

Dr. Hakan Gultekin
Mechanical and Industrial Engineering
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Qualifications

University of Liege
Jan 20 2007 → Oct 31 2007

Bilkent University
Sep 1 2002 → Jan 1 2007

Bilkent University
Sep 1 2000 → Jun 1 2002

Bilkent University
Sep 1 1996 → Jun 1 2000

Employment

Mechanical and Industrial Engineering

Sultan Qaboos University
Aug 28 2018 → Jun 30 2024

Research outputs

Privacy protection via joint real and reactive load shaping in smart grids

Kement, C. E., Ilić, M., Gultekin, H., Cicek, C. T. & Tavli, B., Dec 2022, In: Sustainable Energy, Grids and Networks. 32, 100794.

Communication-aware Drone Delivery Problem

Cicek, C. T., Koç, Ç., Gultekin, H. & Erdoğan, G., Mar 11 2022.

Bicriteria scheduling of a material handling robot in an m-machine cell to minimize the energy consumption of the robot and the cycle time

Gultekin, H., Gürel, S. & Taspinar, R., Dec 2021, In: Robotics and Computer-Integrated Manufacturing. 72, 102207.

A Holistic Analysis of Privacy-Aware Smart Grid Demand Response

Kement, C. E., Gultekin, H. & Tavli, B., Aug 2021, In: IEEE Transactions on Industrial Electronics. 68, 8, p. 7631-7641 11 p., 9138735.

3-D dynamic UAV base station location problem

Cicek, C. T., Shen, Z. J. M., Gultekin, H. & Tavli, B., Jun 2021, In: INFORMS Journal on Computing. 33, 3, p. 839-860 22 p.

Holistic Privacy for Electricity, Water, and Natural Gas Metering in Next Generation Smart Homes

Kement, C. E., Tavli, B., Gultekin, H. & Yanikomeroglu, H., Mar 2021, In: IEEE Communications Magazine. 59, 3, p. 24-29 6 p., 9422335.

The airport shuttle bus scheduling problem

Öner, N., Gultekin, H. & Koç, Ç., 2021, In: International Journal of Production Research. 59, 24, p. 7400-7422 23 p.

3-D Dynamic UAV Base Station Location Problem

Cicek, C. T., Shen, Z-J. M., Gultekin, H. & Tavli, B., Dec 9 2020.

Measuring the value of energy storage systems in a power network

Agrali, C., Gultekin, H., Tekin, S. & Oner, N., Sep 2020, In: International Journal of Electrical Power and Energy Systems. 120, 106022.

Backhaul-Aware Optimization of UAV Base Station Location and Bandwidth Allocation for Profit Maximization

Cicek, C. T., Gultekin, H., Tavli, B. & Yanikomeroglu, H., 2020, In: IEEE Access. 8, p. 154573-154588 16 p., 9174722.

The location-allocation problem of drone base stations

Cicek, C. T., Gultekin, H. & Tavli, B., Nov 2019, In: Computers and Operations Research. 111, p. 155-176 22 p.

Energy conscious scheduling of a material handling robot in a manufacturing cell

Gürel, S., Gultekin, H. & Akhlaghi, V. E., Aug 2019, In: Robotics and Computer-Integrated Manufacturing. 58, p. 97-108 12 p.

UAV Base Station Location Optimization for Next Generation Wireless Networks: Overview and Future Research Directions

Cicek, C. T., Gultekin, H., Tavli, B. & Yanikomeroglu, H., Mar 4 2019, *2019 1st International Conference on Unmanned Vehicle Systems-Oman, UVS 2019*. Institute of Electrical and Electronics Engineers Inc., 8658363. (2019 1st International Conference on Unmanned Vehicle Systems-Oman, UVS 2019).

Cyclic scheduling of parts and robot moves in m-machine robotic cells

Gultekin, H., Coban, B. & Akhlaghi, V. E., Feb 2018, In: Computers and Operations Research. 90, p. 161-172 12 p.

Backhaul-Aware Placement of a UAV-BS with Bandwidth Allocation for User-Centric Operation and Profit Maximization.

Cicek, C. T., Kutlu, T., Gultekin, H., Tavli, B. & Yanikomeroglu, H., 2018, In: CoRR. abs/1810.12395

Pure cycles in two-machine dual-gripper robotic cells

Gultekin, H., Dalgıç, Ö. O. & Akturk, M. S., Dec 1 2017, In: Robotics and Computer-Integrated Manufacturing. 48, p. 121-131 11 p.

Comparative Analysis of Load-Shaping-Based Privacy Preservation Strategies in a Smart Grid

Kement, C. E., Gultekin, H., Tavli, B., Girici, T. & Uludag, S., Dec 2017, In: IEEE Transactions on Industrial Informatics. 13, 6, p. 3226-3235 10 p., 7956260.

Maximizing Wireless Sensor Network lifetime by communication/computation energy optimization of non-repudiation security service: Node level versus network level strategies

Yildiz, H. U., Bicakci, K., Tavli, B., Gultekin, H. & Incebacak, D., Feb 1 2016, In: Ad Hoc Networks. 37, p. 301-323 23 p.

Scheduling in two-machine robotic cells with a self-buffered robot

Gundogdu, E. & Gultekin, H., Feb 1 2016, In: IIE Transactions (Institute of Industrial Engineers). 48, 2, p. 170-191 22 p.

Automated robotic assembly line design with unavailability periods and tool changes

Gultekin, H., Tula, A. & Selim Akturk, M., 2016, In: European Journal of Industrial Engineering. 10, 4, p. 499-526 28 p.

Two-machine flowshop scheduling with flexible operations and controllable processing times

Uruk, Z., Gultekin, H. & Akturk, M. S., Feb 2013, In: Computers and Operations Research. 40, 2, p. 639-653 15 p.

Scheduling in flowshops with flexible operations: Throughput optimization and benefits of flexibility

Gultekin, H., Dec 2012, In: International Journal of Production Economics. 140, 2, p. 900-911 12 p.

Minimizing the Makespan in flowshops with flexible operations

Demirtas, H. H. & Gultekin, H., 2012, *Proceedings - INCOM'12, 14th IFAC Symposium on Information Control Problems in Manufacturing*. PART 1 ed. IFAC Secretariat, p. 1366-1370 5 p. (IFAC Proceedings Volumes (IFAC-PapersOnline); vol.

14, no. PART 1).

Maximizing lifetime of event-unobservable wireless sensor networks

Bicakci, K., Gultekin, H., Tavli, B. & Bagci, I. E., Jun 2011, In: Computer Standards and Interfaces. 33, 4, p. 401-410 10 p.

Design of a fully automated robotic spot-welding line

Akturk, M. S., Tula, A. & Gultekin, H., 2011, *ICINCO 2011 - Proceedings of the 8th International Conference on Informatics in Control, Automation and Robotics*. p. 387-392 6 p. (ICINCO 2011 - Proceedings of the 8th International Conference on Informatics in Control, Automation and Robotics; vol. 2).

Throughput optimization in two-machine flowshops with flexible operations

Crama, Y. & Gultekin, H., Jun 2010, In: Journal of Scheduling. 13, 3, p. 227-243 17 p.

Bicriteria robotic operation allocation in a flexible manufacturing cell

Gultekin, H., Akturk, M. S. & Karasan, O. E., Apr 2010, In: Computers and Operations Research. 37, 4, p. 779-789 11 p.

The impact of one-time energy costs on network lifetime in wireless sensor networks

Bicakci, K., Gultekin, H. & Tavli, B., Dec 2009, In: IEEE Communications Letters. 13, 12, p. 905-907 3 p., 5353258.

Pure cycles in flexible robotic cells

Gultekin, H., Ekin Karasan, O. & Akturk, M. S., Feb 2009, In: Computers and Operations Research. 36, 2, p. 329-343 15 p.

Bicriteria robotic cell scheduling

Gultekin, H., Akturk, M. S. & Karasan, O. E., Dec 2008, In: Journal of Scheduling. 11, 6, p. 457-473 17 p.

Scheduling in robotic cells: Process flexibility and cell layout

Gultekin, H., Akturk, M. S. & Karasan, O. E., Apr 2008, In: International Journal of Production Research. 46, 8, p. 2105-2121 17 p.

Scheduling in a three-machine robotic flexible manufacturing cell

Gultekin, H., Akturk, M. S. & Ekin Karasan, O., Aug 2007, In: Computers and Operations Research. 34, 8, p. 2463-2477 15 p.

Cyclic scheduling of a 2-machine robotic cell with tooling constraints

Gultekin, H., Akturk, M. S. & Karasan, O. E., Oct 16 2006, In: European Journal of Operational Research. 174, 2, p. 777-796 20 p.

Scheduling in a three-machine flexible robotic cell

Gultekin, H., Akturk, M. S. & Karasan, O. E., 2006, *12th IFAC Symposium on Information Control Problems in Manufacturing, INCOM 2006, and Associated Industrial Meetings: EMM'2006, BPM'2006, JT'2006*. PART 1 ed. IFAC Secretariat, (IFAC Proceedings Volumes (IFAC-PapersOnline); vol. 12, no. PART 1).

Robotic cell scheduling with operational flexibility

Akturk, M. S., Gultekin, H. & Karasan, O. E., Jan 30 2005, In: Discrete Applied Mathematics. 145, 3, p. 334-348 15 p.

Projects

Energy Efficient Scheduling in Manufacturing: Energy-Time Trade-off in Parallel Machine Environments

Gultekin, H.

1/1/20 → 12/31/22

Courses

MEIE3269 Mathematics of Linear Programming

Hakan Gultekin
9/1/21 → 12/31/21

MEIE3271 Methods of Operations Research

Hakan Gultekin
1/1/22 → 5/19/22

MEIE4275 Facilities Design and Logistics

Hakan Gultekin
1/1/22 → 5/31/22

MEIE4285 Engineering Economics

Hakan Gultekin
1/1/21 → 5/31/21

MEIE5262 Industrial Systems Design

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