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Selected Scholarly Contributions [Data Provided by Scopus]

Domingo, B.M., Ponnambalam, S.G., Kanagaraj, G.
A Differential Evolution based algorithm for single container loading problem
(2013) Proceedings of the 2013 IEEE Symposium on Differential Evolution, SDE 2013 - 2013 IEEE Symposium Series on Computational Intelligence, SSCI 2013, art. no. 6601449, pp. 105-111.

Kanagaraj, G., Ponnambalam, S.G., Jawahar, N., Nilakantan, J.M.
An effective hybrid cuckoo search and genetic algorithm for constrained engineering design optimization
(2013) Engineering Optimization, . Article in Press.

Kanagaraj, G., Ponnambalam, S.G., Jawahar, N.
A hybrid cuckoo search and genetic algorithm for reliability-redundancy allocation problems
(2013) Computers and Industrial Engineering, . Article in Press.

Jerin Leno, I., Saravana Sankar, S., Victor Raj, M., Ponnambalam, S.G.
An elitist strategy genetic algorithm for integrated layout design
(2013) International Journal of Advanced Manufacturing Technology, 66 (9-12), pp. 1573-1589.

Vincent, L.W.H., Ponnambalam, S.G.
A differential evolution-based algorithm to schedule flexible assembly lines
(2013) IEEE Transactions on Automation Science and Engineering, 10 (4), art. no. 6355959, pp. 1161-1165.

Jerin Leno, I., Saravana Sankar, S., Ponnambalam, S.G.
Multi objective integrated layout design problem
(2012) Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 7677 LNCS, pp. 500-508.

Jerin Leno, I., Saravana Sankar, S., Ponnambalam, S.G.
Integrated layout design approach for cellular manufacturing system
(2012) Communications in Computer and Information Science, 330 CCIS, pp. 426-435.

Rishwaraj, G., Kuppan Chetty, R.M., Ponnambalam, S.G.
Posture estimation strategy for multi robot system based on visual perception and optical pointer
(2012) Communications in Computer and Information Science, 330 CCIS, pp. 46-56.

Ponnambalam, S.G., Amin, S.Hj.M.
Communications in Computer and Information Science: Preface
(2012) Communications in Computer and Information Science, 330 CCIS, pp. V.

Kee, C.Y., Kuppan Chetty, R.M., Khoo, B.H., Ponnambalam, S.G.
Genetic algorithm and Bayesian linear discriminant analysis based channel selection method for P300 BCI
(2012) Communications in Computer and Information Science, 330 CCIS, pp. 226-235.

Kuppan Chetty, R.M., Ponnambalam, S.G.
A heuristic approach towards path planning and obstacle avoidance control of planar manipulator
(2012) Communications in Computer and Information Science, 330 CCIS, pp. 1-11.

Kanagaraj, G., Ponnambalam, S.G., Jawahar, N.
Supplier selection: Reliability based total cost of ownership approach using Cuckoo search
(2012) Communications in Computer and Information Science, 330 CCIS, pp. 491-501.

Jerin Leno, I., Saravanasankar, S., Ponnambalam, S.G.
Integrated layout design approach for cellular manufacturing system environment
(2012) Journal of Applied Sciences, 12 (23), pp. 2411-2417.

Lui, W.H.V., Ponnambalam, S.G.
Scheduling Flexible Assembly Lines using variants of Differential Evolution
(2012) IEEE International Conference on Automation Science and Engineering, art. no. 6386379, pp. 594-599.

Mukund Nilakantan, J., Ponnambalam, S.G.
An efficient PSO for type II robotic assembly line balancing problem
(2012) IEEE International Conference on Automation Science and Engineering, art. no. 6386398, pp. 600-605.

Domingo, B.M., Ponnambalam, S.G., Kanagaraj, G.
Particle Swarm Optimization for the single container loading problem
(2012) 2012 IEEE International Conference on Computational Intelligence and Computing Research, ICCIC 2012, art. no. 6510262, .

Vincent, L.W.H., Ponnambalam, S.G., Kanagaraj, G.
Differential evolution variants to schedule flexible assembly lines
(2012) Journal of Intelligent Manufacturing, pp. 1-15. Article in Press.

Lee, Y.Z., Ponnambalam, S.G.
Optimisation of multipass turning operations using PSO and GA-AIS algorithms
(2012) International Journal of Production Research, 50 (22), pp. 6499-6518.

Paul Pandian, P., Saravana Sankar, S., Ponnambalam, S.G., Victor Raj, M.
Scheduling of automated guided vehicle and flexible jobshop using jumping genes Genetic algorithm
(2012) American Journal of Applied Sciences, 9 (10), pp. 1706-1720.

Sue-Ann, G., Ponnambalam, S.G., Jawahar, N.
Evolutionary algorithms for optimal operating parameters of vendor managed inventory systems in a two-echelon supply chain
(2012) Advances in Engineering Software, 52, pp. 47-54.

Yogeswaran, M., Ponnambalam, S.G.
Reinforcement learning: Exploration-exploitation dilemma in multi-agent foraging task
(2012) OPSEARCH, 49 (3), pp. 223-236.

Shyh Chyan, G., Ponnambalam, S.G.
Obstacle avoidance control of redundant robots using variants of particle swarm optimization
(2012) Robotics and Computer-Integrated Manufacturing, 28 (2), pp. 147-153.

Raj, M.V., Sankar, S.S., Ponnambalam, S.G.
Particle swarm optimization algorithm to maximize assembly efficiency
(2012) International Journal of Advanced Manufacturing Technology, 59 (5-8), pp. 719-736.

Ragavan, S.V., Kumar, J.M., Ponnambalam, S.G.
Design of a mechatronic drive train with Regenerative Braking
(2012) Applied Mechanics and Materials, 110-116, pp. 5111-5117.

Sankar, S.S., Ponnambalam, S.G., Raj, M.V.
A new approach to nullify surplus parts in selective assembly
(2011) International Journal of Computer Aided Engineering and Technology, 3 (5-6), pp. 492-503.

Mohan, Y., Ponnambalam, S.G.
Exploration strategies for learning in multi-agent foraging
(2011) Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 7077 LNCS (PART 2), pp. 17-26.

Pandian, P.P., Sankar, S.S., Ponnambalam, S.G., Bathrinath, S.

Secondary population implementation in multi-objective evolutionary algorithm for scheduling of FMS

(2011) International Journal of Advanced Manufacturing Technology, 57 (9-12), pp. 1143-1154.

Leno, I.J., Sankar, S.S., Raj, M.V., Ponnambalam, S.G.

Bi-criteria optimization in integrated layout design of cellular manufacturing systems using a genetic algorithm

(2011) Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 7076 LNCS (PART 1), pp. 323-331.

Vincent, L.W.H., Ponnambalam, S.G.

Scheduling flexible assembly lines using differential evolution

(2011) Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 7076 LNCS (PART 1), pp. 43-50.

Victor Raj, M., Saravana Sankar, S., Ponnambalam, S.G.

Minimizing clearance variations and surplus parts in multiple characteristic radial assembly through batch selective assembly

(2011) International Journal of Advanced Manufacturing Technology, 57 (9-12), pp. 1199-1222.

Veera Ragavan, S., Ponnambalam, S.G., Sumero, C.

Waypoint-based path planner for mobile robot navigation using PSO and GA-AIS

(2011) 2011 IEEE Recent Advances in Intelligent Computational Systems, RAICS 2011, art. no. 6069411, pp. 756-760.

Victor Raj, M., Saravana Sankar, S., Ponnambalam, S.G.

Genetic algorithm to optimize manufacturing system efficiency in batch selective assembly

(2011) International Journal of Advanced Manufacturing Technology, 57 (5-8), pp. 795-810.

Raj, M.V., Sankar, S.S., Ponnambalam, S.G.

Maximising manufacturing system efficiency for multi-characteristic linear assembly by using particle swarm optimisation in batch selective assembly

(2011) International Journal of Production Research, 49 (21), pp. 6491-6516.

Victor Raj, M., Saravana Sankar, S., Ponnambalam, S.G.

Optimization of assembly tolerance variation and manufacturing system efficiency by using genetic algorithm in batch selective assembly

(2011) International Journal of Advanced Manufacturing Technology, 55 (9-12), pp. 1193-1208.

Raj, M.V., Sankar, S.S., Ponnambalam, S.G.

Ant colony optimization to improve precision of complex assembly

(2011) Communications in Computer and Information Science, 152 CCIS (PART 1), pp. 86-93.

Victor Raj, M., Saravana Sankar, S., Ponnambalam, S.G.
Genetic algorithm to optimize manufacturing system efficiency in batch selective assembly
(2011) International Journal of Advanced Manufacturing Technology, pp. 1-16. Article in Press.

Zheng, L.Y., Ponnambalam, S.G.
A hybrid GA-AIS heuristic for optimization of multipass turning operations
(2010) Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 6425 LNAI (PART 2), pp. 599-611.

Veera Ragavan, S., Ponnambalam, S.G., Ganapathy, V., Teh, J.
Services integration framework for vehicle telematics
(2010) Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 6425 LNAI (PART 2), pp. 636-648.

Yogeswaran, M., Ponnambalam, S.G.
Evaluating Q-learning policies for multi-objective foraging task in a multi-agent environment
(2010) Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 6425 LNAI (PART 2), pp. 587-598.

Yogeswaran, M., Ponnambalam, S.G.
A suitable Q-learning policy for a single agent foraging task
(2010) 16th Annual Conference on Mechatronics and Machine Vision in Practice 2010, M2VIP 2010, pp. 140-157.

Sue-Ann, G., Ponnambalam, S.G.
A particle swarm optimization algorithm for optimal operating parameters of VMI systems in a two-echelon supply chain
(2010) Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 6466 LNCS, pp. 440-447.

Oon-Ee, N., Ganapathy, V., Ponnambalam, S.G.
Connected-component stereo aggregation
(2010) IEEE Asia-Pacific Conference on Circuits and Systems, Proceedings, APCCAS, art. no. 5775011, pp. 348-351.

Yogeswaran, M., Ponnambalam, S.G.
Q-learning policies for multi-agent foraging task
(2010) Communications in Computer and Information Science, 103 CCIS, pp. 194-201.

Mohan, Y., Ponnambalam, S.G.
Q-learning policies for a single agent foraging tasks
(2010) ISMA'10 - 7th International Symposium on Mechatronics and its Applications, art. no. 5478440, .

Zheng, L.Y., Ponnambalam, S.G.
Optimization of multipass turning operations using particle swarm optimization
(2010) ISMA'10 - 7th International Symposium on Mechatronics and its Applications, art. no. 5478432, .

Mohan, Y., Ponnambalam, S.G.
An extensive review of research in swarm robotics
(2009) 2009 World Congress on Nature and Biologically Inspired Computing, NABIC 2009 - Proceedings, art. no. 5393617, pp. 140-145.

Ponnambalam, S.G., Jawahar, N., Girish, B.S.
Giffler and thompson procedure based genetic algorithms for scheduling job shops
(2009) Studies in Computational Intelligence, 230, pp. 229-259.

Mohan, Y., Ponnambalam, S.G., Inayat-Hussain, J.I.
A comparative study of policies in Q-learning for foraging tasks
(2009) 2009 World Congress on Nature and Biologically Inspired Computing, NABIC 2009 - Proceedings, art. no. 5393616, pp. 134-139.

Khaw, C.L.E., Ponnambalam, S.G.
Multi-rule multi-objective ant colony optimization for straight and U-type assembly line balancing problem
(2009) 2009 IEEE International Conference on Automation Science and Engineering, CASE 2009, art. no. 5234122, pp. 177-182.

Yung, T.W., Ponnambalam, S.G., Yogeswaran, M.
Multi-objective ACO for integrated scheduling of machines and material handling equipment in flexible manufacturing systems
(2009) 2009 IEEE International Conference on Automation Science and Engineering, CASE 2009, art. no. 5234130, pp. 304-309.

Yee, Z.C., Ponnambalam, S.G.
Mobile robot path planning using ant colony optimization
(2009) IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM, art. no. 5229903, pp. 851-856.

Ibrahim, M.T.S., Ragavan, S.V., Ponnambalam, S.G.
Way point based deliberative path planner for navigation
(2009) IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM, art. no. 5229900, pp. 881-886.

Ramkumar, A.S., Ponnambalam, S.G., Jawahar, N.
A population-based hybrid ant system for quadratic assignment formulations in facility layout design
(2009) International Journal of Advanced Manufacturing Technology, 44 (5-6), pp. 548-558.

Ramkumar, A.S., Ponnambalam, S.G., Jawahar, N.
A new iterated fast local search heuristic for solving QAP formulation in facility layout design
(2009) Robotics and Computer-Integrated Manufacturing, 25 (3), pp. 620-629.

Marimuthu, S., Ponnambalam, S.G., Jawahar, N.
Threshold accepting and Ant-colony optimization algorithms for scheduling m-machine flow shops with lot streaming
(2009) Journal of Materials Processing Technology, 209 (2), pp. 1026-1041.

Yogeswaran, M., Ponnambalam, S.G., Tiwari, M.K.
An efficient hybrid evolutionary heuristic using genetic algorithm and simulated annealing algorithm to solve machine loading problem in FMS
(2009) International Journal of Production Research, 47 (19), pp. 5421-5448.

Senthilkumar, B., Ponnambalam, S.G., Jawahar, N.
Process factor optimization for controlling pull-down defects in iron castings
(2009) Journal of Materials Processing Technology, 209 (1), pp. 554-560.

SudhakaraPandian, R., Saravanasankar, S., Mahapatra, S.S., Ponnambalam, S.G.
An ART1 based algorithm for cell formation with sequence data
(2008) Conference Proceedings - IEEE International Conference on Systems, Man and Cybernetics, art. no. 4811561, pp. 1866-1871.

Chee, L.M., Ponnambalam, S.G.
A hybrid GA/PSO for the concurrent design of cellular manufacturing system
(2008) Conference Proceedings - IEEE International Conference on Systems, Man and Cybernetics, art. no. 4811559, pp. 1855-1860.

Ponnambalam, S.G., SudhakaraPandian, R., Mahapatra, S.S., Saravanasankar, S.
Modified ART1 neural networks for cell formation using production data
(2008) 4th IEEE Conference on Automation Science and Engineering, CASE 2008, art. no. 4626507, pp. 603-608.

Teo, Y.T., Ponnambalam, S.G.
A hybrid ACO/PSO heuristic to solve single row layout problem
(2008) 4th IEEE Conference on Automation Science and Engineering, CASE 2008, art. no. 4626491, pp. 597-602.

Ramkumar, A.S., Ponnambalam, S.G., Jawahar, N., Suresh, R.K.
Iterated fast local search algorithm for solving quadratic assignment problems
(2008) Robotics and Computer-Integrated Manufacturing, 24 (3), pp. 392-401.

Marimuthu, S., Ponnambalam, S.G., Jawahar, N.
Evolutionary algorithms for scheduling m-machine flow shop with lot streaming
(2008) Robotics and Computer-Integrated Manufacturing, 24 (1), pp. 125-139.

Yogeswaran, M., Ponnambalam, S.G., Tiwari, M.K.
An hybrid heuristic using genetic algorithm and simulated annealing algorithm to solve machine loading problem in FMS
(2007) Proceedings of the 3rd IEEE International Conference on Automation Science and Engineering, IEEE CASE 2007, art. no. 4341779, pp. 182-187.

Ramkumar, A.S., Ponnambalam, S.G., Jawahar, N.
An evolutionary search heuristic for solving QAP formulation in facility layout design
(2007) 2007 IEEE Congress on Evolutionary Computation, CEC 2007, art. no. 4424993, pp. 4005-4011.

Ponnambalam, S.G., Sudhakarapandian, R., Mohapatra, S.S., Saravanasankar, S.
Cell formation with workload data in cellular manufacturing system using genetic algorithm
(2007) IEEM 2007: 2007 IEEE International Conference on Industrial Engineering and Engineering Management, art. no. 4419275, pp. 674-678.

Ponnambalam, S.G., Saravana Sankar, S., Sriram, S., Gurumarimuthu, M.
Parallel populations genetic algorithm for minimizing assembly variation in selective assembly
(2007) 2006 IEEE International Conference on Automation Science and Engineering, CASE, art. no. 4120397, pp. 496-500.

Chandrasekaran, S., Ponnambalam, S.G., Suresh, R.K., Vijayakumar, N.
Multi-objective particle swarm optimization algorithm for scheduling in flowshops to minimize makespan, total flowtime and completion time variance
(2007) 2007 IEEE Congress on Evolutionary Computation, CEC 2007, art. no. 4424994, pp. 4012-4018.

Chandrasekaran, S., Suresh, R.K., Ponnambalam, S.G., Vijayakumar, N.
An application of particle swarm optimization algorithm to permutation flowshop scheduling problems to minimize makespan, total flowtime and completion time variance
(2007) 2006 IEEE International Conference on Automation Science and Engineering, CASE, art. no. 4120400, pp. 513-518.

Marimuthu, S., Ponnambalam, S.G., Jawahar, N.
Tabu search and simulated annealing algorithms for scheduling in flow shops with lot streaming
(2007) Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 221 (2), pp. 317-331.

Chandrasekar, R., Suresh, R.K., Ponnambalam, S.G.
Evaluating an Obstacle Avoidance Strategy to ant colony optimization algorithm for classification in event logs
(2006) Proceedings - 2006 14th International Conference on Advanced Computing and Communications, ADCOM 2006, art. no. 4289972, pp. 628-629.

Ramkumar, A.S., Ponnambalam, S.G.
Hybrid ant colony system for solving quadratic assignment formulation of machine layout problems
(2006) 2006 IEEE Conference on Cybernetics and Intelligent Systems, art. no. 4017845, .

Chandrasekaran, S., Ponnambalam, S.G., Suresh, R.K., Vijayakumar, N.
A hybrid discrete particle swarm optimization algorithm to solve flow shop scheduling problems
(2006) 2006 IEEE Conference on Cybernetics and Intelligent Systems, art. no. 4017875, .

Sankar, S.S., Ponnambalam, S.G., Gurumarimuthu, M.
Scheduling flexible manufacturing systems using parallelization of multi-objective evolutionary algorithms
(2006) International Journal of Advanced Manufacturing Technology, 30 (3-4), pp. 279-285.

Saravana Sankar, S., Ponnambalam, S.G., Rathinavel, V., Visveshvaren, M.S.
Scheduling in parallel machine shop: An ant colony optimization approach
(2005) Proceedings of the IEEE International Conference on Industrial Technology, 2005, art. no. 1600649, pp. 276-280.

Ponnambalam, S.G., Venkataraman, R., Sudhan, H.H., Chatlerjee, P.V.
Hybrid search algorithms for a single-row layout in automated manufacturing systems
(2005) International Journal of Industrial Engineering : Theory Applications and Practice, 12 (2), pp. 117-126.

Marimuthu, S., Ponnambalam, S.G.
Heuristic search algorithms for lot streaming in a two-machine flowshop
(2005) International Journal of Advanced Manufacturing Technology, 27 (1-2), pp. 174-180.

Maheswaran, R., Ponnambalam, S.G.
An intensive search evolutionary algorithm for single-machine total-weighted-tardiness scheduling problems
(2005) International Journal of Advanced Manufacturing Technology, 26 (9-10), pp. 1150-1156.

Maheswaran, R., Ponnambalam, S.G., Aravindan, C.
A meta-heuristic approach to single machine scheduling problems
(2005) International Journal of Advanced Manufacturing Technology, 25 (7-8), pp. 772-776.

Ganapathy, V., Marimuthu, S., Ponnambalam, S.G.
Tabu search and simulated annealing algorithms for lot-streaming in two-machine flowshop
(2004) Conference Proceedings - IEEE International Conference on Systems, Man and Cybernetics, 5, pp. 4221-4225.

Ramkumar, A.S., Ponnambalam, S.G.
Design of single-row layouts for flexible manufacturing systems using genetic algorithm and simulated annealing algorithm
(2004) 2004 IEEE Conference on Cybernetics and Intelligent Systems, pp. 1142-1146.

Maheswaran, R., Ponnambalam, S.G., Samuel, D.N., Ramkumar, A.S.
Hopfield neural network approach for single machine scheduling problem
(2004) 2004 IEEE Conference on Cybernetics and Intelligent Systems, pp. 849-853.

Marimuthu, S., Ponnambalam, S.G., Suresh, R.K.
Evolutionary algorithm and Threshold accepting algorithm for scheduling in two-machine flow shop with lot streaming
(2004) 2004 IEEE Conference on Cybernetics and Intelligent Systems, pp. 832-836.

Sankar, S.S., Rajkumar, R., Ponnambalam, S.G., Gurumarimuthu, M.
An intelligent integrated scheduling model for flexible manufacturing system
(2004) 2004 IEEE Conference on Robotics, Automation and Mechatronics, pp. 1095-1100.

Sankar, S.S., Ponnambalam, S.G., Rajkumar, R., Gurumarimuthu, M.
Integrated scheduling of material handling and manufacturing activities in flexible manufacturing system
(2004) Conference Proceedings - IEEE International Conference on Systems, Man and Cybernetics, 5, pp. 4254-4259.

Sankar, S.S., Rathinavel, V., Ponnambalam, S.G., Gurumarimuthu, M.
A pareto based multi-objective genetic algorithm for scheduling of FMS
(2004) 2004 IEEE Conference on Cybernetics and Intelligent Systems, pp. 699-704.

Ponnambalam, S.G., Jagannathan, H., Kataria, M., Gadicherla, A.
A TSP-GA multi-objective algorithm for flow-shop scheduling
(2004) International Journal of Advanced Manufacturing Technology, 23 (11-12), pp. 909-915.