

Bibliography

- [1] J.E. van Aken. Management research based on the paradigm of design sciences: The quest for field-tested and grounded technological rules. *Journal of Management Studies* 41(2):219–246, 2004, doi:10.1111/j.1467-6486.2004.00430.x.
- [2] R.L. Albuquerque, J.F. Hubner, G.E. de Paula, J.S. Sichman, and G.L. Ramalho. KSACI: A handheld device infrastructure for agents communication. *Intelligent Agents VIII*, pp. 423-435. Springer-Verlag, Lecture Notes in Computer Science 2333, 2002, doi:10.1007/3-540-45448-9_32.
- [3] R. Angeles. RFID technologies: Supply-chain applications and implementation issues. *Information Systems Management* 22(1):51–65, 2005, doi:10.1201/1078/44912.22.1.20051201/85739.7.
- [4] J. Anke and K. Främling. Distributed decision support in a PLM scenario. *Proceedings of the Product Data Technology Europe 14th Symposium*, pp. 129-137, September 2005, Amsterdam, Netherlands.
- [5] Anonymous. The role of RFID in B2B trade. *e-INSIDER*, 2002, <http://www.supplychainbrain.com/news/e12.04.02.newsletter.htm>.
- [6] Anonymous. Wal-mart expands RFID mandate. *RFID Journal*, 2003, <http://www.rfidjournal.com/article/view/539>.
- [7] S. Axsäter. *Inventory control*. Springer, 2006, isbn:9780387332505.

BIBLIOGRAPHY

- [8] S. Axsäter and H. Jönsson. Aggregation and disaggregation in hierarchical production planning. *European journal of Operational Research* 17(3):338–350, 1984, doi:10.1016/0377-2217(84)90129-2.
- [9] E. Bajic and F. Chaxel. Auto-ID mobile information system for vehicle life cycle data management. *Proceedings of the 2002 IEEE International Conference on Systems, Man and Cybernetics*, October 2002, Yasmine Hammamet, Tunisia, doi:10.1109/ICSMC.2002.1173318.
- [10] M. Barratt, T.Y. Choi, and M. Li. Qualitative case studies in operations management: Trends, research outcomes, and future research implications. *Journal of Operations Management* 29(4):329–342, 2011, doi:10.1016/j.jom.2010.06.002.
- [11] M. Barratt and A. Oke. Antecedents of supply chain visibility in retail supply chains: A resource-based theory perspective. *Journal of Operations Management* 25(6):1217–1233, 2007, doi:10.1016/j.jom.2007.01.003.
- [12] C. Baumer, M. Breugst, S. Choy, and T. Magedanz. Grasshopper: a universal agent platform based on OMG MASIF and FIPA standards. *Proceedings of the 1st International Workshop on Mobile Agents for Telecommunication Applications*, pp. 1-18, October 1999, Ottawa, Canada.
- [13] B.M. Beamon. Supply chain design and analysis: Models and methods. *International Journal of Production Economics* 55(3):281–294, 1998, doi:10.1016/S0925-5273(98)00079-6.
- [14] F. Bergenti and A. Poggi. LEAP: A FIPA platform for handheld and mobile devices. *Intelligent Agents VIII*, pp. 436-446. Springer-Verlag, Lecture Notes in Computer Science 2333, 2002, doi:10.1007/3-540-45448-9_33.
- [15] E. Bergman. *Information appliances and beyond: interaction design for consumer products*. Morgan Kaufmann, 2000, isbn:9781558606005.

- [16] T. Borangiu, S. Raileanu, D. Trentesaux, and T. Berger. Open manufacturing control with agile reconfiguring of robot services. *Proceedings of the 2010 IEEE 19th International Workshop on Robotics in Alpe-Adria-Danube Region*, pp. 37-42, June 2010, Budapest, Hungary, doi:10.1109/RAAD.2010.5524614.
- [17] K.K. Boyer, R. Hallowell, and A.V. Roth. E-services: operating strategy - a case study and a method for analyzing operational benefits. *Journal of Operations Management* 20(2):175–188, 2002, doi:10.1016/S0272-6963(01)00093-6.
- [18] A. Brewer and T.L. Landers. Radio frequency identification: A survey and assessment of the technology. Tech. rep., University of Arkansas, Fayetteville, Arkansas, USA, 1997.
- [19] A. Brewer, N. Sloan, and T.L. Landers. Intelligent tracking in manufacturing. *Journal of Intelligent Manufacturing* 10(3-4):245–250, 1999, doi:10.1023/A:1008995707211.
- [20] A. Brintrup, Damith Ranasinghe, and D. McFarlane. RFID opportunity analysis for leaner manufacturing. *International Journal of Production Research* 48(9):2745–2764, 2010, doi:10.1080/00207540903156517.
- [21] D.L. Brock. The electronic product code (EPC): A naming scheme for physical objects. Tech. Rep. MIT-AUTOID-WH-002, MIT Auto-ID Center, Cambridge, Massachusetts, USA, 2001.
- [22] A. Budihardjo. *Planners in action: roadmap for success: an empirical study on the relationship between job decision latitude, responsiveness and planning effectiveness in road transport companies*. Ph.D. thesis, University of Groningen, Groningen, The Netherlands, 2002, isbn:9789053350027.
- [23] S. Bussmann and D.C. McFarlane. Rationales for holonic manufacturing control. *Proceedings of the 2nd International Workshop on Intelligent Manufacturing Systems*, pp. 177-184, September 1999, Leuven, Belgium.

BIBLIOGRAPHY

- [24] S. Bussmann and K. Schild. Self-organizing manufacturing control: An industrial application of agent technology. *Proceedings of the 4th International Conference on MultiAgent Systems*, pp. 87-94, July 2000, Boston, Massachusetts, USA, doi:10.1109/ICMAS.2000.858435.
- [25] G. Buxey. Production scheduling: Practice and theory. *European Journal of Operations Research* 39(1):17–31, 1989, doi:10.1016/0377-2217(89)90349-4.
- [26] C. Carabelea and O. Boissier. Multi-agent platforms on smart devices: Dream or reality? *Proceedings of the Smart Objects Conference*, pp. 126-129, May 2003, Grenoble, France.
- [27] C. Carabelea, O. Boissier, and F. Ramparany. Benefits and requirements of using multi-agent systems on smart devices. *Euro-Par 2003 Parallel Processing*, pp. 1091-1098. Springer-Verlag, Lecture Notes in Computer Science 2790, 2003, doi:10.1007/978-3-540-45209-6_147.
- [28] J. Cassina, M. Tomasella, M. Marquard, A. Metin, A. Matta, and M. Taisch. Development of the semantic object model for a PDKM system. *Proceedings of the 12th International Conference on Concurrent Enterprising*, June 2006, Milan, Italy.
- [29] K.C. Chatzidimitriou, A.L. Symeonidisa, I. Kontogounis, and P.A. Mitkas. Agent Mertacor: A robust design for dealing with uncertainty and variation in SCM environments. *Expert Systems with Applications* 35(3):591–603, 2008, doi:10.1016/j.eswa.2007.07.050.
- [30] P. Checkland and J. Scholes. *Soft systems methodology: a 30-year retrospective*. Wiley, 1999, isbn:9780471986058.
- [31] C.-Y. Cheng, D. Barton, and V. Prabhu. The servicisation of the cutting tool supply chain. *International Journal of Production Research* 48(1):1–19, 2010, doi:10.1080/00207540802389235.
- [32] S.J. Childe. Case studies in operations management. *Production Planning & Control* 22(2):107, 2011, doi:10.1080/09537287.2011.554736.

- [33] Jonathan Collins. Suppliers must 'slap and ship'. *RFID Journal*, 2004, <http://www.rfidjournal.com/article/view/855>.
- [34] J. Collins, R. Arunachalam, N. Sadeh, J. Eriksson, N. Finne, and S. Janson. The supply chain management game for the 2007 trading agent competition. Tech. Rep. CMU-ISRI-07-10, Carnegie Mellon University, Pittsburgh, Pennsylvania, USA, 2006.
- [35] J. Collins and N. Sadeh. Guest editors' introduction to special section: Supply chain trading agent research. *Electronic Commerce Research and Applications* 8(2):61–62, 2009, doi:10.1016/j.elerap.2008.11.003.
- [36] G. Comert and M. Cetin. Queue length estimation from probe vehicle location and the impacts of sample size. *European Journal of Operational Research* 197(1):196–202, 2009, doi:10.1016/j.ejor.2008.06.024.
- [37] R.W. Conway, W.L. Maxwell, and L.W. Miller. *Theory of scheduling*. Addison-Wesley, 1967.
- [38] C. Corcelle, K. Främling, L. Rabe, J. Anke, and J. Petrow. Assessment of item-specific information management approaches in the area of heavy load vehicles. *Proceedings of the 4th International Conference on Product Lifecycle Management*, pp. 773-782, July 2007, Bergamo, Italy.
- [39] T.G. Crainic, M. Gendreau, and J.-Y. Potvin. Intelligent freight-transportation systems: Assessment and the contribution of operations research. *Transportation Research Part C: Emerging Technologies* 17(6):541–557, 2009, doi:10.1016/j.trc.2008.07.002.
- [40] A. Davie. Intelligent tagging for transport and logistics: the ParcelCall approach. *Electronics & Communication Engineering Journal* 14(3):122–128, 2002, doi:10.1049/ecej:20020304.
- [41] B. Dehning, V.J. Richardson, and R.W. Zmud. The financial performance effects of IT-based supply chain management systems in manufacturing firms. *Journal of Operations Management* 25(4):806–824, 2007, doi:10.1016/j.jom.2006.09.001.

BIBLIOGRAPHY

- [42] D. Delen, B.C. Hardgrave, and R. Sharda. RFID for better supply-chain management through enhanced information visibility. *Production and Operations Management* 16(5):613–624, 2007, doi:10.1111/j.1937-5956.2007.tb00284.x.
- [43] K.M. Eisenhardt and M.E. Graebner. Theory building from cases: Opportunities and challenges. *Academy of Management Journal* 50(1):25–32, 2007.
- [44] T. Feare. Pump up the volume. *Modern Materials Handling* 55(3):55–59, 2000.
- [45] E. Fleisch. What is the internet of things? - an economic perspective. Tech. Rep. WP-BIZAPP-053, Auto-ID Labs, St. Gallen, Switzerland, 2010.
- [46] E. Folmer and J. Bosch. Human-computer interaction: theory and practice, chapter Usability patterns in software architecture, pp. 93–97. Routledge, 2003, isbn:9780805849301.
- [47] E. Folmer, J. van Gorp, and J. Bosch. Scenario-based assessment of software architecture usability. *Proceedings of the Workshop on Bridging the Gaps Between Software Engineering and Human-Computer Interaction*, pp. 61–68, May 2003, Portland, Oregon, USA.
- [48] K. Främling, T. Ala-Risku, M. Kärkkäinen, and J. Holmström. Agent-based model for managing composite product information. *Computers in Industry* 57(1):72–81, 2006, doi:10.1016/j.compind.2005.04.004.
- [49] K. Främling, T. Ala-Risku, M. Kärkkäinen, and J. Holmström. Design patterns for managing product life cycle information. *Communications of the ACM* 50(6):75–79, 2007, doi:10.1145/1247001.1247009.
- [50] K. Främling, M. Harrison, J. Brusey, and J. Petrow. Requirements on unique identifiers for managing product lifecycle information: comparison of alternative approaches. *International Journal of Computer Integrated Manufacturing* 20(7):715–726, 2007, doi:10.1080/09511920701567770.

- [51] K. Främling and J. Holmström. Design patterns for managing product lifecycle information. *Proceedings of the 18th International Conference on Production Research*, August 2005, Salerno, Italy.
- [52] K. Främling, J. Holmström, T. Ala-Risku, and M. Kärkkäinen. Product agents for handling information about physical objects. Tech. Rep. TKO-B 153/03, Helsinki University of Technology, Espoo, Finland, 2003.
- [53] J.R. Galbraith. *Designing complex organizations*. Addison-Wesley, 1973.
- [54] J.W. Gardner, V. K. Varadan, and O.O. Awadelkarim. *Micro-sensors, MEMS, and smart devices*. John Wiley and Sons, 2001, isbn:9780471861096.
- [55] G.M. Gaukler and W.H. Hausman. RFID in mixed-model automotive assembly operations: Process and quality cost savings. *IIE Transactions* 40(11):1083–1096, 2008, doi:10.1080/07408170802167654.
- [56] H.W. Gellersen, A. Schmidt, and M. Beigl. Multi-sensor context-awareness in mobile devices and smart artifacts. *Mobile Networks and Applications* 7(5):341–351, 2004, doi:10.1023/A:1016587515822.
- [57] E.H. Gerding, editor. *Proceedings of the 7th International Workshop on Trading Agent Design and Analysis*, Pasadena, California, USA, July 2009.
- [58] N.A. Gershenfeld. *When things start to think*. Henry Holt, 2000, isbn:9780805058802.
- [59] N. Gershenfeld, R. Krikorian, and D. Cohen. The internet of things. *Scientific American* 291(4):76–81, 2004.
- [60] G.M. Giaglis, I. Minis, A. Tatarakis, and V. Zeimpekis. Minimizing logistics risk through real-time vehicle routing and mobile technologies: Research to date and future trends. *International Journal of Physical Distribution & Logistics Management* 34(9):749–764, 2004, doi:10.1108/09600030410567504.

BIBLIOGRAPHY

- [61] E.M. Goldratt. Computerized shop floor scheduling. *International Journal of Production Research* 26(3):443–455, 1987, doi:10.1080/00207548808947875.
- [62] P. Guo and P. Zipkin. The effects of the availability of waiting-time information on a balking queue. *European Journal of Operational Research* 198(1):199–209, 2009, doi:10.1016/j.ejor.2008.07.035.
- [63] M. Hall, E. Frank, G. Holmes, B. Pfahringer, P. Reutemann, and I.H. Witten. The WEKA data mining software: An update. *SIGKDD Explorations* 11(1):10–18, 2009, doi:10.1145/1656274.1656278.
- [64] R.W. Hall. *Zero inventories*. Dow Jones-Irwin, 1983, isbn:9780870944611.
- [65] H.S. Heese. Inventory record inaccuracy, double marginalization, and RFID adoption. *Production and Operations Management* 16(5):542–553, 2007, doi:10.1111/j.1937-5956.2007.tb00279.x.
- [66] G.R. Heim, W.R. Wentworth Jr., and X. Peng. The value to the customer of RFID in service applications. *Decision Sciences* 40(3):477–512, 2009, doi:10.1111/j.1540-5915.2009.00237.x.
- [67] K.B. Hendricks, V.R. Singhal, and J.K. Stratman. The impact of enterprise systems on corporate performance: A study of ERP, SCM, and CRM system implementations. *Journal of Operations Management* 25(1):65–82, 2007, doi:10.1016/j.jom.2006.02.002.
- [68] J.E. Hennig, P.B. Ladkin, and B. Sieker. Privacy enhancing technology concepts for RFID technology scrutinised. Tech. Rep. RVS-RR-04-02, University of Bielefeld, Bielefeld, Germany, 2004.
- [69] J.W. Herrmann. *Handbook of production scheduling*. Springer, 2006, isbn:9780387331157.
- [70] A.R. Hevner, S.T. March, J. Park, and S. Ram. Design science in information systems research. *MIS Quarterly* 28:75–105, 2004.

- [71] J. Holmström, M. Ketokivi, and A.-P. Hameri. Bridging practice and theory: A design science approach. *Decision Sciences* 40(1):65–87, 2009, doi:10.1111/j.1540-5915.2008.00221.x.
- [72] J. Holmström, A. Tenhiälä, and M. Kärkkäinen. Item dwell time in project inventories: A field experiment. *Computers in Industry* 62(1):99–106, 2011, doi:10.1016/j.compind.2010.07.004.
- [73] S.R. Hong, S.T. Kim, and C.O. Kim. Neural network controller with on-line inventory feedback data in RFID-enabled supply chain. *International Journal of Production Research* 48(9):2613–2632, 2010, doi:10.1080/00207540903564967.
- [74] H.A. Hribernik, L. Rabe, K.-D. Thoben, and J. Schumacher. The product avatar as a product-instance-centric information management concept. *International Journal of Product Lifecycle Management* 1(4):367–379, 2006, doi:10.1504/IJPLM.2006.011055.
- [75] K.A. Hribernik, C. Pille, O. Jeken K.-D. Thoben, K. Windt, and M. Busse. Autonomous control of intelligent products in beginning of life processes. *Proceedings of the 7th International Conference on Product Lifecycle Management*, July 2010, Bremen, Germany.
- [76] K.A. Hribernik, T. Warden, K.-D. Thoben, and O. Herzog. An internet of things for transport logistics - an approach to connecting the information and material flows in autonomous cooperating logistic processes. *Proceedings of the 12th International Modern Information Technology in the Innovation Processes of industrial enterprises*, pp. 54-67, August 2010, Aalborg, Denmark.
- [77] E. Huvio, J. Grönvall, and K. Främpling. Tracking and tracing parcels using a distributed computing approach. *Proceedings of the 14th Annual Conference for Nordic Researchers in Logistics*, pp. 29-43, June 2002, Trondheim, Norway.
- [78] S. Ichoua, M. Gendreau, and J.-Y. Potvin. Dynamic fleet management: concepts, systems, algorithms & case studies, chapter Planned

BIBLIOGRAPHY

- route optimization for real-time vehicle routing, pp. 1-18. Springer, 2007, isbn:9780387717210.
- [79] J. Iivari. A paradigmatic analysis of information systems as a design science. *Scandinavian Journal of Information Systems* 19(2):39–64, 2007.
- [80] M.A. Ilgin and S.M. Gupta. Recovery of sensor embedded washing machines using a multi-kanban controlled disassembly line. *Robotics and Computer-Integrated Manufacturing* 27(2):318–334, 2011, doi:10.1016/j.rcim.2010.07.016.
- [81] B. Ives and M.R. Vitale. After the sale: Leveraging maintenance with information technology. *MIS Quarterly* 12(1):7–21, 1988, doi:10.2307/248797.
- [82] A.R. Jacobsen, D.A. Graeber, and J. Wiedemann. Human factors in aviation, chapter Crew station design and integration, pp. 533-560. Academic Press, 2010, isbn:9780123745187.
- [83] F. Jammes and H. Smit. Service-oriented paradigms in industrial automation. *IEEE Transactions on Industrial Informatics* 1(1):62–70, 2005, doi:10.1109/TII.2005.844419.
- [84] N.R. Jennings, J.M. Corera, and I. Laresgoiti. Developing industrial multi-agent systems. *Proceedings of the 1st International Conference on Multi-agent Systems*, pp. 423-430, June 1995, San Francisco, California, USA.
- [85] N.R. Jennings and M.J. Wooldridge. Agent technology: foundations, applications, and markets, chapter Applications of Intelligent Agents, pp. 3-28. Springer, 1998, isbn:9783540635918.
- [86] D. Johnson. RFID tags improve tracking, quality on ford line in mexico. *Control Engineering* 49(11):16, 2002.
- [87] P.F. Johnson, R.D. Klassen, M.R. Leenders, and A. Awaysheh. Utilizing e-business technologies in supply chains: The impact of

- firm characteristics and teams. *Journal of Operations Management* 25(6):1255–1274, 2007, doi:10.1016/j.jom.2007.01.005.
- [88] P. Jones, C. Clarke-Hill, D. Hillier, and D. Comfort. The benefits, challenges and impacts of radio frequency identification technology (RFID) for retailers in the UK. *Marketing Intelligence & Planning* 23(4):395–402, 2005, doi:10.1108/02634500510603492.
- [89] P.R. Jordan, C. Kiekintveld, J. Miller, and M.P. Wellman. Market efficiency, sales competition, and the bullwhip effect in the TAC SCM tournaments. *Agent-Mediated Electronic Commerce*, pp. 62-74. Springer-Verlag, Lecture Notes in Computer Science 4452, 2007, doi:10.1007/978-3-540-72502-2_5.
- [90] Y. Kang and S.B. Gershwin. Information inaccuracy in inventory systems: stock loss and stockout. *IIE Transactions* 37(9):843–859, 2005, doi:10.1080/07408170590969861.
- [91] R.S. Kaplan. Innovation action research: Creating new management theory and practice. *Journal of Management Accounting Research* 10:89–118, 1998.
- [92] O. Khan, A. Scotti, A. Leverano, F. Bonini, G. Ruggiero, and C. Dör-sch. RFID in automotive: a closed-loop approach. *Proceedings of the 12th International Conference on Concurrent Enterprising*, June 2006, Milan, Italy.
- [93] C. Kiekintveld, J. Miller, P.R. Jordan, and M.P. Wellman. Controlling a supply chain agent using value-based decomposition. *Proceedings of the 7th ACM conference on Electronic commerce*, pp. 208-217, June 2006, Ann Arbor, Michigan, USA, doi:10.1145/1134707.1134730.
- [94] D. Kiritsis. Ubiquitous product lifecycle management using product embedded information devices. *Proceedings of the 4th International Conference on Intelligent Maintenance Systems*, July 2004, Arles, France.

BIBLIOGRAPHY

- [95] F. Koch, J.-J.C. Meyer, F. Dignum, and I. Rahwan. Programming deliberative agents for mobile services: the 3APL-M platform. *Programming Multi-Agent Systems*, pp. 222-235. Springer-Verlag, Lecture Notes in Computer Science 3862, 2006, doi:10.1007/11678823_14.
- [96] M. Kärkkäinen, T. Ala-Risku, and K. Främling. Efficient tracking for short-term multi-company networks. *International Journal of Physical Distribution & Logistics Management* 34(7):545–564, 2004, doi:10.1108/09600030410552249.
- [97] M. Kärkkäinen, T. Ala-Risku, K. Främling, and J. Collin. Establishing inventory transparency to temporary storage locations. *Proceedings of the International Conference on Advances in Production Management Systems*, September 2005, Washington DC, USA.
- [98] M. Kärkkäinen, J. Holmström, K. Främling, and K. Artto. Intelligent products - a step towards a more effective project delivery chain. *Computers in Industry* 50(2):141–151, 2003, doi:10.1016/S0166-3615(02)00116-1.
- [99] S. Kumar and S. Schmitz. Managing recalls in a consumer product supply chain - root cause analysis and measures to mitigate risks. *International Journal of Production Research* 49(1):235–253, 2011, doi:10.1080/00207543.2010.508952.
- [100] M. Langheinrich. Privacy by design - principles of privacy-aware ubiquitous systems. *Ubicomp 2001: Ubiquitous Computing*, pp. 273-291. Springer-Verlag, Lecture Notes in Computer Science 2201, 2001, doi:10.1007/3-540-45427-6_23.
- [101] M. Langheinrich. Security, privacy and trust in modern data management, chapter RFID and privacy, pp. 433-450. Springer, 2007, isbn:9783540698609.
- [102] J.-H. Lee and C.-O. Kim. Multi-agent systems applications in manufacturing systems and supply chain management: a review paper. *International Journal of Production Research* 46(1):233–265, 2008, doi:10.1080/00207540701441921.

- [103] E.H. van Leeuwen and D. Norrie. Holons and holarchies. *Manufacturing Engineer* 76(2):86–88, 1997, doi:10.1049/me:19970203.
- [104] R.A. Lindau and K.R. Lumsden. Actions taken to prevent the propagation of disturbances in manufacturing systems. *International Journal of Production Economics* 41(1-3):241–248, 1995, doi:10.1016/0925-5273(94)00068-9.
- [105] S. Ljungblad, T. Skog, and L. Gaye. Are designers ready for ubiquitous computing?: a formative study. *Proceedings of the International Conference on Human Factors in Computing Systems*, pp. 992-993, April 2003, Fort Lauderdale, Florida, USA, doi:10.1145/765891.766111.
- [106] B.L. MacCarthy and J. Liu. Addressing the gap in scheduling research: a review of optimization and heuristic methods in production scheduling. *International Journal of Production Research* 31(1):59–79, 1993, doi:10.1080/00207549308956713.
- [107] B.L. MacCarthy and J.R. Wilson. Human performance in planning and scheduling, chapter The human contribution to planning, scheduling and control in manufacturing industry, pp. 3-14. Taylor & Francis, 2001, isbn:9780748409297.
- [108] B.L. MacCarthy and J.R. Wilson. Human performance in planning and scheduling, chapter Influencing industrial practice in planning, scheduling and control, pp. 451-461. Taylor & Francis, 2001, isbn:9780748409297.
- [109] B.L. MacCarthy and J.R. Wilson. *Human performance in planning and scheduling*. Taylor & Francis, 2001, isbn:9780748409297.
- [110] J.F. Magee. *Production planning and inventory control*. McGraw-Hill, 1958.
- [111] Q.H. Mahmoud. MobiAgent: An agent architecture and platform for wireless information systems. *Proceedings of the 3rd International Bi-Conference Workshop on International Conference on Agent-Oriented Information Systems*, pp. 87-90, May 2001, Montreal, Canada.

BIBLIOGRAPHY

- [112] L. Mathiassen. Collaborative practice research. *Information Technology & People* 15(4):321–345, 2002, doi:10.1108/09593840210453115.
- [113] M. McClellan. *Applying manufacturing execution systems*. St. Lucie Press, 1997, isbn:9781574441352.
- [114] P. McCullen and D. Towill. Diagnosis and reduction of bullwhip in supply chains. *Supply Chain Management: An International Journal* 7(3):164–179, 2002, doi:10.1108/13598540210436612.
- [115] D.M. McCutcheon and J.R. Meredith. Conducting case study research in operations management. *Journal of Operations Management* 11(3):239–256, 1993, doi:10.1016/0272-6963(93)90002-7.
- [116] D. McFarlane, S. Sarma, J.L. Chirn, C.Y. Wong, and K. Ashton. Auto ID systems and intelligent manufacturing control. *Engineering Applications of Artificial Intelligence* 16(4):365–376, 2003, doi:10.1016/S0952-1976(03)00077-0.
- [117] K.N. McKay and V.C.S. Wiers. *Practical production control: a survival guide for planners and schedulers*. J. Ross Publishing, 2004, isbn:9781932159301.
- [118] K.N. McKay and V.C.S. Wiers. Planning in intelligent systems: aspects, motivations, and methods, chapter The organizational interconnectivity of planning and scheduling, pp. 177-201. John Wiley and Sons, 2006, isbn:9780471734277.
- [119] M.D. McNeese. Humane intelligence: A human factors perspective for developing intelligent cockpits. *IEEE Aerospace and Electronic Systems Magazine* 1(9):6–12, 2009, doi:10.1109/MAES.1986.5005199.
- [120] J. Meredith. Building operations management theory through case and field research. *Journal of Operations Management* 16(4):441–454, 1998, doi:10.1016/S0272-6963(98)00023-0.
- [121] M.D. Mesarovic, D. Macko, and Y. Takahara. *Theory of hierarchical, multilevel, systems*. Academic Press, 1970.

- [122] G.G. Meyer, K. Främling, and J. Holmström. Intelligent products: A survey. *Computers in Industry* 60(3):137–148, 2009, doi:10.1016/j.compind.2008.12.005.
- [123] G.G. Meyer, G.B. Roest, and N.B. Szirbik. Intelligent products for monitoring and control of road-based logistics. *Proceedings of the 2010 IEEE International Conference on Management and Service Science*, August 2010, Wuhan, China, doi:10.1109/ICMSS.2010.5577852.
- [124] G.G. Meyer and J.C. Wortmann. Robust planning and control using intelligent products. *Agent-Mediated Electronic Commerce*, pp. 163–177. Springer-Verlag, Lecture Notes in Business Information Processing 59, 2010, doi:10.1007/978-3-642-15117-0_12.
- [125] G.G. Meyer, J.C. Wortmann, and N.B. Szirbik. Production monitoring and control with intelligent products. *International Journal of Production Research* 49(5):1303–1317, 2011, doi:10.1080/00207543.2010.518742.
- [126] T. Minami. Needs and benefits of massively multi book agent systems for u-libraries. *Massively Multi-Agent Systems I*, pp. 239–253. Springer-Verlag, Lecture Notes in Computer Science 3346, 2005, doi:10.1007/11512073_18.
- [127] J. Mingers. Combining IS research methods: Towards a pluralist methodology. *Information Systems Research* 12(3):240–259, 2001, doi:10.1287/isre.12.3.240.9709.
- [128] J. Mitchell, L.P. Vermeulen, and P. Naidoo. Flying glass: a qualitative analysis of pilot perceptions of automated flight-decks after 20 years. *International Journal of Applied Aviation Studies* 9(1):13–28, 2009.
- [129] T.M. Mitchell. *Machine learning*. McGraw-Hill, 1997, isbn:9780071154673.
- [130] E.W.T. Ngai, T.C.E. Cheng, K.-H. Lai, P.Y.F. Chai, Y.S. Choi, and R.K.Y. Sin. Development of an RFID-based traceability system:

BIBLIOGRAPHY

- Experiences and lessons learned from an aircraft engineering company. *Production and Operations Management* 16(5):554–568, 2007, doi:10.1111/j.1937-5956.2007.tb00280.x.
- [131] E.W.T. Ngai, C.-L. Li, T.C.E. Cheng, Y.H. Venus Lun, K.-H. Lai, J. Cao, and M.C.M. Lee. Design and development of an intelligent context-aware decision support system for real-time monitoring of container terminal operations. *International Journal of Production Research* 49(12):3501–3526, 2011, doi:10.1080/00207541003801291.
- [132] I. Niiniluoto. The aim and structure of applied research. *Erkenntnis* 38(1):1–21, 1993, doi:10.1007/BF01129020.
- [133] P. Nikulainen. Final report: Jobsite logistics (mobile RFID). Tech. rep., TeliaSonera, Helsinki, Finland, 2005.
- [134] D.A. Norman. *The invisible computer: why good products can fail, the personal computer is so complex, and information appliances are the solution*. MIT Press, 1999, isbn:9780262640411.
- [135] I. Okhrin and K. Richter. Vehicle routing problem with real-time travel times. *International Journal of Vehicle Information and Communication Systems* 2(1-2):59–77, 2009, doi:10.1504/IJVICS.2009.027746.
- [136] J. Orlicky. *Material requirements planning: the new way of life in production and inventory management*. McGraw-Hill, 1975, isbn:9780070477087.
- [137] J. Orlicky and G.W. Plossl. *Orlicky's material requirements planning*. McGraw-Hill Professional, 1994, isbn:9780070504592.
- [138] D. Pardoe and P. Stone. TacTex-03: a supply chain management agent. *ACM SIGecom Exchanges* 4(3):19–28, 2004, doi:10.1145/1120701.1120705.
- [139] D. Pardoe, P. Stone, and M. VanMiddlesworth. TacTex-05: An adaptive agent for TAC SCM. *Agent-Mediated Electronic Commerce*, pp. 46-61. Springer-Verlag, Lecture Notes in Computer Science 4452, 2007, doi:10.1007/978-3-540-72502-2_4.

- [140] H.-S. Park and N.-H. Tran. An intelligent manufacturing system with biological principles. *International Journal of CAD/CAM* 10(1):39–50, 2010.
- [141] M.Q. Patton. *Qualitative research and evaluation methods*. SAGE, 2002, isbn:9780761919711.
- [142] K. Peffers, T. Tuunanen, M.A. Rothenberger, and S. Chatterjee. A design science research methodology for information systems research. *Journal of Management Information Systems* 24(3):45–77, 2007, doi:10.2753/MIS0742-1222240302.
- [143] M.L. Pinedo. *Scheduling: theory, algorithms, and systems*. Springer, 2008, isbn:9780387789347.
- [144] K. R. Popper. *Conjectures and refutations: the growth of scientific knowledge*. Routledge & K. Paul, 1963.
- [145] F. Ramparany and O. Boissier. Smart devices embedding multi-agent technologies for a pro-active world. *Proceedings of the Ubiquitous Computing Workshop*, July 2002, Bologna, Italy.
- [146] M. Rönkkö, M. Kärkkäinen, and J. Holmström. Benefits of an item-centric enterprise-data model in logistics services: A case study. *Computers in Industry* 58(8-9):814–822, 2007, doi:10.1016/j.compind.2007.02.003.
- [147] G.B. Roest and N.B. Szirbik. Escape and intervention in multi-agent systems. *AI & Society* 24(1):25–34, 2009, doi:10.1007/s00146-009-0193-6.
- [148] B. Roy and T.C.N. Graham. Methods for evaluating software architecture: A survey. Tech. Rep. 2008-545, Queen’s University at Kingston, Ontario, Canada, 2008.
- [149] A. Rushton, J. Oxley, and P. Croucher. *The handbook of logistics and distribution management*. Kogan Page, 2000, isbn:9780749433659.

BIBLIOGRAPHY

- [150] A. Saad, K. Kawamura, and G. Biswas. Performance evaluation of contract net-based heterarchical scheduling for flexible manufacturing systems. *Proceedings of the 1995 International Joint Conference on Artificial Intelligence, Workshop on Intelligent Manufacturing*, pp. 310-321, August 1995, Montreal, Canada.
- [151] Y. Sallez, T. Berger, D. Deneux, and D. Trentesaux. The lifecycle of active and intelligent products: The augmentation concept. *International Journal of Computer Integrated Manufacturing* 23(10):905–924, 2010, doi:10.1080/0951192X.2010.490275.
- [152] Y. Sallez, T. Berger, and D. Trentesaux. A stigmergic approach for dynamic routing of active products in FMS. *Computers in Industry* 60(3):204–216, 2009, doi:10.1016/j.compind.2008.12.002.
- [153] K. Sari. Exploring the impacts of radio frequency identification (RFID) technology on supply chain performance. *European Journal of Operational Research* 207(1):174–183, 2010, doi:10.1016/j.ejor.2010.04.003.
- [154] S. Sarma, D.L. Brock, and K. Ashton. The networked physical world: Proposals for engineering the next generation of computing, commerce & automatic-identification. Tech. Rep. MIT-AUTOID-WH-001, MIT Auto-ID Center, Cambridge, Massachusetts, USA, 2000.
- [155] V. Schmid and K.F. Doerne. Ambulance location and relocation problems with time-dependent travel times. *European Journal of Operational Research* 207(3):1293–1303, 2010, doi:10.1016/j.ejor.2010.06.033.
- [156] C.A. Schneeweiss. *Distributed decision making*. Springer, 2003, isbn:9783540402015.
- [157] J. Schumacher and K. Feurstein, editors. *Proceedings of the 3rd European conference on ICT for Transport Logistics*, Bremen, Germany, November 2010.

- [158] C. Seitz, C. Legat, and J. Neidig. Embedding semantic product memories in the web of things. *Proceedings of the 2010 8th IEEE International Conference on Pervasive Computing and Communications Workshops*, pp. 708-713, May 2010, Mannheim, Germany, doi:10.1109/PERCOMW.2010.5470525.
- [159] R. Shah and P.T. Ward. Lean manufacturing: context, practice bundles, and performance. *Journal of Operations Management* 21(2):129-149, 2003, doi:10.1016/S0272-6963(02)00108-0.
- [160] W. Shen, Q. Hao, H.J. Yoon, and D.H. Norrie. Applications of agent-based systems in intelligent manufacturing: An updated review. *Advanced Engineering Informatics* 20(4):415-431, 2006, doi:10.1016/j.aei.2006.05.004.
- [161] S. Shingo. *A revolution in manufacturing: the SMED system*. Productivity Press, 1985, isbn:9780915299034.
- [162] F. Siegemund and C. Florkemeier. Interaction in pervasive computing settings using bluetooth-enabled active tags and passive RFID technology together with mobile phones. *Proceedings of the 1st IEEE International Conference on Pervasive Computing and Communications*, pp. 378-387, March 2003, Fort Worth, Texas, USA, doi:10.1109/PERCOM.2003.1192762.
- [163] H.A. Simon. *The sciences of the artificial*. MIT Press, 1996, isbn:9780262691918.
- [164] H.A. Simon. Forecasting the future or shaping it? *Industrial and Corporate Change* 11(3):601-605, 2002, doi:10.1093/icc/11.3.601.
- [165] J.K. Siror, S. Huanye, and W. Dong. Automating customs verification process using RFID technology. *Proceedings of the 6th International Conference on Digital Content, Multimedia Technology and its Applications*, pp. 404-409, August 2010, Seoul, Korea.
- [166] N. Slack, S. Chambers, and R. Johnston. *Operations management*. Pearson Education, 2004, isbn:9780273708476.

BIBLIOGRAPHY

- [167] R.G. Smith. The contract net protocol: High-level communication and control in a distributed problem solver. *IEEE Transactions on Computers* C-29(12):1104–1113, 1980, doi:10.1109/TC.1980.1675516.
- [168] C. de Snoo, M. Hoogenraad, and J.C. Wortmann. Opportunities for collaborative planning in freight transport planning. *Proceedings of the 15th International Conference of the European Operations Management Association*, June 2008, Groningen, The Netherlands.
- [169] C. de Snoo, W. van Wezel, and R.J. Jorna. An empirical investigation of scheduling performance criteria. *Journal of Operations Management* 29(3):181–193, 2011, doi:10.1016/j.jom.2010.12.006.
- [170] C. de Snoo, W. van Wezel, J.C. Wortmann, and G.J.C. Gaalman. Coordination activities of human planners during rescheduling: case analysis and event handling procedure. *International Journal of Production Research* 49(7):2101–2122, 2011, doi:10.1080/00207541003639626.
- [171] C. de Snoo, J.C. Wortmann, G.J.C. Gaalman, and W. van Wezel. Decomposition of the planning function implies coordination of planners. *Proceedings of the 14th International Conference of the European Operations Management Association*, pp. 17-20, June 2007, Ankara, Turkey.
- [172] J. Soroor, M.J. Tarokh, and A. Shemshadi. Initiating a state of the art system for real-time supply chain coordination. *European Journal of Operational Research* 196(2):635–650, 2009, doi:10.1016/j.ejor.2008.03.008.
- [173] B. Srivastava. Radio frequency ID technology: The next revolution in SCM. *Business Horizons* 47(6):60–68, 2004, doi:10.1016/j.bushor.2004.09.009.
- [174] F. Stajano. *Security for ubiquitous computing*. John Wiley and Sons, 2002, isbn:9780470844939.

- [175] M. Stan, B. Stan, and A.M. Florea. A dynamic strategy agent for supply chain management. *Proceedings of the 8th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing*, pp. 227-232, September 2006, Timisoara, Romania, doi:10.1109/SYNASC.2006.1.
- [176] W.C. Stone, A. Lytle, and K.M. Furlani. Smart chips in construction. Tech. rep., National Institute of Standards and Technology, Gaithersburg, Maryland, USA, 2002.
- [177] M. Strassner and T. Schoch. Today's impact of ubiquitous computing on business processes. *Short Paper Proceedings of the 1st International Conference on Pervasive Computing*, pp. 62-74, August 2002, Zurich, Switzerland.
- [178] I. Stuart, D. McCutcheon, R. Handfield, R. McLachlin, and D. Samson. Effective case research in operations management: a process perspective. *Journal of Operations Management* 20(5):419-433, 2002, doi:10.1016/S0272-6963(02)00022-0.
- [179] M. Taisch, A.W. Colombo, S. Karnouskos, and A. Cannata. SO-CRADES road map: The future of SOA-based factory automation. Tech. rep., Politecnico di Milano, Milan, Italy, 2010.
- [180] V. Theoharakis, C. Voss, G.C. Hadjinicola, and A.C. Soteriou. Insights into factors affecting production and operations management (POM) journal evaluation. *Journal of Operations Management* 25(4):932-955, 2007, doi:10.1016/j.jom.2006.09.002.
- [181] P. Toulis, D. Kehagias, and P.A. Mitkas. Mertacor: a successful autonomous trading agent. *Proceedings of the 5th International Conference on Autonomous Agents and Multiagent Systems*, pp. 1191-1198, May 2006, Hakodate, Japan, doi:10.1145/1160633.1160847.
- [182] S.C. Trovinger and R. Bohn. Setup time reduction for electronics assembly: Combining simple (SMED) and IT-based methods. *Production and Operations Management* 14(2):205-217, 2005, doi:10.1111/j.1937-5956.2005.tb00019.x.

BIBLIOGRAPHY

- [183] M. Tu, J.H. Lin, R.S. Chen, K.Y. Chen, and J.S. Jwo. Agent-based control framework for mass customization manufacturing with UHF RFID technology. *IEEE Systems Journal* 3(3):343–359, 2009, doi:10.1109/JSYST.2009.2029663.
- [184] I. Töyrylä. *Realising the potential of traceability: a case study research on usage and impacts of product traceability*. Ph.D. thesis, Helsinki University of Technology, Espoo, Finland, 1999, isbn:9789525148831.
- [185] J. Venkateswaran, X. Zhao, and Y.-J. Son. Intelligent shop floor scheduling method considering real-time status, disturbances, and performance metrics. *Proceedings of the International Journal of Industrial Engineering Conference*, pp. 10-12, November 2003, Las Vegas, USA.
- [186] O. Ventä. Intelligent products and systems. Tech. Rep. 635, VTT, Espoo, Finland, 2007.
- [187] G.E. Vieira, J.W. Herrmann, and E. Lin. Rescheduling manufacturing systems: A framework of strategies, policies, and methods. *Journal of Scheduling* 6(1):39–62, 2003, doi:10.1023/A:1022235519958.
- [188] J.K. Visich, S. Li, B.M. Khumawala, and P.M. Reyes. Empirical evidence of RFID impacts on supply chain performance. *International Journal of Operations & Production Management* 29(12):1290–1315, 2009, doi:10.1108/01443570911006009.
- [189] C. Voss, N. Tsikriktsis, and M. Frohlich. Case research in operations management. *International Journal of Operations & Production Management* 22(2):195–219, 2002, doi:10.1108/01443570210414329.
- [190] P. Vrba, M. Radakovic, M. Obitko, and V. Marik. Semantic technologies: latest advances in agent-based manufacturing control systems. *International Journal of Production Research* 49(5):1483–1496, 2011, doi:10.1080/00207543.2010.518746.
- [191] H. Wang, S. Chena, and Y. Xie. An RFID-based digital warehouse management system in the tobacco industry: a case study. *In-*

- ternational Journal of Production Research* 48(9):2513–2548, 2010, doi:10.1080/00207540903564918.
- [192] M. Weiser. The computer for the 21st century. *Scientific American* 265(3):94–104, 1991, doi:10.1145/329124.329126.
- [193] M. Weiser. Some computer science issues in ubiquitous computing. *Communications of the ACM* 36(7):75–84, 1993, doi:10.1145/159544.159617.
- [194] W. van Wezel, D.P. van Donk, and G.J.C. Gaalman. The planning flexibility bottleneck in food processing industries. *Journal of Operations Management* 24(3):287–300, 2006, doi:10.1016/j.jom.2004.11.001.
- [195] C.Y. Wong, D. McFarlane, A.A. Zaharudin, and V. Agarwal. The intelligent product driven supply chain. *Proceedings of the 2002 IEEE International Conference on Systems, Man and Cybernetics*, October 2002, Yasmine Hammamet, Tunisia, doi:10.1109/ICSMC.2002.1173319.
- [196] S.H. Woo, J.Y. Choi, C. Kwak, and C.O. Kim. An active product state tracking architecture in logistics sensor networks. *Computers in Industry* 60(3):149–160, 2009, doi:10.1016/j.compind.2008.12.001.
- [197] J.C. Wortmann, M.J. Euwe, M. M. Taal, and V.C.S. Wiers. A review of capacity planning techniques within standard software packages. *Production Planning & Control* 7(2):117–128, 1996, doi:10.1080/09537289608930335.
- [198] J.C. Wortmann and M.S. Hoogenraad. Planning responsibilities and software architecture under VMI: A case study. *Proceedings of the International Conference on Advances in Production Management Systems*, pp. 573-579, September 2008, Espoo, Finland.
- [199] J. C. Wortmann, D.R. Muntslag, and P.J.M. Timmermans. *Customer Driven Manufacturing*. Chapman & Hall, 1997, isbn:9780412570308.

BIBLIOGRAPHY

- [200] L.D. Xu. Information architecture for supply chain quality management. *International Journal of Production Research* 49(1):183–198, 2011, doi:10.1080/00207543.2010.508944.
- [201] X. Yang, P. Moore, and S.K. Chong. Intelligent products: From life-cycle data acquisition to enabling product-related services. *Computers in Industry* 60(3):184–194, 2009, doi:10.1016/j.compind.2008.12.009.
- [202] J. Zhang, S. K. Ong, and A. Y. C. Nee. RFID-assisted assembly guidance system in an augmented reality environment. *International Journal of Production Research* 49(13):3919–3938, 2011, doi:10.1080/00207543.2010.492802.
- [203] L. Zhekun, R. Gadh, and B.S. Prabhu. Applications of RFID technology and smart parts in manufacturing. *Proceedings of the ASME 2004 Design Engineering Technical Conferences and Computers and Information in Engineering Conference*, September-October 2004, Salt Lake City, Utah, USA.
- [204] W. Zhou. RFID and item-level information visibility. *European Journal of Operational Research* 198(1):252–258, 2009, doi:10.1016/j.ejor.2008.09.017.