



Electrical and Computer Engineering

2010 Research Publications

Book Chapters

- 1) M. Bhaskaran, S. Sriram and D. Mitchell, "Characterisation of silicide thin films for semiconductor and nanotechnology electronics", in *Applied Physics in the 21st Century (Horizons in World Physics)* New York, USA: Nova Science Publishers, 2010, pp.273-300.
- 2) J. Martin and D. Tan, "Freeware solutions and international work integrated learning in higher education: Case study of WIL in Vietnam", in *Open - Source solutions in Education: Theory and Practice*, California: Informing Science Press, 2010, pp.133-150.
- 3) W. Peng and J. Gero, "Concept formation in scientific knowledge discovery from a constructivist view", in *Scientific Data Mining and Knowledge Discovery: Principles and Foundations*, Berlin Heidelberg: Springer Verlag, 2010, pp.91-110.
- 4) S. Sriram and M. Bhaskaran, "Optimisation of deposition conditions for functional oxide thin films", in *Applied Physics in the 21st Century (Horizons in World Physics)*, New York, USA: Nova Science Publishers, 2010, pp.319-340.
- 5) S. Sriram, M. Bhaskaran and A. Mitchell, "Piezoelectric thin film deposition: Novel self-assembled island structures and low temperature processes on silicon", in *Piezoelectric Ceramics*. Rijeka, Croatia: Sciyo Publishers, 2010, pp.1-22.
- 6) S. Sriram, M. Bhaskaran and A. Mitchell, "Thin film piezoelectric response coefficient estimation techniques", in *Applied Physics in the 21st Century (Horizons in World Physics)*. New York, USA: Nova Science Publishers, 2010, pp.353-363.

Journal Articles

- 1) H. ABDULLAH, N. Maddage, I. Cosic and D. Cvetkovic, "Cross-correlation of EEG frequency bands and heart rate variability for sleep apnoea classification", in *Medical and Biological Engineering and Computing*, vol. 48, pp.1261-1269. 2010.
- 2) K. Adistambha, S. Davis, C. Ritz and I. Burnett, "Efficient multimedia query-by-content from mobile devices", in *Computers & Electrical Engineering*, vol. 36, pp.626-642, 2010.
- 3) L. Al-Mashat, K. Shin, K. Kalantar Zadeh, J. Du Plessis, S. Han, R. Kojima, R. Kaner, D. Li, X. Gou, S. Ippolito and W. Wlodarski, "Graphene/polyaniline nanocomposite for hydrogen sensing", in *Journal of Physical Chemistry C*, vol. 114, pp.16168-16173, 2010.
- 4) F. Al-Qahtani, S. Zummo, A. Gurung and Z. Hussain, "Spectral efficiency of maximum ratio combining (MRC) over slow fading with estimation errors", in *Digital Signal Processing: A Review Journal*, vol. 20, pp.85-96, 2010.
- 5) N. Alwan and Z. Hussain, "An unbiased channel estimator for space-time block coding under rayleigh fading", in *Arabian Journal for Science and Engineering*, vol. 35, pp.237-248, 2010.
- 6) M. Bhaskaran, S. Sriram and A. Holland, "Interfacial resistive properties of nickel silicide thin films to doped silicon", in *Journal of the Electrochemical Society*, vol. 157, pp.842-846, 2010.
- 7) A. Bojovschi, W. Rowe and K. Wong, "Electromagnetic field intensity generated by partial discharge in high voltage insulating materials", in *Progress In Electromagnetics Research-Pier*, vol. 104, pp.167-182, 2010.
- 8) M. Breedon, M. Rahmani, S. Keshmiri, W. Wlodarski and K. Kalantar Zadeh, "Aqueous synthesis of interconnected ZnO nanowires using spray pyrolysis deposited seed layers", in *Materials Letters*, vol. 64, pp.291-294, 2010.
- 9) M. Breedon, P. Spizzirri, M. Taylor, J. Du Plessis, D. McCulloch, J. Zhu, L. Yu, Z. Hu, C. Rix, W. Wlodarski and K. Kalantar Zadeh, "Synthesis of nanostructured tungsten oxide thin films: A simple, controllable, inexpensive, aqueous sol-gel method", in *Crystal Growth & Design*. vol. 10, pp.430-439, 2010.

- 10) M. Breedon, M. Spencer and I. Yarovsky, "The absorption of NO₂ on oxygen deficient Zn (2110) surface for gas sensing applications: A DFT study", in *The Journal of Physical Chemistry Part C: Nanomaterials and Interfaces*, vol. 114, pp.16603-16610, 2010.
- 11) A. Chapelle, M. Yaacob, I. Pasquet, L. Presmanes, A. Barnabe, P. Tailhades, J. Du Plessis and K. Kalantar Zadeh, "Structural and gas-sensing properties of CuO-Cu_xFe_{3-x}O₄ nanostructured thin films", in *Sensors and Actuators B: Chemical*, vol. 153, issue 1, pp.1-8, 2010.
- 12) M. Che Azemin, D. Kumar, T. Wong, J. Wang, P. Mitchell, R. Kawasaki and H. Wu, "Age-related rarefaction in the fractal dimension of retinal vessel", in *Neurobiology of Aging*, online at doi 10.1016/j.neurobiolaging.2010.04.010, pp.1-4, 2010.
- 13) M. Che Azemin, D. Kumar, T. Wong, R. Kawasaki, P. Mitchell and J. Wang, "Robust methodology for fractal analysis of the retinal vasculature", in *IEEE transactions on Medical Imaging*, vol. 30, pp.243-250, 2010.
- 14) W. Fu, E. Lopez-Lara, W. Rowe and K. Ghorbani, "A planar dual-arm equiangular spiral antenna", in *IEEE Transactions On Antennas And Propagation*, vol. 58, pp.1775-1779, 2010.
- 15) E. Gaspera, D. Buso, M. Guglielmi, A. Martucci, V. Bello, G. Mattei, M. Post, C. Cantalini, S. Agnoli, G. Granozzi, A. Sadek, K. Kalantar Zadeh and W. Wlodarski, "Comparison study of conductometric, optical and SAW gas sensors based on porous sol-gel silica films doped with NiO and Au nanocrystals", in *Sensors and Actuators B-Chemical*, vol. 143, pp.567-573, 2010.
- 16) P. Gawthrop and L. Wang, "Intermittent redesign of continuous controllers", in *International Journal of Control*, vol. 83, pp.1581-1594, 2010.
- 17) M. Ham, G. Paulus, C. Lee, C. Song, K. Kalantar Zadeh, W. Choi, J. Han and M. Strano, "Evidence for high-efficiency exciton dissociation at polymer/single-walled carbon nanotube interfaces in *planar nano-heterojunction photovoltaics*", in *ACS Nano*, vol. 4, pp.6251-6259, 2010.
- 18) L. He, M. Lech, N. Maddage and N. Allen, "Study of empirical mode decomposition and spectral analysis for stress and emotion classification in natural speech", in *Biomedical Signal Processing and Control*, vol. 6, issue 2, pp.139-146, 2010.
- 19) X. He, R. Arsat, A. Sadek, W. Wlodarski, K. Kalantar Zadeh and J. Li, "Electrospun PVP fibers and gas sensing properties of PVP/36 degrees YX LiTaO₃ SAW device", in *Sensors and Actuators B-Chemical*. vol. 145, pp.674-679, 2010.
- 20) S. Iskra, R. McKenzie and I. Cosic, "Factors influencing uncertainty in measurement of electric fields close to the body in personal RF dosimetry", in *Radiation Protection Dosimetry*, vol. 140, pp.25-33, 2010.
- 21) K. Kalantar Zadeh, K. Khoshmanesh, A. Kayani, S. Nahavandi and A. Mitchell, "Dielectrophoretically tuneable optical waveguides using nanoparticles in microfluidics", in *Applied Physics Letters*, vol. 96, pp.1-3, 2010.
- 22) K. Kalantar Zadeh, A. Vijayaraghavan, M. Ham, H. Zheng, M. Breedon and M. Strano, "Synthesis of atomically thin WO₃ sheets from hydrated tungsten trioxide", in *Chemistry of Materials*. vol. 22, pp.5660-5666, 2010.
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- 27) K. Khoshmanesh, C. Zhang, J. Campbell, A. Kayani, S. Nahavandi, A. Mitchell and K. Kalantar Zadeh, "Dielectrophoretically assembled particles: Feasibility for optofluidic systems", in *Microfluidics and Nanofluidics*, vol. 9, pp.755-763, 2010.
- 28) K. Khoshmanesh, C. Zhang, S. Nahavandi, S. Baratchi, A. Mitchell and K. Kalantar Zadeh, "Dielectrophoretically patterned carbon nanotubes to sort microparticles", in *Electrophoresis*, vol. 31, pp.3380-3390, 2010.
- 29) K. Khoshmanesh, C. Zhang, S. Nahavandi, F. Tovar Lopez, S. Baratchi, Z. Hu, A. Mitchell and K. Kalantar Zadeh, "Particle trapping using dielectrophoretically patterned carbon nanotubes", in *Electrophoresis*, vol. 31, pp.1366-1375, 2010.
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- 36) N. Maddage, C. Sim and H. Li, "Word Level Automatic Alignment of Music and Lyrics Using Vocal Synthesis", in *Acm Transactions on Multimedia Computing Communications and Applications*. vol. 6, pp.16-19, 2010.
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- 7) T. Baum, L. Thompson and K. Ghorbani, "Integrated space applications in the early detection and management of bushfires", in *Proceedings of the 61st International Astronautical Congress*, 2010, pp.1-7.
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