

Mehmet ŞEVKLİ

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Education

- **PhD**, Department of Industrial Engineering, Istanbul Technical University, Istanbul, Turkiye, June 2005
- **MSc**, Department of Industrial Engineering, Fatih University, Istanbul, Turkiye, July 2000
- **BSc**, Department of Industrial Engineering, Sakarya University, Sakarya, Turkiye, June 1997

Work Experience

- **2006-Current**, Institute of Defense Sciences, Turkish Military Academy, **Assistant Professor**
- **2005-2006**, Department of Industrial Engineering, Fatih University, **Assistant Professor**
- **2000-2005**, Department of Industrial Engineering, Fatih University, **Lecturer**
- **1998-2000**, Department of Industrial Engineering, Fatih University, **Research Assistant**

Research Interests

- Operations Research
 - Linear and Integer Programming
 - Transportation Models
 - Dynamic Programming
 - Stochastic Models
 - Project Management (CPM, PERT)
 - Nonlinear Optimization
 - Data Envelopment Analysis
- Heuristic Optimization
 - Particle Swarm Optimization
 - Genetic Algorithm
 - Differential Evolution
 - Simulated Annealing
 - Taboo Search
 - Variable Neighborhoods Search
 - Local Search Methods
- Meta Heuristics Applied to the Combinatorial Optimization Problems
 - Job Shop Scheduling
 - Flow Shop Scheduling
 - Single Machine Weighed Tardiness
 - Bicriteria Flow Shop Scheduling
 - Parallel Machine Scheduling
 - Number of Tardy Jobs in Permutation Flowshop
 - Orienteering and Team Orienteering
 - Vehicle Routing
 - Time Tabling
 - Traveling Salesman Problem
 - Set Covering-Generalized Assignment Problem
 - Quadratic Assignment Problem
 - Uncapacitated Facility Location Problem
 - Warehouse Location problems
- Supply Chain Management
 - Supplier Selection
- Production Scheduling
 - Flow Shop, Job Shop, Parallel Machine Scheduling
 - Bicriteria Flow Shop Scheduling

- Single Machine Weighed Tardiness
- Production Planning and Control
- Fuzzy Logic and its Application
- System Modeling and Simulation
 - Promodel and ARENA software
- Decision Making Analysis
 - AHP, DEA
- Statistical Analysis
- Parallel Computing
 - MPI

Current Studies

- Discrete Particle Swarm Optimization for
 - Uncapacitated Warehouse Location Problem
- Performance Evaluation using Data Envelopment Analysis
- Supplier Selection using Evolutionary Computation

Courses Taught

- Operations Research
- Optimization
- Operations Scheduling
- Introduction to the Computer Programming I & II (JAVA)
- Object Oriented Programming
- Engineering Graphics (using Solidworks Software)
- Computing in Industrial Engineering (Database Management Systems and SQL)
- Simulation (Promodel Software)

Publications

Academic Journals

1. Sevkli, M., Aydin, M. E., "**Parallel Variable Neighbourhood Search Algorithms For Job Shop Scheduling Problems**", IMA Journal of Management Mathematics, Vol.18, No.2, 2007, pp. 117-133.
2. Sevkli, M., Lenny, K.S.C., Zaim, S., Demirbag, M., Tatoglu, E. "**An Application of Data Envelopment Analytic Hierarchy Process for Supplier Selection: A Case Study of Beko in Turkey**", International Journal of Production Research, Vol. 45, No. 9, 2007, pp. 1973-2003
3. Tasgetiren, M.F., Liang, Y.C., Sevkli, M. and Gencyilmaz, G., "**Particle Swarm Optimization Algorithm for Makespan and Total Flowtime Minimization in Permutation Flowshop Sequencing Problem**", European Journal of Operational Research, Vol. 177, No.3, 2007, pp. 1930-1947
4. Sevkli, M., Aydin, M. E., "**A Variable Neighbourhood Search Algorithm for Job Shop Scheduling Problems**", Journal of Software, Vol.1, No.2, August 2006, pp. 34-39
5. Tasgetiren, M. F., Sevkli, M., Liang, Y.C., Yenisey, M.M, "**Particle Swarm Optimization and Differential Evolution for Job Shop Scheduling Problem**", International Journal of Operational Research, Vol. 3, No. 2, 2006, pp. 120-135.
6. Sevkli, M., Guner, A.R., "**A Continuous Particle Swarm Optimization Algorithm for Uncapacitated Facility Location Problems** ", Lecture Notes in Computer Science, Vol. 4150, Sep. 2006, pp. 316-323
7. Tasgetiren, M.F., Liang, Y.C., Sevkli, M. and Gencyilmaz, G., "**Particle Swarm Optimization and Differential Evolution for Single Machine Total Weighted Tardiness Problem**", International Journal of Production Research, Vol. 44, No. 22, 2006, pp. 4737 - 4754.
8. Sevkli, M., Aydin, M. E., "**A Variable Neighbourhood Search Algorithm for Job Shop Scheduling Problems**", Lecture Notes in Computer Science, Vol. 3906, 2006, pp. 261-271
9. Sevkli, M., Yenisey, M. M., "**Atölye Tipi Çizelgeleme Problemleri İçin Parçacık Sürü Optimizasyonu Yöntemi**", İTÜ Dergisi Mühendislik Serisi, Cilt.5, Sayı.2, Kısım.1, 2006, pp. 58-68 (in Turkish)
10. Tasgetiren, M.F., Sevkli, M., Liang, Y.C., and Gencyilmaz, G., "**Particle Swarm Optimization Algorithm for Permutation Flowshop Sequencing Problem**", Lecture Notes in Computer Science, Vol. 3172, Nov. 2004, pp. 382 - 389

11. Zaim, S., Sevkli, M., Tarim, M., "Fuzzy Analytic Hierarchy Based Approach for Supplier Selection", Journal of Euromarketing, Vol. 12, No. 3/4, Nov. 2003, pp. 147-176
12. Zaim S., Sevkli, M., "The Methodology of Quality Function Deployment with Crisp and Fuzzy Approaches and an Application in the Turkish Shampoo Industry", Journal of Economic and Social Research, Vol. 4, No. 1, Jan. 2002, pp. 27-53

Under Review

1. Sevkli, M., Aydin, M.E. "An empirical investigation on hybrid particle swarm optimisation algorithms for travelling salesman problems", (submitted to European Journal of Industrial Engineering, November 2006).
2. Sevkli, M., Lenny, K.S.C., Zaim, S., Demirbag, M., Tatoglu, E. "An Application of Analytical Hierarchy Process Weighted Fuzzy Multi-Objective Linear Model For Supplier Selection", (submitted to International Management and Data Systems January 2007)
3. Aydin, M.E., Sevkli, M., Zhang, J., "Variable Neighbourhood Tabu Search Algorithms for Permutation Flowshop Scheduling Problem", (submitted to Engineering Stochastic Local Search Algorithms Conference, Brussel, Belgium, SLS 2007, April 2006).
4. Sevkli, M., Guner, A.R., "A Discrete Particle Swarm Optimization Algorithm for Uncapacitated Facility Location Problems", (submitted to International Journal of Computational Intelligence Research, April 2007).

Conference Proceedings

1. İseri, A., Akkurt, M., Sevkli, M., "Promodel Kullanılarak Bir İşletmenin Simülasyonu, Tekstil Fabrikası Örneği", Yöneylem Araştırması ve Endüstri Mühendisliği Derneği (YAEM 2007), Dokuz Eylül Üniversitesi, İzmir, Temmuz 2007
2. Sevkli, M., Guner, A.R., "A Continuous Particle Swarm Optimization Algorithm for Uncapacitated Facility Location Problems", 5th International Workshop on Ant Colony Optimization and Swarm Intelligence (ANTS 2006), Sep. 2006, Brussels, Belgium
3. Sevkli, M., Aydin, M.E., "Collaborating Variable Neighbourhood Search Algorithms for Job Shop Scheduling Problems", The 5th International Symposium On Intelligent Manufacturing Systems (IMS 2006), Sakarya, Turkey, May. 2006.
4. Sevkli, M., Guner, A.R., "A New Approach to Solve Uncapacitated Facility Location Problems by Particle Swarm Optimization", The 5th International Symposium On Intelligent Manufacturing Systems (IMS 2006), Sakarya, Turkey, May. 2006
5. Sevkli, M., Aydin, M.E. "A Variable Neighbourhood Search Algorithm for Job Shop Scheduling Problems", 6th European Conference on Evolutionary Computation in Combinatorial Optimization, Apr. 2006, Budapest, Hungary.
6. Tasgetiren, M.F., Liang, Y.C., Sevkli, M. and Gencyilmaz, G., "Particle Swarm Optimization Algorithm for Makespan and Maximum Lateness Minimization in Permutation Flowshop Sequencing Problem", 4th International Symposium on Intelligent Manufacturing Systems (IMS 2004), Sep. 2004, Sakarya, Turkey.
7. Tasgetiren, M.F., Liang, Y.C., Sevkli, M. and Gencyilmaz, G., "Differential Evolution Algorithm for Permutation Flowshop Sequencing Problem with Makespan Criterion", 4th International Symposium on Intelligent Manufacturing Systems (IMS 2004), Sep. 2004, Sakarya, Turkey
8. Tasgetiren, F., Sevkli, M., Liang, Y.C., Gencyilmaz, G., "Particle Swarm Optimization Algorithm for Permutation Flowshop Sequencing Problem", 4th International Workshop on Ant Colony Optimization and Swarm Intelligence (ANTS 2004), Sep. 2004, Brussels, Belgium
9. Tasgetiren, F., Sevkli, M., Liang, Y.C., Gencyilmaz, G., "Particle Swarm Optimization Algorithm For Single Machine Total Weighted Tardiness Problem", Congress of Evolutionary Computation, Jun. 2004, Portland, USA
10. Ucar, H., Sevkli, M., Unsal, M., "Simulation of A manufacturing System-Assembly of Vacuum Cleaners-", 4th International Symposium on Intelligent Manufacturing Systems (IMS 2004), Sep. 2004, Sakarya, Turkey
11. Uysal, O., Sevkli, M., Türkyılmaz, A., Aksoy, M.S., "A New Method For Noise Reduction Based On Mode Filter Algorithm", IJCI Proceedings of Intl. XII. Turkish Symposium on Artificial Intelligence and Neural Networks, Vol.1, No.1, July 2003.
12. Sevkli, M., Çolak, A.B., Ünsal, M., "Implementation of a University Final Examination Time Tabling System", INFORMS 2003, Jul. 2003, İstanbul, Turkey
13. Sevkli, M., Yenisey, M.M., "A literature survey of deterministic job shop scheduling using genetic algorithms and simulated annealing by means of local search algorithm", INFORMS 2003, Jul. 2003, İstanbul, Turkey

14. Sevkli, M. "**An hybrid methods for Job Shop Scheduling Problems** ", Üretim Araştırmaları , Apr. 2003, İstanbul, Turkey (in Turkish)
15. Sevkli, M., Türkyılmaz, A., Aksoy, M. S., "**Banknote Recognition Using Inductive Learning**", International Conference On Fuzzy Systems And Soft Computational Intelligence In Management and Industrial Engineering, May. 2002, İstanbul, Turkey
16. Türkyılmaz, A., Sevkli, M., Aksoy, M. S., "**Quality Control of Ceramic Tiles Using Inductive Learning**", 2nd International Conference on Responsive Manufacturing, May. 2002, Gaziantep, Turkey
17. Bhadury, B., Türkyılmaz, A., Sevkli, M., "**Towards Effective and Responsive Management of Plant Maintenance**", International Conference on Fuzzy Systems and Soft Computational Intelligence in Management and Industrial Engineering, May. 2002, İstanbul, Turkey

Thesis

1. Sevkli, M., "**Particle Swarm Optimization for Job Shop Scheduling**", PhD. Dissertation, Department of Industrial Engineering, İstanbul Technical University, İstanbul, Turkey , 2005 (in Turkish)
2. Sevkli, M., "**Banknote Recognition Using Inductive Learning**", Master Thesis, Department of Industrial Engineering, Fatih University, İstanbul, Turkey, 2000

Thesis Supervised

Master

1. Ali Rıza Güner, "**A continuous and a discrete particle swarm optimization algorithm for uncapacitated facility location problem**", Department of Industrial Engineering, Fatih University, 2006.
2. Hatice Uysal, "**A variable neighbourhood search algorithm for identical parallel machine problem**", Department of Industrial Engineering, Fatih University, 2006.

Refereed Journals

- European Journal of Operational Research
- International Journal of Production Research

Computer Skills

- Programming Languages
 - Java (Excellent)
 - C (Excellent)
 - SQL (Good)
 - MPI (Basic)
- Software Packages
 - MS Office (Word, Excel, PowerPoint, Access)
 - MATLAB
 - SPSS
 - Minitab
 - Xpress MP (Optimization Software)
 - Promodel (Simulation Package Software)
 - Moodle (Distance Learning System)
- Operating Systems
 - Windows XP (Advanced)
 - Windows Server 2003 (Advanced)