

Publications Christian Facchi

23.07.2019

Books/Ph.D.-Thesis:

1. Christian Facchi; Methodik zur formalen Spezifikation des ISO/OSI Schichtenmodells; Herbert Utz Verlag Wissenschaft ISBN 3-931327-94-9, 1995

Journals (reviewed):

1. Peter Trapp, Markus Meyer, Christian Facchi, Helge Janicke and Francois Siewe; Building CPU Stubs to Optimize CPU Bound Systems: An Application of Dynamic Performance Stubs; International Journal on Advances in Software 4 (1/2), 2011, S. 189–206
2. Christian Bacherler, Ben Moszkowski and Christian Facchi; Supporting Test Code Generation with an Easy to Understand Business Rule Language; IARIA 2013, International Journal On Advances in Software, Number 1 and 2, pp 69–79
3. Kevin Jones, Helge Janicke, Christian Facchi, Leandros Maglaras; Guest Editors' Introduction to the special issue of the journal of information security and applications on "ICS & SCADA cyber security"; Journal of Information Security and Applications 34 (2017) 70; Elsevier
4. Hendrik-Jörn Günther, Raphael Riebl, Lars Wolf, Christian Facchi; The Effect of Decentralized Congestion Control on Collective Perception in Dense Traffic Scenarios; Journal of Computer Communication (2018), Elsevier; <https://doi.org/10.1016/j.comcom.2018.03.009>

Reviewed Papers (conferences, workshops):

1. Christian Facchi, Markus Haubner, Ursula Hinkel; The SDL Specification of the Sliding Window Protocol Revisited; SDL Forum 97, A. Sarma and A. Cavalli, Elsevier, 1997
2. Peter Trapp, Christian Facchi; How to Handle CPU Bound Systems: A Specialisation of Dynamic Performance Stubs to CPU Stubs; In CMG '08: International Conference Proceedings, pages 343–353, Las Vegas, Nevada, USA, 2008. Computer Measurement Group.
3. Sebastian Röglinger, Christian Facchi; A Safety Based Selection of Feasible Scenarios for Car2X-Communication - A Statistical Approach; Proceedings of the VDI 14th international Congress on Electronic Systems for Vehicles (Elektronik im Kraftfahrzeug), 2009; VDI Wissenforum GmbH
4. Peter Trapp, Christian Facchi, Markus Meyer; Echtzeitverhalten durch die Verwendung von CPU Stubs: Eine Erweiterung von Dynamic Performance Stubs; In Software-intensive verteilte Echtzeitsysteme, Informatik aktuell, pages 119–128. Springer Berlin Heidelberg, 2009.
5. Peter Trapp, Sebastian Bittl, Christian Facchi; How to Handle Memory Bound Systems: A Specialization of Dynamic Performance Stubs to Memory Stubs; In "Computer Measurement Group Conference 2009: International Conference Proceedings", Dallas/USA, December 2009
6. Christian Facchi, Jochen Wessel; The Definition of Metrics for Continuous Integration in SCRUM; SMEF (Software Measurement Europe Forum) 2010, Rome
7. Peter Trapp, Markus Meyer, and Christian Facchi; Using CPU Stubs to Optimize Parallel Processing Tasks: An Application of Dynamic Performance Stubs, In International Conference on Software Engineering Advances, pages 471–476. IEEE Computer Society, 2010. (Best Paper Award).

8. Peter Trapp, Christian Facchi; Main Memory Stubs to Simulate Heap and Stack Memory Behavior; In Computer Measurement Group 2010: International Conference Proceedings. Computer Measurement Group, Orlando (FL), 2010
9. Christian Facchi, Peter Trapp and Jochen Wessel; Enhancing Continuous Integration by Metrics and Performance Criteria in a SCRUM Based Process - Metrics and SCRUM in an Industrial Environment: A Contradiction?; accepted paper: EPIC 2010 (*Workshop on Leveraging Empirical Research Results for Software Business Success*); Bolzano, Italy.
10. Sebastian Röglinger, Christian Facchi; Behavior Specification of a Red-Light Violation Warning Application - An Approach for Specifying Reactive Vehicle-2-X Communication Applications; 3rd International Workshop on Communication Technologies for Vehicles. Springer LNCS 6596. Page 106 - 118. Oberpfaffenhofen. 03/2011
11. Christian Facchi, Peter Trapp, Jochen Wessel; Metrics and SCRUM in Real Life – Enemies or Friends?; In SMEF (Software Measurement Europe Forum) 2011, Rome
12. Peter Trapp, Markus Meyer and Christian Facchi; Dynamic Performance Stubs to Simulate the Main Memory Behavior of Application; in SPECTS '11: Proceedings of the International Symposium on Performance Evaluation of Computer and Telecommunication Systems. IEEE Communications Society, 2011.
13. Markus Meyer, Helge Janicke, Peter Trapp, Christian Facchi, Marcel Busch; Performance Simulation of a System's Parallelization; In ICSEA '11: Proceedings of the International Conference on Software Engineering Advances. Xpert Publishing Services, 2011., best paper award
14. Christian Bacherler, Ben Moszkowski, Christian Facchi, Andreas Hübner; Automated Test Code Generation based on Formalized Natural Language Business Rules; in ICSEA 2012, The Seventh International Conference on Software Engineering Advances: IARIA Conference., 2012, pp. 165–171.
15. Andreas Hübner, Christian Facchi, Helge Janicke; Rifidi Toolkit: Virtuality for testing RFID-Systems; ICSNC (International Conference on Systems and Network Communications) 2012, accepted paper
16. Andreas Hübner; Christian Facchi, Markus Meyer, Helge Janicke; A Model-Based Approach for RFID Application Testing; In: IEEE (Hg.): Trust, Security and Privacy in Computing and Communications (TrustCom), 2013 12th IEEE International Conference on, July 2013, Melbourne, S. 1490 - 1497
17. Andreas Huebner, Christian Facchi; Markus Meyer, Helge Janicke; RFID Systems from a Cyber-Physical Systems Perspective; In: IEEE (Hg.): Intelligent Solutions in Embedded Systems (WISES), 2013 Proceedings of the 11th Workshop on, September 2013, Pilzeň, S. 1 – 6
18. Raphael Riebl, Hendrik-Jörn Günther, Christian Facchi, Lars Wolf; Artery -- Extending Veins for VANET applications; in 2015 International Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS), Jun. 2015, pp. 450–456. DOI: 10.1109/MTITS.2015.7223293
19. Raphael Riebl, Christian Facchi; Regain Control of Growing Dependencies in OMNeT++ Simulations; in: A. Förster, C. Minkenberg, G. R. Herrera, M. Kirsche (Eds.), Proc. of the 2nd OMNeT++ Community Summit, IBM Research - Zurich, Switzerland, September 3-4, 2015, arXiv:1509.03284, 2015
20. Markus Zeindl, Christian Facchi; WOC: A New Weighted Ordinal Classification; in 2015 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT), vol. 3, 2015, pp. 69–74.
21. Niklas Hehenkamp, Remko van Wagensveld, Dominik Schönwetter, Christian Facchi, Ulrich Margull, Dietmar Fey, Ralph Mader; How to Speed up Embedded Multi-core Systems Using Locality Conscious Array Distribution for Loop Parallelization; ARCS 2016; 29th International Conference on Architecture of Computing Systems; Proceedings of, Nürnberg 2016;

22. Raphael Riebl, Markus Monz, Simon Varga, Helge Janicke, Leandros Maglaras, Ali H. Al-Bayatti, Christian Facchi; Improved Security Performance for VANET Simulations; in 4th IFAC Symposium on Telematics Applications (IFAC-PapersOnLine), vol. 49, Porto Alegre, Brasil: Elsevier, 2016, pp. 233–238. DOI: 10.1016/j.ifacol.2016.11.173
23. Thomas Speth, Raphael Riebl, Thomas Brandmeier, Christian Facchi, Ulrich Jumar, Ali H. Al-Bayatti; VANET Coverage Analysis for GPS Augmentation Data in Rural Area; in 4th IFAC Symposium on Telematics Applications (IFAC-PapersOnLine), vol. 49, Porto Alegre, Brasil: Elsevier, 2016, pp. 245-250. <https://doi.org/10.1016/j.ifacol.2016.11.112>
24. Thomas Speth, Raphael Riebl, Thomas Brandmeier, Christian Facchi, Ali Hilal Al-Bayatti, Ulrich Jumar; Enhanced Inter-Vehicular Relative Positioning; in: Intelligent Transportation Systems (ITSC), 2016 IEEE 19th International Conference on; Rio de Janeiro; 2016, pp. 867-872; DOI: 10.1109/ITSC.2016.7795657
25. Markus Zeindl, Markus Seitz, Christian Facchi; Correlation of Change Size to Fault-Proneness: A Real Life Case Study; in 2016 IEEE/ACS 13th International Conference of Computer Systems and Applications (AICCSA), 2016, pp. 1–6.
26. Hendrik-Jörn Günther, Raphael Riebl, Lars Wolf, Christian Facchi, Collective Perception and Decentralized Congestion Control in Vehicular Ad-hoc Networks; in 2016 IEEE Vehicular Networking Conference (VNC), Dec. 2016, pp. 1–8. DOI: 10.1109/VNC.2016.7835931
27. Christina Obermaier, Raphael Riebl, Christian Facchi; Dynamic Scenario Control for VANET Simulations; in IEEE MT-ITS 2017 Napoli , pp. 681-686
28. Christina Obermaier, Christian Facchi; Investigations on OMNeT++ Real-Time Behaviour; in OMNeT++ Community Summit 2017 Bremen (accepted paper)
29. Christina Obermaier, Raphael Riebl, Christian Facchi; Fully Reactive Hardware-in-the-Loop Simulation for VANET Devices; ITSC 2018, 21st IEEE International Conference on Intelligent Transportation Systems (accepted paper)
30. Markus Zeindl and Christian Facchi; Measuring Architectural Misfit: A Preliminary Real Life Study; CMDWM Workshop on WI 2018; The 5th Workshop on Complex Methods for Data and Web Mining (accepted paper)
31. Niklas Hehenkamp, Christian Facchi, Stefan Neumeier; How to Achieve Traffic Safety With LTE and Edge Computing; Future of Information and Communications Conference (FICC) 2019, in Kohei Arai, Rahul Bahatia, Advances in Information and Communication, Springer 2020, pp 164-176
32. Stefan Neumeier, Ermias Walelgne, Vaibhav Bajpai, Jörg Ott, Christian Facchi; Measuring the Feasibility of Teleoperated Driving in Mobile Networks, Network Traffic Measurement and Analysis Conference TMA 2019; Paris (accepted paper)
33. Stefan Neumeier, Philipp Wintersberger, Anna-Katharina Frison, Armin Becher, Christian Facchi, Andreas Riener; Analyzing the Impact of Latency on Teleoperated Driving; Auto-UI 2019 (accepted paper)
34. Stefan Neumeier, Christian Facchi; Towards a Driver Support System for Teleoperated Driving; IEEE 22nd Intelligent Transportation Systems Conference (ITSC); 2019 (accepted paper).
35. Christina Obermaier, Raphael Riebl, Christian Facchi; Limitations of HIL Test Architectures for Car2X Communication Devices and Applications; 3rd ACM Computer Science in Cars Symposium (CSCS); 2019 (accepted paper)
36. Stefan Neumeier, Michael Höpp, Christian Facchi; Yet Another Driving Simulator OpenROUTS3D: The Driving Simulator for Teleoperated Driving; IEEE ICCVE – International Conference on Connected Vehicles; 2019 (accepted paper)

Technical Reports or other not peer reviewed publications:

1. M. Broy, C. Facchi, R. Grosu, R. Hettler, H. Hussman, D. Nazareth, F. Regensburger, K. Stølen; The Requirement and Design Specification Language SPECTRUM; An Informal Introduction; Version 0.3; Institut für Informatik der Technischen Universität München TUM-I9140; 1991
2. M. Broy, C. Facchi, R. Grosu, R. Hettler, H. Hussmann, D. Nazareth, F. Regensburger, O. Slotosch, K. Stølen; The Requirement and Design Specification Language SPECTRUM; An Informal Introduction; Version 1.0; Institut für Informatik der Technischen Universität München TUM-I9311/TUM-I9312; 1993
3. C. Facchi; Formal Semantics of Time Sequence Diagrams; Institut für Informatik der Technischen Universität München TUM-I9540, 1995
4. C. Facchi; How to Improve the Service Specifications of the ISO/OSI Basic Reference Model; Institut für Informatik der Technischen Universität München TUM -I9615, 1996
5. Christian Facchi, Markus Haubner, Ursula Hinkel; The SDL Specification of the Sliding Window Protocol Revisited; Institut für Informatik der Technischen Universität München TUM-I9614, 1996
6. Peter Trapp, Christian Facchi; Performance Improvement: Using Dynamic Performance Stubs; FH Ingolstadt "Arbeitsberichte - Working Papers" 14; 2007
7. Sebastian Röglinger, Christian Facchi; How Can Car2X-Communication Improve Road Safety-- A Statistical Based Selection and Discussion of Feasible Scenarios; Hochschule Ingolstadt "Arbeitsberichte - Working Papers" 15; 2009
8. Christian Bacherler, Christian Facchi and Hans-Michael Windisch; Enhancing Domain Modelling with Easy to Understand Business Rules; Hochschule Ingolstadt "Arbeitsberichte - Working Papers" 19; 2010
9. Peter Trapp, Markus Meyer, and Christian Facchi; How to Correctly Simulate Memory Allocation Behavior of Applications by Calibrating Main Memory Stubs, Hochschule Ingolstadt "Arbeitsberichte - Working Papers" 20; 2011
10. Raphael Riebl, Christian Facchi; Implementation of Day One ITS-G5 Systems for Testing Purposes; In: R. Frank, M. Forster, C. Sommer, F. Kargl, T. Engel (Hg.): Proceedings of the 2nd GI/ITG KuVS Fachgespräch Inter-Vehicle Communication (FG-IVC 2014), Februar 2014, Luxembourg, S. 32-35.
11. Raphael Riebl, Stefan Neumeier and Christian Facchi; Inter-Vehicle Communication on the Run; accepted paper for KUVs ITC 2015 Ulm
12. Raphael Riebl, Christina Obermaier, Stefan Neumeier, Christian Facchi; Vanetza: Boosting Research on Inter-Vehicle Communication; KUVS ITC 2017 Erlangen
13. Stefan Neumeier, Christina Obermaier, Christian Facchi; Speeding up OMNeT++ Simulations by Parallel Output-Vector Implementations; KUVS ITC 2017 Erlangen

Selection of presentations (invited or major reviewed talks):

1. C. Facchi; Telelogic Tools and Siemens Mobile Phones; Capital Market Event Telelogic, Malmoe, 2001
2. C. Facchi; The Introduction of CM Synergy for Siemens Mobile Phones; Telelogic User Synergy, Munich, 2002
3. C. Facchi; The Definition of Metrics for Continuous Integration in SCRUM – How Continuous is our Continuous Integration; accepted talk, SCRUM Days 2010, Munich, www.scrum-day.de

Other publications (not peer reviewed and not complete):

1. Thomas Brandmeier, Christian Facchi, Anja Kucsera, Christian Lauerer, Georg Overbeck; Richtungsweisende Forschungskonzepte an der Hochschule Ingolstadt am Beispiel des Forschungs- und Testzentrums CARISSMA; Die neue Hochschule 1/2012, S. 14-17.
2. Christian Facchi, Ernst-H. Göldner, Raphael Riebl; Car2X: Mehrwert durch Vernetzung – worauf warten wir noch? DETECON Management Report 9/2015, Special Automotive
3. Christian Facchi, Georg Overbeck, Anne-Sophie Lohmeier; AWARE – strategische Partnerschaft mit Brasilien an der Technischen Hochschule Ingolstadt; Die neue Hochschule 6/2016, S. 166-169.

Other major publications of the research group:

1. Sebastian Röglinger; A methodology for testing intersection related Vehicle-2-X applications; Elsevier Journal on Computer Networks 55 (2011) 3154–3168
2. Gautam Ravindra Dange, Pratheep Kumar Paranthaman, Francesco Bellotti, Riccardo Berta, Alessandro De Gloria, Mattia Raffero, Stefan Neumeier (2017): Deployment of Serious Gaming Approach for Safe and Sustainable Mobility. Accepted Paper bei 2017 IEEE Intelligent Vehicles Symposium.
3. Raphael Riebl and Christina Obermaier and Hendrik-Jörn Günther; Artery: Large Scale Simulation Environment for ITS Applications; in Antonio Viridis and Michael Kirsche (Eds.), Recent Advances in Network Simulation: The OMNeT++ Environment and its Ecosystem; 365–406; Springer 2019
4. Raphael Riebl and Giovanni Nardini and Antonio Viridis; Simulating LTE-Enabled Vehicular Communications; in Antonio Viridis and Michael Kirsche (Eds.), Recent Advances in Network Simulation: The OMNeT++ Environment and its Ecosystem; 407–423; Springer 2019