walsh, Joseph	2019	Title: robot
Adaptive industrial robot using machine vision	Kuts, Vladimir; Otto, Tauno; Tahemaa, Toivo; Bukhari, Khuldoon; Pataraia, Tengiz	2019	Title: robot
Petri net-based scheduling strategy and energy modeling for the cylinder block remanufacturing under uncertainty	Peng, Shitong; Li, Tao; Zhao, Jiali; Guo, Yanchun; Lv, Shengping; Tan, George Z.; Zhang, Hongchao	2019	Title: energy
Fostering Robust Human-Robot Collaboration through AI Task Planning	Cesta, Amedeo; Orlandini, Andrea; Umbrico, Alessandro	2018	Title: robot
3D roll forming center for automotive applications	Sedlmaier, Albert; Dietl, Thomas	2018	Title: 3D
Prediction of forming limit diagrams using machine learning	Chheda, Amar M.; Nazro, Louis; Sen, Fatih G.; Hegadekatte, Vishwanath	2019	Title: Process
Tool wear classification in milling for varied cutting conditions: with emphasis on data pre-processing	Li, Kuan-Ming; Lin, Yi-Yen	2023	Abstract: Algorithm
A recursive operations strategy model for managing sustainable chemical product development and production	Choy, K. L.; Ho, G. T. S.; Lee, C. K. H.; Lam, H. Y.; Cheng, Stephen W. Y.; Siu, Paul K. Y.; Pang, G. K. H.; Tang, Valerie; Lee, Jason C. H.; Tsang, Y. P.	2016	Title: chemical
Uncertainty Quantification and Optimal Robust Design for Machining Operations	Wan, Jinming; Che, Yiming; Wang, Zimo; Cheng, Changqing	2023	Abstract: Algorithm
A dimensionally augmented and physics-informed machine learning for quality prediction of additively manufactured high-entropy alloy	Wang, Haijie; Li, Bo; Xuan, Fu-Zhen	2022	Title: additive

Are Industry 4.0 technologies enablers of lean? Evidence from manufacturing industries	Narula, Sanjiv; Puppala, Harish; Kumar, Anil; Luthra, Sunil; Dwivedy, Maheshwar; Prakash, Surya; Talwar, Vishal	2023	Title: lean
Predictive model development and optimization of surface roughness parameter in milling operations by means of fuzzy logic and artificial neural network approach	Vignesh, M.; Sasindran, Visnu; Krishna, Arvind S.; Madusudhanan, A.; Gokulachandran, J.	2019	Title: Algorithm
A Digital Twin-Driven and Conceptual Framework for Enabling Extended Reality Applications: A Case Study of a Brake Discs Manufacturer	Catalano, Mario; Chiurco, Alessandro; Fusto, Caterina; Gazzaneo, Lucia; Longo, Francesco; Mirabelli, Giovanni; Nicoletti, Letizia; Solina, Vittorio; Talarico, Simone	2022	Title: digital twin
Residual thermal stress prediction for continuous tool-paths in wire-arc additive manufacturing: a three-level data-driven method	Zhou, Zeyu; Shen, Hongyao; Liu, Bing; Du, Wangzhe; Jin, Jiaao; Lin, Jiahao	2022	Title: additive
Inspiration of Industry 4.0 to Enable a Proactive Sustainability Assessment Model through the Supply Chain	Valilai, Omid Fatahi; Sodachi, Majid	2020	Title: supply chain
Predictive modelling of surface roughness in fused deposition modelling using data fusion	Wu, Dazhong; Wei, Yupeng; Terpenny, Janis	2019	Title: Process
Prioritizing Digitalization Use Cases during Early Development Phases of Large Scale Manufacturing Systems	Heimes, Heiner; Kampker, Achim; Buehrer, Ulrich; Schroth, Paul; Krotil, Stefan	2019	Title: Process
Real-time quality monitoring and control system using an integrated cost effective support vector machine	Oh, YeongGwang; Busogi, Moise; Ransikarbum, Kasin; Shin, Dongmin; Kwon, Daeil; Kim, Namhun	2019	Title: Algorithm
Energy simulation of the fused deposition modeling process using machine learning approach	Yi, Li; Glaessner, Christopher; Krenkel, Nicole; Aurich, Jan C.	2019	Title: simulation
A Conceptual Framework for Cyber-Physical Quality Monitoring System using Machine Learning	Chacko, Mathew; Atul; Boddapati, Satish Babu	2022	Abstract: Algorithm
Self-optimizing process planning for helical flute grinding	Denkena, B.; Dittrich, M. -A.; Boss, V.; Wichmann, M.; Friebe, S.	2019	Title: Process
Self-optimizing tool path generation for 5-axis machining processes	Dittrich, Marc-Andre; Uhlich, Florian; Denkena, Berend	2019	Title: Process
A novel decision support system for managing predictive maintenance strategies based on machine learning approaches	Arena, S.; Florian, E.; Zennaro, I; Orru, P. F.; Sgarbossa, F.	2022	Full text: Concept
Supply-Demand Prediction for Agile Manufacturing with Deep Neural Network	Wen, Rong; Yan, Wenjing	2019	Title: Algorithm

Computer Vision Toolkit for Non-invasive Monitoring of Factory Floor Artifacts	Deshpande, Aditya M.; Telikicherla, Anil Kumar; Jakkali, Vinay; Wickelhaus, David A.; Kumar, Manish; Anand, Sam	2020	Included in investigation
The capacity of statistical features extracted from multiple signals to predict tool wear in the drilling process	Duo, Aitor; Basagoiti, Rosa; Arrazola, Pedro J.; Aperribay, Javier; Cuesta, Mikel	2019	Title: Process
The Long Journey From Standardization to Fully Fab Automation and More	Heinrich, Harald; Deutschlaender, Arthur; Zoghlami, Feryel; Sen, Okan Kamil	2019	Title: No relation to ML
Towards objective human performance measurement for maritime safety: A new psychophysiological data-driven machine learning method	Fan, Shiqi; Yang, Zaili	2023	Title: safety
Fatigue life prediction of a L-PBF component in Ti-6Al-4V using sample data, FE-based simulations and machine learning	Cutolo, Antonio; Lammens, Nicolas; Boer, Koen Vanden; Erdelyi, Hunor; Schulz, Matthias; Muralidharan, Gokula Krishna; Thijs, Lore; Elangeswaran, Chola; Van Hooreweder, Brecht	2023	Title: simulation
A Procedural Method to Build Decision Support Systems for Effective Interventions in Manufacturing - A Predictive Maintenance Example from the Spring Industry	Deitermann, Ferdinand; Budde, Lukas; Friedli, Thomas; Haenggi, Roman	2022	Full text: Concept
Towards automated joining element design	Eggink, Derk Hendrik Dominick; Groll, Marco Wilhelm; Perez-Ramirez, Daniel F.; Biedert, Johannes; Knoedler, Christoph; Papentin, Patrick	2019	Title: No relation to ML
Towards Collision-Free Automated Guided Vehicles Navigation and Traffic Control	Mugarza, Imanol; Carlos Mugarza, Juan	2019	Title: AGV
Transformers: Delivering Innovative Data Center High performance computing (HPC) and Artificial Intelligence (AI) Intel® Server Systems	Balasubramanian, Anupama; Damm, Drew; Melhem, Sam; Dausman, Andrew C.; Levy, Joshua T. Linden; Bu, Yingqiong; Mao, Brian; Cauvel, Craig S.	2019	Title: No manufacturing
Using Machine Learning to Predict Core Sizes of High-Efficiency Turbofan Engines	Tong, Michael T.	2019	Title: Process
A conceptual vision for a bio-intelligent manufacturing cell for Selective Laser Melting	Wegener, K.; Spierings, A. B.; Teti, R.; Caggiano, A.; Knuettel, D.; Staub, A.	2021	Title: bio
An Intelligent Method for the Scheduling of Cyber Physical Production Systems	Khadiri, Hassan; Sekkat, Souhail; Herrou, Brahim	2022	Abstract: Process
A CPPS based on GBDT for predicting failure events in milling	Zhang, Y.; Beudaert, X.; Argandona, J.; Ratchev, S.; Munoa, J.	2020	Title: Process

Ensembled mechanical fault recognition system based on deep learning algorithm	Guo, Yuxiu; Liu, Yubin; Ding, Weiying; Feng, Yufen	2021	Abstract: Algorithm
A deep learning approach for the dynamic dispatching of unreliable machines in re-entrant production systems	Wu, Cheng-Hung; Zhou, Fang-Yi; Tsai, Chi-Kang; Yu, Cheng-Juei; Dauzere-Peres, Stephane	2020	Title: Process
Application of progressive technologies based on digitalization in mechanical engineering	Ivana, Klackova; Tatyana, Ivanova; Ivan, Kuric; Aleksandr, Korshunov; Vladimir, Koretckiy	2022	Abstract: No DAS for ML
A Novel Three-Layer IoT Architecture for Shared, Private, Scalable, and Real-time Machine Learning from Ubiquitous Cyber-Physical Systems	Parto, Mahmoud; Saldana, Christopher; Kurfess, Thomas	2020	Title: Process
A decision support methodology for integrated machining process and operation plans for sustainability and productivity assessment	Hatim, Qais Y.; Saldana, Christopher; Shao, Guodong; Kim, Duck Bong; Morris, K. C.; Withere, Paul; Rachuri, Sudarsan; Kumara, Soundar	2020	Title: sustainab
A Novel Tool (Single-Flute) Condition Monitoring Method for End Milling Process Based on Intelligent Processing of Milling Force Data by Machine Learning Algorithms	Yang, Yinfei; Hao, Bijun; Hao, Xiuqing; Li, Liang; Chen, Ni; Xu, Tao; Aqib, Khan M.; He, Ning	2020	Title: Process
Artificial General Intelligence vs. Industry 4.0: Do They Need Each Other?	Kumpulainen, Samu; Terziyan, Vagan	2022	Abstract: Review
Design and Development of an Edge-Computing Platform Towards 5G Technology Adoption for Improving Equipment Predictive Maintenance	Mourtzis, Dimitris; Angelopoulos, John; Panopoulos, Nikos	2022	Full text: Not a DAS
Design and development of automobile assembly model using federated artificial intelligence with smart contract	Manimuthu, Arunmozhi; Venkatesh, V. G.; Shi, Yangyan; Sreedharan, V. Raja; Koh, S. C. Lenny	2022	Full text: Not a DAS
An approach for designing a platform of smart welding station system	Febriani, Risky Ayu; Park, Hong-Seok; Lee, Chang-Myung	2020	Title: Process
An artificial intelligence educational strategy for the digital transformation	Cantu-Ortiz, Francisco J.; Galeano Sanchez, Nathalie; Garrido, Leonardo; Terashima-Marin, Hugo; Brena, Ramon F.	2020	Title: No relation to ML
An evolvable model of machine tool behavior applied to energy usage prediction	Komoto, Hitoshi; Herrera, German; Herwan, Jonny	2020	Title: Process
An integrated approach for power transformer modeling and manufacturing	Lettner, Christian; Moser, Michael; Pichler, Josef	2020	Title: Process

The Resource Usage Viewpoint of Industrial Control System Security: An Inference-Based Intrusion Detection System	Nair, Rahul; Nayak, Chinmohan; Watkins, Lanier; Fairbanks, Kevin D.; Memon, Kashif; Wang, Pengyuan; Robinson, William H.	2017	Title: secur
Application research on AGV case: automated electricity meter verification shop floor	Tu, Jia Chen; Qian, Xiao Ming; Lou, Pei Huang	2017	Title: AGV
Design for Artificial Intelligence: Proposing a Conceptual Framework Grounded in Data Wrangling	Williams, Glen; Meisel, Nicholas A.; Simpson, Timothy W.; McComb, Christopher	2022	Full text: Not a DAS
Anomaly detection methods in turning based on motor data analysis	Watanabe, Tsubasa; Kono, Ippei; Onozuka, Hideaki	2020	Title: Process
Application of Data Analytics in Gas Turbine Engines	Taluru, DanteswaraRao; Allabanda, Rajendra Prasad Uppara	2020	Title: Process
Application of Machine Learning to the Prediction of Surface Roughness in Diamond Machining	Sizemore, Nicholas E.; Nogueira, Monica L.; Greis, Noel P.; Davies, Matthew A.	2020	Title: Process
Artificial intelligence aided design of film cooling scheme on turbine guide vane	Li, Dike; Qiu, Lu; Tao, Kaihang; Zhu, Jianqin	2020	Title: Process
Designing and developing smart production planning and control systems in the industry 4.0 era: a methodology and case study	Oluyisola, Olumide Emmanuel; Bhalla, Swapnil; Sgarbossa, Fabio; Strandhagen, Jan Ola	2022	Abstract: Process
Computational fluid dynamics and machine learning as tools for optimization of micromixers geometry	Maionchi, Daniela de Oliveira; Ainstein, Luca; dos Santos, Fabio Pereira; de Souza Junior, Mauricio Bezerra	2022	Title: fluid
Automated continuous learn and improvement process of energy efficiency in manufacturing	Can, Alperen; Fisch, Jessica; Stephan, Philipp; Thiele, Gregor; Krueger, Joerg	2020	Title: energy
Evaluation of AI-Based Digital Assistants in Smart Manufacturing	Bousdekis, Alexandros; Mentzas, Gregoris; Apostolou, Dimitris; Wellsandt, Stefan	2022	Abstract: No DAS for ML
Bottleneck prediction and data-driven discrete-event simulation for a balanced manufacturing line	Rocha, Eugenio M.; Lopes, Maria J.	2022	Title: simulation
Background of the Revision of the Secondary School Engineering Curriculum in the Context of the Society 4.0	Malach, Josef; Vicherkova, Dana	2020	Title: No manufacturing
Collaborative knowledge management to identify data analytics opportunities in additive manufacturing	Park, Hyunseop; Ko, Hyunwoong; Lee, Yung-tsun Tina; Feng, Shaw; Witherell, Paul; Cho, Hyunbo	2023	Title: additive
Big data driven jobs remaining time prediction in discrete manufacturing system: a deep learning-based approach	Fang, Weiguang; Guo, Yu; Liao, Wenhe; Ramani, Karthik; Huang, Shaohua	2020	Title: Algorithm

Flexibilization 4.0 for production manufacturing optimization	Laouenan, Gaspard; Dossou, Paul-Eric; Delahousse, Jean	2022	Abstract: Review
A quantum-based diagnostics approach for additive manufacturing machine	Sharma, Vishal; Gupta, Shantanu; Mehta, Gaurav; Lad, Bhupesh K.	2021	Title: additive
Generalizability analysis of tool condition monitoring ensemble machine learning models	Schueller, Alexandra; Saldana, Christopher	2022	Abstract: Algorithm
Industrial Artificial Intelligence: A Predictive Agent Concept for Industry 4.0	Salazar, Luis Alberto Cruz; Vogel-Heuser, Birgit	2022	Abstract: No DAS for ML
Development of Fault Diagnosis Models Based on Predicting Energy Consumption of a Machine Tool Spindle	Choi, Won Hwa; Kim, Jun; Lee, Ju Yeon	2020	Title: energy
Development of Industrial Equipment Diagnostics System Based on Modified Algorithms of Artificial Immune Systems and AMDEC Approach Using Schneider Electric Equipment	Samigulina, Galina; Samigulina, Zarina	2020	Title: Process
DzAIN: Deep learning based generative design	Kallioras, Nikos Ath.; Lagaros, Nikos D.	2020	Title: Process
Effect of Oil Flow Rate on Production Through-Tool Dual Channel MQL Drilling	Raval, Jay K.; Stephenson, David A.; Tai, Bruce L.	2020	Title: Process
Enhancing the agro engineering system using game theory analytics	Anithaashri, T. P.; Ravichandran, G.	2020	Title: No manufacturing
Estimating Optimum Process Parameters in Textile Draping of Variable Part Geometries - A Reinforcement Learning Approach	Zimmerling, Clemens; Poppe, Christian; Kaerger, Luise	2020	Title: Algorithm
From self-aware to self-healing for perpetual manufacturing	Greis, Noel P.	2022	Abstract: Algorithm
Further development of adaptable automated visual inspection-part I: concept and scheme	Sun, Jun; Sun, Qiao	2015	Abstract: Algorithm
Integrating a data analytics system in automotive manufacturing: background, methodology and learned lessons	Dacal-Nieto, Angel; Jose Areal, Juan; Alonso-Ramos, Victor; Lluch, Marcos	2022	Full text: Concept
Knowledge Discovery in Engineering Applications Using Machine Learning Techniques	Kubik, Christian; Molitor, Dirk Alexander; Becker, Marco; Groche, Peter	2022	Abstract: Concept
Implementation of machine learning techniques for prognostics for railway wheel flange wear	Fourie, C. J.; du Plessis, J. A.	2020	Title: Process

In-Situ Monitoring of Laser Powder Bed Fusion Process Anomalies via a Comprehensive Analysis of Off-Axis Camera Data	Vallabh, Chaitanya Krishna Prasad; Xiong, Yubo; Zhao, Xiayun	2020	Title: Process
Machine Learning for Diagnosis of Event Synchronization Faults in Discrete Manufacturing Systems	Cohen, Joseph; Jiang, Baoyang; Ni, Jun	2022	Abstract: Algorithm
Intelligent wood machining monitoring using vibration signals combined with self-organizing maps for automatic feature selection	Nasir, Vahid; Cool, Julie	2020	Title: Process
Investigated iterative convergences of neural network for prediction turning tool wear	Chang, Wen-Yang; Wu, Sheng-Jhih; Hsu, Jia-Wei	2020	Title: Algorithm
Metamodeling-based simulation optimization in manufacturing problems: a comparative study	Soares do Amaral, Joao Victor; Miranda, Rafael de Carvalho; Barra Montevechi, Jose Arnaldo; dos Santos, Carlos Henrique; Gabriel, Gustavo Teodoro	2022	Title: simulation
Investigations on machinability aspects of AISI 52100 with minimum quantity solid lubrication	Makhesana, Mayurkumar A.; Patel, K. M.	2020	Title: Process
Intelligent monitoring of multi-axis robots for online diagnostics of unknown arm deviations	Soualhi, Moncef; Nguyen, Khanh T. P.; Medjahe, Kamal; Lebel, Denis; Cazaban, David	2023	Title: robot
Ultrasonic assisted nano-fluid MQL in deep drilling of hard-to-cut materials	Tien-Dat Hoang; Quoc-Huy Ngo; Ngoc-Hung Chu; Thu-Ha Mai; Truong Nguyen; Ky-Thanh Ho; Du Nguyen	2022	Title: fluid
Machine Learning in CNC Machining: Best Practices	von Hahn, Tim; Mechefske, Chris K.	2022	Abstract: Algorithm
Learning-Based Prediction of Pose-Dependent Dynamics	Finkeldey, Felix; Wirtz, Andreas; Merhofe, Torben; Wiederkehr, Petra	2020	Title: No manufacturing
Machine learning and optimization for production rescheduling in Industry 4.0	Li, Yuanyuan; Carabelli, Stefano; Fadda, Edoardo; Manerba, Daniele; Tadei, Roberto; Terzo, Olivier	2020	Title: Process
Machine learning tools in production engineering	Rom, Michael; Brockmann, Matthias; Herty, Michael; Iacomini, Elisa	2022	Abstract: Algorithm
Machine Learning Based Predictive Model for AFP-Based Unidirectional Composite Laminates	Wanigasekara, Chathura; Oromiehie, Ebrahim; Swain, Akshya; Prusty, B. Gangadhara; Nguang, Sing Kiong	2020	Title: Process
Machine Learning-Based Reverse Modeling Approach for Rapid Tool Shape Optimization in Die-Sinking Micro Electro Discharge Machining	Surleraux, Anthony; Lepert, Romain; Pernot, Jean-Philippe; Kerfriden, Pierre; Bigot, Samuel	2020	Title: Process
Machine Tool Component Health Identification with Unsupervised Learning	Gittler, Thomas; Scholze, Stephan; Rupenyan, Alisa; Wegener, Konrad	2020	Title: health

Manufacturing lead time prediction for extrusion tools with the use of neural networks	Sajko, Nika; Kovacic, Simon; Ficko, Mirko; Palcic, Iztok; Klancnik, Simon	2020	Title: Process
Identification and classification of materials using machine vision and machine learning in the context of industry 4.0	Penumuru, Durga Prasad; Muthuswamy, Sreekumar; Karumbu, Premkumar	2020	Abstract: Algorithm
Meta-Data for In-Situ Monitoring of Laser Powder Bed Fusion Processes	Feng, Shaw C.; Lu, Yan; Jones, Albert T.	2020	Title: Process
How to use lean manufacturing for improving a Healthcare logistics performance	Dossou, Paul-Eric; Rafael, Pereira; Cristiane, Salama; Joao, Chang Junior	2020	Title: health
Meta domain generalization for smart manufacturing: Tool wear prediction with small data	Wang, Dongdong; Liu, Qingyang; Wu, Dazhong; Wang, Liqiang	2022	Full text: Algorithm
Procedural Guide for System-Level Impact Evaluation of Industrial Artificial Intelligence-Driven Technologies: Application to Risk-Based Investment Analysis for Condition Monitoring Systems in Manufacturing	Sharp, Michael; Dadfarnia, Mehdi; Sprock, Timothy; Thomas, Douglas	2022	Full text: Concept
Kullback-Leibler Divergence Constructed Health Indicator for Data-Driven Predictive Maintenance of Multi-Sensor	Aremu, Oluseun Omotola; O'Reilly, Darren O.; Hyland-Wood, David; McAree, Peter Ross	2019	Title: health
Model Based Root Cause Analysis of Manufacturing Quality Problems Using Uncertainty Quantification and Sensitivity Analysis	Otto, Kevin; Mosqueda, Josefina Sanchez	2020	Title: Process
Modeling and Predicting an Industrial Process Using a Neural Network and Automation Data	Nykyri, Mikko; Kuisma, Mikko; Hallikas, Jukka; Immonen, Mika; Silventoinen, Pertti	2020	Title: Process
No you scc me, now you don't - using machine learning to find stress corrosion cracking	Smith, Michael; Blenkinsop, Aidan; Capewell, Matthew; Kerrigan, Brian	2020	Title: Process
Nozzle scaling effects for the thermohydraulic performance of microjet impingement cooling with distributed returns	Wei, T. -W.; Oprins, H.; Fang, Liang; Cherman, V.; De Wolf, I.; Beyne, E.; Baelmans, M.	2020	Title: Process
On Transfer Learning of Traditional Frequency and Time Domain Features in Turning	Yesilli, Melih C.; Khasawneh, Firas A.	2020	Title: Process
Machine Learning based System Identification Tool for data-based Energy and Resource Modeling and Simulation	Weber, Thomas; Sossenheimer, Johannes; Schaefer, Steffen; Ott, Moritz; Walther, Jessica; Abele, Eberhard	2019	Title: simulation
One Comprehensive Method to Analyze Semiconductor Manufacturing Data by Piecewise Regression	Gu, Lin; Yu, Wei	2020	Title: Process
Introducing data analytics to the robotic drilling process	Al Khawli, Toufik; Bendemra, Hamza; Anwar, Muddasar; Swart, Dewald; Dias, Jorge	2018	Title: robot

Production Flow Management Based on Industry 4.0 Technologies	Amejwal, Mohamed; El Jaouhari, Asmae; Arif, Jabir; Fellaki, Soumaya; Jawab, Fouad	2022	Abstract: Review
Agent-based modelling of multi-robot systems	Oprea, M.	2018	Title: robot
Data analysis and visualization framework in the manufacturing decision support system of COMPOSITION project	Vafeiadis, T.; Kalatzis, D.; Nizamis, A.; Ioannidis, D.; Apostolou, K.; Metaxa, I. N.; Charisi, V.; Beecks, C.; Insolvibile, G.; Pardi, M.; Vergori, P.; Tzovaras, D.	2019	Included in investigation
Position Paper: Low-cost Prototyping and Solution Development for Pandemics and Emergencies using Industry 4.0	Yamanoor, Srihari; Yamanoor, Narasimha; Thyagaraja, Satyakanth	2020	Title: Process
Hybrid learning-based digital twin for manufacturing process: Modeling framework and implementation	Huang, Ziqi; Fey, Marcel; Liu, Chao; Beysel, Ege; Xu, Xun; Brecher, Christian	2023	Title: digital twin
A framework driven by physics-guided machine learning for process-structure-property causal analytics in additive manufacturing	Ko, Hyunwoong; Lu, Yan; Yang, Zhuo; Ndiaye, Ndeye Y.; Witherell, Paul	2023	Title: additive
Predicting Solid Particle Erosion and Uncertainty in Elbows by Artificial Intelligence Methods	Karimi, Soroor; Xu, Bohan; Asgharpour, Alireza; Shirazi, Siamack A.; Sen, Sandip	2020	Title: No manufacturing
Predicting Surface Roughness and Flank Wear in Turning Processes	Nhu Khue Vuong; Xue, Yang; Liu, Shudong; Zhou, Yu; Wu, Min	2020	Title: Process
Predicting the Emissive Characteristics of an IC Engine Using DNN	Pravin, M. C.; Mukilan, M.; Prakash, Vishnu G.; Nithish, P.; Kanna, Monish B.; Logesh, E.	2020	Title: Process
Prediction of cutting tool wear during a turning process using artificial intelligence techniques	Marani, Mohsen; Zeinali, Mohammadjavad; Kouam, Jules; Songmene, Victor; Mechefske, Chris K.	2020	Title: Process
Quality 4.0-an evolution of Six Sigma DMAIC	Escobar, Carlos Alberto; Macias, Daniela; McGovern, Megan; Hernandez-de-Menendez, Marcela; Morales-Menendez, Ruben	2022	Abstract: Review
Towards Lean Automation: Fine-Grained sentiment analysis for customer value identification	Xiao, Yan; Li, Congdong; Thurer, Matthias; Liu, Yide; Qu, Ting	2022	Title: lean
Preliminary experimental analysis of the surface topography formation during laser polishing H13 tooling steel using statistical characteristics of the surface amplitude distribution	Bordatchev, Evgueni V.; Cvijanovic, Srdjan J.; Tutunea-Fatan, Remus O.	2020	Title: Process
Combining Simulation and Data Analytics for OEE Improvement	Lindegren, M. L.; Lunau, M. R.; Mafia, M. M. P.; da Silva, Ribeiro E.	2022	Title: simulation

Product Completion Time Prediction Using A Hybrid Approach Combining Deep Learning and System Model	Huang, Jing; Chang, Qing; Arinez, Jorge	2020	Title: Process
Smart defect identification for manufacturing applications	Nakkina, Tapan Ganatma; Vinayaka, Man; Masad, Amr; El Mansori, Mohamed; Bukkapatnam, Satish	2022	Abstract: Concept
A Computer Vision Approach to Evaluate Powder Flowability for Metal Additive Manufacturing	Zhang, Jiahui; Habibnejad-korayem, Mahdi; Liu, Zhiying; Lyu, Tianyi; Sun, Qiang; Zou, Yu	2021	Title: additive
Rapid Estimation of Die and Mold Machining Time Without NC Data by AI Based on Shape Data	Takizawa, Hiroki; Aoyama, Hideki; Won, Song Cheol	2020	Title: Process
Real-time automatic optical system to assist operators in the assembling of electronic components	Ojer, M.; Serrano, I.; Saiz, F.; Barandiaran, I.; Gil, I.; Aguinaga, D.; Alejandro, D.	2020	Title: No relation to ML
Smart seru production system for Industry 4.0: a conceptual model based on deep learning for real-time monitoring and controlling	Torkul, Orhan; Selvi, Ihsan Hakan; Sisci, Merve	2022	Abstract: Concept
Network-based pricing for 3D printing services in two-sided manufacturing-as-a-service marketplace	Pahwa, Deepak; Starly, Binil	2020	Title: 3D
Remaining Useful Life Prediction under Multiple Operation Conditions Based on Domain Adaptive Sparse Auto-Encoder	Fu, Binghao; Wu, Zhenyu; Guo, Juchuan	2020	Title: Algorithm
Organization the information support of full logistic supply chains within the Industry 4.0	Rahimi, Yashar; Matyshenko, Igor; Kapitan, Ruslan; Pronchakov, Yurii	2020	Title: supply chain
The effect of process digitalization initiative on firm performance: A dynamic capability development	Yang, Yefei; Yee, Rachel W. Y.	2022	Abstract: Review
Self-optimizing compensation of surface deviations in 5-axis ball-end milling based on an enhanced description of cutting conditions	Dittrich, Marc-Andre; Uhlich, Florian	2020	Title: Process
Transfer learning for autonomous chatter detection in machining	Yesilli, Melih C.; Khasawneh, Firas A.; Mann, Brian P.	2022	Abstract: Algorithm
Intelligent Decision Making Approach for Performance Evaluation of a Robot-Based Manufacturing Cell	Kangru, Tavo; Riives, Juri; Otto, Tauno; Pohlak, Meelis; Mahmood, Kashif	2019	Title: robot
Shop floor management system in the context of smart manufacturing: a case study	Torres, Diamantino; Pimentel, Carina; Duarte, Susana	2020	Title: No relation to ML
Smart Machining Process Monitoring Enabled by Contextualized Process Profiles for Synchronization	Wang, Zhigang; Wagner, Timothy C.; Guo, Changsheng	2020	Title: Process

What is Quality 4.0? An exploratory sequential mixed methods study of Italian manufacturing companies	Chiarini, Andrea; Kumar, Maneesh	2022	Abstract: Review
Design of Experiments-Statistical and Artificial Intelligence Analysis for the Improvement of Machining Processes: A Review	Lauro, Carlos H.; Pereira, Robson B. D.; Brandao, Lincoln C.; Davim, J. P.	2016	Title: review
A cost-effective manufacturing process recognition approach based on deep transfer learning for CPS enabled	Liu, Bufan; Zhang, Yingfeng; Lv, Jingxiang; Majeed, Arfan; Chen, Chun-Hsien; Zhang, Dang	2021	Abstract: Algorithm
A Study of the Inspection Support Tool Development Using the Neural Network	Haraguchi, H.; Akaishi, R.	2021	Abstract: Algorithm
Thermal error modeling and prediction analysis based on OM algorithm for machine tool's spindle	Yao, Xiaopeng; Hu, Teng; Yin, Guofu; Cheng, Chuanhua	2020	Title: Process
Thermal Error Modeling of Feed Axis in Machine Tools Using Particle Swarm Optimization-Based Generalized Regression Neural Network	Li, Guolong; Ke, Hao; Li, Chuanzhen; Li, Biao	2020	Title: Process
Understanding and Evaluating Naive Diagnostics Algorithms Applicable in Multistage Manufacturing From a Risk Management Perspective	Dadfarnia, Mehdi; Sharp, Michael; Sprock, Timothy	2020	Title: Algorithm
AI Based Knowledge Management System for Risk Assessment and Root Cause Analysis in Semiconductor Industry	Razouk, Houssam; Kern, Roman; Mischitz, Martin; Moser, Josef; Memic, Mirhad; Liu, Lan; Burmer, Christian; Safont, Anna	2021	Abstract: Concept
A novel method for predicting delamination of carbon fiber reinforced plastic (CFRP) based on multi-sensor data	Cui, Jiacheng; Liu, Wei; Zhang, Yang; Gao, Changyong; Lu, Zhe; Li, Ming; Wang, Fuji	2021	Title: Process
A slag prediction model in an electric arc furnace process for special steel production	Murua, Maialen; Boto, Fernando; Anglada, Eva; Cabero, Jose Mari; Fernandez, Leixuri	2021	Title: Process
Strategic Key Elements in Big Data Analytics as Driving Forces of IoT Manufacturing Value Creation: A Challenge for Research Framework	Rajnoha, Rastislav; Hadac, Jakub	2021	Title: strategic
Data-driven manufacturing: An assessment model for data science maturity	Gokalp, Mert Onuralp; Gokalp, Ebru; Kayabay, Kerem; Kocyigit, Altan; Eren, P. Erhan	2021	Abstract: Concept
A supervised machine learning approach for the optimisation of the assembly line feeding mode selection	Zangaro, Francesco; Minner, Stefan; Battini, Daria	2021	Title: Process
A time series classification approach to non-destructive hardness testing using magnetic Barkhausen noise emission	Unterberg, Martin; Stanke, Joachim; Trauth, Daniel; Bergs, Thomas	2021	Title: Process

Advanced Modeling of Drilling – Realistic Process Mechanics Leading to Helical Chip Formation	Lortz, Wolfgang; Pavel, Radu	2021	Title: Process
Decision Models for Supplier Selection in Industry 4.0 Era: A Systematic Literature Review	Resende, Carlos H. L.; Geraldes, Carla A. S.; Lima Junior, Francisco Rodrigues	2021	Title: review
Numerical simulations for laser clad beads with a variable side-to-side overlap condition	Zareh, Parvaneh; Urbanic, R. J.	2020	Title: simulation
A Predictive Analytics Tool to Provide Visibility Into Completion of Work Orders in Supply Chain Systems	Liu, Jundi; Hwang, Steven; Yund, Walter; Neidig, Joel D.; Hartford, Scott M.; Boyle, Linda Ng; Banerjee, Ashis	2020	Title: supply chain
Decision Support by Interpretable Machine Learning in Acoustic Emission Based Cutting Tool Wear Prediction	Schmetz, A.; Vahl, C.; Zhen, Z.; Reibert, D.; Mayer, S.; Zontar, D.; Garcke, J.; Brecher, C.	2021	Abstract: Algorithm
AI-Based Quality Control System at the Pressing Stages of the Champagne Production	Mohimont, Lucas; Roesler, Mathias; Steffenel, Angelo; Gaveau, Nathalie; Rondeau, Marine; Alin, Francois; Pierlot, Clement; de Oliveira, Rachel Ouvinha; Coppola, Marcello; Dore, Philipe	2021	Title: Process
Validating Technology-Organization-Environment (TOE) Framework in Web 2.0 Adoption in Supply Chain Management	Tarofder, Arun Kumar; Jawabri, Adnan; Haque, Ahasanul; Sherief, Sultan Rehman	2019	Title: supply chain
AI-enabled dynamic finish machining optimization for sustained surface integrity	Schoop, Julius; Poonawala, Hasan A.; Adeniji, David; Clark, Benton	2021	Title: Process
Development of a Pilot Manufacturing Cyberinfrastructure With an Information Rich Mechanical CAD 3D Model Repository	Bharadwaj, Akshay; Xu, Yang; Angrish, Atin; Chen, Yong; Starly, Binil	2019	Title: 3D
An evolutionary neural network approach to machining process planning: A proof of concept	Chen, Niechen	2021	Title: Algorithm
An integrated curvature surface inspection and prediction system for 5-axis synchronization machining	Kuo, Chung-Feng Jeffrey; Weng, Wei-Han	2021	Title: Process
Analysis of Surface Roughness in End-Milling of Aluminium Using an Adaptive Network-Based Fuzzy Inference System	Balonji, Serge; Okokpujie, I. P.; Tartibu, L. K.	2021	Title: Algorithm
Application of machine learning for acoustic emissions waveform to classify galling wear on sheet metal stamping tools	Griffin, James M.; Shanbhag, Vignesh V.; Pereira, Michael P.; Rolfe, Bernard F.	2021	Title: Process

Assessment of cylindricity and roughness tolerances of holes drilled in marble using multiple regression and artificial intelligence	Abbassi, Amira; Trabelsi, Ali; Akrichi, Sofien; Ben Yahia, Noureddine	2021	Title: Process
Dawn of new machining concepts: Compensated, intelligent, bioinspired	Wegener, Konrad; Gittler, Thomas; Weiss, Lukas	2018	Title: bio
Surface Roughness Prediction in Additive Manufacturing Using Machine Learning	Wu, Dazhong; Wei, Yupeng; Terpenny, Janis	2018	Title: additive
Condition-based maintenance: an industrial application on rotary machines	Acernese, Antonio; Del Vecchio, Carmen; Tipaldi, Massimo; Battilani, Nicola; Glielmo, Luigi	2021	Title: Process
Convolutional Neural Network Design for Improvement of Machining Quality Monitoring	Chang, Ting-Yu; Chang, Jen-Yuan (James)	2021	Title: Algorithm
Design of a Physics-Based and Data-Driven Hybrid Model for Predictive Maintenance	Traini, Emiliano; Bruno, Giulia; Lombardi, Franco	2021	Abstract: Concept
Investigating the impact of digital transformation on relationship and collaboration dynamics in supply chains and manufacturing networks-A multi-case study	Hamann-Lohmer, Jacob; Bendig, Miriam; Lasch, Rainer	2023	Title: supply chain
Augmented reality user interface design and experimental evaluation for human-robot collaborative assembly	Chu, Chih-Hsing; Liu, Yu-Lun	2023	Title: robot
Explaining Learning Models in Manufacturing Processes	Goldman, Claudia V.; Baltaxe, Michael; Chakraborty, Debejyo; Arinez, Jorge	2021	Abstract: Process
A human-centric framework for robotic task learning and optimization	Roveda, Loris; Veerappan, Palaniappan; Maccarini, Marco; Bucca, Giuseppe; Ajoudani, Arash; Piga, Dario	2023	Title: robot
From Plants to Network: Digitalization as an Enabler for Global Manufacturing	Benninghaus, Christoph	2021	Abstract: No DAS for ML
Enhanced safety implementation in 5S+1 via object detection algorithms	Shahin, Mohammad; Chen, F. Frank; Hosseinzadeh, Ali; Koodiani, Hamid Khodadadi; Bouzary, Hamed; Shahin, Awni	2023	Title: safety
Sustainable Vegetable Oil-Based Minimum Quantity Lubrication Assisted Machining of AZ91 Magnesium Alloy: A Grey Relational Analysis-Based Study	Alshibi, Assem; Nasreldin, Abdelrahman; Pervaiz, Salman	2023	Title: sustainab
Development of a speed invariant deep learning model with application to condition monitoring of rotating machinery	Lee, Wo Jae; Xia, Kevin; Denton, Nancy L.; Ribeiro, Bruno; Sutherland, John W.	2021	Title: Algorithm

Automated Defect Analysis of Additively Fabricated Metallic Parts Using Deep Convolutional Neural Networks	Nemati, Saber; Ghadimi, Hamed; Li, Xin; Butler, Leslie G.; Wen, Hao; Guo, Shengmin	2022	Title: additive
Dynamic R-Curve analysis and optimization of steam power plant solar repowering	Kabiri, S.; Manesh, M. H. Khoshgoftar; Amidpour, M.	2021	Title: Process
Embedded Artificial Intelligence Approach for Gas Recognition in Smart Agriculture Applications Using Low Cost MOX Gas Sensors	Bruno, Claudia; Licciardello, Antonella; Nastasi, Giuseppe Antonio Maria; Passaniti, Fabio; Brigante, Carmen; Sudano, Francesco; Faulisi, Alessandro; Alessi, Enrico	2021	Title: Process
Energy prediction for CNC machining with machine learning	Brillinger, Markus; Wuwer, Marcel; Hadi, Muaaz Abdul; Haas, Franz	2021	Title: Process
Estimating surface roughness for different EDM processing parameters on Inconel 718 using GEP and ANN	Ozkavak, Hatice Varol; Sofu, Mehmet Mahir; Duman, Burhan; Bacak, Selim	2021	Title: Process
Estimation of cBN grinding wheel condition using image sensor	Lee, Eddie Taewan; Fan, Zhaoyan; Sencer, Burak	2021	Title: Process
Generic Design Methodology for Smart Manufacturing Systems from a Practical Perspective. Part II-Systematic Designs of Smart Manufacturing Systems	Bi, Zhuming; Zhang, Wen-Jun; Wu, Chong; Luo, Chaomin; Xu, Lida	2021	Title: No relation to ML
Ex-situ porosity classification in metallic components by laser metal deposition: A machine learning-based approach	Garcia-Moreno, Angel-Ivan; Alvarado-Orozco, Juan-Manuel; Ibarra-Medina, Juansethi; Martinez-Franco, Enrique	2021	Title: Process
Fab Fingerprint for Proactive Yield Management	Gross, David; Gramling, Katherine; Bachiraju, Prasad L.	2021	Title: Process
Feature selection methods for root-cause analysis among top-level product attributes	Detzner, Alexander; Eigner, Martin	2021	Title: Process
Fleet learning of thermal error compensation in machine tools	Stoop, Fabian; Mayr, Josef; Sulz, Clemens; Bleicher, Friedrich; Wegener, Konrad	2021	Title: Process
Flow-shop path planning for multi-automated guided vehicles in intelligent textile spinning cyber-physical production systems dynamic environment	Farooq, Basit; Bao, Jinsong; Raza, Hanan; Sun, Yicheng; Ma, Qingwen	2021	Title: Process
Random decision forest based sustainable green machining using Citrullus lanatus extract as bio-cutting fluid	Sankaranarayanan, R.; Hynes, N. Rajesh Jesudoss; Kumar, J. Senthil; Sujana, J. Angela Jennifa	2021	Title: bio

Foundry approach for layout risk assessment through comprehensive pattern harvesting and large-scale data analysis	Babu, Monisa Ramesh; Song, Shenghua; Xie, Qian; Rezaifakhr, Pouya; Chiu, Eric; Park, Joo Hyun; Ryan, Deborah; Murali, Kiruthika; Poloju, Praneetha; Malik, Shobhit; Yin, Haizhou; Madhavan, Sriram; Venkatachalam, Panneerselvam	2021	Title: Process
Intelligent decision-making support system for manufacturing solution recommendation in a cloud framework	Simeone, Alessandro; Zeng, Yunfeng; Caggiano, Alessandra	2021	Full text: Algorithm
A path planning method of lattice structural components for additive manufacturing	Zhou, Bo; Tian, Tongtong	2021	Title: additive
Generative Adversarial Networks for spot weld design	Gerlach, Tobias; Eggink, Derk H. D.	2021	Title: Process
Challenges and opportunities for artificial intelligence and high-fidelity simulations in turbomachinery applications: a perspective	Michelassi, Vittorio; Ling, Julia	2021	Title: simulation
Prognosis Smart System AI-based Applied to Equipment Health Monitoring in 4.0 Industry Scenario	Silva, Alecio; Souza, Gilberto F. M.	2021	Title: health
Milling tool wear prediction using unsupervised machine learning	Gittler, Thomas; Glasder, Magnus; Ozturk, Elif; Luthi, Michel; Weiss, Lukas; Wegener, Konrad	2021	Abstract: Algorithm
Implementation of Artificial Intelligence in Bending Analysis of Propeller/Fan Blade	Hase, Aniket Anil; Chang, Jen-Yuan (James)	2021	Title: Process
Development of a new robotic programming support system for operators	Emeric, Colombet; Geoffroy, Debled; Paul-Eric, Dossou	2020	Title: robot
Infrared Thermography Based Hotspot Detection Of Photovoltaic Module using YOLO	Tajwar, Tahmid; Mobin, Ovib Hassan; Khan, Fariha Reza; Hossain, Shara Fatema; Islam, Mohaimenul; Rahman, Md Mosaddequr	2021	Title: Process
knowlEdge Project - Concept, Methodology and Innovations for Artificial Intelligence in Industry 4.0	Alvarez-Napagao, Sergio; Ashmore, Boki; Barroso, Marta; Barrue, Cristian; Beecks, Christian; Berns, Fabian; Bosi, Ilaria; Chala, Sisay Adugna; Ciulli, Nicola; Garcia-Gasulla, Marta; Grass, Alexander; Ioannidis, Dimosthenis; Jakubiak, Natalia; Koepke, Karl; Lamsa, Ville; Megias, Pedro; Nizamis, Alexandros; Pastrone, Claudio; Rossini, Rosaria; Sanchez-Marre, Miquel; Ziliotti, Luca	2021	Full text: Concept

New insights into the methods for predicting ground surface roughness in the age of digitalisation	Pan, Yuhang; Zhou, Ping; Yan, Ying; Agrawal, Anupam; Wang, Yonghao; Guo, Dongming; Goel, Saurav	2021	Abstract: Review
IOT data-driven experimental process optimisation for kevlar fiberglass components for aeronautic	Mastandrea, Giuseppe; Mattia, Daniele; D'Oriano, Luigi; Rana, Giuseppe Rocco; Nocera, Francesco; Mongiello, Marina	2021	Title: Process
Automated parameterization of local support at every toolpath point in robot-based incremental sheet forming	Stoerkle, Denis; Altmann, Peter; Moellensiep, Dennis; Thyssen, Lars; Kuhlenkoetter, Bernd	2019	Title: robot
USING MACHINE LEARNING TO PREDICT CORE SIZES OF HIGH-EFFICIENCY TURBOFAN ENGINES	Tong, Michael T.	2019	Duplication
On-line chatter detection in milling with hybrid machine learning and physics-based model	Rahimi, M. Hossein; Huynh, Hoai Nam; Altintas, Yusuf	2021	Abstract: Process
Lithography tool improvement at productivity and performance with data analysis and machine learning	Takarada, Yosuke; Shelton, Douglas; Fukada, Tsuneari; Katayama, Shosi; Mori, Ken-Ichiro; Miura, Seiya	2021	Title: Process
Past Infrastructures and Future Machine Intelligence (MI) for Biofuel Production: A Review and MI-Based Framework	Hansen, Samuel; Mirkouei, Amin	2018	Title: bio
Machine learning classification-based approach for mechanical properties of friction stir welding of copper	Thapliyal, Shivraman; Mishra, Akshansh	2021	Title: Process
Machine learning cutting force, surface roughness, and tool life in high speed turning processes	Zhang, Yun; Xu, Xiaojie	2021	Title: Process
Machine Learning of Surface Layer Property Prediction for Milling Operations	Uhlmann, Eckart; Holznagel, Tobias; Schehl, Philipp; Bode, Yannick	2021	Title: Process
Machine learning-based marker length estimation for garment mass customization	Xu, Yanni; Thomassey, Sebastien; Zeng, Xianyi	2021	Title: Process
Manufacturing of advanced smart tooling for metal forming	Cao, Jian; Brinksmeier, Ekkard; Fu, Mingwang; Gao, Robert X.; Liang, Biao; Merklein, Marion; Schmidt, Michael; Yanagimoto, Jun	2019	Abstract: Survey
Extrusion parameter control optimization for DIW 3D printing using image analysis techniques	Sevcik, Max J.; Bjerke, Gabriel; Wilson, Finnegan; Kline, Dylan J.; Morales, Rodrigo Chavez; Fletcher, Hannah E.; Guan, Kelly; Grapes, Michael D.; Seetharaman, Sridhar; Sullivan, Kyle T.; Belof, Jonathan L.; Eliasson, Veronica	2023	Title: 3D
An integrated control strategy for simultaneous robot assignment, tool change and preventive maintenance scheduling using Heterogeneous Graph Neural Network	Bhatta, Kshitij; Chang, Qing	2023	Title: robot

A comparative study of machine learning algorithms in the prediction of bead geometry in wire-arc additive manufacturing	Chandra, Mukesh; Vimal, K. E. K.; Rajak, Sonu	2023	Title: additive
Manufacturing process monitoring using time-frequency representation and transfer learning of deep neural networks	Liao, Yabin; Ragai, Ihab; Huang, Ziyun; Kerner, Scott	2021	Title: Algorithm
Role of biodegradable dielectrics toward tool wear and dimensional accuracy in Cu-mixed die sinking EDM of Inconel 600 for sustainable machining	Ishfaq, Kashif; Sana, Muhammad; Rehman, Mudassar; Anwar, Saqib; Alfaify, Abdullah Yahia; Zia, Abdul Wasy	2023	Title: bio
Metamodeling of Cyber-Physical Production Systems using AutomationML for Collaborative Innovation	Juhlin, Prerna; Schlake, Jan-Christoph; Janka, Dennis; Hawlitschek, Adrian	2021	Title: Process
Characterization and machine learning-based parameter estimation in MQL machining of a superalloy for developed green nano-metalworking fluids	Vardhanapu, Muralidhar; Chaganti, Phaneendra Kiran; Tarigopula, Pranay	2023	Title: fluid
Modeling Fused Filament Fabrication using Artificial Neural Networks	Oehlmann, Paul; Osswald, Paul; Blanco, Juan Camilo; Friedrich, Martin; Rietzel, Dominik; Witt, Gerd	2021	Title: Process
Multiple Sound Sensors And Fusion In Modern CNN-Based Machine State Prediction	Kim, Eunseob; Yun, Huitaek; Jun, Martin Byung-Guk; Kim, Kyunghyun; Cha, Suk Won	2021	Title: Algorithm
Multi-Scale Convolutional Gated Recurrent Unit Networks for Tool Wear Prediction in Smart Manufacturing	Xu, Weixin; Miao, Huihui; Zhao, Zhibin; Liu, Jinxin; Sun, Chuang; Yan, Ruqiang	2021	Title: Algorithm
Physics-guided logistic classification for tool life modeling and process parameter optimization in machining	Karandikar, Jaydeep; Schmitz, Tony; Smith, Scott	2021	Abstract: Process
Indirect measurement of cutting forces during robotic milling using multiple sensors and a machine learning-based system identifier	Mun, Chang Hyeon; Rezvani, Sina; Lee, Jiho; Park, Simon S.; Park, Hyung Wook; Lee, Jihyun	2023	Title: robot
Online Chatter Detection for Milling Operations Using LSTM Neural Networks Assisted by Motor Current Signals of Ball Screw Drives	Vashisht, Rajiv Kumar; Peng, Qingjin	2021	Title: Algorithm
Process identification in practice: software-supported modeling for controller design	Benesch, Manfred; Dementyev, Alexander; Kubin, Hellmuth; Ihlenfeldt, Steffen	2021	Full text: Process
Online tool condition monitoring for ultrasonic metal welding via sensor fusion and machine learning	Nazir, Qasim; Shao, Chenhui	2021	Title: Process

Optimal transport-based transfer learning for smart manufacturing: Tool wear prediction using out-of-domain data	Xie, Rui; Wu, Dazhong	2021	Title: Process
Metacognitive learning approach for online tool condition monitoring	Pratama, Mahardhika; Dimla, Eric; Lai, Chow Yin; Lughofer, Edwin	2019	Full text: Algorithm
Optimizing OCTG Thread Manufacturing Operation Using Automation	Nair, Prashant Unnikrishnan	2021	Title: Process
PCD Milling Cutter Remaining Useful Life Prediction for Titanium and Aluminum Mirror Milling by Using S2S-LSTM Deep Learning Technology	Chen, Shang-Liang; Lee, Kuei-Ming; Huang, Yen-Hsiang; Lu, Yu-Ting; Lin, Yu-Fu; Huang, Ho-Chuan	2021	Title: Process
Performance Evaluation of the Data Clustering Techniques and Cluster Validity Indices for Efficient Toolpath Development for Incremental Sheet Forming	Nagargoje, Aniket; Kankar, Pavan K.; Jain, Prashant K.; Tandon, Puneet	2021	Title: Process
Recent Developments Towards Industry 4.0 Oriented Predictive Maintenance in Induction Motors	Drakaki, Maria; Karnavas, Yannis L.; Tzionas, Panagiotis; Chasiotis, Ioannis D.	2021	Full text: Process
Predicting tool wear size across multi-cutting conditions using advanced machine learning techniques	Shen, Yan; Yang, Feng; Habibullah, Mohamed Salahuddin; Ahmed, Jhinaoui; Das, Ankit Kumar; Zhou, Yu; Ho, Choon Lim	2021	Title: Process
Predictive Maintenance of Pump and Abatement Equipment in a 300mm Semiconductor Fab	LaRose, J. D.; Barker, John; Finlay, Boyd; Trinidad, Alex; Guyer, Carmen; Weinstein, Justin; Conerney, Brian; Ray, Dana; Perry, John; Tarnawskyj, Walter; Lansford, Jeremy	2021	Title: Process
Research on tool wear prediction based on temperature signals and deep learning	He, Zhaopeng; Shi, Tielin; Xuan, Jianping; Li, Tianxiang	2021	Abstract: Algorithm
Process planning for die and mold machining based on pattern recognition and deep learning	Hashimoto, Mayu; Nakamoto, Keiichi	2021	Title: Process
Quick Yield Impact Assessment Using Silicon-design Correlation to Address Design Systematics	Miao, Chenlong; Ryan, Deborah; Yin, Haizhou; Babu, Monisa Ramesh; Song, Shenghua; Chiu, Eric; Malik, Shobhit; Madhavan, Sriram; Wojtowecz, Michael; Lin, Peter; Wilkinson, William; Lim, C. T.; Venkatachalam, Panneerselvam	2021	Title: Process
Radial slicing for helical-shaped advanced manufacturing applications	Munasinghe, Nuwan; Paul, Gavin	2021	Title: Process

Rapid feasibility assessment of components to be formed through hot stamping: A deep learning approach	Attar, Hamid Reza; Zhou, Haosu; Foster, Alistair; Li, Nan	2021	Title: Process
Sample Extraction of a Quality Inspection Tool for Dental Parts Manufacturing Industry	Akaishi, R.; Haraguchi, H.	2021	Full text: Process
Technical language processing: Unlocking maintenance knowledge	Brundage, Michael P.; Sexton, Thurston; Hodkiewicz, Melinda; Dima, Alden; Lukens, Sarah	2021	Abstract: Not a DAS
The concept of operation and production control	Wolniak, Radoslaw	2021	Abstract: Review
Optimization Techniques and Formal Verification for the Software Design of Boolean Algebra Based Safety-Critical Systems	Perez, Jon; Flores, Jose Luis; Blum, Christian; Cerquides, Jesus; Abuin, Alex	2022	Title: lean
Self-supervised learning for tool wear monitoring with a disentangled-variational-autoencoder	von Hahn, Tim; Mechefske, Chris K.	2021	Title: Process
Integrating human cognition in cyber-physical systems: A multidimensional fuzzy pattern model with application to thermal spraying	Bocklisch, Franziska; Paczkowski, Gerd; Zimmermann, Stephan; Lampke, Thomas	2022	Included in investigation
Construction of a Smart Vision-Guided Robot System for Manipulation in a Dynamic Environment	Arents, Janis; Greitans, Modris; Lesser, Bernd	2021	Title: robot
Semi-supervised deep learning based framework for assessing manufacturability of cellular structures in direct metal laser sintering process	Guo, Yilin; Lu, Wen Feng; Fuh, Jerry Ying Hsi	2021	Title: Process
Service-oriented collaboration framework based on cloud platform and critical factors identification	Liu, Xiahui; Deng, Qianwang; Gong, Guiliang; Lv, Mengran; Jiang, Chao	2021	Title: Process
The interpretive model of manufacturing: a theoretical framework and research agenda for machine learning in manufacturing	Sharma, Ajit; Zhang, Zhibo; Rai, Rahul	2021	Abstract: Review
Unlocking causal relations of barriers to big data analytics in manufacturing firms	Raut, Rakesh; Narwane, Vaibhav; Kumar Mangla, Sachin; Yadav, Vinay Surendra; Narkhede, Balkrishna Eknath; Luthra, Sunil	2021	Abstract: Review
A knowledge-based approach for representing jobholder profile toward optimal human-machine collaboration in cyber physical production systems	Ansari, Fazel; Hold, Philipp; Khobreh, Marjan	2020	Abstract: No DAS for ML
The Thermal Error Estimation of the Machine Tool Spindle Based on Machine Learning	Chiu, Yu-Cheng; Wang, Po-Hsun; Hu, Yuh-Chung	2021	Title: Process

Enabling Factors of Digital Manufacturing Supply Chains: A Systematic Literature Review	Weerabahu, W. M. S. K.; Samaranayake, Premaratne; Nakandala, Dilupa; Hurriyet, Hilal	2021	Title: review
Tool condition monitoring and tool defect detection for end mills based on high-frequency machine tool data	Fertig, Alexander; Grau, Lukas; Altmannsberger, Marius; Weigold, Matthias	2021	Title: Process
Tool wear monitoring by ensemble learning and sensor fusion using power, sound, vibration, and AE signals	Nasir, Vahid; Dibaji, Sina; Alaswad, Kareem; Cool, Julie	2021	Title: Process
Tool wear monitoring in micromilling using Support Vector Machine with vibration and sound sensors	Gomes, Milla Caroline; Brito, Lucas Costa; da Silva, Marcio Bacci; Viana Duarte, Marcus Antonio	2021	Title: Algorithm
Simulation-based feed rate adaptation considering tool wear condition	Denkena, Berend; Dittrich, Marc -Andre; Mainka, Julia	2020	Title: simulation
Tool wear monitoring in roughing and finishing processes based on machine internal data	Xi, Tiandong; Beninca, Igor Medeiros; Kehne, Sebastian; Fey, Marcel; Brecher, Christian	2021	Title: Algorithm
Trust in artificial intelligence within production management - an exploration of antecedents	Sassmannshausen, Till; Burggraef, Peter; Wagner, Johannes; Hassenzahl, Marc; Heupel, Thomas; Steinberg, Fabian	2021	Title: Algorithm
Accessing the cutting forces in machining processes: An overview	Sousa, V; Silva, F. J. G.; Fecheira, J. S.; Lopes, H. M.; Martinho, R. P.; Casais, R. B.	2020	Abstract: Review
A Bayesian information fusion approach for end product quality estimation using machine learning and on-machine probing	Papananias, Moschos; McLeay, Thomas E.; Mahfouf, Mahdi; Kadirkamanathan, Visakan	2022	Title: Process
A comparison of four machine learning techniques and continuous wavelet transform approach for detection and classification of tool breakage during milling process	Demir, Habibe Gursoy; Yesilyurt, Isa	2022	Title: Algorithm
Advances in Machine Learning Detecting Changeover Processes in Cyber Physical Production Systems	Engelmann, Bastian; Schmitt, Simon; Miller, Eddi; Braeutigam, Volker; Schmitt, Jan	2020	Abstract: No DAS for ML
A Customizable Simulator for Artificial Intelligence Research to Schedule Semiconductor Fabs	Kovacs, Benjamin; Tassel, Pierre; Ali, Ramsha; El-Kholany, Mohammed; Gebser, Martin; Seidel, Georg	2022	Title: Process
A deep-learning-based in-situ surface anomaly detection methodology for laser directed energy deposition via powder feeding	Kaji, Farzaneh; Nguyen-Huu, Howard; Budhwani, Alikasim; Narayanan, Jinoop Arackal; Zimny, Mark; Toyserkani, Ehsan	2022	Title: Process
A hybrid deep learning model for robust prediction of the dimensional accuracy in precision milling of thin-walled structural components	Bai, Long; Xu, Fei; Chen, Xiao; Su, Xin; Lai, Fuyao; Xu, Jianfeng	2022	Title: Process

A low-cost AI-enabled automated UV LED lifetime testing system with angular beam mapping	Sharma, Pratibha; Chen, Pao; Han, Saya; Chung, Peter	2022	Title: Process
A Brief Review on Different Lubricants Used in MQL Process During Hard Turning	Tiwari, Hemant; Kumar, Ramanuj; Panda, Amlana; Sahoo, Ashok Kumar; Roy, Soumikh	2019	Title: review
Technological CAD/CAM chain for automated polishing of geometrically complex workpieces	Denkena, Berend; Dittrich, Marc-Andre; Hai Nam Nguyen	2018	Title: CAD
A new lubrication approach in the SPIF process: Evaluation of the applicability and tribological performance of MQL	Sen, Nuri; Sirin, Senol; Kivak, Turgay; Civek, Tolgahan; Secgin, Omer	2022	Title: Process
A Novel Approach for Real-Time Quality Monitoring in Machining of Aerospace Alloy through Acoustic Emission Signal Transformation for DNN	Adeniji, David; Oligee, Kyle; Schoop, Julius	2022	Title: Algorithm
Integrating Artificial Intelligence and Simulation for Controlling Steady Flow of Fixtures	Kasie, Fentahun Moges; Bright, Glen; Walker, Anthony	2016	Title: simulation
Advancing manufacturing systems with big-data analytics: A conceptual framework	Kozjek, Dominik; Vrabic, Rok; Rihtarsic, Borut; Lavrac, Nada; Butala, Peter	2020	Full text: Concept
Modelling of robotic work cells using agent based-approach	Sekala, A.; Banas, W.; Gwiazda, A.; Monica, Z.; Kost, G.; Hryniewicz, P.	2016	Title: robot
A novel fully convolutional neural network approach for detection and classification of attacks on industrial IoT devices in smart manufacturing systems	Shahin, Mohammad; Chen, F. Frank; Bouzary, Hamed; Hosseinzadeh, Ali; Rashidifar, Rasoul	2022	Title: Algorithm
Adaptive Mobile Robot Scheduling in Multiproduct Flexible Manufacturing Systems Using Reinforcement Learning	Waseem, Muhammad; Chang, Qing	2023	Title: robot
A physics-informed machine learning model for surface roughness prediction in milling operations	Wu, Pengcheng; Dai, Haicong; Li, Yufeng; He, Yan; Zhong, Rui; He, Jinsen	2022	Title: Process
An Integrated Target Acquisition Approach and Graphical User Interface Tool for Parallel Manipulator Assembly	Chen, Haodong; Teng, Zhiqiang; Guo, Zheng; Zhao, Ping	2020	Abstract: Algorithm
Artificial Intelligence in Advanced Manufacturing: Current Status and Future Outlook	Arinez, Jorge F.; Chang, Qing; Gao, Robert X.; Xu, Chengying; Zhang, Jianjing	2020	Abstract: Review
Activity Recognition With Machine Learning in Manual Grinding	Doerr, Matthias; Spoden, Frederik; Matthiesen, Sven; Gwosch, Thomas	2022	Title: Process
Adaptive compensation of the transmission errors in rack-and-pinion drives	Verl, A.; Steinle, L.	2022	Title: Process

Development and analysis of digital twins of production systems	Overbeck, Leonard; Graves, Stephen C.; Lanza, Gisela	2023	Title: digital twin
AI-Based Surface Roughness Prediction Model for Automated CAM-Planning Optimization	Tonejca (Nee Plessing), Lea; Mauthner, Gernot; Trautner, Thomas; Konig, Valentina; Liemberger, Werner	2022	Title: Process
An approach for process optimisation of the Automated Fibre Placement (AFP) based thermoplastic composites manufacturing using Machine Learning, photonic sensing and thermo-mechanics modelling	Islam, Faisal; Wanigasekara, Chathura; Rajan, Ginu; Swain, Akshya; Prusty, B. Gangadhara	2022	Title: Process
An end-to-end big data analytics platform for IoT-enabled smart factories: A case study of battery module assembly system for electric vehicles	Kahveci, Sinan; Alkan, Bugra; Ahmad, Mus'ab H.; Ahmad, Bilal; Harrison, Robert	2022	Title: Process
A deep learning-enhanced Digital Twin framework for improving safety and reliability in human-robot collaborative manufacturing	Wang, Shenglin; Zhang, Jingqiong; Wang, Peng; Law, James; Calinescu, Radu; Mihaylova, Lyudmila	2024	Title: digital twin
Optimizing 3D printing facility selection for ubiquitous manufacturing using an evolving fuzzy big data analytics approach	Chen, Tin-Chih Toly; Lin, Chi-Wei; Chiu, Min-Chi	2023	Title: 3D
Challenges and countermeasures for digital twin implementation in manufacturing plants: A Delphi study	Saporiti, Nicolo; Cannas, Violetta Giada; Pozzi, Rossella; Rossi, Tommaso	2023	Title: digital twin
Automatic Detection of Manufacturing Equipment Cycles Using Time Series	Seevers, Jan-Peter; Jurczyk, Kristina; Meschede, Henning; Hesselbach, Jens; Sutherland, John W.	2020	Abstract: Algorithm
An IoT-Based Monitoring System for Induction Motor Faults Utilizing Deep Learning Models	Irgat, Eyup; Cinar, Eyup; Unsal, Abdurrahman; Yazici, Ahmet	2022	Title: Process
Application of artificial intelligence technology in the manufacturing process and purchasing and supply management	Kehayov, Mito; Holder, Lukas; Koch, Volker	2022	Title: Process
Data Science for Industry 4.0 and Sustainability: A Survey and Analysis Based on Open Data	Castro, Helio; Costa, Filipe; Ferreira, Tania; avila, Paulo; Cruz-Cunha, Manuela; Ferreira, Luis; Putnik, Goran D.; Bastos, Joao	2023	Title: survey
Application of artificial intelligence to optimize the process parameters effects on tensile properties of Ti-6Al-4V fabricated by laser powder-bed fusion	Maleki, Erfan; Bagherifard, Sara; Guagliano, Mario	2022	Title: Process

Minimum quality lubricant (MQL) for ultraprecision machining of titanium nitride-coated carbide inserts: sustainable Manufacturing process	Uppal, Amrinder Singh; Sharma, Ankit; Babbar, Atul; Singh, Kamaljeet; Singh, Anoop Kumar	2023	Title: sustainab
Application of Industry 4.0 trends in the teaching process	Brazina, Jakub; Stepanek, Vojtech; Holub, Michal; Vetiska, Jan; Bradac, Frantisek	2022	Title: No manufacturing
Big Data Oriented Smart Tool Condition Monitoring System	Zhu, Kunpeng; Li, Guochao; Zhang, Yu	2020	Full text: Concept
Particle-scale computational fluid dynamics study on surface morphology of GH4169 superalloy during multi-laser powder bed fusion with low energy density	Li, Qi; Jiang, Wu-Gui; Qin, Qing-Hua; Tu, Zhi-Xin; Li, Duo-Sheng	2023	Title: fluid
Applying a support vector machine for hollow ball screw condition-based classification using feature extraction	Huang, Yi-Cheng; Hsieh, Yi-Keng	2022	Title: Algorithm
Data-driven Context Awareness of Smart Products in Discrete Smart Manufacturing Systems	Lenza, Juergen; Pelosi, Valerio; Taisch, Marco; MacDonald, Eric; Wuest, Thorsten	2020	Abstract: Process
Case Study: Testing the Overall Efficiency of Equipment in the Production Process in TX Plant Simulation Software	Pekarcikova, Miriam; Trebuna, Peter; Kliment, Marek; Trojan, Jozef; Kopec, Jan; Dic, Michal; Kronova, Jana	2023	Title: simulation
Artificial Intelligence for Real Time Cluster Tool Scheduling EO: Equipment Optimization	Suerich, Doug; McIlroy, Trevor	2022	Title: Process
Big data-oriented wheel position and geometry calculation for cutting tool groove manufacturing based on AI algorithms	Li, Guochao; Liu, Zhigang; Lu, Jie; Zhou, Honggen; Sun, Li	2022	Title: Process
Building supply-chain resilience: an artificial intelligence-based technique and decision-making framework	Belhadi, Amine; Kamble, Sachin; Wamba, Samuel Fosso; Queiroz, Maciel M.	2022	Title: Process
CNC Machine-Bearing Fault Detection Based on Convolutional Neural Network Using Vibration and Acoustic Signal	Iqbal, Mohmad; Madan, A. K.	2022	Title: Process
Data Acquisition Network Configuration and Real-Time Energy Consumption Characteristic Analysis in Intelligent Workshops for Social Manufacturing	Zhang, Chaoyang; Zhang, Juchen; Ji, Weixi; Peng, Wei	2022	Title: energy
Data organization in laser-based powder bed fusion for metals	Feng, Shaw C.; Li, Shengyen; Yakout, Mostafa; Jones, Albert T.	2022	Title: Process
Data-driven prediction of next-layer melt pool temperatures in laser powder bed fusion based on co-axial high-resolution Planck thermometry measurements	Kozjek, Dominik; Carter, Fred M., III; Porter, Conor; Mogonye, Jon-Erik; Ehmann, Kornel; Cao, Jian	2022	Title: Process

Data-Driven Thermal Deviation Prediction in Turning Machine-Tool - A Comparative Analysis of Machine Learning Algorithms	Ouerhani, Nabil; Loehr, Bernard; Rizzotti-Kaddouri, Aicha; Santo De Pinho, Dylan; Limat, Adrien; Schinderholz, Philippe	2022	Title: Process
Deep learning-based monitoring of laser powder bed fusion process on variable time-scales using heterogeneous sensing and operando X-ray radiography guidance	Pandiyan, Vigneashwara; Masinelli, Giulio; Claire, Navarre; Tri Le-Quang; Hamidi-Nasab, Milad; de Formanoir, Charlotte; Esmaeilzadeh, Reza; Goel, Sneha; Marone, Federica; Loge, Roland; Van Petegem, Steven; Wasmer, Kilian	2022	Title: Process
Data-driven framework for the prediction of cutting force in turning	Chatterjee, Kaustabh; Zhang, Jian; Dixit, Uday Shanker	2020	Abstract: Concept
Fault Diagnosis of Timed Event Systems: An Exploration of Machine Learning Methods	Cohen, Joseph; Jiang, Baoyang; Ni, Jun	2020	Abstract: Algorithm
Formation and selection methodology of digital transformations programs for an industrial enterprise using machine learning algorithms	Lukina, S., V; Makarov, V. V.; Dobrolyubova, M. F.; Krutyakova, M., V	2020	Abstract: Algorithm
Detailed design for additive manufacturing and post processing of generatively designed high tibial osteotomy fixation plates	Kanagalingam, Sanjeevan; Dalton, Chris; Champneys, Peter; Boutefnouchet, Tarek; Fernandez-Vicente, Miguel; Shepherd, Duncan E. T.; Wimpenny, David; Thomas-Seale, Lauren E. J.	2023	Title: additive
Intelligent Maintenance Systems and Predictive Manufacturing	Lee, Jay; Ni, Jun; Singh, Jaskaran; Jiang, Baoyang; Azamfar, Moslem; Feng, Jianshe	2020	Full text: Concept
Designing Energy-Efficient Decision Tree Memristor Crossbar Circuits using Binary Classification Graphs	Sinha, Pranav; Raj, Sunny	2022	Title: Algorithm
Parallel computing and network analytics for fast Industrial Internet-of-Things (IIoT) machine information processing and condition monitoring	Kan, Chen; Yang, Hui; Kumara, Soundar	2018	Abstract: Algorithm
ML Pro: digital assistance system for interactive machine learning in production	Neunzig, Christian; Moellensiep, Dennis; Kuhlenkoetter, Bernd; Moeller, Matthias	2023	Included in investigation
Determination of the Ultimate Tensile Strength (UTS) of friction stir welded similar AA6061 joints by using supervised machine learning based algorithms	Mishra, Akshansh; Morisetty, Rakesh	2022	Title: Process

Development of a deep learning machining feature recognition network for recognition of four pilot machining features	Mohammadi, Naser; Nategh, Mohammad Javad	2022	Title: Process
Dynamic job shop scheduling based on deep reinforcement learning for multi-agent manufacturing systems	Zhang, Yi; Zhu, Haihua; Tang, Dunbing; Zhou, Tong; Gui, Yong	2022	Title: Process
EML webinar overview: Elastic Strain Engineering for unprecedented properties	Li, Ju	2022	Title: No manufacturing
Knowledge-Based Assisting Tools - Real Life Inspirations	Pokojski, Jerzy; Oleksinski, Konrad; Pruszynski, Jaroslaw; Mazik, Maciej	2020	Full text: Process
Automated Defect Recognition for Additive Manufactured Parts Using Machine Perception and Visual Saliency	Petrich, Jan; Reutzel, Edward W.	2023	Title: additive
Evaluation of the efficiency of an ultrasonic atomization-based coolant (uACF) spray system in external turning using different nozzle tips	Kafkas, Firat	2022	Title: Process
Evaluation of transducer signature selections on machine learning performance in cutting tool wear prognosis	Sun, I-Chun; Cheng, Ren-Chi; Chen, Kuo-Shen	2022	Title: Process
MTouch: an automatic fault detection system for desktop FFF 3D printers using a contact sensor	Aidala, Samuel; Eichenberger, Zachary; Chan, Nicholas; Wilkinson, Kyle; Okwudire, Chinedum	2022	Title: 3D
Experimental validation of machine learning models for prediction of the thickness distribution of directionally rolled copper strips under scaling law	Sivam, S. P. Sundar Singh; Rajendran, R.	2022	Title: Process
Filling Missing Surface Roughness Data for Grinding Process Using Physics-Guided Neural Network	Li, Chen; Bhatta, Kshitij; Xiao, Guoxian; Fan, Hua-tzu; Arinez, Jorge; Chang, Qing	2022	Title: Process
Machine learning applied in production planning and control: a state-of-the-art in the era of industry 4.0	Usuga Cadavid, Juan Pablo; Lamouri, Samir; Grabot, Bernard; Pellerin, Robert; Fortin, Arnaud	2020	Abstract: Review
Multi-task Gaussian process upper confidence bound for hyperparameter tuning and its application for simulation studies of additive manufacturing	Shen, Bo; Gnanasambandam, Raghav; Wang, Rongxuan; Kong, Zhenyu James	2023	Title: additive
Forecasting Construction Project Performance with Momentum Using Singularity Functions in LPS	Ezzeddine, Ali; Shehab, Lynn; Lucko, Gunnar; Hamzeh, Farook	2022	Title: Process
Faster than real-time path-sensitive temperature modeling of wire-arc additive manufacturing by a data-driven finite volume method	Bambach, Markus; Sideris, Iason; Fabbri, Maicol; Wegener, Konrad	2022	Title: additive

Forecasting Repair and Maintenance Services of Medical Devices Using Support Vector Machine	Liao, Hao-yu; Cade, Willie; Behdad, Sara	2022	Title: Algorithm
Fracture strength of Graphene at high temperatures: data driven investigations supported by MD and analytical approaches	Siruvuri, S. D. V. S. S. Varma; Verma, H.; Javvaji, B.; Budarapu, P. R.	2022	Title: Process
Health Monitoring of Milling Tools under Distinct Operating Conditions by a Deep Convolutional Neural Network model	Suawa, Priscile Fogou; Huebner, Michael	2022	Title: health
Gaussian process regression-based detection and correction of disturbances in surface topography measurements	Maculotti, Giacomo; Genta, Gianfranco; Quagliotti, Danilo; Galetto, Maurizio; Hansen, Hans N.	2022	Title: Process
Milling diagnosis using artificial intelligence approaches	Knittel, Dominique; Makich, Hamid; Nouari, Mohammed	2020	Abstract: Process
Generative modelling of laser beam welded Inconel 718 thin weldments using ANFIS based hybrid algorithm	Thejasree, P.; Narasimhamu, K. L.; Natarajan, Manikandan; Raju, Ramesh	2022	Title: Process
Graph neural network and multi-agent reinforcement learning for machine-process-system integrated control to optimize production yield	Huang, Jing; Su, Jianyu; Chang, Qing	2022	Title: Process
Heterogeneous demand-capacity synchronization for smart assembly cell line based on artificial intelligence-enabled	Ling, Shiquan; Guo, Daqiang; Li, Mingxing; Rong, Yiming; Huang, George Q.	2022	Title: Process
AI and BD in Process Industry: A Literature Review with an Operational Perspective	Fornasiero, Rosanna; Nettleton, David F.; Kiebler, Lorenz; Martinez de Yuso, Alicia; De Marco, Chiara Eleonora	2021	Title: process industry
Hybrid Quantum-Classical Machine Learning for Lithography Hotspot Detection	Yang, Yuan-Fu; Sun, Min	2022	Title: Process
Application of Artificial Intelligence in Incremental Sheet Metal Forming: A Review	Harfoush, Asmaa; Haapala, Karl R.; Tabei, Ali	2021	Title: review
MLCP: A Framework Integrating with Machine Learning and Optimization for Planning and Scheduling in Manufacturing and Services	Zheng, Jian; Kobayashi, Yuichi; Takahashi, Yoshiyasu; Yanagida, Takashi; Sato, Tatsuhiro; Hitaka, Daiji	2020	Full text: Concept
Computer simulation and optimisation of material handling systems	Leung, Chris Siu Kei; Lau, Henry Ying Kei	2021	Title: simulation
In-process acoustic pore detection in milling using deep learning	Gauder, Daniel; Biehler, Michael; Goelz, Johannes; Schulze, Volker; Lanza, Gisela	2022	Title: Process

Optimizing smart manufacturing systems by extending the smart products paradigm to the beginning of life	Lenz, Juergen; MacDonald, Eric; Harik, Ramy; Wuest, Thorsten	2020	Abstract: Process
Assessment of a Machine-Learnt Adaptive Wall-Function in a Compressor Cascade With Sinusoidal Leading Edge	Tieghi, Lorenzo; Corsini, Alessandro; Delibra, Giovanni; Angelini, Gino	2020	Title: CAD
Prediction of surface roughness in CNC turning by model-assisted response surface method	Misaka, Takashi; Herwan, Jonny; Ryabov, Oleg; Kano, Seisuke; Sawada, Hiroyuki; Kasashima, Nagayoshi; Furukawa, Yoshiyuki	2020	Abstract: Algorithm
Knowledge-Based Adaptation of Product and Process Design in Blisk Manufacturing	Ganser, Philipp; Landwehr, Markus; Schiller, Sven; Vahl, Christopher; Mayer, Sebastian; Bergs, Thomas	2022	Title: Process
Lessons Learned from Industrial Augmented Reality Applications	Stuebl, Gernot; Ebenhofer, Gerhard; Bauer, Harald; Pichler, Andreas	2022	Title: No relation to ML
Long Short-Term Memory-Based Cutting Depth Monitoring System for End Milling Operation	Vaishnav, Shubham; Desai, K. A.	2022	Title: Algorithm
Machine Learning Algorithms for Forest Stand Delineation Using Yearly Sentinel 2MSI Time Series	Legdou, Anass; Amine, Aouatif; Lahssini, Said; Chafik, Hassan; Berada, Mohamed	2022	Title: Algorithm
Machine Learning Architecture Evaluation for Fast and Accurate Weak Point Detection	Tellakula, Suraag Sunil; Schroeder, Uwe Paul; Bakshi, Janam; Selvam, Punitha; Batarseh, Fadi; Rezaeifakhr, Pouya; Madhavan, Sriram	2022	Title: Process
Machine Learning based error classification for curvilinear designs	Yin, Lianghong; Shang, Shumay; Jiang, Fan; Hong, Le; Chia, Robin; Opitz, Juli; Adam, Paul; Stobert, Ian; Koh, Yee Wee	2022	Title: Process
IN2Dig-Implementation of a Digital Manufacturing System in a Production Cell of the Metal Mold Industry: From Planning to Action	Piedade, Fernando; Baptista, Marcia; Chaves, Paulo	2020	Title: 2D
Process monitoring for quality-a feature selection method for highly unbalance data	Diaz, Carlos A. Escobar; Arinez, Jorge; Arregoyta, Daniela Macias; Morales-Menendez, Ruben	2022	Abstract: Algorithm
Machine learning based inverse design of complex microstructures generated via hierarchical wrinkling	Saha, Sourabh K.	2022	Title: Process
Machine learning enables national assessment of wind plant controls with implications for land use	Harrison-Atlas, Dylan; King, Ryan N.; Glaws, Andrew	2022	Title: Process
Quality monitoring of complex manufacturing systems on the basis of model driven approach	Castano, Fernando; Haber, Rodolfo E.; Mohammed, Wael M.; Nejman, Miroslaw; Villalonga, Alberto; Lastra, Jose L. Martinez	2020	Abstract: Process

Recent Advancements in Machining With Abrasives	Guo, Changsheng; Shi, Zhongde; Mullany, Brigid; Linke, Barbara; Yamaguchi, Hitomi; Chaudhari, Rahul; Hucker, Scott; Shih, Albert	2020	Abstract: Review
Machine learning modeling using process context and the exposure data for overlay prediction	Wang, Wei-Hung; Brinster, Irina; Maniat, Mohsen; Anis, Fatima; Lee, Yen Hui; Bosese, Sven; Tseng, C. F.; Chu, Wei Yuan; Habets, Boris; Huang, C. H.; Yang, Elvis; Yang, T. H.; Chen, K. C.	2022	Title: Process
Development and Testing of a Combined Machine and Process Health Monitoring System	Dominguez-Caballero, Javier; Stammers, Jon; Moore, James	2019	Title: health
RETRACTED: A Framework for Big Data Driven On-Line Monitoring of Tool Wear (Retracted Article)	Gui, Yong; Leng, Sheng; Dai, Zhiqiang; Wu, Jiyuan	2020	No access
Machine learning-based model for detecting uneven wear and temperature deviation events in hot forging process	Wu, Tsung-Liang; Hwang, Yu-Chun; Zhang, Wei-Xun	2022	Title: Process
Machine tool process monitoring by segmented timeseries anomaly detection using subprocess-specific thresholds	Netzer, Markus; Palenga, Yannic; Fleischer, Juergen	2022	Title: Algorithm
Self-optimizing machining systems	Moehring, H-C; Wiederkehr, P.; Erkorkmaz, K.; Kakinuma, Y.	2020	Abstract: Review
Model-based contour extraction: an enabler for very low-frame SEM images metrology	Sezestre, Elie; Scoarnec, Juline; Pradelles, Jonathan; Perraud, Loic; Fay, Aurelien; Berard-Bergery, Sebastien; Bustos, Jessy; Henry, Jean-Baptiste; Dubreuil, Olivier; Mendes, Ivanie; Valade, Charles; Moly, Alexandre; Batte, Alice; Schuch, Nivea; Robert, Frederic; Figueiro, Thiago	2022	Title: Process
Realization of System Robustness by Clustering to Predict New Product Performance Levels	Eddy, Douglas; Krishnamurty, Sundar; Grosse, Ian	2021	Abstract: Algorithm
Numerical modeling based machine learning approach for the optimization of falling- film evaporator in thermal desalination application	Shahane, Shantanu; Jin, Hong-Qing; Wang, Sophie; Nawaz, Kashif	2022	Title: Process
Real-Time Outlier Detection and Bayesian Classification using Incremental Computations for Efficient and Scalable Stream Analytics for IoT for Manufacturing	Parto, Mahmoud; Saldana, Christopher; Kurfess, Thomas	2020	Abstract: Algorithm
Physics-informed ensemble learning for online joint strength prediction in ultrasonic metal welding	Meng, Yuquan; Shao, Chenhui	2022	Title: Process

Predicting the yield of stepped corrugated solar distiller using kernel-based machine learning models	Zayed, Mohamed E.; Katekar, Vikrant P.; Tripathy, Rajesh Kumar; Deshmukh, Sandip S.; Elsheikh, Ammar H.	2022	Title: Process
Predictive maintenance on sensorized stamping presses by time series segmentation, anomaly detection, and classification algorithms	Coelho, Daniel; Costa, Diogo; Rocha, Eugenio M.; Almeida, Duarte; Santos, Jose P.	2022	Title: Algorithm
Predictive Modeling for Machining Power Based on Multi-source Transfer Learning in Metal Cutting	Kim, Young-Min; Shin, Seung-Jun; Cho, Hae-Won	2022	Title: Process
Smart Use Case Picking with DUCAR: A Hands-On Approach for a Successful Integration of Machine Learning in Production Processes	Schaefer, Franziska; Mayr, Andreas; Schwulera, Erik; Franke, Joerg	2020	Full text: Concept
Standard connections for IIoT empowered smart manufacturing	Lu, Yan; Witherell, Paul; Jones, Albert	2020	Abstract: Review
HG-CAD: Hierarchical Graph Learning for Material Prediction and Recommendation in Computer-Aided Design	Bian, Shijie; Grandi, Daniele; Liu, Tianyang; Jayaraman, Pradeep Kumar; Willis, Karl; Sadler, Elliot; Borijin, Bodia; Lu, Thomas; Otis, Richard; Ho, Nhut; Li, Bingbing	2024	Title: CAD
The architecture development of Industry 4.0 compliant smart machine tool system (SMTS)	Jeon, Byeongwoo; Yoon, Joo-Sung; Um, Jumyung; Suh, Suk-Hwan	2020	Full text: Concept
Machine learning for forecasting the biomechanical behavior of orthopedic bone plates fabricated by fused deposition modeling	Sharma, Shrutika; Gupta, Vishal; Mudgal, Deepa; Srivastava, Vishal	2024	Title: bio
Regularized Autoencoder for The Analysis of Multivariate Metrology Data	Saib, Mohamed; Lorusso, Gian Francesco; Charley, Anne-Laure; Leraya, Philippe; Kondo, Tsuyoshi; Shindo, Hiroyuki; Ebizuka, Yasushi; Ban, Naoma; Ikota, Masami	2022	Title: Process
Remaining useful lifetime estimation for metal-bonded grinding tools using hybrid machine learning	Sauter, Emil; Sun, Hanyu; Winter, Marius; Wegener, Konrad	2022	Title: Process
Roles of Eco-Friendly Non-Edible Vegetable Oils in Drilling Inconel 718 through Minimum Quantity Lubrication	Safie, Nur Syahilia Syahira; Murad, Muhamad Nasir; Lih, Tan Chye; Azmi, Azwan Iskandar; Hamzah, Wan Azmi Wan; Danish, Mohd	2022	Title: Process
Rule-based visualization of faulty process conditions in the die-casting manufacturing	Obregon, Josue; Jung, Jae-Yoon	2022	Title: Process

Semi-supervised graph convolutional network to predict position-and speed-dependent tool tip dynamics with limited labeled data	Qiu, Chaochao; Li, Kai; Li, Bin; Mao, Xinyong; He, Songping; Hao, Caihua; Yin, Ling	2022	Title: Algorithm
A Cloud-Based Machine Vision Approach for Utilization Prediction of Manual Machine Tools	Parto, Mahmoud; Han, Dongmin; Rauby, Pierrick; Ye, Chong; Zhou, Yuanlai; Chau, Duen Horng; Kurfess, Thomas	2019	Abstract: Process
Smart fault detection and optimal variables identification using Kernel Mahalanobis Distance for industrial manufacturing processes	Resendiz-Flores, Edgar O.; Navarro-Acosta, Jesus Alejandro; Garcia-Calvillo, Irma D.	2022	Title: Algorithm
Automating life cycle assessment for additive manufacturing with machine learning: Framework design, dataset buildup, and a case study	Naser, Ahmed Z.; Defersha, Fantahun; Xu, Xun; Yang, Sheng	2023	Title: additive
Predictive modeling for online in-plane shape deviation inspection and compensation of additive manufacturing	Wang, Hao; Al Shraida, Hamzeh; Jin, Yu	2023	Title: additive
A Decision Making Process Model based on a Multilevel Control Platform Suitable for Industry 4.0	Contuzzi, Nicola; Massaro, Alessandro; Manfredonia, Ivano; Galiano, Angelo; Xhahysa, Benny	2019	Full text: Concept
Smart sheet metal forming: importance of data acquisition, preprocessing and transformation on the performance of a multiclass support vector machine for predicting wear states during blanking	Kubik, Christian; Knauer, Sebastian Michael; Groche, Peter	2022	Title: Algorithm
State identification of a 5-axis ultra-precision CNC machine tool using energy consumption data assisted by multi-output densely connected 1D-CNN model	Xu, Zhicheng; Selvaraj, Vignesh; Min, Sangkee	2022	Title: Process
A machine learning approach for the prediction of tensile deformation behavior in wire arc additive manufacturing	Chigilipalli, Bharat Kumar; Veeramani, Anandakrishnan	2023	Title: additive
Bringing Advanced Analytics to Manufacturing: A Systematic Mapping	Wolf, Hergen; Lorenz, Rafael; Kraus, Mathias; Feuerriegel, Stefan; Netland, Torbjorn H.	2019	Abstract: Concept
Tool wear and remaining useful life (RUL) prediction based on reduced feature set and Bayesian hyperparameter optimization	Zegarra, Fabio C.; Vargas-Machuca, Juan; Coronado, Alberto M.	2022	Title: Algorithm
Robots trends and megatrends: artificial intelligence and the society	Molfino, Rezia; Cepolina, Francesco E.; Cepolina, Emanuela; Cepolina, Elvezia Maria; Cepolina, Sara	2023	Title: robot

Toward smart manufacturing: Analysis and classification of cutting parameters and energy consumption patterns in turning processes	Ragai, Ihab; Abdalla, Abdallah S.; Abdeltawab, Hussein; Qian, Feng; Ma, J.	2022	Title: energy
Towards a machine learning-aided metaheuristic framework for a production/distribution system design problem	Xiao, Zhifeng; Zhi, Jianing; Keskin, Burcu B.	2022	Title: Process
Digital Twinning and Optimization of Manufacturing Process Flows	Lee, Hankang; Yang, Hui	2023	Title: digital twin
Towards a smart workflow in CMMS/EAM systems: An approach based on ML and MCDM	Gorski, Ewerton Gusthavo; Rocha Loures, Eduardo de Freitas; Portela Santos, Eduardo Alves; Kondo, Ricardo Eiji; Del Negro Martins, Giovana Regina	2022	Title: Process
Predicting Sintering Window of Binder Jet Additively Manufactured Parts Using a Coupled Data Analytics and CALPHAD Approach	Kannan, Rangasayee; Nandwana, Peeyush	2023	Title: additive
Towards Knowledge-Based System to Support Smart Manufacturing Processes in Aerospace Industry Based on Models for Manufacturing (MfM)	Szejka, Anderson Luis; Mas, Fernando; Canciglieri Junior, Osiris	2022	Title: Process
Towards real-time in-situ monitoring of hot-spot defects in L-PBF: a new classification-based method for fast video-imaging data analysis	Bugatti, Matteo; Colosimo, Bianca Maria	2022	Title: Process
Complexity Management in Production Systems: Approach for Supporting Problem Solving Through Holistic Structural Consideration	Horler, Samuel; Riedel, Ralph; Mueller, Egon	2019	Abstract: Concept
Transfer Learning-based SAE-CNN for Industrial Data Processing in Multiple working Conditions Recognition	Zhu, Yumeng; Zi, Yanyang; Xu, Jing	2022	Title: Algorithm
Conceptual Framework for manufacturing data preprocessing of diverse input sources	Flick, Dominik; Gellrich, Sebastian; Filz, Marc-Andre; Ji, Li; Thiede, Sebastian; Herrmann, Christoph	2019	Abstract: Concept
A comparative study of basic and ensemble artificial intelligence models for surface roughness prediction during the AA7075 milling process	Gabsi, Abd El Hedi; Ben Aissa, Chokri; Mathlouthi, Safa	2023	Title: Process
A deep learning based sensor fusion method to diagnose tightening errors	Tang, Lifei; Feng, Lei; Axelsson, Toni; Toerngren, Martin; Wilkman, Dennis	2023	Title: Process
A deep learning framework for defect prediction based on thermographic in-situ monitoring in laser powder bed fusion	Oster, Simon; Breese, Philipp P. P.; Ulbricht, Alexander; Mohr, Gunther; Altenburg, Simon J. J.	2023	Title: Process

Sonics: develop intuition on biomechanical systems through interactive error controlled simulations	Mazier, Arnaud; El Hadramy, Sidaty; Brunet, Jean-Nicolas; Hale, Jack S.; Cotin, Stephane; Bordas, Stephane P. A.	2023	Title: bio
A design of experiments Cyber-Physical System for energy modelling and optimisation in end-milling machining	Pantazis, Dimitrios; Pease, Sarogini Grace; Goodall, Paul; West, Andrew; Conway, Paul	2023	Title: Process
A Framework for Predicting Grain Morphology during Incremental Sheet Metal Forming using Generative Adversarial Networks	Harfoush, Asmaa; Tabei, Ali; Haapala, Karl R.; Ghamarian, Iman	2023	Title: Algorithm
A machine learning methodology for porosity classification and process map prediction in laser powder bed fusion	Staszewska, Adrianna; Patil, Deepali P.; Dixith, Akshatha C.; Neamtu, Rodica; Lados, Diana A.	2023	Title: Process
Flexibility management and decision making in cyber-physical systems utilizing digital lean principles with Brain-inspired computing pattern recognition in Industry 4.0	Ulhe, Praful P.; Dhepe, Aditya D.; Shevale, Vaibhav Devidas; Warghane, Yash S.; Jadhav, Prayag S.; Babhare, Success L.	2023	Title: lean
A multi-agent based big data analytics system for viable supplier selection	Zekhnini, Kamar; Benabdellah, Abla Chaouni; Cherrafi, Anass	2023	Title: Process
A neural network approach to performance analysis of tandem lines: The value of analytical knowledge	Dieleman, N. A.; Berkhout, J.; Heidergott, B.	2023	Title: Process
A New Approach to Study the Effect of Complexity on an External Gear Pump Model to Generate Data Source for AI-Based Condition Monitoring Application	Azeez, Abid Abdul; Mazzei, Pietro; Minav, Tatiana; Frosina, Emma; Senatore, Adolfo	2023	Title: Product
MOMIS Dashboard: A Powerful Data Analytics Tool for Industry 4.0	Magnotta, Luca; Gagliardelli, Luca; Simonini, Giovanni; Orsini, Mirko; Bergamaschi, Sonia	2018	Included in investigation
Data analytics-based decision support workflow for high-mix low-volume production systems	Godri, Istvan; Kardos, Csaba; Pfeiffer, Andras; Vancza, Jozsef	2019	Abstract: Concept
A novel ant colony-optimized extreme gradient boosting machine for estimating compressive strength of recycled aggregate concrete	Hoang, Nhat-Duc	2023	Title: Algorithm
Development of a new framework for implementing industry 4.0 in companies	Dossou, Paul-Eric	2019	Abstract: Review
Development of an Intelligent Tool Condition Monitoring System to Identify Manufacturing Tradeoffs and Optimal Machining Conditions	Lee, Wo Jae; Mendis, Gamini P.; Sutherland, John W.	2019	Abstract: Algorithm

Framework for Customized, Machine Learning Driven Condition Monitoring System for Manufacturing	Hinz, Marcin; Brueggemann, Dominik; Bracke, Stefan	2019	Full text: Concept
Accelerated In Situ Inspection of Release Coating and Tool Surface Condition in Composites Manufacturing Using Global Mapping, Sparse Sensing, and Machine Learning	Schoenholz, Caleb; Li, Shuangshan; Bainbridge, Kyle; Huynh, Vy; Gray, Alex; Zobeiry, Navid	2023	Title: Process
Development of a cyber physical production system framework for smart tool health management	Kumar, Rishi; Sangwan, Kuldip Singh; Herrmann, Christoph; Ghosh, Rishi	2023	Title: health
AI-based inspection of the axes of machine tools	Demetgul, Mustafa; Wang, Wei; Fleischer, Juergen; Tansel, Ibrahim Nur	2023	Title: Process
AI modeling for high-fidelity heat transfer and thermal distortion forecast in metal additive manufacturing	Ball, Amit Kumar; Basak, Amrita	2023	Title: additive
AI-guided optimization of manufacturing protocols for AHSS coils	Jha, Rajesh; Patra, Pradip K.; Srivastava, Ashok K.	2023	Title: Product
An approach for tool wear prediction using customized DenseNet and GRU integrated model based on multi-sensor feature fusion	Liu, Xianli; Zhang, Bowen; Li, Xuebing; Liu, Shaoyang; Yue, Caixu; Liang, Steven Y.	2023	Title: Algorithm
An artificial intelligence classifier for electron beam powder bed fusion as-built surface topographies	Maculotti, Giacomo; Ghibaudo, Cristian; Genta, Gianfranco; Ugues, Daniele; Galetto, Maurizio	2023	Title: Process
An artificial intelligence transformation model - pod redesign of photomasks in semiconductor manufacturing	Fan, Shu-Kai S.; Chen, Ming-Shen; Hsu, Chia-Yu; Park, You-Jin	2023	Title: Process
Integration Challenges for the Deployment of a Multi-Stage Zero-Defect Manufacturing Architecture	Angione, Giacomo; Cristalli, Cristina; Barbosa, Jose; Leitao, Paulo	2019	Abstract: Review
An intelligent milling chatter detection method based on VMD-synchro-squeeze wavelet and transfer learning via deep CNN with vibration signals	Jauhari, Khairul; Rahman, Achmad Zaki; Al Huda, Mahfudz; Widodo, Achmad; Prahasto, Toni	2023	Title: Algorithm
Intelligent decision support for maintenance: an overview and future trends	Turner, C. J.; Emmanouilidis, C.; Tomiyama, T.; Tiwari, A.; Roy, R.	2019	Abstract: Review
An overview of progress, challenges, needs and trends in mathematical modeling approaches in food drying	Chen, Chang; Pan, Zhongli	2023	Title: Process
Physics-Constrained Neural Networks with Minimax Architecture for Multiphysics Dendritic Growth Problems in Additive Manufacturing	Liu, Dehao; Wang, Yan	2023	Title: additive

Application of a neural network for predicting cutting surface quality of punching processes based on tooling	Schenek, A.; Goerz, M.; Riedmueller, K. R.; Liewald, M.	2023	Title: Process
Application of machine learning for fleet-based condition monitoring of ball screw drives in machine tools	Denkena, Berend; Dittrich, Marc-Andre; Noske, Hendrik; Lange, Dirk; Benjamins, Carolin; Lindauer, Marius	2023	Title: Process
Artificial intelligence algorithms for prediction of the ultimate tensile strength of the friction stir welded	Mishra, Akshansh	2023	Title: Product
Physics-based cooperative robotic digital twin framework for contactless delivery motion planning	Lee, Hyunsoo	2023	Title: digital twin
Artificial intelligence-based springback compensation of EV motor component	Choi, Hyunsung; Kwon, Yongnam; Cho, Joon Ho; Yoon, Jeong Whan	2023	Title: Product
Automated assembly of non-rigid objects	Makris, Sotiris; Dietrich, Franz; Kellens, Karel; Hu, S. Jack	2023	Title: Process
KPI-ML based integration of industrial information systems	Ashhal, Muhammad Tahir; Mahmoodpour, Mehdi; Lobov, Andrei	2019	Abstract: No relation to ML
Digital twins for the rapid startup of manufacturing processes: a case study in PVC tube extrusion	Bovo, Enrico; Sorgato, Marco; Lucchetta, Giovanni	2023	Title: digital twin
Bayesian diagnostic learning for a costly composite manufacturing: critical role of dataset size and auxiliary in situ measurements	Crawford, Bryn; Ramezankhani, Milad; Milani, Abbas S. S.	2023	Title: Process
Bearing Fault Diagnosis in CNC Machine Using Hybrid Signal Decomposition and Gentle AdaBoost Learning	Iqbal, Mohmad; Madan, A. K.	2023	Title: Algorithm
In-situ porosity prediction in metal powder bed fusion additive manufacturing using spectral emissions: a prior-guided machine learning approach	Atwya, Mohamed; Panoutsos, George	2023	Title: additive
Tool life prediction via SMB-enabled monitor based on BPNN coupling algorithms for sustainable manufacturing	Chang, Wen-Yang; Hsu, Bo-Yao	2023	Title: sustainab
Building digital-twin virtual machining for milling chatter detection based on VMD, synchro-squeeze wavelet, and pre-trained network CNNs with vibration signals	Jauhari, Khairul; Rahman, Achmad Zaki; Al Huda, Mahfudz; Widodo, Achmad; Prahasto, Toni	2023	Title: digital twin
Cloud-based thermal error compensation with a federated learning approach	Stoop, Fabian; Mayr, Josef; Sulz, Clemens; Kaftan, Petr; Bleicher, Friedrich; Yamazaki, Kazuo; Wegener, Konrad	2023	Title: Process

Machine learning for assistance systems: pattern-based approach to online step recognition	Fullen, Marta; Maier, Alexander; Nazarenko, Arthur; Aksu, Volkan; Jenderny, Sascha; Roecker, Carsten	2019	Full text: Process
Machine Learning in Production - Potentials, Challenges and Exemplary Applications	Mayr, Andreas; Kisskalt, Dominik; Meiners, Moritz; Lutz, Benjamin; Schaefer, Franziska; Seidel, Reinhardt; Selmaier, Andreas; Fuchs, Jonathan; Metzner, Maximilian; Blank, Andreas; Franke, Joerg	2019	Abstract: Review
Offline digital twin for simulation and assessment of product surface quality	Ahmed, Yassmin Seid; ElMaraghy, Hoda	2023	Title: digital twin
Machining Chatter Prediction Using a Data Learning Model	Cherukuri, Harish; Perez-Bernabeu, Elena; Selles, Miguel; Schmitz, Tony	2019	Abstract: Algorithm
Functional Requirements of Software Tools for Laser-Based Powder Bed Fusion Additive Manufacturing for Metals	Feng, Shaw C.; Moges, Tesfaye; Park, Hyunseop; Yakout, Mostafa; Jones, Albert T.; Ko, Hyunwoong; Witherell, Paul	2023	Title: additive
Data quality evaluation for smart multi-sensor process monitoring using data fusion and machine learning algorithms	Segreto, Tiziana; Teti, Roberto	2023	Title: Process
Data-driven prediction of geometry- and toolpath sequence-dependent intra-layer process conditions variations in laser powder bed fusion	Kozjek, Dominik; Porter, Conor; Carter III, Fred M.; Mogonye, Jon-Erik; Cao, Jian	2023	Title: Process
Design and development of mixed integer programming model for scheduling tasks through artificial intelligence	Alla, Venkata Ranga Surya Prasad; Medikondu, Nageswara Rao; Kanakavalli, Prakash Babu; Ravulapalli, Vijaya Prakash	2023	Title: Algorithm
Development of a Vision-based Automated Hole Assembly System with Quality Inspection	Kim, Doowon; TabkhPaz, Majid; Park, Simon S.; Lee, Jihyun	2023	Title: Process
Development of Extractor-Classifier-Regulator integrated anomaly detection model for turning process	Murakoshi, Tomohiro; Oshida, Taisuke; Zhou, Libo; Ojima, Hirotaka; Kaneko, Kazuki; Onuki, Teppei; Shimizu, Jun	2023	Title: Process
Artificial Neural Network-Based Predictive Model for Finite Element Analysis of Additive-Manufactured Components	Grozav, Sorin D.; Sterca, Alexandru D.; Kocisko, Marek; Pollak, Martin; Ceclan, Vasile	2023	Title: additive
Directed Gaussian process metamodeling with improved firefly algorithm (iFA) for composite manufacturing uncertainty propagation analysis	Ball, Amit Kumar; Zhou, Kai; Xu, Dong; Zhang, Dianyun; Tang, Jiong	2023	Title: Algorithm

Contributions of porosity and laser parameter drift to inter-build variation of mechanical properties in additively manufactured 316 L stainless steel	Croom, Brendan P.; Koshute, Phillip; Gienger, Edwin B.; Mccue, Ian D.; Peitsch, Christopher; Mines, John Mark; Price, Samuel; Carter, Ryan; Mueller, Robert K.; Rettaliata, Justin; Presley, Michael	2023	Title: additive
Discovery of fault-introducing tool groups with a numerical association rule mining method in a printed circuit board production line	Lee, Yeonju; Kim, Youngju; Lee, Bogyeong; Kim, Chang Ouk	2023	Title: Process
Early detection of tool wear in electromechanical broaching machines by monitoring main stroke servomotors	Aldekoa, Inigo; del Olmo, Ander; Sastoque-Pinilla, Leonardo; Sendino-Mouliet, Sara; Lopez-Novoa, Unai; de Lacalle, Luis Norberto Lopez	2023	Title: Product
AI-Based Knowledge Extraction from the Bioprinting Literature for Identifying Technology Trends	Bonatti, Amedeo Franco; Chiarello, Filippo; Vozzi, Giovanni; De Maria, Carmelo	2023	Title: bio
Edge Computing-Assisted IoT Framework With an Autoencoder for Fault Detection in Manufacturing Predictive Maintenance	Yu, Wenjin; Liu, Yuehua; Dillon, Tharam; Rahayu, Wenny	2023	Title: Algorithm
Cement kiln safety and performance improvement based on machine learning predictive analytics	Benchekroun, Mohammed Toum; Zaki, Smail; Aboussaleh, Mohamed	2023	Title: safety
Evaluation of response characteristics using sensitivity analysis and TLBO technique of powder mixed wire EDM of Ti6Al4V alloy	Chakraborty, Sadananda; Mitra, Souren; Bose, Dipankar	2023	Title: Process
Experimental analysis of tool geometry and tool rotation in SPIF process on AA7075-O alloy using ML and ANN approach	Kumar, Parveen; Singh, Hari	2023	Title: Algorithm
Explainable few-shot learning for online anomaly detection in ultrasonic metal welding with varying configurations	Meng, Yuquan; Lu, Kuan-Chieh; Dong, Zhiqiao; Li, Shichen; Shao, Chenhui	2023	Title: Process
Materials informatics	Ramakrishna, Seeram; Zhang, Tong-Yi; Lu, Wen-Cong; Qian, Quan; Low, Jonathan Sze Choong; Yune, Jeremy Heiarii Ronald; Tan, Daren Zong Loong; Bressan, Stephane; Sanvito, Stefano; Kalidindi, Surya R.	2019	Abstract: No relation to ML
Flow State at Impeller Inlet: Optimization of Conical Frustum Section of Elbow Inlet Conduit in Large Low-Lift Pump	Yan, Tianxu; Qiu, Baoyun; Yuan, Jianping; Pavesi, Giorgio; Zhao, Fangling; Wang, Huijie	2023	Title: Process
Holistic Approach Promotes Failure Prevention of Smart Mining Machines Based on Bayesian Networks	Martinsen, Madeleine; Fentaye, Amare Desalegn; Dahlquist, Erik; Zhou, Yuanye	2023	Title: Algorithm

Open Access Digital Tools' Application Potential in Technological Process Planning: SMMEs Perspective	Wdowik, Roman; Ratnayake, R. M. Chandima	2019	Abstract: Concept
Semantic Interoperability of Digital Twins: Ontology-based Capability Checking in AAS Modeling Framework	Huang, Yining; Dhouib, Saadia; Medinacelli, Luis Palacios; Malenfant, Jacques	2023	Title: digital twin
Impact of Digital Technology Adoption on the Comparative Advantage of Architectural, Engineering, and Construction Firms in Singapore	Ling, Florence Y. Y.; Heng, Gerald Tze Hon; Chang-Richards, Alice; Chen, Xichen; Yiu, Tak Wing	2023	Title: Process
Generation of synthetic manufacturing datasets for machine learning using discrete-event simulation	Chan, K. C.; Rabaev, Marsel; Pratama, Handy	2022	Title: simulation
Indirect Tool Condition Monitoring Using Ensemble Machine Learning Techniques	Schueller, Alexandra; Saldano, Christopher	2023	Title: Algorithm
Information extraction and application for constructing guidance corpus of welding fabrication	Guan, Kainan; Li, Zhengguang; Zhang, Yu; Zou, Li; Yang, Xinhua	2023	Title: Process
Predictive Maintenance in a Digital Factory Shop-Floor: Data Mining on Historical and Operational Data Coming from Manufacturers' Information Systems	Pertselakis, Minas; Lampathaki, Fenareti; Petrali, Pierluigi	2019	Full text: Concept
Predictive Maintenance of Machine Tool Systems Using Artificial Intelligence Techniques Applied to Machine Condition Data	Lee, Wo Jae; Wu, Haiyue; Yun, Huitaek; Kim, Hanjun; Jun, Martin B. G.; Sutherland, John W.	2019	Abstract: Review
Intelligent Insights for Manufacturing Inspections from Efficient Image Recognition	Eddy, Douglas; White, Michael; Blanchette, Damon	2023	Title: Process
Intelligent Operation Monitoring of an Ultra-Precision CNC Machine Tool Using Energy Data	Selvaraj, Vignesh; Xu, Zhicheng; Min, Sangkee	2023	Title: Process
Interactive and Intelligent Root Cause Analysis in Manufacturing with Causal Bayesian Networks and Knowledge Graphs	Wehner, Christoph; Kertel, Maximilian; Wewerka, Judith	2023	Title: Algorithm
Patented intelligence: Cloning human decision models for Industry 4.0	Terziyan, Vagan; Gryshko, Svitlana; Golovianko, Mania	2018	Included in investigation
Investigation and machine learning-based prediction of parametric effects of single point incremental forming on pillow effect and wall profile of AlMn1Mg1 aluminum alloy sheets	Najm, Sherwan Mohammed; Paniti, Imre	2023	Title: Process

Knowledge graph driven credit risk assessment for micro, small and medium-sized enterprises	Mitra, Rony; Dongre, Ayush; Dangare, Piyush; Goswami, Adrijit; Tiwari, Manoj Kumar	2023	Title: No manufacturing
Learning digital emulators for closed architecture machine tool controllers	Tiwari, Akash; Wang, Yuandong; Saleeby, Kyle; Reddy, A. L. Narasimha; Bukkapatnam, Satish	2023	Title: Process
Data organization in laser-based powder bed fusion for metals	Feng, Shaw C.; Li, Shengyen; Yakout, Mostafa; Jones, Albert T.	2022	Duplication
Steps towards digitization of manufacturing in an SME environment	Doyle, Frank; Cosgrove, John	2019	Abstract: Process
LSTM based artificial intelligence predictive maintenance technique for availability rate and OEE improvement in a TPM implementing plant through Industry 4.0 transformation	Mohan, Roosefert; Roselyn, J. Preetha; Uthra, R. Annie	2023	Title: Algorithm
Technical Diagnostics at the Department of Automation and Production Systems	Kuric, Ivan; Cisar, Miroslav; Tlach, Vladimir; Zajacko, Ivan; Gal, Tomas; Wiecek, Dorota	2019	Abstract: Review
Machine learning guided design of experiments to accelerate exploration of a material extrusion process	Young, Devin; Vondrasek, Britannia; Czabaj, Michael W.	2023	Title: Process
Machine learning for monitoring and predictive maintenance of cutting tool wear for clean-cut machining	Bonci, Andrea; Di Biase, Alessandro; Dragoni, Aldo Franco; Longhi, Sauro; Sernani, Paolo; Zega, Alessandro	2022	Title: lean
Machine Learning Tools for Flow-Related Defects Detection in Friction Stir Welding	Ambrosio, Danilo; Wagner, Vincent; Dessein, Gilles; Vivas, Javier; Cahuc, Olivier	2023	Title: Process
Machine vision-based gradient-boosted tree and support vector regression for tool life prediction in turning	Bagga, Prashant J.; Patel, Kaushik M.; Makhesana, Mayur A.; Sirin, Senol; Khanna, Navneet; Krolczyk, Grzegorz M.; Pala, Adarsh D.; Chauhan, Kavan C.	2023	Title: Algorithm
A Proposal of Data-Driven and Multi-scale Modeling Approach for Material Flow Simulation	Nagahara, Satoshi; Kaihara, Toshiya; Fujii, Nobutada; Kokuryo, Daisuke	2022	Title: simulation
Scalable Data Analytics from Predevelopment to Large Scale Manufacturing	Heimes, Heiner; Kampker, Achim; Buhrer, Ulrich; Steinberger, Anita; Eirich, Joscha; Krotil, Stefan	2019	Included in investigation
Makespan estimation in a flexible job-shop scheduling environment using machine learning	Tremblet, David; Thevenin, Simon; Dolgui, Alexandre	2023	Title: Process
Material recognition method to enable adaptive drilling of multi-material aerospace stacks	Haoua, Abdoulaye Affadine; Rey, Pierre-Andre; Cherif, Mehdi; Abisset-Chavanne, Emmanuelle; Yousfi, Wadii	2023	Title: Product
Mechanical analysis and optimized performance of G-Code driven material extrusion components	Rivet, Ivan; Dialami, Narges; Cervera, Miguel; Chiumenti, Michele; Valverde, Quino	2023	Title: Process

Microhardness and wear resistance in materials manufactured by laser powder bed fusion: Machine learning approach for property prediction	Barrionuevo, German O.; Walczak, Magdalena; Ramos-Grez, Jorge; Sanchez-Sanchez, Xavier	2023	Title: Process
Supporting Data Analytics in Manufacturing with a Digital Assistant	Wellsandt, Stefan; Foosherian, Mina; Lepenioti, Katerina; Fikardos, Mattheos; Mentzas, Gregoris; Thoben, Klaus-Dieter	2022	Included in investigation
Modified UNet with attention gate and dense skip connection for flow field information prediction with porous media	Yu, Yang; Chen, Sheng; Wei, Heng	2023	Title: Process
Multi-objective optimization based on machine learning and non-dominated sorting genetic algorithm for surface roughness and tool wear in Ti₆Al₄V turning	Nguyen, Van-Hai; Le, Tien-Thinh; Le, Minh Vuong; Minh, Hoang Dao; Nguyen, Anh-Tu	2023	Title: Process
Multi-response optimization in face milling of EN-31 steel using analytical hierarchy process-based GRA	Sharma, Vijay Kumar; Saini, Abhineet; Gupta, Manish; Sehgal, Satbir S.	2023	Title: Process
On machine learning and visual analysis for quality prediction of film metallization process	Bastos, Thiago M. R.; Stragevitch, Luiz; Zanchettin, Cleber	2023	Title: Process
On Uses of Noise Analysis for the Uncertainty Quantification of Line Edge Roughness Estimation	Akpabio, Inimfon I.; Savari, Serap A.	2023	Title: Process
One-Step Immunoassays Using Integrated Nanorod Arrays For Rapid and Sensitive Detection of Cancer Biomarkers	Ye, Yuxin; Yang, Fan; Cao, Zhen	2022	Title: bio
On-line quality control and tool wear evaluation in trimming process by data analytics techniques	Garcia-Llamas, E.; Gonzalez Castro, J. M.; Ramirez, G.; Pujante, J.	2023	Title: Process
Optimal 6E design of an integrated solar energy-driven polygeneration and CO₂ capture system: A machine learning approach	Khani, Nastaran; Manesh, Mohammad H. Khoshgoftar; Onishi, Viviani C.	2023	Title: Process
Zero Defect Manufacturing Strategies and Platform for Smart Factories of Industry 4.0	May, Gokan; Kiritsis, Dimitris	2019	Full text: Concept
Optimization of injection molding process using multi-objective bayesian optimization and constrained generative inverse design networks	Jung, Jiyoung; Park, Kundo; Cho, Byungjin; Park, Jinkyoo; Ryu, Seunghwa	2023	Title: Process
Vibrodiagnostics Faults Classification for the Safety Enhancement of Industrial Machinery	Zuth, Daniel; Blecha, Petr; Marada, Tomas; Huzlik, Rostislav; Tuma, Jiri; Maradova, Karla; Frkal, Vojtech	2021	Title: safety

Optimization of Milling Processes: Chatter Detection via a Sensor-Integrated Vice	Stavropoulos, Panagiotis; Souflas, Thanassis; Manitaras, Dimitris; Papaioannou, Christos; Bikas,	2023	Title: Process
Optimized Design of Source Energy for Manufacturing Machine by Digital Numerical Control	Duc, Minh Ly; Quang, Nguyen; Bilik, Petr; Martinek, Radek	2023	Title: energy
Embedding Reinforcement Learning in Simulation	AboElHassan, Ayman; Yacout, Soumaya	2021	Title: simulation
Parameters, Properties, and Process: Conditional Neural Generation of Realistic SEM Imagery Toward ML-Assisted Advanced Manufacturing	Howland, Scott; Kassab, Lara; Kappagantula, Keerti; Kvinge, Henry; Emerson, Tegan	2023	Title: Algorithm
Passive machine vision-based defect classification in tungsten inert gas welding on SS304 using AI-based gradient descent algorithm	Thangavel, Subramaniam; Maheswari, Chennippan; Priyanka, E. Bhaskaran	2023	Title: Process
Towards a connected factory: Shop-floor data analytics in cyber-physical environments	Gyulai, David; Bergmann, Julia; Gallina, Viola; Gaal, Alexander	2019	Included in investigation
Physics informed neural networks for fault severity identification of axial piston pumps	Wang, Zhiying; Zhou, Zheng; Xu, Wengang; Sun, Chuang; Yan, Ruqiang	2023	Title: Process
Physics-guided machine learning frameworks for fatigue life prediction of AM materials	Wang, Lanyi; Zhu, Shun-Peng; Luo, Changqi; Liao, Ding; Wang, Qingyuan	2023	Title: Process
Holistic approach to machine tool data analytics	Lenz, Juergen; Wuest, Thorsten; Westkaemper, Engelbert	2018	Full text: Concept
Predicting chatter using machine learning and acoustic signals from low-cost microphones	St John, Sam; Alberts, Matthew; Karandikar, Jaydeep; Coble, Jamie; Jared, Bradley; Schmitz, Tony; Ramsauer, Christoph; Leitner, David; Khojandi, Anahita	2023	Title: Process
A New Approach to Develop an Intelligent Robotic Gripper Using Virtual Tools Implementing IIoT and ML Technologies	Guerra-Zubiaga, David; Block, Logan; Ricketts, Adam; Faile, Jacob; Dickson, Charlie	2021	Title: robot
Prediction of continuous cooling transformation diagrams in steels using light gradient boosting and rule-based optimization	Ganguly, Sarbari; Manna, Sougat	2023	Title: Algorithm
Intelligent devices in a decentralized production system concept	Graessler, Iris; Poehler, Alexander	2018	Full text: Process
Image-Guided Multi-Response Modeling and Characterization of Design Defects in Metal Additive Manufacturing	Imani, Farhad; Khanzadeh, Mojtaba	2021	Title: additive

New modelling techniques for dependability. Case study for a mechanical process	Vilcu, A.; Verzea, I.; Pislaru, M.; Herghiligiu, Ionut Viorel	2018	Abstract: Algorithm
Digital Twin: Universal User Interface for Online Management of the Manufacturing System	Kuts, Vladimir; Bondarenko, Yevhen; Gavriljuk, Marietta; Paryshev, Andriy; Jegorov, Sergei; Pizzagall, Simone; Otto, Tauno	2021	Title: digital twin
Quality monitoring for drilling based on internal data of machine tool	He, F.; Weigold, M.	2023	Title: Process
Review Work on Automatic Monitoring Systems in Machining Process: Means and Methods	Mehdi, Kamel	2021	Title: review
Quality prediction for milling processes: automated parametrization of an end-to-end machine learning pipeline	Fertig, Alexander; Preis, Christoph; Weigold, Matthias	2023	Title: Process
Random forests based classification of tool wear using vibration signals and wear area estimation from tool image data	Cardoz, Basil; Shaikh, Haris Naiyer E. Azam; Mulani, Shoaib Munir; Kumar, Ashwani; Rajasekharan, Sabareesh Geetha	2023	Title: Algorithm
Reliability engineering based on operating data and monitoring systems within technical products: Challenges, requirements and approaches	Bracke, S.; Hinz, M.; van Gulijk, C.; Gronwald, F.; Muenker, M.; Inoue, M.; Yamada, S.; Patelli, E.; Ulutas, B.; Bonato, M.; Yamada, T.	2018	Abstract: Concept
Digital Twins for Real-time Data Analysis in Industrie 4.0: Pathways to Maturity	Stahmann, Philip; Krueger, Arne; Rieger, Bodo	2021	Title: digital twin
Real-Time Change Detection for Automated Test Socket Inspection Using Advanced Computer Vision and Machine Learning	Edwards, Chris; Vaske, Alex; McDaniel, Nathan; Pradhan, Dipali; Panda, Debashis	2023	Title: Process
Recursive encoder network for the automatic analysis of STEP files	Miles, Victoria; Giani, Stefano; Vogt, Oliver	2023	Title: Algorithm
Evaluation of the Additive Manufacturability of CAD-Parts for initial Data Labelling in AI-based Part Identification	Winkler, Marcel; Stuermer, Stefan; Konrad, Christian	2021	Title: additive
Robust estimation of clinch joint characteristics based on data-driven methods	Zirngibl, Christoph; Schleich, Benjamin; Wartzack, Sandro	2023	Title: Process
Robust tool condition monitoring in Ti6Al4V milling based on specific force coefficients and growing self-organizing	Bernini, Luca; Albertelli, Paolo; Monno, Michele	2023	Title: Process
Robustification of the Random Forest: A Multitude of Decision Trees for Fault Diagnosis of Face Milling Cutter Through Measurement of Spindle Vibrations	Jogdeo, Atharva A.; Patange, Abhishek D.; Atnurkar, Atharva M.; Sonar, Pradnya R.	2023	Title: Algorithm

Securing Interaction Between Human and Robot Using Expert Control System	Dolganov, Andrey; Letnev, Konstantin	2020	Title: robot
Roller path solver system for multi-objective task-priority control of multipass conventional spinning	Gondo, Shiori; Arai, Hirohiko	2023	Title: Process
Root cause analysis of an out-of-control process using a logical analysis of data regression model and exponential weighted moving average	Khalifa, Ramy M.; Yacout, Soumaya; Bassetto, Samuel	2023	Title: Process
Tool wear estimation with a data-driven physics coupling approach	Zhang, Yu; Zhu, Kunpeng	2022	Abstract: Algorithm
Shape adjustment for uncertain mesh reflectors using machine learning	Ren, Zhiwei; Du, Jingli; Bao, Hong; Ge, Dongming; Wang, Feijie	2023	Title: Process
Stability modeling for chatter avoidance in self-aware machining: an application of physics-guided machine learning	Greis, Noel P.; Nogueira, Monica L.; Bhattacharya, Sambit; Spooner, Catherine; Schmitz, Tony	2023	Title: Process
Stability modeling for chatter avoidance in self-aware machining: an application of physics-guided machine learning	Efatmaneshnik, Mahmoud; Shoval, Shraga	2023	Title: Process
Tool-path continuity determination based on machine learning method	Zhou, Bo; Tian, Tongtong; Zhao, Jibin; Liu, Dianhai	2022	Abstract: CAD
Supporting of manufacturer's demand plans as an element of logistics coordination in the distribution network	Kmiecik, Mariusz	2023	Title: Process
Surface quality prediction by machine learning methods and process parameter optimization in ultra-precision machining of AISI D2 using CBN tool	Adizue, Ugonna Loveday; Tura, Amanuel Diriba; Isaya, Elly Ogutu; Farkas, Balazs Zsolt; Takacs, Marton	2023	Title: Process
Task recognition from joint tracking data in an operational manufacturing cell	Rude, Don J.; Adams, Stephen; Beling, Peter A.	2018	Abstract: Algorithm
Synchronisation of material flows in mass-customised production systems: a literature-based classification framework and industrial application	Napoleone, Alessia; Moretti, Emilio; Macchi, Marco; Melacini, Marco	2023	Title: No relation to ML
The accuracy losing phenomenon in abrasive tool condition monitoring and a noval WMMC-JDA based data-driven method considered tool stochastic surface morphology	Liu, Mingjun; Gong, Yadong; Sun, Jingyu; Tang, Benjia; Sun, Yao; Zu, Xinpeng; Zhao, Jibin	2023	Title: Process

Analysis and optimization based on reusable knowledge base of process performance models	Brodsky, Alexander; Shao, Guodong; Krishnamoorthy, Mohan; Narayanan, Anantha; Menasce, Daniel; Ak, Ronay	2017	Full text: No DAS for ML
Data mining and machine learning for condition-based maintenance	Accorsi, Riccardo; Manzini, Riccardo; Pascarella, Pietro; Patella, Marco; Sassi, Simone	2017	Abstract: Algorithm
Towards big industrial data mining through explainable automated machine learning	Garouani, Moncef; Ahmad, Adeel; Bouneffa, Mourad; Hamlich, Mohamed; Bourguin, Gregory; Lewandowski, Arnaud	2022	Included in investigation
Integrating Rule-Based Systems and Data Analytics Tools Using Open Standard PMML	Li, Yunpeng; Roy, Utpal; Lee, Y. Tina; Rachuri, Sudarsan	2016	Abstract: No DAS for ML
The Cyber-Physical System of Machine Tool Monitoring: A Model-Driven Approach With Extended Kalman Filter Implementation	Yuan, Dezhi; Luo, Ting; Gu, Chaochen; Zhu, Kunpeng	2023	Title: Algorithm
The Elephant in the Room: New Skills and Work Dimensions of Turkish White Goods Industry Engineers in Industry 4.0	Demirbag, Kubra Simsek; Yildirim, Nihan	2023	Title: No manufacturing
Time Series Prediction for Energy Consumption of Computer Numerical Control Axes Using Hybrid Machine Learning Models	Stroebel, Robin; Probst, Yannik; Deucker, Samuel; Fleischer, Juergen	2023	Title: Process
Tool condition monitoring of diamond-coated burrs with acoustic emission utilising machine learning methods	Jessel, Thomas; Byrne, Carl; Eaton, Mark; Merrifield, Ben; Harris, Stuart; Pullin, Rhys	2023	Title: Process
Tool remaining useful life prediction using bidirectional recurrent neural networks (BRNN)	De Barrena, Telmo Fernandez; Ferrando, Juan Luis; Garcia, Ander; Badiola, Xabier; de Buruaga, Mikel Saez; Vicente, Javier	2023	Title: Algorithm
Transferable Deep Learning for In-Situ Tool Wear Diagnosis	Russell, Matthew; Wang, Peng	2020	Abstract: Algorithm
Simulation based production support system in the field of steel construction for large offshore structures	Illgen, Benjamin; Sender, Jan; Fluegge, Wilko	2019	Title: simulation
A Cyber Physical Interface for Automation Systems-Methodology and Examples	Kao, Hung-An; Jin, Wenjing; Siegel, David; Lee, Jay	2015	Abstract: Process
Tool wear prediction method based on bidirectional long short-term memory neural network of single crystal silicon micro-grinding	She, Chengxi; Li, Kexin; Ren, Yinghui; Li, Wei; Shao, Kun	2023	Title: Algorithm
Transfer adversarial attacks across industrial intelligent systems	Yin, Zhenqin; Zhuo, Yue; Ge, Zhiqiang	2023	Title: No manufacturing

Mining Big Data in Manufacturing: Requirement Analysis, Tools and Techniques	Roy, Utpal; Zhu, Bicheng; Li, Yunpeng; Zhang, Heng; Yaman, Omer	2015	Abstract: Review
A methodology using health and usage monitoring system data for payload life prediction	Nalliah, P.; Lewis, A.; Lomax, C.; Hawkins, C.	2018	Title: health
Quality Control of the Steel Wire Rod Product by Integration Lean Six Sigma and Taguchi Method	Ridwan, Asep; Ekawati, Ratna; Novitasari, Ayu	2018	Title: lean
Using machine learning and deep learning algorithms for downtime minimization in manufacturing systems: an early failure detection diagnostic service	Shahin, Mohammad; Chen, F. Frank; Hosseinzadeh, Ali; Zand, Neda	2023	Title: Process
Design and Development of SQL System in Sustainability Issues of Machining	Shahriar, S. R.; Nasir, Afsana; Dhar, N. R.	2018	Title: sustainab
Using machine learning for cutting tool condition monitoring and prediction during machining of tungsten	Omole, Samuel; Dogan, Hakan; Lunt, Alexander J. G.; Kirk, Simon; Shokrani, Alborz	2023	Title: Process
Variable selection wrapper in presence of correlated input variables for random forest models	Rotari, Marta; Kulahci, Murat	2023	Title: Algorithm
Advance in Big Data Analytics at The Dow Chemical Company	Chiang, Leo; Lu, Bo; Castillo, Ivan	2017	Title: chemical
Virtual metrology of material removal rate using a one-dimensional convolutional neural network-based bidirectional long short-term memory network with attention	Hsu, Chia-Yu; Lu, Yi-Wei	2023	Title: Algorithm
Retrieval of Manufacturing Knowledge Using Machine Learning - A Review	Ostermeyer, Emeric; Danjou, Christophe; Durupt, Alexandre; Duigou, Julien L. E.	2017	Title: review
Software-in-the-Loop Testbed for Multi-Agent-Systems in a Discrete Event Simulation Integration of the Java Agent Development Framework into Plant Simulation	Scholz, Michael; Oberschachtsiek, Stefan; Donhauser, Toni; Franke, Joerg	2017	Title: simulation
Validation of PERFoRM reference architecture demonstrating an application of data mining for predicting machine failure	Chakravorti, Nandini; Rahman, M. Mostafizur; Sidoumou, Mohamed Redha; Weinert, Nils; Gosewehr, Frederik; Wermann, Jeffrey	2018	Included in investigation
On the Design of a Sustainable Production Line: The MetaCAM Tool	Fysikopoulos, Apostolos; Alexopoulos, Theocharis; Pastras, George; Stavropoulos, Panos; Chryssolouris, Georgios	2016	Title: sustainab

Vibration Analysis Utilizing Unsupervised Learning	Wescoat, Ethan; Krugh, Matthew; Henderson, Andrew; Goodnough, Josh; Mears, Lathe	2019	Abstract: Robot
Challenges in Developing a Computational Platform to Integrate Data Analytics With Simulation-Based	Li, Yunpeng; Roy, Utpal	2016	Title: simulation
ACWGAN-GP for milling tool breakage monitoring with imbalanced data	Li, Xuebing; Yue, Caixu; Liu, Xianli; Zhou, Jiaqi; Wang, Lihui	2024	Title: Process
Development of a robot machining program using tool center point-based transformation	She, C. H.; Huang, J. J.	2016	Title: robot
An Accelerated Process Optimization Method to Minimize Deformations in Composites Using Theory-guided Probabilistic Machine Learning	Schoenholz, Caleb; Zobeiry, Navid	2024	Title: Process
In-mold condition-centered and explainable artificial intelligence-based (IMC-XAI) process optimization for injection molding	Gim, Jinsu; Lin, Chung-Yin; Turng, Lih-Sheng	2024	Title: Process