

Paper ID	Title	Authors	Session (Room)	Time
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Artificial Intelligence in Manufacturing

AI2	A Flexible Way of Evaluating the Long-term Cost Competitiveness of a Semiconductor Product	Toly Chen and Chun-Ho Lin	Monday 1 (202)	10:20-12:00
AI8	Combining Differential Evolution Algorithm with K-means for Solving Machine Cell Formation Problems	Yucheng Kao and Chien-Chih Chen	Monday 1 (202)	10:20-12:00
AI10	A Construction of Link-driven Bayesian Networks to the Integration of Data and Knowledge	Wei-Hua Andrew Wang and Wen-Hsin Chen	Monday 1 (202)	10:20-12:00
AI11	Two Approaches for Estimation of Production Time: Robust Regression Analysis and Neural Networks	Dragutin Lisjak, Predrag Cosic and Diana Milcic	Monday 1 (202)	10:20-12:00

CAD/CAM/CIM/FMS/MES

CC1	Realization of interoperability between a C-axis CNC turn-mill centre and 4-axis CNC machining centre	Mehrdad Safaieh, Aydin Nassehi and Stephen T. Newman	Monday 2 (202)	14:00-15:40
CC3	Pattern Recognition and Group Arrangement for Ship Part Nesting	Cheol-Soo Lee, Eun-Young Heo, Joo-Hyun Shim, F. Frank Chen, and Dong-Won Kim	Monday 2 (202)	14:00-15:40
CC5	Application of Contour Tracing Algorithm in 3D Modeling from a Paper-Based Overtraced Freehand Sketch	Natthavika Chansri, Pisut Koomsap and Pornnalin Kuagoolkijarn	Monday 2 (202)	14:00-15:40
CC8	Optimization of Tool Path Planning in 5-Axis Flank Milling of Ruled Surfaces with Improved PSO	Hsin-Ta Hsieh and Chih-Hsing Chu	Monday 2 (202)	14:00-15:40

Manufacturing Enterprise Knowledge Management

EK1	Monitoring and Control of Distributed Manufacturing Enterprises Enabled by Sensors, Wireless Communication and Cloud Computing	Radu F. Babiceanu	Tuesday 3 (202)	16:00-17:20
EK2	Decision Support for Product Development During Cold Roll Forming	Chike F. Oduoza, Alan Harris and Ahmed Al-Ashaab	Tuesday 3 (202)	16:00-17:20
EK4	Applied Knowledge Engineering in Advanced Teapot Design System	S.F. Wong and A. Vong	Tuesday 3 (202)	16:00-17:20

Manufacturing Environmental Health, and Safety Engineering

ES2	Framework for Multidimensional Evaluation of Building Performance	K.M.G.K. Konara, Y. G. Sandanayake and C. F. Oduoza	Tuesday 2 (205)	14:00-15:40
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Global Manufacturing, Supply Chain, and Logistics

GS3	-Simulating the Performance of Inventory Policies in a Multi-stage Supply Chain System	Horng-Chyi Horng, Sheng-Chieh Chen and Ming-Chih Chen	Monday 1 (206)	10:20-12:00
GS4	Multi-Objective and Multi-Market Demand Planning for Unbalanced Green Energy Supply Chain	Jia-Nian Zheng, Jheng-Dao Yu, Chen-Fu Chien and Jei-Zheng Wu	Monday 1 (206)	10:20-12:00
GS5	Development of a Typology for Industrial Parks Based on a General Systems Model of Networked Production	Lei Li, Ralph Riedel, Heiko Baum and Egon Müller	Monday 1 (206)	10:20-12:00
GS6	A Bottleneck Steiner Tree based Multi-objective Location Optimization of Emergency Logistics Systems	Jin Zhang, Ming Dong and F. Frank Chen	Tuesday 3 (203)	16:00-17:20
GS10	The Storage Assignment and Order-Picking Route Planning in a Distribution Warehouse with Multiple Cross Aisles	Ying-Chin Ho and Jia-Chyun Chen	Monday 1 (206)	10:20-12:00
GS14	Green Investment Cost Optimization Model in the Supply Chain	Seungbae Sim, Bongju Jeong, Hosang Jung and Seunghee Sohn	Tuesday 3 (203)	16:00-17:20
GS16	The Joint effect of VMI and transshipment for a three-echelon system	Seungjin Oh, Kwangyeol Ryu, Kiyoul Lee, and Mooyoung Jung	Tuesday 3 (203)	16:00-17:20
GS17	Using GRAI Methodology for the improvement of Lead Time in the overall Supply Chain	Paul-Eric Dossou and Philip Mitchell	Tuesday 3 (203)	16:00-17:20

Industrial Automation and Process Control

IA1	Measuring and Controlling Interface levels in Crude oil Separator	Mohamed Sawessi, Farhad Nabhani and Ian French	Tuesday 1 (206)	10:20-12:00
IA4	An Efficient Process Control System for Radioactive Pharmaceutical Composition Equipment	Cheol-Soo Lee, Eun-Young Heo, Dong-Soo Kim, Leonard Tijing and Dong-Won Kim	Tuesday 1 (206)	10:20-12:00
IA5	Flexible Robotized Automation in Manufacturing Systems	Fredrik Danielsson and Bo Svensson	Tuesday 1 (206)	10:20-12:00
IA7	Automatic Recognition System for Side View SMD-LED Defect	Der-Baau Perng, Hsiao-Wei Liu and Ching-Ching Chang	Tuesday 1 (206)	10:20-12:00
IA12	Manufacturing Intelligence and Feedback Control for Semiconductor Yield Enhancement	Chia-Yu Hsu, Chen-Fu Chien, Ying-Jen Chen and Goddie Chou	Wednesday 1 (202)	10:20-12:00
IA13	Simulation Based Performance Evaluation of AVS/RS	Banu Y. Ekren and Sunderesh S. Heragu	Wednesday 1 (202)	10:20-12:00
IA15	An Automation Migration Strategy for a Washer/Magnet Assembly Work Cell	Jun-Ing Ker and Min-Nan Li	Wednesday 1 (202)	10:20-12:00
IA16	Monitoring and Measuring Different Liquid Levels in Crude Oil Production Facilities	Mohamed Sawessi, Farhad Nabhani and Ian French	Tuesday 2 (205)	14:00-15:40
IA17	Detection of Directional Changes in Spatiotemporal Data	Chen-ju Lin and Yen-ting Chen	Wednesday 1 (202)	10:20-12:00

Manufacturing Inventory Control

IC1	Economic Production Lot Sizing with Machine Breakdowns Subject to Two Unreliable Key Components	Gary C. Lin, Joseph C. Chen and Dah-Chuan Gong	Monday 1 (203)	10:20-12:00
IC2	On a Production-Inventory Model Subject with an Imperfect Production System Subject to Two Key Subsystems	Gary C. Lin, Dah-Chuan Gong and Wen-Na Ma	Monday 3 (203)	16:00-17:20
IC6	Two-stage ordering policy under Buyer's Minimum- Commitment Quantity Contract	Hsi-Mei Hsu and Zi-Yin Chen	Monday 1 (203)	10:20-12:00
IC8	Comparative Study of Kanban and CONWIP: A Case Study Illustration	Yue Huang, Joel J. Villa and F. Frank Chen	Monday 1 (203)	10:20-12:00
IC10	Inventory Management in Canned Sweet Corn Kernel Industry	Pornthipa Ongkunaruk and Ratchanon Prawat	Monday 1 (203)	10:20-12:00

IT and Internet Applications in Manufacturing

IT1	B2B diffusion in SME's supply chain: A multi-stage analysis	Felix T.S. Chan and Alain Yee-Loong Chong	Monday 3 (203)	16:00-17:20
IT4	Dynamic production control system for small and medium-sized manufacturing: Implement on plastic blow-molding machine	Chung Yeh and Wen-Chin Liu	Monday 3 (203)	16:00-17:20

Lean and Agile Manufacturing

LA3	"Doing things right first time": Promoting a "6S" quality cultural change	Horacio Soriano-Meier, Abhey Sharma, Jose Arturo Garza-Reyes, Paul Forrester and Simon Burtonshaw-Gunn	Monday 2 (205)	14:00-15:40
LA5	Business Flexibility in Small and Medium Enterprises – An Empirical Study	Egon Müller, Jens Schütze, Heiko Baum, Martina Ganß, and Ralica Ivanova	Monday 2 (205)	14:00-15:40
LA6	A Framework for Successful Implementation of E- Kanban: A case study based approach	Grant MacKerron, Maneesh Kumar, Vikas Kumar and F. T. S. Chan	Monday 2 (205)	14:00-15:40
LA7	A Leagile Inspired Supply Chain Model to Improve the Performance of Steel Industries	V. Kumar, N. Mishra, F. T. S. Chan, M. Kumar and G. MacKerron	Monday 2 (205)	14:00-15:40
LA8	Promoting Sustainable Competitiveness in Lean Companies through Long Term Value Creation	Hongyi Chen, David A. Wyrick and Richard R. Lindeke	Tuesday 3 (201)	16:00-17:20
LA9	A Knowledge Kanban Framework for New Product Development	Chia-jou Lin, F. Frank Chen and Yuh-min Chen	Tuesday 3 (201)	16:00-17:20
LA10	Shape Deformation Technology for Agile Product Development	Zhixin Yang and Kin Man Lo	Tuesday 3 (201)	16:00-17:20

Micro and Nano Manufacturing

MN2	Fabrication of AR film using nano-imprint lithography with a diamond mold	Hung-Yin Tsai, Ching-Wen Liu, Chih-Cheng Yeh and Eric Pierre Shih	Wednesday 1 (201)	10:20-12:00
MN3	A Study on the Machinability of Micro Channel using Micro-EDM	Cheol-Soo Lee, Jong-Min Kim, Eun-Young Heo, Byung-Mun Kim and Dong-Won Kim	Wednesday 1 (201)	10:20-12:00
MN4	A Study on the Optimal Machining Condition of the Micro Hole in Micro-EDM Process	Cheol-Soo Lee, Eun-Young Heo, Min-Sung Hong and Jong-Min Kim	Wednesday 1 (201)	10:20-12:00

Manufacturing Processes and Technology

MP2	Design and Operation of an Opto-pair Fiber Probe Scanner for Object Curvature Analysis	H. Golnabi	Monday 3 (201)	16:00-17:20
MP4	Application of Cpk and Ppk for Improving Manufacturing Process in a Bike Company	Chiun-Ming Liu and Wei-Chun Seng	Monday 3 (201)	16:00-17:20
MP5	Integrated machining time estimation using standardised micro-process planning information	Abayomi B. O Debode, Aydin Nassehi, Linda B. Newnes and Stephen T. Newman	Monday 3 (201)	16:00-17:20
MP8	Manufacturing Process Extraction and Improving Efficiency using Process Mining	Sangil Lee, Jason Ree, Kwangyeol Ryu, Minseok Song and Hyerim Bae	Tuesday 1 (202)	10:20-12:00
MP9	Improving Performance of Plastic Injection Molding Using Grey Analysis	Abbas Al-Refaie, Ming-Hsien Li and Nour Bata	Tuesday 1 (202)	10:20-12:00
MP11	A Fault Detection and Classification Framework for Yield Enhancement in Semiconductor Manufacturing	Chen-Fu Chien, Chia-Yu Hsu and Pei-Non Chen	Tuesday 1 (202)	10:20-12:00
MP12	OPTIMISED DESIGN OF A COOLING CHANNEL FOR INJECTION MOULDING USING COMPUTATIONAL FLUID DYNAMICS AND FINITE ELEMENT ANALYSIS SIMULATION TECHNIQUES	Dani Harmanto and Ilias Oraifige	Tuesday 1 (202)	10:20-12:00

Manufacturing Systems

MS2	Specifics of the implementation of Lean Production Systems in small and medium-sized enterprises	Uwe Dombrowski, Kai Schmidtchen and Sven Schulze	Tuesday 1 (203)	10:20-12:00
MS5	Collaboration Hub 2.0: Advanced Concept of Collaboration Hub 1.0 for Small and Medium-sized Manufacturing Enterprises	Jae Yong Baek, Bo Hyun Kim, So Young Jung and Seok Woo Lee	Tuesday 1 (203)	10:20-12:00
MS8	Development of a Collaborative Quality Management System in the Order-Based Automotive Industry	Sung Ho Nam, Hong Jin Jeong, Bo Hyun Kim and So Young Jung	Tuesday 1 (203)	10:20-12:00
MS9	A Universal CNC System for Intelligent and Interoperable Machining	Firman Ridwan, Xun Xu, Aini Zuhra Abdul Kadir and Johannes Nittinger	Tuesday 1 (203)	10:20-12:00

Design for Manufacturing and Assembly

PD1	Developing an integrated software solution for feature based design and generative process planning	Daniel Kretz, Joerg Militzer, Tim Neumann and Tobias Teich	Tuesday 3 (205)	16:00-17:20
PD2	Multi-BOM Management System for Supporting Product Development	Bo-Hyun Kim, So-Young Jung, Jae-Yong Baek, Joseph Oh and Hun-Zong Choi	Tuesday 3 (205)	16:00-17:20
PD4	TRIZ and DFMA Guidelines	Chi-Wei Lin and Meng-Chen Hsieh	Tuesday 3 (205)	16:00-17:20

Production Planning and Scheduling

PS3	Developing a New Competing Metaheuristic Based on the Individual and Social Behaviors of Dolphins	Mehdi Iranpoor, B. Karimi and S.M.T. Fatemi Ghomi	Monday 1 (201)	10:20-12:00
PS4	A Comparison of Two Chromosome Representation Schemes Used in Solving a Family-Based Scheduling Problem	Muh-Cherng Wu, Pang-Hao Tai and Chie-Wun Chiou	Monday 1 (201)	10:20-12:00
PS5	The Use of Integer Programming Formulation and Simulation in Solving a Practical Multi-site Production Planning Problem	Cheng Kang Lee, Yu-An Shen, Taho Yang and Ai-Ling Tang	Tuesday 1 (201)	10:20-12:00
PS6	Genetic Algorithms for the Evaluation of Process Variants	Tim Neumann, Daniel Kretz, Jörg Militzer and Tobias Teich	Tuesday 2 (201)	14:00-15:40
PS7	A Research on Problems of Mixed-Line Production and the Re-scheduling	Hsiang-Hsi Huang, Yo-Tsung Chen and Ting-Yu Chen	Monday 1 (201)	10:20-12:00
PS8	Integration of Mold Maintenance Planning and Production Scheduling	C.S. Wong, T.S. Chan and S. H. Chung	Monday 2 (201)	14:00-15:40
PS9	The Construction of Master Production Scheduling System and Available-to-Promise Mechanism under Process Selectable Environment for the TFT-LCD Cell Assembly Factory	Shu-Shing Chung, Guan-He Wu , Jia-Rong Kang and Yen-Feng. Wu	Monday 2 (201)	14:00-15:40
PS12	Combination of simulation and capacity optimization for detailed production scheduling in semiconductor manufacturing	Andreas Klemmt, Jan Lange, Gerald Weigert, Eik Beier and Sebastian Werner	Tuesday 1 (201)	14:00-15:40
PS13	Combination of LP-metric Method and Genetic Algorithm to Solve a Bi-criteria Assembly Line Balancing Problem	Nima Hamta, S.M.T. Fatemi Ghomi and F. Jolai	Monday 2 (201)	14:00-15:40
PS14	Decentralized Production Planning and Control in a Collaborative SME Network	Ville Toivonen, Ville Väistö, T. Perälä and R. Tuokko	Tuesday 1 (201)	10:20-12:00
PS15	An Analysis of Fuzzy Multiple Goal Programming Model for Increasing the Effectiveness of Capacity Planning and Outsourcing	Wang Earl-Juei and Su Tai-Sheng	Tuesday 1 (201)	10:20-12:00
PS16	A Study on the Control Problem of Stacker Cranes in a TFT-LCD Plant	Ying-Chin Ho and Teng-Sheng Su	Monday 2 (201)	14:00-15:40
PS17	Improved Confidence Interval Bounds for Process Incapability	Mou-Yuan Liao, Chien-Hui Yang, Chien-Wei Wu and Chien-Hsin Yang	Tuesday 2 (201)	14:00-15:40
PS18	Tabu Search Algorithm for Job Shop Total Weighted Tardiness Problem	Y. K. Lin, M. L. Liu and C. S. Chong	Monday 1 (201)	10:20-12:00
PS23	An Effective Variable Neighborhood Search Approach to Multi-Objective Resource Allocation Problems	Yun-Chia Liang and Chia-Yin Chuang	Tuesday 2 (201)	14:00-15:40
PS26	Job Shop Scheduling with Deadlines to Minimize the Sum of Weighted Earliness and Weighted Tardiness of Jobs	Hong-An Yang, Qi feng Sun and Liang liang Qi	Tuesday 2 (201)	14:00-15:40

Manufacturing Services and Operations Management

SO8	A Genetic Algorithm Based Simulation Optimization of Integrated Delivery in Semiconductor Wafer Fabs	Xiaokun Chang, Ming Dong and F. Frank Chen	Tuesday 2 (203)	14:00-15:40
SO9	Heuristics for the Flexible Flow Line with Recirculation, Setup, and Job Splitting Scheduling Problems in Service Industry	Chun-Lung Chen and Wei-Jen Lu	Tuesday 2 (203)	14:00-15:40
SO11	The Study of Critical Factors for PDM System Evaluation– a Case Analysis of a Taiwanese Precision Machinery Manufacturer	Wei-Jung Shiang, Yi-Syuan Chen and Yu-Hsin Lin	Tuesday 2 (203)	14:00-15:40
SO13	Task Scheduling with Dynamic Sequence-dependent Setup Time using Asymmetric TSP	Dinh Thanh Cong, Zhenguo Wang, Hyerim Bae and Kwangyeol Ryu	Tuesday 2 (203)	14:00-15:40

Manufacturing Sustainability

SS1	RFID Enhanced Disassembly Planning and Sequencing for End-of-Life Products	Venkata Krishna Gonnuru and Hung-da Wan	Monday 3 (205)	16:00-17:20
SS2	Optimisation of Disassembly Sequence for End-of-Life Automotive Components	D. A. Wahab, T. F. Go, R. Ramli and M.N.Ab. Rahman	Monday 3 (205)	16:00-17:20
SS4	Sustainable Manufacturing and Eco- Factories within sustainable industrial areas within fast growing Eco- cities	Leino T., Salminen K and Joutsiniemi A	Monday 3 (205)	16:00-17:20

Six Sigma and TQM in Manufacturing Enterprises

ST2	Reducing impurity of TFT-LCD substrate glass and increasing yield by using six sigma management	Ming-Hsien Caleb Li, Chao-Hsiung Benjamin Yeh and Abbas Al-Refaie	Tuesday 2 (205)	14:00-15:40
ST3	Evaluating and Improving Knowledge Retrieval Systems by Six Sigma Tools	Chia-jou Lin, Hung-da Wan, F. Frank Chen and Yuh-min Chen	Tuesday 2 (205)	14:00-15:40

Modeling and Simulation of Manufacturing Systems and Processes

SU1	A Theoretical Model for Surface Roughness Prediction When Face Milling Aluminium 7075-T7351 with Square Insert Tools	Patricia Muñoz-Escalona and Paul G Maropoulos	Monday 2 (203)	14:00-15:40
SU4	Contractual Correctness and Performance Tuning for Dynamic NP-hard Manufacturing Problems	Richard Romanowski and Ming-Shiun Lu	Monday 2 (203)	14:00-15:40
SU5	An Algorithm for the Steel H-Beam Cutting Problem	Yusin Lee and Kuo-Chun Hsu	Tuesday 2 (202)	14:00-15:40
SU8	A holistic view on modelling and simulation in the context of an intelligent manufacturing environment	Nylund Hasse, Lanz Minna, Tuokko Reijo and Andersson Paul H	Monday 2 (203)	14:00-15:40
SU11	Stiffness, Thermal Modeling and Optimization of High-Speed Grinding Spindles	Zhouping Wu, Beizhi Li and Jianguo Yang	Monday 2 (203)	14:00-15:40
SU12	Discrete Optimization via Simulation Algorithm Considering Single Stochastic Constraint	Sheng-Yang Fu and Shing Chih Tsai	Tuesday 2 (202)	14:00-15:40
SU14	Automated Generation of Discrete Event System Simulation Models for Flexible Automation	Henrik Carlsson, Jim Nilsson, Fredrik Danielsson and Bengt Lennartson	Tuesday 2 (202)	14:00-15:40
SU15	A faster collision detection method applied on a sheet metal press line	Nima K. Nia, Fredrik Danielsson and Bengt Lennartson	Tuesday 2 (202)	14:00-15:40
SU18	A pilot study for the design and analysis of segmented automated material handling systems in 300-mm semiconductor fabs	Chiung-Hsi Hsieh, Chiwoon Cho, Taho Yang and Ting-Jiun Chang	Monday 3 (202)	16:00-17:20
SU21	Intelligent Framework for Aero Engine Design using Feature-Based Classification	Dani Harmanto	Monday 3 (202)	16:00-17:20
SU24	Raw material cost minimization using open source software	Urs Buehlmann, R. Edward Thomas and Rebecca A. Buck	Monday 3 (202)	16:00-17:20

Manufacturing Technology Management and Innovations

TM4	Using Systematic Innovation Process (TRIZ Method) to Improve the Manufacturing Technology of Platelet Agitators	T. C. Hsia, S. C. Chen , R. K. Tsai and S. C. Huang	Wednesday 1 (201)	10:20-12:00
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Other Relevant Topics

TP1	A general evaluation of Total Quality Management (TQM) in the Kuwait oil industry	Jose Arturo Garza-Reyes, Abdullah Al-Jasser, Ilias Oraifige, Horacio Soriano-Meier and Paul L. Forrester	Monday 1 (205)	10:20-12:00
TP2	The Cournot Production Game with Multiple Firms under Fuzzy Business Environment	Jr-Fong Dang, I-Hsuan Hong and Jing-Ming Lin	Monday 1 (205)	10:20-12:00
TP4	Policy for Technical Entrepreneurship: The effect of government policy on technology-based SME growth	Chinweike I. Eseonu and David A. Wyrick	Monday 1 (205)	10:20-12:00
TP6	Mobile Robot Path Planning and Obstacle Avoidance Based on a Virtual Obstacle Concept	Hussein Hamdy Shehata and Josef Schlattmann	Monday 1 (205)	10:20-12:00
TP7	Tracking and Detecting Moving Objects Using Stereo Camera on Moving Platform	Hung-Yin Tsai, Yen-Po Lin and Cheng-Che Chen	Tuesday 1 (205)	10:20-12:00
TP8	Dynamic Demand Differentiation for Partially Flexible Manufacturing and Service Systems	Cheng-Hung Wu and Po-Hsin Lin	Tuesday 1 (205)	10:20-12:00
TP9	Identifying key drivers of patient satisfaction in dental service	Wen-Jen Chang and Yen-Hsiang Chang	Tuesday 1 (205)	10:20-12:00
TP11	Releasing hidden profit by making non-strategic costs strategic	Yi-Cheng (Waldo) Yeh	Tuesday 1 (205)	10:20-12:00
TP12	Business Process Management based Service Modeling Framework in the Service Laboratory Environment	Hyouk Jin Kwon, Bo Hyun Kim and Jae Yong Baek	Wednesday 1 (201)	10:20-12:00
TP13	A Simulation Study on the Bike Redistribution Strategies for Public Bike Sharing Systems	I-Lin Wang and Chun-Wei Wang	Wednesday 1 (201)	10:20-12:00
TP14	Current Status of Function Blocks for Process Planning and Execution Control of Manufacturing Equipment	Lihui Wang, Göran Adamson, Magnus Holm and Philip Moore	Wednesday 1 (201)	10:20-12:00