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Edited theme issue

Jedermann, R.; Nicometo, M.; Uysal, I.; Opera, L.; Janssen, S; Lang, W.: Intelligent food logistics. Transactions of the Royal Society A (Mathematical, Physical and Engineering Science), Vol. 372(2017), May/June 2014

Reviewed journal articles (9)

- Jedermann, R.; Praeger, U.; Lang, W.: *Challenges and opportunities in remote monitoring of perishable products*. In: Food Packaging and Shelf Life, 2017, Vol. 14(A), pp. 18-25. (doi: 10.1016/j.fpsl.2017.08.006)
- Jedermann, R.; Praeger, U.; Geyer, M.; Lang, W.: *Remote quality monitoring in the banana chain*. In: Philosophical Transactions of the Royal Society A, 2014, Vol. 372(2017), p. 20130303. (doi: 10.1098/rsta.2013.303)
- Jedermann, R.; Nicometo, M.; Uysal, I.; Lang, W.: *Reducing food losses by intelligent food logistics* In: Philosophical Transactions of the Royal Society A, 2014, Vol. 372(2017), p. 20130302. (doi: 10.1098/rsta.2013.0302)
- Jedermann, R.; Lloyd, C.; Poetsch, T.: *Communication techniques and challenges for wireless food quality monitoring*. In: Philosophical Transactions of the Royal Society A, 2014, Vol. 372(2017), p. 20130304. (doi: 10.1098/rsta.2013.0304)
- Jedermann, R.; Geyer, M.; Praeger, U.; Lang, W.: *Sea transport of bananas in containers - Parameter identification for a temperature model*. In: Journal of Food Engineering, 2013, Vol. 115(3), pp. 330-338. (doi: 10.1016/j.jfoodeng.2012.10.039)
- Jedermann, R.; Becker, M.; Görg, C.; Lang, W.: *Testing network protocols and signal attenuation in packed food transports*. In: International Journal of Sensor Networks (IJSNet), 2011, Vol. 9(3/4), pp. 170-181. (doi: 10.1504/IJSNET.2011.040238)
- Jedermann, R.; Ruiz-Garcia, L.; Lang, W.: *Spatial temperature profiling by semi-passive RFID loggers for perishable food transportation*. In: Computers and Electronics in Agriculture, 2009, Vol. 65(2), pp. 145-154. (doi: 10.1016/j.compag.2008.08.006)
- Jedermann, R.; Lang, W.: *Semi-passive RFID and beyond: steps towards automated quality tracing in the food chain*. In: International Journal of Radio Frequency Identification Technology and Applications (IJRFITA), 2007, Vol. 1(3), pp. 247-259. (doi: 10.1504/IJRFITA.2007.015849)
- Jedermann, R.; Behrens, C.; Westphal, D.; Lang, W.: *Applying autonomous sensor systems in logistics--Combining sensor networks, RFIDs and software agents*. In: Sensors and Actuators A: Physical, 2006, Vol. 132(1), pp. 370-375. (doi: 10.1016/j.sna.2006.02.008)

Reviewed journal articles as co-author (6)

- Geyer, M.; Praeger, U.; Truppel, I.; Scaar, H.; Neuwald, D.; Jedermann, R.; Gottschalk, K.: *Measuring device for air speed in macroporous media and its application inside apple storage bins*. In: Sensors, 2018, Vol. 18(2), p. 576. (doi: 10.3390/s18020576)
- Hartgenbusch, N.; Borysov, M.; Jedermann, R.; Lang, W.: *Reduction of power consumption and expansion of the measurement range by pulsed excitation of thermal flow sensors*. In: Sensors and Actuators A: Physical, 2017, Vol. 265, pp. 313-320. (doi: 10.1016/j.sna.2017.08.029)
- Lang, W.; Jedermann, R.: *What Can MEMS Do for Logistics of Food? Intelligent Container Technologies: A Review*. In: IEEE Sensors Journal, 2016, Vol. 16(18), pp. 6810-6818. (doi: 10.1109/JSEN.2016.2576287)
- Palafox-Albarran, J.; Jedermann, R.; Hong, B.; Lang, W.: *Cokriging for cross-attribute fusion in sensor networks*. In: Information Fusion, 2015, Vol. 24(Supplement C), pp. 137-146. (doi: 10.1016/j.inffus.2014.09.007)
- Lang, W.; Jedermann, R.; Mrugala, D.; Jabbari, A.; Krieg-Brückner, B.; Schill, K.: *The Intelligent Container - A Cognitive Sensor Network for Transport Management*. In: IEEE Sensors Journal Special Issue on Cognitive Sensor Networks, 2011, Vol. 11(3), pp. 688-698. (doi: 10.1109/JSEN.2010.2060480)
- Jabbari, A.; Jedermann, R.; Muthuraman, R.; Lang, W.: *Application of Neurocomputing for Data Approximation and Classification in Wireless Sensor Networks*. In: Sensor Journal, 2009, Vol. 9, pp. 3056-3077. (doi: 10.3390/s90403056)

Reviewed conference contributions (15)

- Jedermann, R.; Paul, H.; Lang, W.: *Spatial processing of sensor network data*. In: Proc. IEEE SENSORS 2017, Glasgow, Scotland, 2017, Vol. ISBN 978-1-5090-1012-7 pp. 73-75. (doi: 10.1109/ICSENS.2017.8233891)
- Jedermann, R.; Paul, H.; Lang, W.: *In-network Processing by the Example of Maxima Estimation in Spatial Fields*. In: 11th International ITG Conference on Systems, Communication and Coding, Hamburg, Germany, VDE-Verlag, 2017, Vol. ITG-Fb 268. Available from: <https://www.vde-verlag.de/proceedings-de/454362011.html>
- Jedermann, R.; Lang, W.: *Computational fluid dynamics modelling of deviating airflow and cooling conditions in banana containers*. In: Tijssens, L.M.M.; Schouten, R.,(eds.): V International Symposium on Applications of Modelling as an Innovative Technology in the Horticultural Supply Chain - Model-IT 2015, Wageningen, Netherlands, International Society for Horticultural Science (ISHS), Leuven, Belgium, 2017, pp. 193-200. (doi: 10.17660/ActaHortic.2017.1154.25).
- Jedermann, R.; Hartgenbusch, N.; Borysov, M.; Lang, W.: *Housing design for two-dimensional air flow sensors*. In: Proc. IEEE SENSORS 2017, Glasgow, Scotland, 2017, Vol. ISBN 978-1-5090-1012-7 pp. 1272-1274. (doi: 10.1109/ICSENS.2017.8234300)
- Jedermann, R.; Paul, H.; Lang, W.: *Compressed radio transmission of spatial field measurements by virtual sensors*. In: 2016 IEEE International Conference on Wireless for Space and Extreme Environments (WiSEE), Aachen, Germany, 2016, pp. 184-189. (doi: 10.1109/WiSEE.2016.7877329).
- Jedermann, R.; Praeger, U.; Geyer, M.; Moehrke, A.; Lang, W.: *The intelligent container for banana transport supervision and ripening*. In: VI International conference on managing quality in chains, Cranfield, UK, International Society for Horticultural Science (ISHS), Leuven, Belgium, 2015, Vol. 1091, pp. 213-220. (doi: 10.17660/ActaHortic.2015.1091.26).
- Jedermann, R.; Pötsch, T.; Lang, W.: *Smart Sensors for the Intelligent Container*. In: IEEE Germany Section; Fraunhofer IML Dortmund,(eds.): Smart SysTech 2014, European Conference on Smart Objects, Systems and Technologies (ITG-Fachbericht), VDE VERLAG, Dortmund, Germany, 2014, Vol. 251. (doi: 10.1109/SmartSysTech.2014.7155752)
- Jedermann, R.; Lang, W.: *Model based estimation of biological heat generation during cold-chain transport and processing*. In: 3rd IIR International Conference on Sustainability and the Cold Chain, St Mary's University, Twickenham, London, UK, The Institute of Refrigeration, 2014.
- Jedermann, R.; Palafox-Albarrán, J.; Robla, J.I.; Barreiro, P.; Ruiz-Garcia, L.; Lang, W.: *Interpolation of Spatial Temperature Profiles by Sensor Networks*. In: Lewis, E.,(ed.): IEEE SENSORS Proceedings, Limerick, Ireland, IEEE, Piscataway, USA, 2011, pp. 778-781. (doi: 10.1109/ICSENS.2011.6127148)
- Jedermann, R.; Palafox-Albarrán, J.; Barreiro, P.; Ruiz-Garcia, L.; Robla, J.I.; Lang, W.: *Modelling and interpolation of spatial temperature during food transportation and storage by the Variogram*. In: Bruzzone, A.; et. al.,(eds.): The 10th International Conference on Modeling and applied Simulation - Special Track on Modeling and Simulation in Food, Beverage and Perishable Goods Industry, Rome, Italy, DIPTeM Università Di Genova, 2011, pp. 195-201.
- Jedermann, R.; Lang, W.: *The minimum number of sensors - Interpolation of spatial temperature profiles*. In: Rödig, U.; Sreenan, C.J.,(eds.): Wireless Sensor Networks, 6th European Conference, EWSN 2009, Lecture Notes in Computer Science (LNCS), Berlin/Heidelberg, Springer, 2009, pp. 232-246. (doi: 10.1007/978-3-642-00224-3_15)
- Jedermann, R.; Lang, W.: *The Benefits of Embedded Intelligence - Tasks and Applications for Ubiquitous Computing in Logistics*. In: Floerkemeier, C.; Langheinrich, M.; Fleisch, E.; Mattern, F.; Sarma, S.E.,(eds.): The Internet of Things (IOT), Lecture Notes in Computer Science (LNCS), Berlin/Heidelberg, Springer, 2008, Vol. 4952, pp. 105-122. (doi: 10.1007/978-3-540-78731-0_7).
- Jedermann, R.; Edmond, J.P.; Lang, W.: *Shelf life prediction by intelligent RFID*. In: Hassis, H.D.; Kreowski, H.J.; Scholz-Reiter, B.,(eds.): Dynamics in Logistics. First International Conference, LDIC 2007, Berlin/Heidelberg, Springer, 2008, pp. 231-238. (doi: 10.1007/978-3-540-76862-3_22)
- Jedermann, R.; Antunez, L.J.; Lang, W.; Lorenz, M.; Gehrke, J.D.; Herzog, O.: *Dynamic Decision making on Embedded Platforms in Transport Logistics*. In: Hassis, H.D.; Kreowski, H.J.; Scholz-Reiter, B.,(eds.): Dynamics in Logistics. First International Conference, LDIC 2007, Berlin/Heidelberg, Springer, 2008, pp. 191-198. (doi: 10.1007/978-3-540-76862-3_18).
- Jedermann, R.; Gehrke, J.D.; Lorenz, M.; Herzog, O.; Lang, W.: *Realisierung lokaler Selbststeuerung in Echtzeit: Der Übergang zum intelligenten Container*. In: Bundesvereinigung Logistik,(ed.): Wissenschaft und Praxis im Dialog. Steuerung von Logistiksystemen - auf dem Weg zur Selbststeuerung, Dortmund, Deutscher Verkehrs-Verlag, 2006, pp. 145-166.

Reviewed conference contributions as co-author (12)

- Raza, T.; Lang, W.; Jedermann, R.: *Integration of Wireless Sensor Networks into Industrial Control Systems*. In: Freitag, M.; Kotzab, H.; Pannek, J.,(eds.): Dynamics in Logistics: Proceedings of the 5th International Conference LDIC, 2016 Bremen, Germany, Springer International Publishing, Cham, 2017, pp. 209-218. (doi: 10.1007/978-3-319-45117-6_19)
- Lloyd, C.; Chung, S.-H.; Lang, W.; Jedermann, R.: *Advantages of Sub-GHz Communication in Food Logistics and DASH7 Implementation*. In: Freitag, M.; Kotzab, H.; Pannek, J.,(eds.): Dynamics in Logistics: Proceedings of the 5th International Conference LDIC, 2016 Bremen, Germany, Springer International Publishing, Cham, 2017, pp. 219-228. (doi: 10.1007/978-3-319-45117-6_20)
- Lloyd, C.; Jedermann, R.; Lang, W.: *Airflow Behavior Under Different Loading Schemes and Its Correspondence to Temperature in Perishables Transported in Refrigerated Containers*. In: Freitag, M.; Kotzab, H.; Pannek, J.,(eds.): Dynamics in Logistics: Proceedings of the 5th International Conference LDIC, 2016 Bremen, Germany, Springer International Publishing, Cham, 2016, pp. 481-490. (doi: 10.1007/978-3-319-45117-6_42)
- Hartgenbusch, N.; Borysov, M.; Jedermann, R.; Lang, W.: *Pulsed Excitation of Thermal Flow Sensors for Reduced Power Consumption and Expanded Measurement Range*. In: Procedia Engineering, 2016, Vol. 168, pp. 762-765. (doi: 10.1016/j.proeng.2016.11.273)
- Lang, W.; Jedermann, R.: *The intelligent container - What can MEMS do for logistics of food?* In: SENSORS, 2015 IEEE, Busan, Korea, 2015, pp. 1-4. (doi: 10.1109/ICSENS.2015.7370181).
- Palafox-Albarrán, J.; Dannies, A.; Sanjeeva, B.K.; Lang, W.; Jedermann, R.: *Combining Machine-to-Machine Communications with Intelligent Objects in Logistics*. In: Uckelmann, D.; Scholz-Reiter, B.; Rügge, I.; Hong, B.; Rizzi, A.,(eds.): ImViReLL'12 The Impact of Virtual, Remote and Real Logistics Labs, Bremen, Germany, Springer, 2012, Vol. 282, pp. 102-112.
- Wessels, A.; Jederman, R.; Lang, W.: *Embedded context aware objects for the transport supervision of perishable goods*. In: Zadeh, A.,(ed.): Recent Advances in Electronics, Hardware, Wireless and Optical Communications, Cambridge, UK, Wseas Press, Athens, Greece, 2010, pp. 119-125.
- Palafox-Albarrán, J.; Jederman, R.; Lang, W.: *Prediction of temperature inside a refrigerated container in the presence of perishable goods*. In: 7th International Conference on Informatics in Control, Automation and Robotics (ICINCO), Portugal, 2010.
- Yuan, S.; Becker, M.; Jedermann, R.; Görg, C.; Lang, W.: *An Experimental Study of Signal Propagation and Network Performance in Monitoring of Food Transportation*. In: Demos and Posters for the Sixth Annual IEEE Communications Society Conference on Sensor, Mesh, and Ad Hoc Communications and Networks, Secon 2009, Rom, Italy, 2009. (doi: 10.1109/SAHCNW.2009.5172922).
- Jabbari, A.; Jedermann, R.; Lang, W.: *Application of Data Approximation and Classification in Measurement Systems - Comparison of "Neural Network" and "Least Squares" Approximation*. In: IEEE international conference on computational intelligence for measurement systems and applications (CIMSAA08), Istanbul, Turkey, 2008. (doi: 10.1109/CIMSAA.2008.4595834)
- Jabbari, A.; Jedermann, R.; Lang, W.: *Application of Computational Intelligence for Sensor Fault Detection and Isolation (SFDI)*. In: International Journal of Computer, Information, Systems Science, and Engineering, 2007.
- Bitzer, B.; Dömer, R.; Jedermann, R.: *Synthetische Sprache zum Test von Spracherkennern*. In: Fortschritte der Akustik; Plenarvorträge und Fachbeiträge der 19. Gemeinschaftstagung der Deutschen Arbeitsgemeinschaft für Akustik; DAGA 93 ; Teil B, Frankfurt, 1993, pp. 1052-1055.

Book sections and others (4)

- Jedermann, R.; Mack, M.; Kreyenschmidt, J.: *Intelligent Containers for the whole Supply-Chain*. In: FLEISCHWIRTSCHAFT, 2013, Vol. 93(12), pp. 33-36.
- Jedermann, R.; Palafox-Albarrán, J.; Jabbari, A.; Lang, W.: *Embedded intelligent objects in food logistics - Technical limits of local decision making*. In: Hülsmann, M.; Scholz-Reiter, B.; Windt, K.,(eds.): *Autonomous Cooperation and Control in Logistics*, Springer, Berlin, 2011, pp. 207-228. (doi: 10.1007/978-3-642-19469-6_16)
- Jedermann, R.; Gehrke, J.D.; Becker, M.; Behrens, C.; Morales-Kluge, E.; Herzog, O.; Lang, W.: *Transport scenario for the intelligent container*. In: Hülsmann, M.; Windt, K.,(eds.): *Understanding Autonomous Cooperation and Control in Logistics - The Impact on Management, Information and Communication and Material Flow*, Springer, Berlin, 2007, pp. 393-404. (doi: 10.1007/978-3-540-47450-0_24)
- Jedermann, R.; Behrens, C.; Laur, R.; Lang, W.: *Intelligent containers and sensor networks, Approaches to apply autonomous cooperation on systems with limited resources*. In: Hülsmann, M.; Windt, K.,(eds.): *Understanding Autonomous Cooperation and Control in Logistics - The Impact on Management, Information and Communication and Material Flow*, Springer, Berlin, 2007, pp. 365-392. (doi: 10.1007/978-3-540-47450-0_25)