# Publikationsbericht 2006

## Fakultät für Elektrotechnik und Informationstechnik

## Otto-von-Guericke-Universität Magdeburg

# Fakultät für Elektrotechnik und Informationstechnik

Universitätsplatz 2, 39106 Magdeburg
Tel. +49 (0)391 67 18641, Fax +49 (0)391 67 12287
feit@uni-magdeburg.de

## 1. Leitung

Prof. Dr.-Ing. habil. Zbigniew Antoni Styczynski (Dekan)
Prof. Dr. rer. nat. Bertram Schmidt (Prodekan)

## 2. Institute

Institut für Automatisierungstechnik
Institut für Elektronik, Signalverarbeitung und Kommunikation
Institut für Elektrische Energiesysteme
Institut für Grundlagen der Elektrotechnik und Elektromagnetische Verträglichkeit
Institut für Mikro- und Sensorsysteme

## 3. Veröffentlichungen

### *Dissertationen*

**Häfele, Martin**
Modelling and analysis of a production plant for low density polyethylene. - Magdeburg, Univ.,
Fak. für Elektrotechnik und Informationstechnik, Diss., 2006; **Link unter URL**; XX, 139 S.:
graph. Darst.

**Hettkamp, Enrico**
Magnetische Beeinflussung von Pulsprozessen bei Vakuumbogenentladungen. - Magdeburg,
Univ., Fak. für Elektrotechnik und Informationstechnik, Diss., 2006; **Link unter URL**; 147 Bl.:
Ill., graph. Darst.; 30 cm

**Ihlow, Alexander**
Ein Hochdurchsatz-Screeningsystem zur Objekterkennung in Mikroskop-Farbbildern im
Rahmen der Analyse pflanzlicher Pathogenresistenz. - Magdeburg, Univ., Fak. für
Elektrotechnik und Informationstechnik, Diss., 2006; **Link unter URL**; XX, 136 S.: graph. Darst.

**Ihlow, Plamena Tomova**
Beitrag zur atmosphärischen Wirbelschichtgefriertrocknung. - Magdeburg, Univ., Fak. für
Verfahrens- und Systemtechnik, Diss., 2006; **Link unter URL**; VIII, 154 S.: graph. Darst.; 21 cm

**Kroitzsch, Jens**
Die bürstenlose doppeltgespeiste Induktionsmaschine als Generator in dezentralen
Elektroenergieerzeugungsanlagen. - Magdeburg, Univ., Fak. für Elektrotechnik und

Informationstechnik, Diss., 2006; **Link unter URL**; 112 S.: Ill., graph. Darst.; 30 cm

**Matichyn, Serhiy**
Fabrication and characterisation of ferroelectric lead zirconate titanate and strontium bismuth tantalate thin films. - Magdeburg, Univ., Fak. für Elektrotechnik und Informationstechnik, Diss., 2006; **Link unter URL**; XI, 114 Bl.: Ill., graph. Darst.; 30 cm

**Mishra, Brahmdatt**
Optimal operation of multiproduct batch plants. - Magdeburg, Univ., Fak. für Elektrotechnik und Informationstechnik, Diss., 2006; **Link unter URL**; XIX, 103, 14 Bl.: graph. Darst.; 30 cm

**Petzold, Olaf**
Modellbildung und Untersuchung eines magnetisch gelagerten Rundtisches. - Magdeburg, Univ., Fak. für Elektrotechnik und Informationstechnik, Diss., 2006; **Link unter URL**; XXIII, 166 S.: graph. Darst.

**Steinmetz, Torsten**
Ungleichförmige und zufällig geführte Mehrfachleitungen in komplexen, technischen Systemen. - Magdeburg, Univ., Fak. für Elektrotechnik und Informationstechnik, Diss., 2006; **Link unter URL**; 138 S.: Ill., graph. Darst.; 30 cm

# Institut für Automatisierungstechnik

Universitätsplatz 2, 39106 Magdeburg
Tel. 0391 67-18589, Fax. 0391 67-11186
Email: Annett.Bartels@E-Technik.Uni-Magdeburg.DE

## 1. Leitung

Prof. Dr.-Ing. Christian Diedrich (Geschäftsführender Leiter)
Prof. Dr.-Ing. Achim Kienle
Dr.-Ing. Jürgen Ihlow
Hon. Prof. Dr.-Ing. Ulrich Jumar

## 2. Hochschullehrer

Prof. Dr.-Ing. Christian Diedrich
Prof. Dr.-Ing. Achim Kienle
Hon. Prof. Dr.-Ing. Ulrich Jumar

## 3. Veröffentlichungen

### *Originalartikel in begutachteten internationalen Zeitschriften*

**Angelov, I. ;  Raisch, Jörg;  Elsner, M. P. ;  Seidel-Morgenstern, Andreas**
Optimization of initial conditions for preferential crystallization
In: Industrial & engineering chemistry research. - Columbus, Ohio: American Chemical Society,
S. 759-766; **Abstract unter URL**
[Imp.fact.: 1.424]

**Gangadwala, Jignesh;  Kienle, Achim;  Haus, Utz-Uwe;  Michaels, Dennis;  Weismantel, Robert**
Global bounds on optimal solutions for the production of 2,3-dimethylbutene-
In: Industrial & engineering chemistry research. - Columbus, Ohio: American Chemical Society,
S. 2261-2271; **Abstract unter URL**
[Imp.fact.: 1.424]

**Grötsch, M. ;  Gundermann, M. ;  Mangold, Michael;  Kienle, Achim;  Sundmacher, Kai**
Development and experimental investigation of an extended Kalman filter for an industrial
molten carbonate fuel cell system
In: Journal of process control: a journal affiliated with IFAC, the International Federation of
Automatic Control. - Amsterdam [u.a.]: Elsevier Science, S. 985-992; **Abstract unter URL**
[Imp.fact.: 1.433]

**Grüner, Stefan;  Mangold, Michael;  Kienle, Achim**
Dynamics of reaction separation processes in the limit of chemical equilibrium
In: American Institute of Chemical Engineers: AIChE journal. - Hoboken, NJ: Wiley, S. 1010-

1026; **Abstract unter URL**, 2006
[Imp.fact.: 2.036]

**Häfele, M. ; Kienle, Achim; Boll, M. ; Schmidt, C.-U.**
Modeling and analysis of a plant for the production of low density polyethylene
In: Computers & chemical engineering: an international journal of computer applications in chemical engineering. - Amsterdam [u.a.]: Elsevier Science, S. 51-65; **Abstract unter URL**
[Imp.fact.: 1.501]

**Kienle, Achim; Seidel-Morgenstern, Andreas; Sundmacher, Kai**
Particulate processes - a special issue of Chemical Engineering and Processing
In: Chemical engineering and processing. - Lausanne: Elsevier, S. 813-814; **Link unter URL**
[Imp.fact.: 1.159]

**Krishna, Manthena Vamsi; Pushpavanam, Subramaniam; Kienle, Achim; Sree Rama Raju, V.**
Nonlinear of reactor - separator systems with azeotropic mixtures
In: Industrial & engineering chemistry research. - Columbus, Ohio: American Chemical Society, S. 212-222; **Abstract unter URL**
[Imp.fact.: 1.504]

**Sheng, Min; Mangold, Michael; Kienle, Achim**
A strategy for the spatial temperature control of a molten carbonate fuel cell system
In: Journal of power sources: the international journal on the science and technology of electrochemical energy systems. - New York, NY [u.a.]: Elsevier, S. 1157-1164; **Abstract unter URL**
[Imp.fact.: 2.770]

**Sree Rama Raju, V. ; Pushpavanam, Subramaniam; Zeyer, K. P. ; Kienle, Achim**
Nonlinear behavior of coupled reactor - separator systems with azeotropic vapor-liquid equilibriums (VLEs): comparison of different control strategies
In: Industrial & engineering chemistry research. - Columbus, Ohio: American Chemical Society, S. 1019-1028; **Abstract unter URL**
[Imp.fact.: 1.504]

**Vasudeve Kumar, M. ; Sree Rama Raju, V. ; Pushpavanam, Subramaniam; Kienle, Achim**
Effect of the minimum flux condition in the settler on the nonlinear behavior of the activated process
In: Industrial & engineering chemistry research. - Columbus, Ohio: American Chemical Society, S. 5996-6006; **Abstract unter URL**
[Imp.fact.: 1.504]

**Waschler, Roland; Angeles-Palacios, Odon; Ginkel, Martin; Kienle, Achim**
Object-oriented modelling of large-scale chemical engineering processes with ProMoT
In: Mathematical and computer modelling of dynamical systems: MCMDS. - Lisse: Swets & Zeitlinger, S. 5-18; **Abstract unter URL**; 2006
[Imp.fact.: 0.098]

**Zhang, Fan; Mangold, Michael; Kienle, Achim**

Stationary spatially periodic and aperiodic solutions in membrane reactors
In: Chemical engineering science: journal internat. de génie chimique. - Amsterdam: Elsevier,
S. 7161-7170; **Link unter URL**
[Imp.fact.: 1.735]

### *Originalartikel in begutachteten zeitschriftenartigen Reihen*

**Groetsch, Markus; Mangold, Michael; Sheng, Min; Kienle, Achim**
State estimation of a molten carbonate fuel cell by an Extended Kalman filter
In: European Symposium on Computer Aided Process Engineering <16, 2006, Garmisch-
Partenkirchen>: 16th European Symposium on Computer-Aided Process Engineering and 9th
International Symposium on Process System Engineering. - Amsterdam [u.a.]: Elsevier, S.
1161-1166; Computer-aided chemical engineering; 21

**Haus, Utz-Uwe; Gangadwala, J. ; Kienle, Achim; Michaels, Dennis; Seidel-Morgenstern,
Andreas; Weismantel, Robert**
Global bounds on optimal solutions in chemical process design
In: European Symposium on Computer Aided Process Engineering <16, 2006, Garmisch-
Partenkirchen>: 16th European Symposium on Computer-Aided Process Engineering and 9th
International Symposium on Process System Engineering. - Amsterdam [u.a.]: Elsevier, S. 155-
160; Computer-aided chemical engineering; 21

**Krasnyk, M. ; Bondareva, K. ; Milokhov, O. ; Teplinskiy, K. ; Ginkel, M. ; Kienle, Achim**
The ProMoT/Diana simulation environment
In: European Symposium on Computer Aided Process Engineering <16, 2006, Garmisch-
Partenkirchen>: 16th European Symposium on Computer-Aided Process Engineering and 9th
International Symposium on Process System Engineering. - Amsterdam [u.a.]: Elsevier, S. 445-
450; Computer-aided chemical engineering; 21

### *Wissenschaftliche Monografien*

**Bangemann, Thomas; Diedrich, Christian**
Profibus PA - Instrumentierungstechnologie für die Verfahrenstechnik. - **Link unter URL**;
München: Oldenbourg; 334 S: Ill., graph. Darst; 24 cm, 2006

**Pathath, Prasanna Kumar**
Nonlinear oscillations in continuous crystallization processes. - Forschungsberichte aus dem
Max-Planck-Institut für Dynamik komplexer technischer Systeme; 16
Zugl.: Magdeburg, Univ., Fak. für Elektrotechnik und Informationstechnik, Diss., 2006; Aachen:
Shaker; XVI, 112 S.: graph. Darst.; 21 cm, 228 gr.

### *Artikel in Fachzeitschriften der Industrie, Gesellschaften, Verbände etc.*

**Radulescu, Gabriel; Gangadwala, Jignesh; Kienle, Achim; Steyer, Frank; Sundmacher,
Kai**
Dynamic simulation of reactive distillation processes with liquid-liquid phase splitting
In: Universitatea Petrol-Gaze <Ploie sti>: Buletinul Universit°a tii Petrol-Gaze din Ploie sti

/ Seria Tehnic°a. Seria Tehnic°a. - Ploie sti, S. 1-12, 2006

## *Dissertationen*

**Pathath, Prasanna Kumar**
Nonlinear oscillations in continuous crystallization processes. - Forschungsberichte aus dem Max-Planck-Institut für Dynamik komplexer technischer Systeme;  16
Zugl.: Magdeburg, Univ., Fak. für Elektrotechnik und Informationstechnik, Diss., 2006; Aachen: Shaker; XVI, 112 S.: graph. Darst.; 21 cm, 228 gr.

# Institut für Elektronik, Signalverarbeitung und Kommunikationstechnik

Universitätsplatz 2, 39106 Magdeburg
Tel.  +49 (0)391 67 18447, Fax  +49 (0)391 67 20051
info@iesk.et.uni-magdeburg.de

## 1. Leitung

Prof. Dr.-Ing. Ulrich Kleine
Prof. Dr.-Ing. habil. Bernd Michaelis
Prof. Dr.-Ing. Abbas Omar
Prof. Dr. rer. nat Georg Rose
Prof. Dr. rer. nat. Andreas Wendemuth (geschäftsführender Leiter)

## 2. Hochschullehrer

Prof. Dr.-Ing. Ulrich Kleine (Integrierte Schaltungen)
Prof. Dr.-Ing. habil. Bernd Michaelis (Technische Informatik)
Prof. Dr.-Ing. Abbas Omar (Hochfrequenz- und Kommunikationstechnik)
Prof. Dr. rer. nat Georg Rose (Medizinische Telematik, neu eingerichteter Lehrstuhl, seit 01.12.2005)
Prof. Dr. rer. nat. Andreas Wendemuth (Kognitive Systeme)

## 3. Veröffentlichungen

### Originalartikel in begutachteten internationalen Zeitschriften

**Al-Hamadi, Ayoub K. ;  Michaelis, Bernd**
An intelligent paradigm for multi-objects tracking in crowded environment
In: Journal of digital information management: JDIM; the peer reviewed  journal. - Palavakkam,
S. 183-190; **Abstract unter URL**, 2006

**Aly, Omar A. M. ;  Omar, Abbas**
Detection and localization of RF radar pulses in noise environments using wavelet packet
transform and higher order statistics
In: Progress in electromagnetics research: PIER. - Cambridge, Mass. : EMW, S. 301-317;
**Abstract unter URL**, 2006

**Aly, Omar A. M. ;  Omar, Abbas**
Reconstructing stratified permittivity profiles using super-resolution techniques
In: Institute of Electrical and Electronics Engineers: IEEE transactions on microwave theory and
techniques: MTT; a publication of the IEEE Microwave Theory and Techniques Society. - New
York, NY: IEEE, S. 492-498; **Abstract unter URL**, 2006
[Imp.fact.: 2.275]

**Andelic, Edin;  Schafföner, Martin;  Katz, Marcel;  Krüger, Sven E. ;  Wendemuth, Andreas**
Kernel least squares models using updates of the pseudoinverse

In: Neural computation. - Cambridge, Mass. : MIT Press, S. 2928-2935; **Abstract unter URL**, 2006
[Imp.fact.: 2.591]

**Hamad, Ehab; Omar, Abbas**
An improved two-dimensional coupled electrostatic-mechanical model for RF MEMS switches
In: Journal of micromechanics and microengineering. - Bristol: Inst., S. 1424-1429;
**Abstract unter URL**, 2006

**Hamad, Ehab K. I. ; Elsherbeni, Atef Z. ; Safwat, Amr M. E. ; Omar, Abbas**
Two-dimensional coupled electrostatic-mechanical model for RF MEMS switches
In: Applied Computational Electromagnetics Society: Applied Computational Electromagnetics Society journal. - Monterey, Calif., S. 26-36, 2006
[Imp.fact.: 0.356]

**Hamad, Ehab K. I. ; Safwat, Amr M. E. ; Omar, Abbas**
A MEMS reconfigurable DGS resonator for K-band applications
In: Journal of microelectromechanical systems: a joint IEEE/ASME publication. - New York, NY: IEEE, S. 756-762; **Abstract unter URL**, 2006
[Imp.fact.: 3.005]

**Krüger, Sven E. ; Darradi, Rachid; Richter, Johannes; Farnell, D. j. j.**
Direct calculation of the spin stiffness of the spin-1/2 Heisenberg antiferromagnet on square, triangular, and cubic lattices using the coupled-cluster method
In: Physical review / B. B, Condensed matter and materials physics. - [S.l.]: Soc., S. 094404-1-094404-5; **Abstract unter URL**, 2006
[Imp.fact.: 3.075]

**Tornow, Michael; Kaszubiak, Jens; Schindler, Thomas; Kuhn, Robert W. ; Michaelis, Bernd**
Hardware approach for real time machine stereo vision
In: Journal of systemics, cybernetics and informatics. - Tecumseh, ON: Internat. Inst. of Informatics and Cybernetics, insges. 11 S.; **Abstract unter URL**, 2006

**Tornow, Michael; Michaelis, Bernd; Kuhn, Robert W. ; Kaszubiak, Jens; Krell, Gerald**
Stereophotogrammetric real-time 3D machine vision
In: Pattern recognition and image analysis: advances in mathematical theory and applications. - Moscow: MAIK Nauka/Interperiodica Publ., S. 100-104; **Abstract unter URL**, 2006

*Originalartikel in begutachteten nationalen Zeitschriften*

**Al-Hamadi, Ayoub K. ; Michaelis, Bernd**
A shadow detection filter basis of color-structure-code algorithm
In: ICGST International journal on graphics, vision and image processing (GVIP). - [S.l.]: ICGST, S. 51-57; **Abstract unter URL** und Seitenlayout identisch, 2006

**Al-Hamadi, Ayoub K. ; Michaelis, Bernd**
Hierarchical feature-based paradigm for multi-object tracking

In: ICGST International journal on graphics, vision and image processing (GVIP). - [S.l.]:
ICGST, S. 39-47; **Abstract unter URL** und Seitenlayout identisch, 2006

**El-Etriby, Sherif;  Al-Hamadi, Ayoub K. ;  Michaelis, Bernd**
Improvement of 3-D reconstruction by deformal stereo matching using a set of linear spatial
filters
In: ICGST International journal on graphics, vision and image processing (GVIP). - [S.l.]:
ICGST, S. 41-46; **Abstract unter URL** und Seitenlayout identisch, 2006

*Originalartikel in begutachteten zeitschriftenartigen Reihen*

**Ali, Ali Assie;  Nguyen, Van Duc;  Kyamakya, K. ;  Omar, Abbas**
Estimation of the channel-impulse-response length for adaptive OFDM systems based on
information theoretic criteria
In: , insges. 5 S., 2006

**Batmanov, Anatoliy;  Hamad, Ehab K. I. ;  Burte, Edmund P. ;  Omar, Abbas**
Design of h-shaped low actuation-voltage RF-MEMS switches
In: Proceedings of Asia-Pacific Microwave Conference December 12-15, 2006. - Japan: IEICH,
insges. 4 S.

**Bertram, Matthias;  Wiegert, Jens;  Rose, Georg**
Scatter correction for cone-beam computed tomography using simulated object models
In: Medical imaging 2006 - Physics of medical imaging. - Bellingham, Wash. : SPIE, S. 462-473;
SPIE; 6142; **Link unter URL**

**Bordás, Robert;  Kuhn, Robert;  Michaelis, Bernd;  Thévenin, Dominiqiue;  Wunderlich,
Bernd**
Towards the investigation of vortex structures in gas flows with 3d-highspeed particle tracking
using coloured tracers
In: International Symposium on Flow Visualization <12, 2006, Göttingen>: CD-ROM
proceedings: September 10 - 14, 2006, Göttingen, Germany. - Edinburgh, UK: Optimage Ltd.,
insges. 9 S.

**Boutejdar, Ahmed;  Omar, Abbas**
Design of compact microstrip lowpass filters with suppression of spurious response using a new
etched resonators in ground metallic plane
In: 2006 IEEE Sarnoff Symposium: Princeton, New Jersey, March 27 - 28, 2006. - IEEE, insges.
4 S.

**Boutejdar, Ahmed;  Omar, Abbas**
Miniature microstrip multi-layer lowpass filter using PI-arrowhead slots etched in the ground
plane
In: 2006 IEEE Sarnoff Symposium: Princeton, New Jersey, March 27 - 28, 2006. - IEEE, insges.
4 S.

**Herzog, Andreas;  Kube, Karsten;  Michaelis, Bernd;  Lima, Ana D. de;  Voigt, Thomas**
Connection strategies in neocortical networks

In: Advances in computational intelligence and learning: 14th European Symposium on Artificial Neural Networks; ESANN 2006; Bruges, Belgium, April 26 - 27 - 28, 2006; proceedings.
- Evere, Belgium: d-side, S. 215-220

**Herzog, Andreas;  Kube, Karsten;  Michaelis, Bernd;  Lima, Ana D. de;  Voigt, Thomas**
Liquid State Machine by spatially coupled oscillators
In: Advances in natural computation. - Berlin [u.a.]: Springer, S. 980-983; **Link unter URL**, 2006
[Imp.fact.: 0.402]

**Herzog, Andreas;  Kube, Karsten;  Michaelis, Bernd;  Lima, Ana D. de;  Voigt, Thomas**
Simulation of young neocortical networks by spatially coupled oscillators
In: IJCNN <2006, Vancouver>: Proceedings of the International Joint Conference on Neural Networks (IJCNN) 2006: July 16 -21, 2006, Sheraton Vancouver Wall Centre Hotel, Vancouver, BC, Canada. - Piscataway, NJ: IEEE Operations Center, S. 118-122

**Herzog, Andreas;  Niese, Robert;  Krell, Gerald;  Michaelis, Bernd;  Ovtscharoff, Wladimir;  Braun, Anna Katharina**
Detection of presynaptic terminals on dendritic spines in double labeling confocal images
In: International Conference on Pattern Recognition <18, 2006, Hong Kong>: Proceedings.
- Los Alamitos, Calif. [u.a.]: IEEE Computer Society, insges. 4 S.

**Katz, Marcel;  Krüger, Sven E. ;  Schafföner, Martin;  Andelic, Edin;  Wendemuth, Andreas**
Speaker identification and verification using support vector machines and sparse Kernel logistic regression
In: Advances in machine vision, image processing, and pattern analysis: International Workshop on Intelligent Computing in Pattern Analysis/Synthesis, IWICPAS 2006, Xi'an, China, August 26 - 27, 2006; proceedings. - Berlin [u.a.]: Springer, S. 176-184; Lecture notes in computer science; 4153

**Kube, Karsten;  Herzog, Andreas;  Michaelis, Bernd**
Increased storage capacity in Hopfield networks by small-world topology
In: Advances in natural computation. - Berlin [u.a.]: Springer, S. 111-114; Lecture notes in computer science; 4221, 2006

**Kuhn, Robert;  Niese, Robert;  Calow, Roman;  Michaelis, Bernd**
Schnelle berührungslose Bestimmung der Oberflächenstruktur langrunder Körper
In: Geoinformatik und Erdbeobachtung: Vorträge; 26. wissenschaftlich-technische Jahrestagung der DGPF, 11. - 13. September 2006 in Berlin; Publikationen der Deutschen Gesellschaft für Photogrammetrie, Fernerkundung und Geoinformation e.V. ; Band 15.
- Potsdam [u.a.]: DGPF, S. 257-264; Publikationen der Deutschen Gesellschaft für Photogrammetrie, Fernerkundung und Geoinformation e.V.; 15

**Lilienblum, Erik;  Michaelis, Bernd**
Unambiguous 3D measurements by a multi-period phase shift method
In: Computer and information sciences - ISCIS 2006: 21th international symposium, Istanbul, Turkey, November 1-3, 2006; proceedings. - Berlin [u.a.]: Springer, S. 85-94; Lecture notes in computer science; 4263

**Niese, Robert;  Al-Hamadi, Ayoub;  Michaelis, Bernd**
A stereo and color-based method for face pose estimation and facial feature extraction
In: International Conference on Pattern Recognition <18, 2006, Hong Kong>: Proceedings.
- Los Alamitos, Calif. [u.a.]: IEEE Computer Society, insges. 4 S.

**Riefenstahl, Nils;  Walke, Mathias;  Michaelis, Bernd;  Gademann, Günther**
Multimodale Bilddatenfusion zur verbesserten Patientenlagerung und -überwachung in der
Strahlentherapie
In: Bildverarbeitung für die Medizin 2006: Algorithmen, Systeme, Anwendungen; Proceedings
des Workshops vom 19.-21. März 2006 in Hamburg. - Berlin [u.a.]: Springer, S. 321-325;
Informatik aktuell

**Schafföner, Martin;  Krüger, Sven E. ;  Andelic, Edin;  Katz, Marcel;  Wendemuth, Andreas**
Limited training data robust speech recognition using Kernel-based acoustic models
In: 2006 IEEE International Conference on Acoustics, Speech and Signal Processing, 2006,
ICASSP 2006: 14 - 19 May 2006, [Toulouse, France]; proceedings. - Piscataway, NJ: IEEE
Operations Center, insges. 4 S.; **Abstract unter URL**

**Teggatz, Alexander;  Jöstingmeier, Andreas;  Omar, Abbas**
Complex reflection signatures of buried dielectric objects for a ground penetrating radar with
different antenna concept
In: Antennas and Propagation Society: IEEE Antennas and Propagation Society international
symposium 2006 with USNC/URSI National Radio Science and AMEREM meetings: [9 - 14
July 2006, Albuquerque, NM ]. - omnipress, insges. 4 S.

**Teggatz, Alexander;  Jöstingmeier, Andreas;  Omar, Abbas**
Determining the height of buried objects comparing a 1d transmission line method and a 3d
GPR field simulation
In: Antennas and Propagation Society: IEEE Antennas and Propagation Society international
symposium 2006 with USNC/URSI National Radio Science and AMEREM meetings: [9 - 14
July 2006, Albuquerque, NM ]. - omnipress, insges. 4 S.

*Wissenschaftliche Monografien*

**Bandyopadhyay, Ayan K. ;  Jöstingmeier, Andreas;  Omar, Abbas;  Wanzenberg, R.**
Computations of Wakefields for beam position monitors of PETRA III. - Internal report / DESY;
Hamburg: Dt. Elektronen-Synchrotron DESY; 33 S: graph. Darst, 2006

*Buchbeiträge*

**Al-Hamadi, Ayoub K. ;  Michaelis, Bernd**
An intelligent paradigm for multi-objects tracking in crowded environment
In: Proceedings of the 4th International Multiconference on Computer Science and Information
Technology. - Amman: Univ., S. 488-498, 2006

**Al-Hamadi, Ayoub K. ;  Panning, Axel;  Niese, Robert;  Michaelis, Bernd**
A model-based image analysis method for extraction and tracking of facial features in video

sequences
In: Proceedings of the 4th International Multiconference on Computer Science and Information Technology. - Amman: Univ., S. 499-509, 2006

**Ali, Ali Assie;  Aly, Omar;  Omar, Abbas**
High resolution WLAN indoor channel parameter estimation and measurements for communication and positioning applications at 2.4, 5.2 and 5.8 GHz
In: 2006 IEEE Radio and Wireless Symposium: San Diego Convention Center, San Diego, California, USA, 17 - 19 January 2006; proceedings. - Piscataway, NJ: IEEE Operations Center, S. 279-282

**Ali, Ramadan Ali;  Ali, Ali Assie;  Omar, Abbas**
A multistage channel estimation and ICI reduction method for OFDM systems in doubly dispersive channels
In: 2006 IEEE Radio and Wireless Symposium: San Diego Convention Center, San Diego, California, USA, 17 - 19 January 2006; proceedings. - Piscataway, NJ: IEEE Operations Center, S. 23-26

**Andelic, Edin;  Schafföner, Martin;  Katz, Marcel;  Krüger, Sven E. ;  Wendemuth, Andreas**
A hybrid HMM-based speech recognizer using Kernel-based discriminants as acoustic models
In: International Conference on Pattern Recognition <18, 2006, Hong Kong>: Proceedings.
- Los Alamitos, Calif. [u.a.]: IEEE Computer Society, insges. 4 S.

**Awida, Mohamed;  Balalem, Atallah;  Safwat, Amr;  El-Hennawy, Hadia;  Omar, Abbas**
Combined low-pass and bandpass filter response using microstrip dual-mode resonators
In: International Microwave Symposium <Institute of Electrical and Electronics Engineers, 2006, San Francisco, Calif.>: 2006 IEEE MTT-S International Microwave Symposium digest: San Francisco, California, June 11 - 16, 2006. - [Piscataway, NY]: IEEE, S. 701-704

**Balalem, Atallah;  Hamad, Ehab K. I. ;  Machac, Jan;  Omar, Abbas**
Bandpass filters on a modified multilayer coplanar line
In: International Microwave Symposium <Institute of Electrical and Electronics Engineers, 2006, San Francisco, Calif.>: 2006 IEEE MTT-S International Microwave Symposium digest: San Francisco, California, June 11 - 16, 2006. - [Piscataway, NY]: IEEE, S. 531-534

**Balalem, Atallah;  Menzel, Wolfgang;  Omar, Abbas**
Quasi-lumped - open-loop suspended stripline bandpass filters
In: Proceedings of the 36th European Microwave Conference, EuMC: Manchester, UK, 10-15 September 2006. - EuMA, European Microwave Ass., S. 568-571

**Boutejdar, Ahmed;  Arbabi, A. ;  Mahmoudi, M. ;  Omar, Abbas**
Increase of characteristic impedance of microstrip line using a simple slot in metallic ground plane
In: Full regular papers. - Hanoi, S. 478-481, 2006

**Boutejdar, Ahmed;  Elsherbini, Adel;  Omar, Abbas**
A compact microstrip multi-layer lowpass filter using triangle slots etched in the ground plane
In: Proceedings of the 36th European Microwave Conference, EuMC: Manchester, UK, 10-15

September 2006. - EuMA, European Microwave Ass., S. 271-273

**Boutejdar, Ahmed; Elsherbini, Adel; Omar, Abbas**
New method for transformation of microstrip lowpass filter to compact bandpass filter using defected ground structures (DGS) coupled resonators
In: Proceedings of the 36th European Microwave Conference, EuMC: Manchester, UK, 10-15 September 2006. - EuMA, European Microwave Ass., S. 279-282

**Boutejdar, Ahmed; Ramadan, Ali; Makkey, M. ; Omar, Abbas**
Design of compact mircostrip lowpass filters using a u-shaped defected ground structure and compensated microstrip line
In: Proceedings of the 36th European Microwave Conference, EuMC: Manchester, UK, 10-15 September 2006. - EuMA, European Microwave Ass., S. 267-270

**El-Etriby, Sherif; Al-Hamadi, Ayoub K. ; Michaelis, Bernd**
Phase-based disparity estimation with implicit foreshortening correction
In: Proceedings of the 4th International Multiconference on Computer Science and Information Technology. - Amman: Univ., S. 510-517, 2006

**Herzog, Andreas; Krell, Gerald; Michaelis, Bernd; Westerholz, S. ; Helmeke, Carina; Braun, Anna Katharina**
Geometrical modeling and visualization of pre- and post- synaptic structures in double-labeled confocal images
In: Proceedings: 5 - 7 July 2006, London, England. - Los Alamitos, Calif. [u.a.]: IEEE Computer Society, S. 34-38

**Kaszubiak, Jens; Tornow, Michael; Michaelis, Bernd; Szczepanski, T.**
Co-design for speed and space optimization of chips for image processing applications
In: Proceedings of the sixth IASTED International Conference on Modelling, Simulation and Optimization: held September 11 - 13, 2006, Gaborone, Botswana. - Anaheim, CA: Acta Press, S. 19-24

**Katz, Marcel; Schafföner, Martin; Andelic, Edin; Krüger, Sven E. ; Wendemuth, Andreas**
Sparse Kernel logistic regression using incremental feature selection for text-independent speaker identification
In: 2006 IEEE Odyssey - the Speaker and Language Recognition Workshop: San Juan, PR, 28 - 30 June 2006. - Piscataway, NJ: IEEE Service Center, insges. 6 S.

**Krüger, Sven E. ; Schafföner, Martin; Katz, Marcel; Andelic, Edin; Wendemuth, Andreas**
Mixture of support vector machines for HMM based speech recognition
In: International Conference on Pattern Recognition <18, 2006, Hong Kong>: Proceedings. - Los Alamitos, Calif. [u.a.]: IEEE Computer Society, insges. 4 S.

**Lilienblum, Erik; Michaelis, Bernd**
3D-Scanner zur hochwertigen Digitalisierung gebundener Literatur
In: Tagungsband: 9. Anwendungsbezogener Workshop zur Erfassung, Modellierung, Verarbeitung und Auswertung von 3D-Daten im Rahmen der GFaI-Workshop-Familie NordOst; Berlin, 01. Dezember 2006. - Berlin: Gesellschaft zur Förderung Angewandter Informatik, S. 61-

68

**Riefenstahl, Nils;  Krell, Gerald;  Walke, Mathias;  Michaelis, Bernd;  Gademann, Günther**
Optical surface sensing and multimodal image fusion for position verification in radiotherapy
In: Proceedings: 5 - 7 July 2006, London, England. - Los Alamitos, Calif. [u.a.]: IEEE Computer Society, S. 21-26

**Teggatz, Alexander;  Jöstingmeier, Andreas;  Omar, Abbas**
Application of a fast SAR technique for the efficient 3-d focusing in a subsurface radar
In: EUSAR <6, 2006, Dresden>: Electronic proceedings: 16 - 18 May 2006, Dresden, Germany. - Berlin: VDE-Verl., insges. 4 S.

**Wendemuth, Andreas;  Starruß, Thomas**
Methods for assessing speech intelligibility and quality in cars
In: Fortschritte der Akustik: DAGA '06; 32. Deutsche Jahrestagung für Akustik, 20. - 23. März 2006 in Braunschweig. - Berlin: Dt. Ges. für Akustik, S. 106-107

*Artikel in Kongressbänden*

**Ali, Ali Assie;  Aly, Omar A. M. ;  Omar, Abbas**
Application of ESPRIT in super-resolution microwave imaging
In: Mediterranean Microwave Symposium: Genova, Italy September 19-21, 2006; conference proceedings. - Genova, S. 207-210

**Ali, Ali Assie;  Nguyen, Van Duc;  Kyamakya, K. ;  Omar, Abbas**
First arrival detection based on channel estimation for positioning in wireless OFDM systems
In: EUSIPCO <14, 2006, Florence>: 14. European Signal Processing Conference: EUSIPCO 2006; 4 - 8 September 2006, Florence, Italy; [proceedings]; conference CD. - Florence, insges. 5 S.

**Bandyopadhyay, Ayan K. ;  Joestingmeier, Andreas;  Omar, Abbas;  Balewski, K. ;  Wanzenberg, R.**
Wake computations for the beam positioning monitors of PETRA III
In: 10th European Particle Accelerator Conference EPAC 2006: Edinburgh, Scotland, June 26 - 30 2006. - Edinburgh, insges. 3 S.

**Boutejdar, Ahmed;  Elsherbini, A. ;  Omar, Abbas**
A novel method to obtain a large reject-band with a compact bandstop filter using dected ground structure (DGS) coupled resonators
In: Mediterranean Microwave Symposium: Genova, Italy September 19-21, 2006; conference proceedings. - Genova, S. 189-192

**Boutejdar, Ahmed;  Elsherbiny, A. ;  Amari, S. ;  Awida, M. ;  Omar, Abbas**
Design of a novel microstrip bandstop filter using one compact c-open-loop resonator
In: Proceedings of Asia-Pacific Microwave Conference December 12-15, 2006. - Japan: IEICH, insges. 4 S.

**Boutejdar, Ahmed;  Elsherbiny, A. ;  Omar, Abbas**
A new compact capacitive-gap-coupled mircostrip bandpass filter using arrowhead shape as

defected ground structure (DGS)
In: Proceedings of Asia-Pacific Microwave Conference December 12-15, 2006. - Japan: IEICH, insges. 5 S.

**Hamad, Ehab K. I. ;  Elsherbeni, Atef Z. ;  Omar, Abbas**
Three-dimensional electromechanical coupled analysis for capacitive RF MEMS switches
In: 22th Annual Review of Progress in Applied Computational Electromagnetics: March 12-16, 2006, Miami, Florida. - ACES, S. 574-580

**Menzel, Wolfgang;  Balalem, Atallah**
Suspended stripline bandpass filters with inductive and mixed coupling
In: German Microwave Conference, GeMiC 2006: conference guide; Universität Karlsruhe (TH) March 28 - 30, 2006. - Karlsruhe, insges. 4 S.

**Stuhlsatz, A. ;  Meyer, H.-G. ;  Katz, Marcel;  Krüger, Sven E. ;  Wendemuth, Andreas**
Support vector machines for postprocessing of speech recongnition hypotheses
In: International Conference on Telecommunications & Multimedia, TEMU 2006: Heraklion, Crete, Greece 5 - 7 July 2006; proceedings. - Heraklion, insges. 11 S.

**Teggatz, Alexander;  Jöstingmeier, Andreas;  Omar, Abbas**
A new TEM double-ridged horn antenna for ground penetrating radar applications
In: German Microwave Conference, GeMiC 2006: conference guide; Universität Karlsruhe (TH) March 28 - 30, 2006. - Karlsruhe, insges. 5 S.

*Dissertationen*

**Aly, Omar Abdel-Gaber Mohamed**
Enhancing the performance of spread spectrum techniques in different applications.
- Magdeburg, Univ., Fak. für Elektrotechnik und Informationstechnik, Diss., 2006;
**Link unter URL**; XVI, 152 S.: Ill., graph. Darst.; 30 cm

**Hamad, Ehab Khalaf Ibrahim**
Modeling, design, and optimization of radiofrequency micromechanical structures. - Magdeburg, Univ., Fak. für Elektrotechnik und Informationstechnik, Diss., 2006; **Link unter URL**; IX, 138 S.: graph. Darst.; 21 cm

# Institut für Elektrische Energiesysteme

Universitätsplatz 2, D-39106 Magdeburg
Tel. ..49/391/67-18592, Fax ..49/391/67-12408

## 1. Leitung

Prof. Dr.-Ing. Andreas Lindemann (geschäftsführender Leiter)
Prof. Dr.-Ing. habil. Frank Palis  (Prodekan)
Prof. Dr.-Ing. habil. Ulrich Riefenstahl
Prof. Dr.-Ing. Zbigniew Antoni Styczynski
Dr.-Ing. Reinhard Döbbelin

## 2. Hochschullehrer

Prof. Dr.-Ing. Andreas Lindemann
Prof. Dr.-Ing. habil. Frank Palis
Prof. Dr.-Ing. habil. Ulrich Riefenstahl
Prof. Dr.-Ing. Zbigniew Antoni Styczynski

## 3. Veröffentlichungen

### Originalartikel in begutachteten nationalen Zeitschriften

**Ecklebe, Andreas;  Lindemann, Andreas**
Resonant matrix converter for contactless energy transmission systems
In: Technicna elektrodynamika: naukovo-prikladnyj zurnal. - Kyïv: Instytut Elektrodynamiky NAN Ukraïny, S. 138-139, 2006

**Haubrock, Jens;  Styczynski, Zbigniew Antoni**
Diagnosemöglichkeiten von PEM Brennstoffzellen durch Impedanzspektroskopie
In: Technische Mitteilungen: TM; Organ des Hauses der Technik Essen. - Essen: Haus d. Technik, S. 235-238, 2006

### Originalartikel in begutachteten zeitschriftenartigen Reihen

**Dzienis, Cezary**
Harmonische Lastflussberechnung unter der Annahme von Nichtlinearen Lasten
In: Dresdener Kreis Elektroenergieversorgung 7: Begleitband zum Workshop 2006, Magdeburg 29.-31.03.2006. - Magdeburg: Univ., S. 6-15

**Dzienis, Cezary;  Bachry, Andrzej;  Styczynski, Zbigniew Antoni**
Full harmonic load flow calculation in power systems for sensitivity investigation
In: EMC Zurich in Singapore 2006: symposium and exhibition; 17th International Zurich Symposium on Electromagnetic Compatibility, Singapore, 27 Feb. - 3 March 2006. - Singapore: Stallion Press, S. 646-649

**Dzienis, Cezary;  Styczynski, Zbigniew Antoni;  Bachry, Andrzej**
Interaktionsphänomen zwischen verschiedenen Oberschwingungsordnungen bei Lasten mit pulsierenden Strömen
In: Elektromagnetische Verträglichkeit: EMV 2006; Internationale Fachmesse und Kongress für Elektromagnetische Verträglichkeit, 7. - 9. März 2006, Messe Düsseldorf. - Berlin [u.a.]: VDE-Verl., S. 665-672; EMV 2006; (Düsseldorf): 2006.03.07-09

**Ecklebe, Andreas;  Lindemann, Andreas**
Analysis and design of a contactless energy transmission system with flexible inductor positioning for automated guided vehicles
In: IECON 2006: the 32nd Annual Conference of the IEEE Industrial Electronics Society; Conservatoire National des Arts & Metiers Paris, France November 7-10, 2006. - Piscataway, NJ: IEEE Operations Center

**Haubrock, Jens;  Heideck, Günter;  Styczynski, Zbigniew Antoni**
Untersuchung des Energieeigenbedarfs bei autonomen PEM Brennstoffzellenanlagen
In: Fortschrittliche Energiewandlung und -anwendung: Strom- und Wärmeerzeugung; kommunale und industrielle Energieanwendungen; Tagung Leverkusen, 9. und 10. Mai 2006. - Düsseldorf: VDI-Verl., S. 191-200; VDI-Berichte; 1924

**Heyde, Chris Oliver;  Musikowski, Hans-Dieter;  Styczynski, Zbigniew Antoni**
Energy management for grid connected PV plants combined with battery storage devices
In: 21st European Photovoltaic Solar Energy Conference: proceedings of the international conference held in Dresden, Germany, 4 - 8 September 2006. - [München]: WIP Renewable Energies, S. 2280-2284

**Heyde, Chris Oliver;  Styczynski, Zbigniew Antoni**
Betriebsführung für PV-Anlagen mit Bateriespeichern
In: Dresdener Kreis Elektroenergieversorgung 7: Begleitband zum Workshop 2006, Magdeburg 29.-31.03.2006. - Magdeburg: Univ., S. 57-63

**Iljina, Olga;  Sokol, E. ;  Merfert, Igor;  Lindemann, Andreas**
Instantaneous reactive power theory in active power filters for decentralized energy generation
In: Influence of distributed and renewable generation power system security: proceedings of the CRIS Workshop 2006, Magdeburg, 6th - 8th December 2006. - Magdeburg: Univ., S. 163-168; Res electricae Magdeburgenses; 13

**Komarnicki, Przemyslaw;  Dzienis, Cezary;  Styczynski, Zbigniew Antoni;  Müller, Gerhard**
Testing of phasor measurement units
In: Influence of distributed and renewable generation power system security: proceedings of the CRIS Workshop 2006, Magdeburg, 6th - 8th December 2006. - Magdeburg: Univ., S. 110-114; Res electricae Magdeburgenses; 13

**Rudion, Krzysztof;  Styczynski, Zbigniew Antoni;  Ruhle, Olaf;  Orths, Antje**
Large wind farms contribution to power system services
In: Influence of distributed and renewable generation power system security: proceedings of the CRIS Workshop 2006, Magdeburg, 6th - 8th December 2006. - Magdeburg: Univ., S. 222-228;

Res electricae Magdeburgenses; 13

**Smieja, Tomasz;  Angelov, Angel N. ;  Styczynski, Zbigniew Antoni**
Anwendung von Virtual Reality Technologie im Bereich Elektrotechnik
In: Virtual Reality und Augmented Reality zum Planen, Testen und Betreiben technischer
Systeme: 9. IFF-Wissenschaftstage, 21. - 22. Juni 2006, [Magdeburg; Tagungsband].
- Magdeburg: IFF, S. 253-258

*Herausgeberschaften*

**Styczynski, Zbigniew Antoni;  Haubrock, Jens**
Influence of distributed and renewable generation power system security - proceedings of the
CRIS Workshop 2006, Magdeburg, 6th - 8th December 2006. - Res electricae
Magdeburgenses; 13; Magdeburg: Univ., 2006

**Styczynski, Zbigniew Antoni;  Musikowski, Hans-Dieter**
Dresdener Kreis Elektroenergieversorgung 7 - Begleitband zum Workshop 2006, Magdeburg
29.-31.03.2006. - Res electricae Magdeburgenses; 15; Magdeburg: Univ.; ca. 84 S.: Ill., graph.
Darst; 21 cm, 2006

*Lehrbücher*

**Riefenstahl, Ulrich**
Elektrische Antriebssysteme - Grundlagen, Komponenten, Regelverfahren,
Bewegungssteuerung; mit 9 Tabellen und 70 Beispielen. - Lehrbuch; **Link unter URL**;
Wiesbaden: Teubner; XIII, 443 S: graph. Darst; 240 mm x 170 mm, 2006

*Buchbeiträge*

**Angelov, Angel N. ;  Smieja, Tomasz;  Styczynski, Zbigniew Antoni;  Gast, Christiane;
Königbauer,  Klaus;  Brich, Peter;  Hengstebeck, Gerhard;  Plewinski, Nicolai**
Teaching technical personnel using new 3d training modules
In: International Conference on Engineering Education, ICEE 2006, July 23 - 28, 2006, San
Juan, Puerto Rico, USA. - San Juan, insges. 4 S.

**Buchholz, Bernd Michael;  Styczynski, Zbigniew Antoni**
Integration of renewable and dispersed resources - lessons learnt from German projects
In: Power Engineering Society: 2006 IEEE Power Engineering Society general meeting, 18 - 22
June 2006, Montreal, Canada. - Piscataway, NJ: IEEE Operations Center, insges. 6 S.

**Buchholz, Bernd Michael;  Styczynski, Zbigniew Antoni**
New task create new solutions for communication in distribution systsems
In: Power Engineering Society: 2006 IEEE Power Engineering Society general meeting, 18 - 22
June 2006, Montreal, Canada. - Piscataway, NJ: IEEE Operations Center, insges. 5 S.

**Buchholz, Bernd Michael;  Styczynski, Zbigniew Antoni;  Winter, Wilhelm**
Dynamic simulation of renewable energy sources and requirements on fault ride through
behavior
In: Power Engineering Society: 2006 IEEE Power Engineering Society general meeting, 18 - 22

June 2006, Montreal, Canada. - Piscataway, NJ: IEEE Operations Center, insges. 7 S.

**Döbbelin, Reinhard;  Winkler, Thoralf;  Lindemann, Andreas;  Winkler, Reinhard; Gaertner,  Uwe**
Aspect of electromagnetic compatibility of resistance welding machines
In: EUROJOIN 6: 16as Jornadas technicas de soldadura, 28, 29 y 30 de Junio de 2006, Santiago de Compostela. - Santiago de Compostela, S. 309-316

**Döbelin, Reinhard;  Winkler, Thoralf;  Lindemann, Andreas;  Teichert, Christian**
Design of pulsed power transformers for capacitor discharge resistance welding machines
In: Official proceedings of the International Conference Power Electronics, Intelligent Motion, Power Quality: May 39 - June 1, 2006, Nürnberg, Germany. - Nürnberg: ZM Communications GmbH, S. 205-210

**Ecklebe, Andreas;  Schremmer, Frank;  Lindemann, Andreas**
Flexible and modular approach for a high-current MOSEFT/IGBT driver using integrated circuits
In: Official proceedings of the International Conference Power Electronics, Intelligent Motion, Power Quality: May 39 - June 1, 2006, Nürnberg, Germany. - Nürnberg: ZM Communications GmbH, S. 343-348

**Gamm, Alexander;  Golub, Irina;  Styczynski, Zbigniew Antoni;  Bachry, Andrzej**
Solving several problems of power systems using spectral and singular analyses
In: 2005/2006 IEEE/PES Transmission and Distribution Conference & Exhibition: May 21 - 24, 2006, Dallas, Texas; conference proceedings. - Piscataway, NJ: IEEE Operations Center, insges. 10 S.

**Ganjavi, M. R. ;  Krebs, R. ;  Styczinski, Zbigniew**
Design of a pilot knowledge-based expert system for providing a coordinated setting values for power system protection devices
In: Proceedings of the International Symposium Modern Electric Power Systems: Wroclaw, September 6 - 8, 2006. - Wroclaw, S. 354-360

**Hadzi-Kostova, B. ;  Styczynski, Zbigniew Antoni**
Network protection in distribution systems with dispersed generation
In: 2005/2006 IEEE/PES Transmission and Distribution Conference & Exhibition: May 21 - 24, 2006, Dallas, Texas; conference proceedings. - Piscataway, NJ: IEEE Operations Center, insges. 6 S.

**Hammons, Tom;  Styczynski, Zbigniew Antoni**
Panel sessions - impact of dispersed and renewable generation on system structure including impact of enlarged community on energy development, power generation, international interconnections, transmission and distribution
In: Power Engineering Society: 2006 IEEE Power Engineering Society general meeting, 18 - 22 June 2006, Montreal, Canada. - Piscataway, NJ: IEEE Operations Center, insges. 4 S.

**Haubrock, Jens;  Heideck, Günter;  Styczynski, Zbigniew Antoni**
Anforderungen an Energieversorgungsanlagen für Elektrofahrzeuge auf PEM-Brennstoffzellenbasis
In: Hybridfahrzeuge und Energiemanagement: Beiträge zum gleichnamigen 3. Braunschweiger

Symposium vom 15. Februar 2006, Stadthalle Braunschweig. - Braunschweig: GZVB, S. 276-277

**Haubrock, Jens; Heideck, Günter; Styczynski, Zbigniew Antoni**
Investigating the influence of flow field design on the performance of proton exchange membrane fuel cells
In: Proceedings of the International Symposium Modern Electric Power Systems: Wroclaw, September 6 - 8, 2006. - Wroclaw, S. 110-114

**Herms, Ronny; Döbbelin, Reinhard; Lindemann, Andreas**
Influence of workpieces and machine body on magnetic fields in the surrounding of resistance welding machines
In: Electromagnetic compatibility 2006: 18th international Wroclaw symposium and exhibition, EMC; [Eighteenth International Wroclaw Symposium and Exhibition on Electromagnetic Compatibility, June 28 - 30, 2006]. - Wroclaw, S. 104-109

**Komarnicki, Przemyslaw; Müller, Gerhard; Styczynski, Zbigniew Antoni**
LPQIVES training courses in Germany and Europe - power quality troubleshooting
In: Proceedings of the International Symposium Modern Electric Power Systems: Wroclaw, September 6 - 8, 2006. - Wroclaw, S. 506-510

**Lebioda, Anna; Volezke, Ronald; Styczynski, Zbigniew Antoni**
Untersuchung von Hybridsystemen mit Windparkanlage, Energiespeicher und konventionelle Energieerzeugung
In: VDE-Kongress 2006 Aachen: Innovations for Europe - 23.-25. Oktober in Aachen - Band 1: Fachtagungsberichte der ITG-ITG/BMBF-GMM - Band 2: Fachtagungsberichte der ETG-GMA-DGBMT. - Berlin: VDE, S. 185-190

**Lindemann, Andreas; Förster, Stefan**
Design aspects for power MOSFET components in automotive electronics
In: Proceedings. - Piscataway, NJ: IEEE Operations Center, S. 1988, 2006

**Rohrig, Kurt; Sassnick, Yvonne; Styczynski, Zbigniew Antoni; Völzke, Ronald**
Experiences with operation of wind farms using wind forecasting tools
In: CIGRE session 41: 27 août - 1er septembre 2006: collection de rapports. - Paris: Conseil International des Grands Réseaux Electriques, insges. 9 S.

**Rudion, Krzysztof; Orths, Antje; Styczynski, Zbigniew Antoni; Strunz, Kai**
Design of benchmark of medium voltage distribution network for investigation of DG integration
In: Power Engineering Society: 2006 IEEE Power Engineering Society general meeting, 18 - 22 June 2006, Montreal, Canada. - Piscataway, NJ: IEEE Operations Center, insges. 6 S.

**Rudion, Krzysztof; Styczinski, Zbigniew; Hatziargyriou, Nicos; Papathanassiou, Stavros; Strunz, Kai; Ruhle, Olaf; Orths, Antje; Rozel, Benoit**
Development of benchmarks for low and medium voltage distribution networks with high penetration of dispersed generation
In: Proceedings of the International Symposium Modern Electric Power Systems: Wroclaw, September 6 - 8, 2006. - Wroclaw, S. 115-121

**Smieja, Tomasz;  Angelov, Angel N. ;  Styczynski, Zbigniew Antoni**
Learning about fuel cell system using 3d technology at the Otto-von-Guericke-University
In: Proceedings of the International Symposium Modern Electric Power Systems: Wroclaw,
September 6 - 8, 2006. - Wroclaw, S. 134-137

**Styczynski, Zbigniew Antoni;  Orths, Antje;  Rudion, Krzysztof;  Lebioda, Anna;  Ruhle,
Olaf**
Benchmark for an electric distribution system with dispersed energy resources
In: 2005/2006 IEEE/PES Transmission and Distribution Conference & Exhibition: May 21 - 24,
2006, Dallas, Texas; conference proceedings. - Piscataway, NJ: IEEE Operations Center,
insges. 7 S.

**Styczynski, Zbigniew Antoni;  Rudion, Krzysztof**
Status of dispersed generation in Germany
In: Proceedings of the International Symposium Modern Electric Power Systems: Wroclaw,
September 6 - 8, 2006. - Wroclaw, S. 96-102

**Tsenov, Georgi;  Zeghbib, Abdel-Hafid;  Palis, Frank;  Shoylev, Nikola;  Mladenov, Valeri**
Neural networks for online classification of hand and finger movements using surface EMG
signals
In: NEUREL 2006: eight Seminar on Neural Network Applications in Electrical Engineering,
September  25 - 27, 2006, Faculty of Electrical Engineering, University of Belgrade;
proceedings. - Belgrade, S. 167-171

**Winkler, Thoralf;  Döbbelin, Reinhard;  Lindemann, Andreas**
Mitigation of conducted emission of power electronic resistance welding equipment
In: Proceedings. - Piscataway, NJ: IEEE Operations Center, S. 450-455, 2006

**Zeghbib, Abdel-Hafid;  Palis, Frank;  Schauer, T. ;  Salbert, R. C.**
Dimension reduction effect on EMG signal identification using MLP, RBF and LVQ methods in
case of relevant features
In: 6. AUTOMED - 6. workshop: Rostock-Warnemünde, 24. - 25. März 2006; Tagungsband.
- Rostock, insges. 2 S.

*Artikel in Kongressbänden*

**Barth, Rüdiger;  Rudion, Krzysztof;  Swider, Derk Jan;  Voß, Alfred;  Styczynski,
Zbigniew Antoni;  Ruhle, Olaf**
Optimisation of the unit commitment of distributed generation with fluctuating power sources
In: 3rd International Conference "The European Electricity Market. EEM-06": challenge of the
unification, May 24 - 26, 2006, Warsaw, Poland. - Warsaw, insges. 8 S.

**Haubrock, Jens;  Heideck, Günter;  Styczynski, Zbigniew Antoni**
Electrical efficiency losses occured by the air compressor for PEMFC
In: Proceedings: 13 - 16 June 2006, Lyon, France. - Lyon, S. 1-6

**Haubrock, Jens;  Heideck, Günter;  Styczynski, Zbigniew Antoni**
Security improvement in critical infrastructures using fuel cell back up power systems

In: CRIS third International Conference on Critical Infrastructures: CRIS2006, Alexandria, Virginia, USA, September 24-27, 2006; conference papers and synopsis. - Alexandria, insges. 4 S.

**Komarnicki, Przemyslaw; Styczynski, Zbigniew Antoni; Krebs, Rainer; Ruhle, Olaf; Müller, Gerhard**
Intelligent blackout prediction using synchronized phasor measurement - simulation case study
In: CRIS third International Conference on Critical Infrastructures: CRIS2006, Alexandria, Virginia, USA, September 24-27, 2006; conference papers and synopsis. - Alexandria, insges. 5 S.

**Lebioda, Anna; Styczynski, Zbigniew Antoni; Völzke, Ronald**
Dimensioning a hybrid system with energy storage to balance the power from large-scale wind parks - selected topics
In: Sixth International Workshop on Large-Scale Integration of Wind Power and Transmission Networks for Offshore Wind Farms: 26-28 October 2006 Delft, the Netherlands; proceedings. - Delft, S. 352-357

**Schlögl, Florian; Rohrig, Kurt; Biermann, Kai; Frank, Thomas; Rudion, Krzysztof**
Die Rolle der Informationssysteme in virtuellen Kraftwerken
In: Informations- und Kommunikationstechnologien für die Energieversorgung von morgen: Elftes Kasseler Symposium Energie-Systemtechnik; [9. - 10. November 2006; Tagungsband/ Report]. - Kassel: Institut für Solare Energieversorgungstechnik, S. 176-194

**Smieja, Tomasz; Rudion, Krzysztof; Ruhle, Olaf; Lebioda, Anna; Völzke, Ronald**
Wind farm planning
In: Sixth International Workshop on Large-Scale Integration of Wind Power and Transmission Networks for Offshore Wind Farms: 26-28 October 2006 Delft, the Netherlands; proceedings. - Delft, S. 386-393

***Artikel in Fachzeitschriften der Industrie, Gesellschaften, Verbände etc.***

**Komarnicki, Przemyslaw; Kroitsch, Jens**
Probleme und Lösungen im Bereich Power Quality (PQ)
In: Mitteldeutsche Mitteilungen: Forum technisch-wissenschaftlicher Vereine und Verbände. - Magdeburg, S. 43, 2006

**Palis, Frank; Filaretov, V. F. ; Tsepkovskiy, Yuriy; Yukhimets, D. A.**
Sintez prognozirujuscich sistem s nejrofazzi setjami dlja upravlenija nelinejnymi dinamiceskimi obàektami s peremennymi parametrami
In: ·Elektromasinostroenie i ·elektrooborudovanie: respublikanskij mezvedomstvennyj naucno-techiceskij sbornik. - Kyïv: Vyd. Technika, S. 365-373, 2006

**Palis, Frank; Rusin, Vadym; Konyev, Mykhaylo; Zavgorodniy, Yuriy**
Realization of improved locomotion tasks for multi-legged robot
In: ·Elektromasinostroenie i ·elektrooborudovanie: respublikanskij mezvedomstvennyj naucno-techiceskij sbornik. - Kyïv: Vyd. Technika, S. 60-62, 2006

**Palis, Frank;  Rusin, Vadym;  Konyev, Mykhaylo;  Zavgorodniy, Yuriy**
SLAIR 2 - six legged autonomous intelligent robot
In: ·Elektromasinostroenie i ·elektrooborudovanie: respublikanskij mezvedomstvennyj naucno-techiceskij sbornik. - Kyïv: Vyd. Technika, S. 157-159, 2006

*Dissertationen*

**Heideck, Günter**
Ein autonomes Brennstoffzellensystem - Optimierungsansätze. - Magdeburg, Univ., Fak. für Elektrotechnik und Informationstechnik, Diss., 2006; **Link unter URL**; VI, 142 Bl.: Ill., graph. Darst.; 30 cm

# Institut für Grundlagen der Elektrotechnik und Elektromagnetische Verträglichkeit

Universitätsplatz 2, 39106 Magdeburg
Tel.  +49 (0)391 67 18868, Fax  +49 (0)391 67 11236
iget@et.uni-magdeburg.de

## 1. Leitung

Prof. Dr.-Ing. Günter Wollenberg (geschäftsführender Leiter)
Prof. Dr. rer. nat. habil. Jürgen Nitsch
Dr.-Ing. Uwe Knauff

## 2. Hochschullehrer

Prof. Dr. rer. nat. habil. Jürgen Nitsch
Prof. Dr.-Ing. Günter Wollenberg

## 3. Veröffentlichungen

### *Originalartikel in begutachteten internationalen Zeitschriften*

**Adalev, Alexei S. ;  Korovkin, Nikolay V. ;  Hayakawa, Masashi;  Nitsch, Jürgen**
Deembedding and unterminating microwave fixtures with the genetic algorithm
In: Institute of Electrical and Electronics Engineers: IEEE transactions on microwave theory and techniques: MTT; a publication of the IEEE Microwave Theory and Techniques Society. - New York, NY: IEEE, S. 3131-3140; **Abstract unter URL**, 2006
[Imp.fact.: 2.275]

**Gronwald, Frank**
On the applicability of conventional transmission line theory within cavities
In: Advances in radio science: Kleinheubacher Berichte. - Darmstadt, S. 117-123;
**Abstract unter URL**

**Schulze, Hans-Peter;  Wollenberg, Günter;  Mecke, Katharina**
Investigation of gas bubble formation at spark erosion small working gaps
In: Institute of Electrical and Electronics Engineers: IEEE transactions on dielectrics and electrical insulation. - New York, NY, S. 512-517; **Abstract unter URL**, 2006
[Imp.fact.: 1.124]

**Vukicevic, A. ;  Rachidi, F. ;  Rubinstein, M. ;  Tkachenko, Sergey V.**
On the evaluation of antenna-mode currents along transmission lines
In: Institute of Electrical and Electronics Engineers: IEEE transactions on electromagnetic compatibility: a publication of the IEEE, Electromagnetic Compatibility Society. - New York, NY: Inst., S. 693-700; **Link unter URL**, 2006
[Imp.fact.: 0.873]

### *Originalartikel in begutachteten zeitschriftenartigen Reihen*

**Gronwald, Frank; Nitsch, Jürgen**
Effiziente Berechnung von Antennenkopplungen innerhalb von Resonatoren mittels Splineinterpolation und Ewaldshcer Summationstechnik
In: Elektromagnetische Verträglichkeit: EMV 2006; Internationale Fachmesse und Kongress für Elektromagnetische Verträglichkeit, 7. - 9. März 2006, Messe Düsseldorf. - Berlin [u.a.]: VDE-Verl., S. 89-96; EMV 2006; (Düsseldorf): 2006.03.07-09

**Kochetov, Sergey V. ; Wollenberg, Günter**
Simulation von 3D-Verbindungsstrukturen im Zeitbereich - stabile Lösungen durch Modifikation der PEEC-Methode
In: Elektromagnetische Verträglichkeit: EMV 2006; Internationale Fachmesse und Kongress für Elektromagnetische Verträglichkeit, 7. - 9. März 2006, Messe Düsseldorf. - Berlin [u.a.]: VDE-Verl., S. 165-172; EMV 2006; (Düsseldorf): 2006.03.07-09

**Kochetov, Sergey V. ; Wollenberg, Günter**
Stable and effective full-wave PEEC model based on recursive convolution macromodeling
In: Electromagnetic compatibility 2006: eighteenth international Wroclaw symposium and exhibition; [eighteenth International Wroclaw Symposium and Exhibition on Electromagnetic Compatibility, June 28 - 30, 2006]. - Wroclaw: Oficyna Wydawn. Politechn., S. 176-181; EMC 2006; 18 (Wroclaw): 2006.06.28-30

**Krauthäuser, Hans Georg; Dunker, Lutz**
Emissionsmessungen im Frequenzbereich oberhalb von 1 GHz
In: Elektromagnetische Verträglichkeit: EMV 2006; Internationale Fachmesse und Kongress für Elektromagnetische Verträglichkeit, 7. - 9. März 2006, Messe Düsseldorf. - Berlin [u.a.]: VDE-Verl., S. 317-324; EMV 2006; (Düsseldorf): 2006.03.07-09

**Krauthäuser, Hans Georg; Plate, Sven; Nitsch, Jürgen**
Eine Modenverwirbelungskammer für den Frequenzbereich oberhalb von 1GHz
In: Elektromagnetische Verträglichkeit: EMV 2006; Internationale Fachmesse und Kongress für Elektromagnetische Verträglichkeit, 7. - 9. März 2006, Messe Düsseldorf. - Berlin [u.a.]: VDE-Verl., S. 365-372; EMV 2006; (Düsseldorf): 2006.03.07-09

**Thamm, Sven; Kochetov, Sergey V. ; Wollenberg, Günter**
Modellierung flächenhafter Verbindungsstrukturen für leistungselektronische Anwendungen mittels der Methode der partiellen Elemente
In: Elektromagnetische Verträglichkeit: EMV 2006; Internationale Fachmesse und Kongress für Elektromagnetische Verträglichkeit, 7. - 9. März 2006, Messe Düsseldorf. - Berlin [u.a.]: VDE-Verl., S. 181-188; EMV 2006; (Düsseldorf): 2006.03.07-09

### *Wissenschaftliche Monografien*

**Gronwald, Frank**
Antenna theory in resonating systems derived from fundamental electromagnetism.

- Magdeburg, Univ., Fak. für Elektrotechnik und Informationstechnik, Habil.-Schr., 2006;
**Link unter URL**; XII, 251 S.: graph. Darst.; 30 cm

## *Buchbeiträge*

**Kochetov, Sergey V. ;  Wollenberg, Günter**
Improvement of PEEC models via multipoint approximations of potentials
In: EMC Europe 2006: International Symposium on Electromagnetic Compatibility; September
4 - 8, 2006,  Barcelona, Spain/ organized by Technical University of Catalonia in cooperation
with Universitat Ramon Llull ... Ed. by F. Silva .... - Barcelona, S. 57-62

**Nitsch, Jürgen;  Tkachenko, Sergey V.**
Propagation of high-frequency current waves along periodical thin-wire structures
In: The Third International Conference Ultrawideband and Ultrashort Impulse Signals:
UWBUSIS'06; September 18 - 22, 2006, Sevastopol, Ukraine; [proceedings]. - Piscataway, NJ:
IEEE Operations Center, S. 279-281

**Schulze, Hans-Peter;  Burkert, Stephan;  Trautmann, Hans-Jürgen;  Wollenberg, Günter**
Demands and design of hybrid process energy sources on ed - ec processes
In: Proceedings of the 4nd International Conference on Machining and Measurements of
Sculptured Surfaces: 27 - 29 September 2006, Kraków, Poland. - Kraków, S. 235-242

**Schulze, Hans-Peter;  Wollenberg, Günter;  Mecke, Katharina;  Trautmann, Hans-Jürgen**
Propagation of gas bubbles at spark erosion in small working gaps
In: 2006 IEEE 8th International Conference on Properties & Applications of Dielectric Materials.
- Piscataway, NJ: IEEE Service Center, S. 665-697

## *Artikel in Kongressbänden*

**Schätzing, Wolfgang**
Ein Modell des elektrochemischen Abtragens
In: Conference proceedings. - Grafing b. München: CAD-FEM GmbH, 2006

## *Habilitationen*

**Gronwald, Frank**
Antenna theory in resonating systems derived from fundamental electromagnetism.
- Magdeburg, Univ., Fak. für Elektrotechnik und Informationstechnik, Habil.-Schr., 2006;
**Link unter URL**; XII, 251 S.: graph. Darst.; 30 cm

# Institut für Mikro- und Sensorsysteme

Universitätsplatz 2, 39106 Magdeburg
Tel.  +49 (0)391 67-18308, Fax  +49 (0)391 67-12609
annett.wertan@e-technik.uni-magdeburg.de

## 1. Leitung

Prof. Dr.-Ing. Edmund Burte
Prof. Dr. rer. nat. habil. Peter Hauptmann
Prof. Dr. rer. nat. Bertram Schmidt (Geschäftsführender Leiter)
Dipl.-Ing. Sören Hirsch

## 2. Hochschullehrer

Prof. Dr.-Ing. Edmund Burte
Prof. Dr. rer. nat. habil. Peter Hauptmann
Prof. Dr. rer. nat. Bertram Schmidt

## 3. Veröffentlichungen

### *Originalartikel in begutachteten internationalen Zeitschriften*

**Ansorge, Erik;  Schimpf, Stefan;  Hirsch, Sören;  Sauerwald, Jan;  Fritze, Holger; Schmidt,  Bertram**
Evaluation of langasite (La 3 Ga 5 SiO 14) as a material for high temperature microsystems
In: Sensors and actuators <Lausanne> / A. A, Physical: an international journal devoted to research and development of physical transducers. - Amsterdam [u.a.]: Elsevier Science, S. 393-396; **Abstract unter URL**
[Imp.fact.: 1.363]

**Hauptmann, Peter**
Selected examples of intelligent (micro) sensor systems - state-of-the-art and tendencies
In: Measurement science and technology. - Bristol: IOP Publ. Ltd., S. 459-466; **Link unter URL**, 2006
[Imp.fact.: 1.079]

**Hirsch, Sören;  Doerner, Steffen;  Hauptmann, Peter;  Schmidt, Bertram**
A new test device for characterization of mechanical stress caused by packaging processes
In: Journal of physics / Conference series. Conference series. - Bristol: IOP Publ., S. 39-44; **Link unter URL**, 2006

**Hirsch, Sören;  Doerner, Steffen;  Schimpf, Stefan;  Lucklum, Ralf;  Hauptmann, Peter; Schmidt,  Bertram**
A new device with PZT ultrasonic transducers in MEMS technology
In: Journal of physics / Conference series. Conference series. - Bristol: IOP Publ., S. 475-480;

**Link unter URL**, 2006

**Lucklum, Frieder;  Hauptmann, Peter;  Rooij, Nico F. de**
Magnetic direct generation of acoustic resonances in silicon membranes
In: Measurement science and technology. - Bristol: IOP Publ. Ltd., S. 719-726; **Link unter URL**, 2006
[Imp.fact.: 1.079]

**Lucklum, Ralf;  Hauptmann, Peter**
Acoustic microsensors - the challenge behind microgravimetry
In: Analytical and bioanalytical chemistry: a merger of Fresenius' journal of analytical chemistry, Analusis and Quimica analitica. - Berlin: Springer, S. 667-682; **Link unter URL**, 2006
[Imp.fact.: 2.695]

**Richter, D. ;  Fritze, H. ;  Schneider, Thomas;  Hauptmann, Peter;  Bauersfeld, N. ; Kramer, K.-D. ;  Wiesner, K. ;  Fleischer, M. ;  Karle, G. ;  Schubert, A.**
Integrated high temperature gas sensor system based on bulk acoustic wave resonators
In: Sensors and actuators <Lausanne> / B. B, Chemical. - Amsterdam [u.a.]: Elsevier, S. 466-471; **Link unter URL**
[Imp.fact.: 2.646]

**Schäfer, Robert;  Carlson, Johan E. ;  Hauptmann, Peter**
Ultrasonic concentration measurement of aqueous solutions using PLS regression
In: Ultrasonics. - Amsterdam [u.a.]: Elsevier, S. 947-950; **Link unter URL**
[Imp.fact.: 1.038]

**Silinskas, Mindaugas;  Lisker, Marco;  Matichyn, Serhiy;  Burte, Edmund P. ;  Hyeon, J.-Y. ;  Lorenz, Volker;  Edelmann, Frank T.**
Strontium bismuth tantalate thin film deposition by liquid-delivery MOCVD using novel liquid bismuth precursors
In: Integrated ferroelectrics: an international journal. - Philadelphia, Pa. [u.a.]: Gordon and Breach Science Publ., S. 195-202, 2006
[Imp.fact.: 0.345]

*Originalartikel in begutachteten nationalen Zeitschriften*

**Doerner, Steffen;  Schneider, Thomas;  Hauptmann, Peter**
Universeller Impedanzspektrumanalysator für Bio- und Prozessanwendungen
In: Technische Mitteilungen: TM; Organ des Hauses der Technik Essen. - Essen: Haus d. Technik, S. 19-23, 2006

*Originalartikel in begutachteten zeitschriftenartigen Reihen*

**Batmanov, Anatoliy;  Hamad, Ehab K. I. ;  Burte, Edmund P. ;  Omar, Abbas S.**
Design of h-shaped low actuation-voltage RF-MEMS switches
In: Proceedings of Asia-Pacific Microwave Conference December 12-15, 2006. - Japan: IEICH, insges. 4 S.

**Hempel, Ulrike;  Lucklum, Ralf;  Hauptmann, Peter;  Vetelino, J. F.**

Advanced application of the impedance spectrum of a lateral field excited sensor
In: XX Eurosensors, 20th Anniversary: Göteborg, Sweden, 17-20 September 2006. - Göteborg:, S. 1-4

**Hirsch, Sören;  Schmidt, Bertram**
A new device for characterization of mechanical stress caused by packaging processes
In: Smart structures and materials 2006: Smart electronics, MEMS, BioMEMS, and nanotechnology: 27 February - 1 March 2006, San Diego, California, USA. - Bellingham, Wash. : SPIE, S. 617210-1-617210-8; Proceedings of SPIE; 6172

**Lucklum, Frieder;  Jakoby, B. ;  Hauptmann, Peter;  /de Rooij, N. F.**
Remote electromagnetic excitation of high-Q silicon resonator sensors
In: IEEE International Frequency Control Symposium and Exposition, 2006: June 2006, [Miami, Florida]. - Piscataway, NJ: IEEE Operations Center, S. 139-144; **Abstract unter URL**

**Lucklum, Ralf;  Doerner, Steffen;  Schneider, Thomas;  Schlatt-Masuth, Benedikt;  Jacobs,  Thomas;  Hauptmann, Peter**
Real time kinetic analysis with quartz crystal resonator sensors
In: IEEE International Frequency Control Symposium and Exposition, 2006: June 2006, [Miami, Florida]. - Piscataway, NJ: IEEE Operations Center, S. 528-534; **Abstract unter URL**

**Lucklum, Ralf;  Hauptmann, Peter**
Interface circuits for QCM-measurements
In: Piezoelectric sensors. - Berlin [u.a.]: Springer, S. 3-48; Springer Series on Chemical Sensors and Biosensors; 5, 2006

**Schäfer, Robert;  Hauptmann, Peter**
Ultrasonic density measurement of liquids - a novel method using a generalized singular value decomposition based system identification
In: Ultrasonics Symposium <2006, Vancouver, British Columbia>: 2006 IEEE Ultrasonics Symposium: 3 - 6 October 2006, Vancouver, Canada. - Piscataway, NJ: IEEE Operations Center, S. 140-143

*Wissenschaftliche Monografien*

**Dill, David D. ;  Mitra, Sanjit K. ;  Jensen, Hans Siggaard;  Lehtinen, Erno;  Mäkelä, Tomi**
PhD training and the knowledge-based society - an evalution of doctoral education in Finnland. - Helsinki: Publ. of the Finnish Higher Education Evaluation Council; 95 S., 2006

*Buchbeiträge*

**Fritze, H. ;  Richter, D. ;  Hauptmann, Peter;  Schneider, Thomas;  Kramer, K.-D. ;  Bauersfeld, N. ;  Fleischer, M. ;  Wiesner, K. ;  Schubert, A. ;  Karle, G.**
Resonanter Gassensor für Hochtemperaturanwendungen bis 900 ºC
In: Sensoren und Messsysteme 2006: Vorträge der 13. ITG/GMA-Fachtagung vom 13. bis 14. März 2006 in Freiburg/Breisgau. - Berlin [u.a.]: VDE-Verl., insges. 4 S.

**Hirsch, Sören;  Schmidt, Bertram**

Testchip zur Untersuchung durch Packagingverfahren verursachter mechanischer Spannungen
In: Sensoren und Messsysteme 2006: Vorträge der 13. ITG/GMA-Fachtagung vom 13. bis 14. März 2006 in Freiburg/Breisgau. - Berlin [u.a.]: VDE-Verl., S. 375-378

**Lucklum, Frieder;  Jakoby, Bernhard;  Hauptmann, Peter;  Rooij, Nico F. de**
Non-piezoelectric generation and detection of high-q resonances in acoustic sensors
In: Tagungsband zur Informationstagung Mikroelektronik 06. - Wien: ÖVE, S. 32-38; OVE-Schriftenreihe; 43, 2006

**Püttmer, A. ;  Hauptmann, Peter**
Ultraschall
In: Prozessanalytik: Strategien und Fallbeispiele aus der industriellen Praxis. - Weinheim: Wiley-VCH, S. 341-364, 2006

**Sauerwald, Jan;  Ansorge, Erik;  Schmidt, Bertram**
Mikromechanische Systemkomponenten auf der Basis von Langasit
In: Sensoren und Messsysteme 2006: Vorträge der 13. ITG/GMA-Fachtagung vom 13. bis 14. März 2006 in Freiburg/Breisgau. - Berlin [u.a.]: VDE-Verl., S. 285-292

**Toscher, Steffen;  Reinemann, Thomas;  Kasper, Roland;  Hartmann, Matthias**
A reconfigurable Delta-Sigma ADC
In: Proceedings of the IEEE International Symposium on Industrial Electronics, ISIE 2006: July 09 - 12, 2006, Montreal, Quebec. - Piscataway, NJ: IEEE Operations Center, S. 495-499

### *Artikel in Kongressbänden*

**Hirsch, Sören;  Schmidt, Bertram**
Characterization of mechanical stress caused by packaging processes
In: Technical presentations, extended abstracts and exhibition presentations: March 20 - 23, 2006, Doubletree Resort, Scottsdale, Arizona. - Washington, DC: IMAPS, S. 1-4

**Schimpf, Stefan;  Hirsch, Sören;  Schmidt, Bertram**
MEMS ultrasonic sensor array with thick film PZT transducers
In: Proceedings and exhibitor presentations: April 25 - 27, 2006, Grand Hyatt Hotel, Denver, Colorado. - Washington, DC: International Microelectronics and Packaging Society and the Microelectronics Foundation, S. 1-5