

## IMS Researcher Profile

**Institution: UMST**



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Current Research Activities: Discrete event systems, flexible manufacturing systems, shop floor control, computer integrated manufacturing, preventive maintenance and shop floor prognostics

Dissertation/Thesis Topics:

Master's Thesis: Tool management in Flexible Manufacturing Systems

Dissertation (In progress): Performance based manufacturing system control using system –level prognostics

Project 1: Embedded agent for integrated product lifecycle and asset management

Project 2: Bearing prognostics

Previous Experience: Maintenance Engineer, Pirelli S.p.A, Izmit, Turkey

Publications:

### JOURNAL PAPERS:

1. **SOYLEMEZOGLU**, A., ZAWODNIOK, M.J., CHA, K., HALL, D., BIRT, J., SAYGIN, C., and SARANGAPANI, J., "A Testbed Architecture for Auto-ID Technologies," *Assembly Automation*, Vol.26, No.2, pp.127-136, 2006.
2. MILLS-HARRIS, M.D., **SOYLEMEZOGLU**, A., and SAYGIN, C., "Adaptive Inventory Management Using RFID Data," *International Journal of Advanced Manufacturing Technology* (accepted in 2005, in-print for 2006).
3. MEYYAPAN, L., **SOYLEMEZOGLU**, A., and SAYGIN, C., "A Wasp-Based Control Model for Real-Time Routing of Parts in a Flexible Manufacturing System", *International Journal of Computer Integrated Manufacturing* (accepted –in print).
4. **SOYLEMEZOGLU**, A., BUYURGAN, N, and SAYGIN, C., "Tool Management in Flexible Manufacturing Systems," *IJAMT* (under review).

### CONFERENCE PAPERS:

1. **SOYLEMEZOGLU**, A., BIRT, J.T., SAYGIN, C., SARANGAPANI, J., TRIMBLE, D., and ROUSE, C., "Auto-ID Technologies and Solutions for Aerospace Manufacturing," *AEROMAT'05*, Orlando, Florida, June 6-9, 2005.
2. MILLS-HARRIS, M.D., **SOYLEMEZOGLU**, A., and SAYGIN, C., "RFID Data-based Inventory Management of Time-Sensitive Materials," *The 31st Annual Conference of the IEEE Industrial Electronics Society (IECON'05)*, Special Session: Integrated Manufacturing and Service Systems, Raleigh, North Carolina, Nov 6-10, 2005.
3. CHA, K., **SOYLEMEZOGLU**, A., BIRT, J., ZAWODNIOK, M.J., FONDA, J., TAQIEDDIN, E.S., MILLSHARRIS, M.D., SAYGIN, C., SARANGAPANI, J., TRIMBLE, D., and SIEGEL, T., "A Testbed for Validation and Benchmarking of Auto-ID Solutions," *AEROMAT'05*, Orlando, Florida, June 6-9, 2005.
4. MILLS-HARRIS, M.D., **SOYLEMEZOGLU**, A., SAYGIN, C., ETZKORN, K.M., and FREEMAN, P., "Adaptive Inventory Management for Cost Reduction in Network-Centric Manufacturing Environments," *AEROMAT'05*, Orlando, Florida, June 6-9, 2005.