

## **Alternative Energy**

### **Faculty Emerging Research Area**

#### **Recent Publications**

##### **Books and Book Chapters**

C. Ozansoy, Modelling and Object Oriented Implementation of IEC 61850: The New International Standard on Substation Communications and Automation. LAMBERT Academic Publishing, 2010.

##### **Book Chapter**

C. Ozansoy and Ruby Heard, "Microbial Conversion of Biomass: A Review of Microbial Fuel Cells," in Progress in Biomass and Bioenergy Production, S. S. Shaukat, Ed. Croatia: Intech, 2011, pp. 409 –426.

Mary Millikan (2012): Nutritional Metals in Foods by AAS, Atomic Absorption Spectroscopy, Muha Akhyar Farrukh (Ed.), ISBN: 978-953-307-817-5, Intech.[www.intechweb.org](http://www.intechweb.org)

C. Ozansoy and Alex Stojcevski, "Problem Based Learning in Electrical & Electronic Engineering Education," in Research on PBL Practice in Engineering Education, X. Du, Ed. Netherlands: Sense Publishers, 2009, pp. 199 – 213.

##### **Journal Publications**

A. Kolasani, H. Xu and M. Millikan, Analysis of Metals in Plant Parts of Selected Chinese Herbs by Near Infrared Spectroscopy, Fresenius Environmental Bulletin, 19(2) 131-136, 2010.

Kolasani, H. Xu, M. Millikan, Afr. J Tradit. Complement. Altern. Med. (2011) 8(5):191-197

Abdu Ebrahim , Peter Clingleffer, Mary Millikan and Mark Downey ' Rootstock Effect on Shiraz Winegrape Tannin Content and Composition, Aust. J. Grape and Wine Res., 2010.

C. Ozansoy, A. Zayegh, and A. Kalam, "Object Modelling of Data and DataSets in the International Standard IEC 61850," IEEE Transactions on Power Delivery, vol. 24, no. 3, pp.1140- 1147, July 2009.

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M. Millikan, H.Xu and H. Trevean, Aust. J Acupuncture and Chinese Med. (2011) 6(2), 12- 17

S. Muthukumaran, 'Duy Anh Nguyen , Kanagaratnam Baskaran, Performance Evaluation of Different Ultrafiltration Membranes for the Reclamation and Reuse of Secondary Effluent, Desalination, 279, 383-389, 2011

S. Muthukumar, K. Baskaran and N. (2011) Patterson, Quantification of Potable Water Savings by Residential Water Conservation and Reuse -A Case Study, *Resources, Conservation and Recycling*, 55, 945-952, 2011.

T. S. Ustun, C. Ozansoy, and A. Zayegh, "Recent developments in microgrids and example cases around the world — A review," Elsevier, *Renewable and Sustainable Energy Reviews*, vol. 15, no. 8, pp. 4030-4041, October 2011.

Tang, J.W., Xie, Y.M., Felicatti, P., Tu, J.Y. and Li, J.D. 2010, Numerical simulations of wind drags on straight and twisted polygonal buildings, *Structural Design of Tall and Special Buildings*. Published online in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/tal.657

Trevean, H. Xu, H & Millikan, M. 'Bioactive elements in Si Wu Tang' *Aust. J. Acupuncture and Chinese Medicine*, accepted, 2010.

Xiaodong Dai, Linda Zou, Zifeng Yan and Mary Millikan, Absorption characteristics of N-nitrosodimethylamine from aqueous solutions on surface-modified activated carbons, *J. Hazardous Materials* 168, 2009, 51-56.

Zhang, J., Li, J.D. and Gray, S. 2011 Researching and modelling the dependence of MD flux on membrane dimension for scale-up purpose, *Desalination and Water Treatment*, 31, pp.144-150.

Zhang, J., Dow, N., Duke, M., Ostarcevic, E., Li, J.D, and Gray, S. 2010 Identification of material and physical features of membrane distillation membranes for high performance desalination, *Journal of Membrane Science* 349 295–303.

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### Conference Publications

A. Chaudhary and C. Ozansoy, "Microbial Electrolysis Cell Modelling and Simulation Using MATLAB," In. Proceedings of the AUPEC'09 Conference, Adelaide, Australia, Paper No: 149, September 2009.

C. Subramaniam, S. Muthukumar and K. Baskaran, "Reduction of Sodium Loadings in Waste Water Streams from Food and Beverage Industries", EWRI International Conference Jan 5-7, 2010 - Chennai, India.

Duke M., Dow N., Zhang J. Li, J. D., Gray S. and Osteracevic, E. 2009 Enhancing Water Recovery Of Reverse Osmosis Brine Reject By Membrane Distillation, OZwater'09, Paper 131 Melbourne, Australia

Gray S.R., Zhang J. Li, J.D. Duke, M., Dow, N. and Ostarcevic E. 2011 Mathematic model for analysis of evaporation ratio under different conditions in DCMD, Ravello Workshop on *Membrane Distillation and Related Technologies*, Italy.

J. P. Iuscu and C. Ozansoy, "Modelling and Hardware Analysis of a Fuel Cell / Photovoltaic System," In. Proceedings of the AUPEC'09 Conference, Adelaide, Australia, Paper No: 150, September 2009.

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M. Gunsan and C. Ozansoy, "Analysis of Wind Power Potential in Western Regions of Melbourne," In. Proceedings of the Solar'09 Conference, Townsville, Australia, October 2009.

Moinuddin, K. and Li, J.D. 2010 A new convective heat transfer model for Fire Dynamics Simulator, 13<sup>th</sup> Asian Congress of Fluid Mechanics, Dhaka, Bangladesh, 17 December, 2010.

Muthukumaran, S. and K. Baskaran, Integrated Water Management and Reuse in Poultry Processing Plant, -A Case Study, *India 2010 - 3rd International Perspective on Current & Future State of Water Resources & the Environment*, January 5-7, 2010, Chennai, India. (CD).

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Nor Lila Shuib, Kanagaratnam Baskaran, Shobha Muthukumaran and Warren Davies (2011), Effluent Quality Performance of Horizontal Subsurface Flow Constructed Wetlands using Natural Zeolite, ICESE 2011, April 1-3, 2011, Bali Island, Indonesia, pp 19-23.

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T. S. Ustun, C. Ozansoy, and A. Zayegh, "A Central Microgrid Protection System for Networks with Fault Current Limiters," In. Proceedings of the 2011 10th International Conference on Environment and Electrical Engineering (EEEIC), pp.1-4, ISBN: 978-1-4244-8781-3, Rome, Italy, May 2011.

T. S. Ustun, C. Ozansoy, and A. Zayegh, "A Microgrid Protection System with Central Protection Unit and Extensive Communication," In. Proceedings of the 2011 10th International Conference on Environment and Electrical Engineering (EEEIC), pp.1-4, ISBN: 978-1-4244-8781-3, Rome, Italy, May 2011.

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