



Introduction of our latest scholarship holders (2008-2011)

Jessica Kleff



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Jessica Kleff received both her diploma in electrical engineering from Technische Universität Berlin and the Diplôme d'Ingénieur des Arts et Manufactures (Ecole Centrale Paris) in 2006.

She spent two years in France within the double degree program T.I.M.E.

During studies internships at Philips Forschungslaboratorien Aachen, Forschungszentrum Jülich and Philips Medical Systems Hamburg were completed.

Work Group: Berlin Center of Advanced Packaging
Advisors: Prof. Dr.-Ing. Dr.-Ing. E.h. Herbert Reichl
Prof. Dr.-Ing. Clemens Gühmann
Research Interests: Reliability of micro-contacts
Application of gold and gold-tin in electronic systems
Preliminary Thesis Title: Reliability evaluation of gold and gold-tin micro-contacts in regard to the degradation due to electromigration

Michael Krüger



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Michael Krüger received his diploma in electrical engineering from Technische Universität Berlin in 2008.

He worked for two years as student teaching assistant in the department of semiconductor devices at Technische Universität Berlin. He also worked two years as student research assistant at Berlin Center of Advanced Packaging in the BMBF founded research project "InZuMech" which investigated reliability aspects in early design stages.

Work Group: Berlin Center of Advanced Packaging
Advisors: Prof. Dr.-Ing. Dr.-Ing. E.h. Herbert Reichl
Prof. Dr.-Ing. Christian Bolt
Research Interests: Reliability and Condition Indication of Electronic Systems
Measurement of Micrometer Scale Cracks in Electronic Interconnections
Preliminary Thesis Title: Measurement of Crack Growth in Electrical Interconnections for Condition Monitoring of Miniaturized Communication Systems
Awards: CPMT Student Travel Award (2009)
Publications: "Measurement and Analysis of the Impact of Micrometer Scale Cracks on the RF Performance and Reliability of Transmission Lines" Krüger, M.; Middendorf, A.; Ndip, I.; Nissen, N. F.; Reichl, H. ECTC2008 (www.ectc.net)

Matthias Weiland



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Matthias Weiland received his diploma in electrical engineering from Technische Universität Berlin in 2008.

He has spent a year at the University of Massachusetts Amherst, USA as an International Exchange student in 2006/2007 where he wrote his independent study on the Simulation of a Piezoelectric Ultrasonic Transducer in PSpice.

Work Group: Berlin Center of Advanced Packaging
Advisors: Prof. Dr.-Ing. Dr.-Ing. E.h. Herbert Reichl
Prof. Dr.-Ing. Jörg Raisch
Research Interests: Development of PEM Microfuelcells
Dynamic behaviour of Microfuelcells and Microfuelcell Systems
Preliminary Thesis Title: Dynamic Modelling of a passive Microfuelcell system
Awards: DAAD Scholarship (ISAP Program) 2006

Kai Ide



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Kai Ide received both his B.Sc. and M.Sc. from Technische Universität Berlin in 2007 and 2008, respectively.

He has spent a year in New York, USA as a Rotary International exchange student, and a year in South Korea, where he studied under Professor Kwon at the Quantum Photonics Integrated Circuit Design Lab at POSTECH. He has professional experience in the fields of film- and television, working in film production and as a production assistant for the ARD - German Television at the 29th Olympic Games in Beijing, China.

Work Group: Communication Systems Group
Advisors: Prof. Thomas Sikora (Communications)
Prof. Marc Alexa (Computer Graphics)
Dr. Claudio Laloni (Silems)
Research Interests: 3D camera systems
Preliminary Thesis Title: Development of a high-definition 3D free-viewpoint camera system based on infrared structured light.
Publications: "LaGuerre-Gaussian Emission Properties of Photonic Quantum Ring Hole-Type Lasers"; Ide, K. and Lee, S.E. and Kim, Y.C. and Kim, D.K. and Kwon, O. IEEE Transactions on Nanotechnology, Vol. 7, 2008, pp. 185 - 189
"A simple and sturdy butt coupling and PQR hole laser intensity profile analysis"; K. Ide, S. Lee, Y. Kim, Y. Lee, O. Kwon, APOC 2006, Sep. 5-7, 2006, Kimsaeng Convention Center Gwangju, Korea

The H-C3 Initiative seeks to promote development of technologies that provide flexible and intuitive communications approaches for the good of mankind. This innovative program follows a vision of Human-Centric Communication offering flexible and intuitive support in accessing situation-dependent information as well as in exchanging information with others. Numerous academic groups are contributing their expertise to this initiative, especially the Faculty of Electrical Engineering and Computer Science, as well as the cooperating non-university research institutes.

Georg Holzmann



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Georg Holzmann studied audio engineering with focus in signal processing, machine learning and computer music at TU Graz.

Work Group: Neural Information Processing
Advisors: Prof. Dr. Klaus Obermayer
Prof. Dr. Manfred Opper
Research Interests: Machine Learning, Signal Processing
Computer Music, Experimental Music
Open Source Software
H-C3 PhD Agenda: Modelling Complex Time-Series:
Recurrent Neural Networks, Reservoir Computing, Hierarchical and Deep Architectures with Applications in Music Information Retrieval
Publications: "Echo State Networks with Filter Neurons and a Delay&Sum Readout", Georg Holzmann und Helmut Hauser, (Neural Networks, in progress)

Wendelin Böhmer



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Wendelin Böhmer received his diploma in computer science from the Berlin university of technology in 2006.

He worked for two years as student research assistant in the DFG founded research project "NeuroBot", which investigated biologically plausible robot navigation based on video images only. He also worked two and a half years as student teaching assistant in basic lectures of computer science.

Work Group: Neural Information Processing
Advisors: Prof. Klaus Obermayer
Prof. Thomas Sikora
Research Interests: Auto-adaptive multimedia filters
Reinforcement learning
Preliminary Thesis Title: Adaptive perception in control scenarios.
Publications: "Navigation using Slow Feature Analysis and Reinforcement Learning", Grünewald, S. and Böhmer, W. and Shen, Y. and Nickisch, H. and Musial, M. and Obermayer, K., (Neural Computation, in progress)

Pascal Lehwerk



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Phone: +49 30 616 29 347

Pascal Lehwerk received his diploma in computer science and philosophy from Philipps-University, Marburg in 2008.

Work Group: Machine Learning Group, TU-Berlin
Advisors: Prof. Dr. Klaus-Robert Müller
Prof. Dr. Stefan Jähnichen
Research Interests: Social Networks, Machine Learning, Bioinformatics, Visualization
Preliminary Thesis Title: Machine Learning in Adaptive User Interfaces
Publications: "Visualization and Clustering of Tagged Music Data", P. Lehwerk, S. Risi, A. Ullsch, In Proceedings 31st Annual Conference of the GKI 2007, Freiburg
"Visual mining in music collections with Emergent SOM", S. Risi, F. Moerchen, A. Ullsch, P. Lehwerk, In Proceedings Workshop on WSOM 2007, Bielefeld
"The Evolution of Chloroplast RNA Editing", M. Tillich, P. Lehwerk, B.R. Morton, UG Maier, Molecular Biology and Evolution, 2006 - SMBE

Oliver Bilenne

Oliver Bilenne received his M.Sc. in Electrical Engineering from University of Liège, Belgium in 2002.

He was research engineer at Multitel ASBL, Mons, Belgium from 2003 to 2009. Before he was student assistant in the Systems and Modeling research group, Department of Electrical Engineering and Computer Science, University of Liège, Belgium.

Work Group: Control Systems Group
Advisors: Prof. Dr.-Ing. Jörg Raisch
Prof. Dr.-Ing. Adam Wolisz
Research Interests: Estimation and control, optimal control, sensor networks, signal processing, probabilities and statistics
Preliminary Thesis Title: Control of wireless sensor networks
Publications: O. Bilenne, Design of fault-Tolerant Interval Functions based on their Large-Sample Properties, in Proceedings of the Tenth International Conference on Information Fusion, Québec, Canada, July 2007.
O. Bilenne, Assessing the Reliability of Fault-Tolerant Interval Functions, in Proceedings of the Fifth International Mathematical Methods in Reliability Conference, Glasgow, Scotland, July 2007.
O. Bilenne, Integrity-directed sequential state estimation: assessing high reliability requirements via safe confidence intervals, Information Fusion, 8(1):40-55, January 2007.
O. Bilenne, Integrity-Directed Sensor Fusion by Robust Risk Assessment of Fault-Tolerant Interval Functions, in Proceedings of the Ninth International Conference on Information Fusion, Florence, Italy, July 2006.
O. Bilenne, Fault detection by desynchronized Kalman filtering, introduction to robust estimation, in Proceedings of the Seventh International Conference on Information Fusion, pages 99-106, Stockholm, Sweden, 2004.