

Papers, Talks and Journals (58)

Get the [bibtex file](#) .

M. M. R. Chowdhury and F. Reichenbach and J. Rossebø, and T. Løkstad:
On the Practical Approaches to Consolidate Safety and Security in Critical Infrastructure,
Proceedings of the IEEE European Test Symposium (ETS 2013), Special Session on
State-of-the-Art of Inter-domain Safety, Security and Fault Tolerance, Avignon, France, May,
2013

Frank Reichenbach:
Are effective Software Based Diagnostics the key for safety critical platforms?,
Invited Keynote, IEEE European Test Symposium (ETS 2013), MEDIAN Workshop, Avignon,
France, May, 2013

R. Aitken and G. Fey and Z. Kalbarczyk and F. Reichenbach and M. S. Reorda:
Reliability analysis reloaded: How will we survive?,
Proceedings of the IEEE International Conference on Industrial Technology (ICIT 2013), pp.
358-367, ISSN: 1530-1591, Grenoble, France, March, 2013

Frank Reichenbach and Trond Løkstad and Dominik Sojer and Alois Knoll:
Robust and Integrated Diagnostics for Safety Systems in the Industrial Domain,
Proceedings of the Design, Automation and Test in Europe (DATE 2013), pp. 1385-1391, ISBN:
9781467345682, Cape Town, South Africa, February, 2013

Dominik Sojer and Frank Reichenbach and Stein-Erik Ellevseth and Christian Buckl and Alois
Knoll:
A Model-Driven Approach for Runtime Reliability Analysis,
Proceedings of the 6th Latin-American Symposium on Dependable Computing (LADC 2013),
ISBN: 9781467357463, Rio de Janeiro, Brazil, April, 2013

Frank Reichenbach and Jan Endresen and Mohammad M. R. Chowdhury and Judith Rossebø:

Publications, Thesis and Awards

Written by Administrator

Saturday, 20 March 2010 12:32 - Last Updated Friday, 14 June 2013 09:33

A pragmatic Approach on Combined Safety and Security Risk Analysis,
Proceedings of the 23rd IEEE International Symposium on Software Reliability Engineering,
International Workshop on Risk and Trust in Safety Critical Systems (RTW 2012), Dallas, USA,
November, 2012

Frank Reichenbach:

The impact of functional safety standards in the design and test of reliable and available
integrated circuits - A View from Process/Factory Automation,
Invited Panel Talk, IEEE European Test Symposium (ETS 2012), Annecy, France, May, 2012

Frank Reichenbach:

Avoiding Pitfalls in Safety Projects - Why often experiences make the difference,
Invited Talk, ICES Workshop on Safety, Security, Robustness and Diagnosis: Status and
Challenges, Stockholm, Sweden, January, 2012

J. Akerberg, F. Reichenbach, M. Gidlund, M. Bjorkman:

Measurements on an Industrial Wireless HART Network Supporting PROFIsafe: A Case Study,
Proceedings of the 16th IEEE International Conference on Emerging Technologies and Factory
Automation (ETFFA 2011), pp. 1-8, ISSN: 1946-0740, Toulouse, France, September, 2011

Frank Reichenbach:

Trends and Challenges of Safety Critical Systems in Automation Industry,
Keynote, Workshop on Dependable and Secure Industrial and Embedded Systems, Västerås,
Sweden, June, 2011

Frank Reichenbach:

IEC 61508 + Updates,
Invited Talk, ICES Seminar on: Functional safety - emerging, changing and integrating
standards and applications, Västerås, Sweden, February, 2010

Johan Åkerberg, Frank Reichenbach, Mikael Gidlund, Mats Björkman:

Measurements on an Industrial Wireless HART Network Supporting PROFIsafe: A Case Study,
The 16th IEEE International Conference on Emerging Technology and Factory Automation
(ETFFA 2011), ISBN: 978-4577-0016-3, Toulouse, France, September, 2010

Alexander Born, Frank Reichenbach:

Converting the Nonlinear Least Squares Problem for Localization in Wireless Sensor Networks, Proceedings of the 19th ICCCN 2010 (WiMAN Workshop 2010), ISBN: 978-1-4244-7115-7, Zurich, Switzerland, 2010

Tor Stålhane, Inah Omoronyia, Frank Reichenbach:

Ontology guided requirements and safety analysis, Proceedings of the 6th International Conference on Safety of Industrial Automated Systems (SIAS 2010), Tampere, Finland, 2010

Frank Reichenbach, Alexander Wold:

Multi-core Technology - Next Evolution Step in Safety Critical Systems for Industrial Applications, Proceedings of the 13th EUROMICRO Conference on Digital System Design (DSD 2010), ISBN: 978-0-7695-4171-6, pp. 339-346, Lille, France, 2010

Johan Åkerberg, Frank Reichenbach, Mats Björkman:

Enabling Safety-Critical Wireless Communication using WirelessHART and PROFIsafe, Proceedings of the 15th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA 2010), ISBN: 978-1-4244-6849-2, Bilbao, Spain, 2010

Tormod Wien, Frank Reichenbach, Erik Carlson, Tor Stålhane:

Reducing Development Costs in Industrial Safety Projects with CESAR, Proceedings of the 15th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA 2010), ISBN: 978-1-4244-6849-2, Bilbao, Spain, 2010

Frank Reichenbach, Kjell-Joar Alme, Jan Endresen:

On the Significance of Fault-Tree Analysis in Practice, 14th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA 2009), Palma, Spain, September 2009

Jiaxi You, Dominik Lieckfeldt, Frank Reichenbach, Dirk Timmermann:

Context-aware Geographic Routing for Sensor Networks with Routing Holes, IEEE Wireless Communications and Networking Conference (WCNC 2009), Budapest, Hungary, April 2009

Frank Reichenbach, Jan Blumenthal, Dirk Timmermann:

Resource-aware Localization in Sensor Networks, Chapter in: The Networked Embedded Systems Handbook, CRC Press, Editor: Richard Zurawski, ISBN: 978-1-420074109, San Francisco, USA, Juni 2009

Frank Reichenbach, Alexander Born, Edward Nash, Christoph Strehlow, Dirk Timmermann,

Publications, Thesis and Awards

Written by Administrator

Saturday, 20 March 2010 12:32 - Last Updated Friday, 14 June 2013 09:33

Ralf Bill:

Improving Localization in Geosensor Networks Through Use of Sensor Measurement Data, 5th International Conference on Geographic Information Science (GiScience 2008), Park City, Utah, USA, 2008

Alexander Born, Frank Reichenbach, Ralf Bill, Dirk Timmermann:

Lokalisierung in Ad Hoc Geosensornetzwerken mittels geodätischer Ausgleichstechnik, GIS - Zeitschrift für Geo Informationssysteme, abcverlag GmbH, Heidelberg, Deutschland, 2008

Frank Reichenbach, Dirk Timmermann:

Comparing the Efficiency of Localization Algorithms with the Power-Error-Product (PEP), Second IEEE International Workshop on Wireless Mesh and Ad Hoc Networks (WiMAN 2008), Beijing, China, 2008

Frank Reichenbach, Dominik Lieckfeldt, Dirk Timmermann:

Using QR-Updating with Reduced Complexity for Precise Localization in Mobile Sensor Networks, Sixth Annual Conference on Communication Networks and Services Research (CNSR2008), Halifax, Nova Scotia, Canada, 2008

Jens Schulz, Frank Reichenbach, Jan Blumenthal, Dirk Timmermann:

Low Cost System for Detecting Leakages along Artificial Dikes with Wireless Sensor Networks, EuroSys 2008, Workshop on Real-World Wireless Sensor Networks, Glasgow, Scotland, 2008

Frank Reichenbach, Dirk Timmermann:

Exact Localization on Resource Limited Sensor Nodes - Making it Feasible, GI/ITG KuVS Fachgespräch Systemsoftware und Energiebewusste Systeme, ISSN: 1432-7864, S. 43-48, Karlsruhe, Deutschland, 2007

Frank Reichenbach, Christoph Keil, Dirk Timmermann:

Reducing the Localization Error in Wireless Sensor Networks by Considering the Measurements Spatial Relationship, 5th International Forum Life Science Automation, ISBN: 978-3-938042-12-0, Washington D.C., USA, 2007

Frank Reichenbach, Dirk Timmermann:

On Improving the Precision of Localization with Minimum Resource Allocation, 16th International Conference on Computer Communications and Networks, International Workshop on Wireless Mesh and Ad Hoc Networks, pp. 1093-1098, ISBN: 1-4244-1251-X, Honolulu, Hawaii, USA, 2007

Jakob Salzman, Stephan Kubisch, Frank Reichenbach, Dirk Timmermann:

Energy and Coverage Aware Routing Algorithm in Self Organized Sensor Networks, Proceedings of Fourth International Conference on Networked Sensing Systems, pp. 77-80, ISBN: 1-4244-1231-5, Braunschweig, Deutschland, 2007

Frank Reichenbach, Alexander Born, Jakob Salzmann, Dirk Timmermann, Ralf Bill:
DLS: A Resource-Aware Localization Algorithm with High Precision in Large Wireless Sensor Networks,

In Proceedings of the 4th Workshop on Positioning, Navigation and Communication (WPNC'07), pp. 247-254, ISBN: 1-4244-0870-9, Hannover, Deutschland, 2007

Dirk Timmermann, Frank Reichenbach, Jan Blumenthal, Jakob Salzmann:

Lokalisierung und Robustheit in drahtlosen Sensornetzwerken,

VDE/ITG Diskussionssitzung "Internet der Dinge - Neue Entwicklungen der drahtlosen Sensornetze", Kamp-Lintfort, Deutschland, 2007

Frank Reichenbach, Alexander Born, Dirk Timmermann, Ralf Bill:

Splitting the Linear Least Squares Problem for Precise Localization in Geosensor Networks, 4th International Geographic Information Science (GIScience 2006), LNCS 4197, pp. 321-337, ISBN: 3-540-44526-9, Münster, Deutschland, 2006

Frank Reichenbach, Jan Blumenthal, Dirk Timmermann:

Improved Precision of Coarse Grained Localization in Wireless Sensor Networks,

9th Euromicro Conference on Digital System Design (DSD 2006), pp. 630-637, ISBN: 0-7695-2609-8, Dubrovnik, Croatia, 2006

Frank Reichenbach, Dirk Timmermann:

Indoor Localization with Low Complexity in Wireless Sensor Networks,

4th International IEEE Conference on Industrial Informatics (INDIN 2006), pp. 1018-1023, ISBN: 1-4244-9701-0, Singapore, Singapore, 2006

Frank Reichenbach, Ralf Salomon, Dirk Timmermann:

Distributed Obstacle Localization in Large Wireless Sensor Networks,

In Proceedings of the International Wireless Communications and Mobile Computing Conference (IWCMC 2006), pp. 1317-1322, ISBN: 1-59593-306-9, Vancouver, Canada, 2006

Alexander Born, Frank Reichenbach, Ralf Bill, Dirk Timmermann:

Bestimmung Optimaler Startwerte zur Exakten Lokalisierung mittels Geodätischer Ausgleichung,

5. GI/ITG KuVS Fachgespräch "Drahtlose Sensornetze", S. 93-98, Stuttgart, Deutschland, 2006

Frank Reichenbach, Andreas Bobek, Philipp Hagen, Dirk Timmermann:

Increasing Lifetime of Wireless Sensor Networks with Energy-Aware Role-Changing,

In Proceedings of the 2nd IEEE International Workshop on Self-Managed Networks, Systems & Services (SelfMan 2006), LNCS 3996, pp. 157-170, ISBN: 978-3-540-34739-2, Dublin, Ireland, 2006

Frank Reichenbach, Alexander Born, Dirk Timmermann, Ralf Bill:

A Distributed Linear Least Squares Method for Precise Localization with Low Complexity in Wireless Sensor Networks,

In Proceedings of the 2nd IEEE International Conference on Distributed Computing in Sensor

Publications, Thesis and Awards

Written by Administrator

Saturday, 20 March 2010 12:32 - Last Updated Friday, 14 June 2013 09:33

Systems (DCOSS '06), LNCS 4026, pp. 514 - 528, ISBN: 978-3-540-35227-3, San Francisco, USA, 2006

Jan Blumenthal, Frank Reichenbach, Dirk Timmermann:
Minimal Transmission Power vs. Signal Strength as Distance Estimation for Localization in Wireless Sensor Networks,
3rd IEEE International Workshop on Wireless Ad-hoc and Sensor Networks, IWWAN 2006, New York, USA, 2006

Frank Grassert, Frank Reichenbach, Jan Blumenthal, Frank Golatowski, Kerstin Thurow, Dirk Timmermann:
Drahtloses Sensornetzwerk - Messen, was los ist,
Landestechnologieanzeiger 1/2006, Verlag Koch & Raum Wismar OHG, S. 4-5, Schwerin, Deutschland, 2006

Frank Reichenbach, Matthias Koch, Dirk Timmermann:
Closer to Reality - Simulating Localization Algorithms Considering Defective Observations in Wireless Sensor Networks,
Proceedings of the 3rd Workshop on Positioning, Navigation and Communication (WPNC'06), S. 59-65, ISBN: 3-83224-862-5, Hannover, Deutschland, 2006

Ralf Salomon, Holger Harms, Frank Reichenbach, Thomas Kirste:
qWixP, a Qt-based, Wireless Information Exchange Platform,
Multikonferenz Wirtschaftsinformatik 2006, Mobilität und Mobile Informationssysteme, ISBN: 3-88579-170-6, S. 156-167, Passau, Deutschland, 2006

Frank Reichenbach, Matthias Handy, Dirk Timmermann:
Monitoring the Ocean Environment with Large-Area Wireless Sensor Networks,
Proceedings of the 8th EUROMICRO Conference on Digital System Design (DSD 2005), S. 57-58, ISBN: 3902457090, Porto, Portugal, 2005

Jan Blumenthal, Frank Reichenbach, Frank Golatowski, Dirk Timmermann:
Controlling Wireless Sensor Networks using SeNeTs and EnviSense,
3rd IEEE International Conference on Industrial Informatics, INDIN 05, ISBN: 0-7803-9095-4, Perth, Australien, 2005

Jan Blumenthal, Frank Reichenbach, Dirk Timmermann:
Precise Positioning with a Low Complexity Algorithm in Ad hoc Wireless Sensor Networks,
PIK - Praxis der Informationsverarbeitung und Kommunikation, Vol.28 (2005), Journal-Edition No. 2, S.80-85, ISBN: 3-598-01252-7, Saur Verlag, Deutschland, 2005

Frank Reichenbach, Ralf Bill, Dirk Timmermann:
Lokalisierungstechniken zur verteilten Berechnung in energielimitierten drahtlosen Sensornetzwerken,
Münsteraner GI-Tage 2005, S. 25-37, ISBN: 3-936616-06-X, Münster, Deutschland, 2005

Publications, Thesis and Awards

Written by Administrator

Saturday, 20 March 2010 12:32 - Last Updated Friday, 14 June 2013 09:33

Frank Reichenbach, Jan Blumenthal, Dirk Timmermann:
EnviSense – leistungsstarkes Softwaresystem zur Steuerung großer drahtloser
Sensornetzwerke,
Landestechnologieanzeiger, 2/2005, S. 6, Rostock, Deutschland, 2005

Frank Reichenbach, Dirk Timmermann:
Großflächige drahtlose Sensornetzwerke zur Überwachung der Meeresumwelt,
Seminar: Physikalische Ozeanographie, Leibniz-Institut für Ostseeforschung, Warnemünde,
Deutschland, 2005

Jan Blumenthal, Frank Reichenbach, Dirk Timmermann:
Position Estimation in Ad hoc Wireless Sensor Networks with Low Complexity,
Joint 2nd Workshop on Positioning, Navigation and Communication 2005 (WPNC 05) & 1st
Ultra-Wideband Expert Talk 2005 (05), S.41-49, ISBN: 3-8322-3746-1, Hannover, Deutschland,
2005

Jan Blumenthal, Frank Reichenbach, Dirk Timmermann:
Leistungsstarkes Softwaresystem zur Steuerung von großen drahtlosen Sensornetzwerken,
Technischer Bericht TR 481, 4. GI/ITG KuVS Fachgespräch „Drahtlose Sensornetze“, S.33-37,
ETH Zürich, Schweiz, 2005

Jan Blumenthal, Frank Reichenbach, Dirk Timmermann:
Drahtlose Sensornetzwerke in der Laborautomation,
GIT Labor-Fachzeitschrift, S. 128-129, ISSN: 0016-3538, Landau, Deutschland, 2005

Frank Reichenbach, Jan Blumenthal, Dirk Timmermann:
Kostengünstige und präzise funkgestützte Lokalisierung in drahtlosen Sensornetzwerken,
Landestechnologieanzeiger 4/2004, S. 19, Rostock, Deutschland, 2004

Jan Blumenthal, Frank Reichenbach, Dirk Timmermann:
Drahtlose Sensornetzwerke in der Laborautomatisierung,
Laboratory IT User Service (LITUS), S. 20-21, ISSN: 1614-8622, Darmstadt, Deutschland, 2004

Frank Reichenbach:
Routing und Sicherheit in drahtlosen Sensor-Netzwerken,
3rd Summer School 2004, Dagstuhl, Deutschland, 2004

Jan Blumenthal, Matthias Handy, Frank Reichenbach, Dirk Timmermann:
SeNeTs - Test- und Steuerungsumgebung für Software in großen drahtlosen Sensornetzen,
34. Jahrestagung der Gesellschaft für Informatik, S. 390-394, ISBN: 3-88579-380-6, Ulm,
Deutschland, 2004

Jan Blumenthal, Frank Reichenbach, Dirk Timmermann:
Parameteroptimierung grobkörniger Positionierungsalgorithmen in Sensornetzwerken,
11. Symposium Maritime Elektrotechnik, Elektronik und Informationstechnik, Rostock,
Deutschland, 2004

Publications, Thesis and Awards

Written by Administrator

Saturday, 20 March 2010 12:32 - Last Updated Friday, 14 June 2013 09:33

Jan Blumenthal, Frank Reichenbach, Matthias Handy, Dirk Timmermann:
Low Power Optimization of the Coarse Grained Localization Algorithm in Wireless Sensor Networks,
1st Workshop on Positioning, Navigation and Communication 2004 - WPNC 04, pp. 137-146,
ISBN: 3-8322-2553-6, Hannover, Deutschland, 2004

Jan Blumenthal, Frank Reichenbach, Dirk Timmermann:
Parameteroptimierung grobkörniger Positionierungsalgorithmen in Sensornetzwerken,
2. GI/ ITG KuVS-Fachgespräch "Drahtlose Sensornetzwerke", Technischer Bericht, S. 6-9,
Karlsruhe, Deutschland, 2004

Thesis

PhD Thesis:

Ressourcensparende Algorithmen zur exakten Lokalisierung in drahtlosen Sensornetzwerken
(Resource Aware Algorithms for Exact Localization in Wireless Sensor Networks), University of
Rostock, Institute MD, December 2007 [...more information](#) .

Diploma Thesis:

Positionsbestimmung in drahtlosen Ad-Hoc Sensor-Netzwerken, University of Rostock, Institute
MD, April 2004

Bachelor Thesis:

Conference Information System: Bluewan, University of Rostock, Institute MD, July 2003

Awards

First place winner of the "Ludwig-Bölkow-Nachwuchspreis M-V 2004", "Kostengünstige und
präzise funkgestützte Lokalisierung", Verliehen vom Wirtschaftsministerium, den Industrie- und
Handelskammern und den Technologiezentren des Landes Mecklenburg Vorpommern,
Neustrelitz, 2004 [...more information](#) .