

## **Appendix II: Publications for the period June 1<sup>st</sup>, 2009 to Dec. 31<sup>st</sup>, 2010**

(URL of publications : <http://www.mcgill.ca/ece/about/publications>)

### **Articles in Refereed Publications:**

#### **ABHARI, Ramesh:**

- Kasra Payandehjoo and R. Abhari, "Employing EBG Structures in Multi-Antenna Systems for Improving Isolation and Diversity Gain" IEEE Antennas and Wireless Propagation Letters (AWPL), vol. 8, 2009, pp. 1162 – 1165.
- Darryl Kostka and R. Abhari, "Experimental Evaluation of Printed Circuit Board and On-Chip Inductor Loops Backed by AMC Surfaces," IEEE Antennas and Wireless Propagation Letters (AWPL), vol. 8, 2009, pp. 720-723.
- Asanee Suntives and R. Abhari, "Design and Application of Multimode Substrate Integrated Waveguides in Parallel Multichannel Signaling Systems," IEEE Trans. Microwave Theory Tech., June 2009, vol. 57, pp. 1563 - 1571.
- K. Payandehjoo, A. Tavallaee and R. Abhari, "Analysis of the Shielded Electromagnetic Bandgap Structures using Multiconductor Transmission-Line Theory," IEEE Trans. Adv. Pack., 8 pages, July 2009.
- Joshua D. Schwartz, Ramesh Abhari, David V. Plant and José Azaña, "Design and Analysis of 1-D Uniform and Chirped Electromagnetic Bandgap Structures (EBGs) in Substrate Integrated Waveguides," IEEE Trans. Microwave Theory and Tech. vol. 58, July 2010, pp. 1858-1866.
- Asanee Suntives, Nathan A. Smith and R. Abhari, "Analytical Design of a Half-Mode Substrate Integrated Waveguide Wilkinson Power Divider," Microwave and Optics Letters, vol. 52, issue 5, May 2010, pp. 1066-1069.
- K. Payandehjoo, A. Tavallaee and R. Abhari, "Analysis of the Shielded Electromagnetic Bandgap Structures using Multiconductor Transmission-Line Theory," IEEE Trans. Adv. Pack., Feb. 2010, vol. 33, pp. 236 – 245.

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- Sandra Skaff, Tal Arbel, and James J. Clark, "A Sequential Bayesian Approach to Color Constancy using Non-Uniform Filters", Computer Vision and Image Understanding, Volume 113, Issue 9, pp. 993-1004, Sept. 2009.
- Matthew Toews and Tal Arbel, "Detection, Localization and Sex Classification of Faces from Arbitrary Viewpoints and Under Occlusion", IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. 31, Issue 9, pp. 1567-1581, Sept. 2009.
- M. Toews, W. Wells III, D. L. Collins and T. Arbel, "Feature-Based Morphometry: Discovering Group-related Anatomical Patterns", NeuroImage, Volume 49, Issue 3, pp. 2318-2327, Feb. 2010.
- R. Brooks and T. Arbel, "Generalizing inverse compositional and ESM image alignment", International Journal of Computer Vision, Volume 87, Issue 3, pp. 191-212, May 2010.

#### **BOULET, Benoit:**

- G. Meunier, B. Boulet and M. Nahon, Control of an overactuated cable-driven parallel mechanism for a radio telescope application, IEEE Trans. on Control Systems Technology, Vol. 17, No. 5, 2009, pp. 1043-1054.
- V. Raissi Dehkordi and B. Boulet, Frequency-Domain Robust Performance Conditions for Controller Uncertainty in SISO LTI Systems: A Geometric Approach, Journal of Control Science and Engineering, vol. 2009, Article ID 746762, 9 pages, 2009.
- H. Azarnoush, R. Bourezak, S. Vergnole, G. Lamouche, B. Boulet, "Optical Coherence Tomography Characterization of Balloon Diameter and Wall Thickness J. Med. Devices", June 2010, Vol. 4, Issue 2, 027523 doi:10.1115/1.3443219
- H. Azarnoush, S. Vergnole, R. Bourezak, B. Boulet, and G. Lamouche, Optical coherence tomography monitoring of angioplasty balloon inflation in a deployment tester, Rev. Sci. Instrum. 81(8), 083101 (2010).

**CAINES, Peter E.:**

- P. Jia, W. Qu and P.E. Caines, "On the Rapid Convergence of a Class of Decentralized Decision Processes: Quantized Progressive Second Price Auctions". *IMA Journal of Mathematical Control and Information*, vol. 26, no. 3, pp. 325-355, 2009.
- M.Y. Huang, P.E. Caines and R.P. Malhame', "The NCE (Mean Field) Principle with Locality Dependent Cost Interactions". *IEEE Trans. on Automatic Control*, Vol. 55, No.12, December, 2010, pp. 2799 - 2805.
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- Z. Ma, P. E. Caines and R. P. Malhame', "Control of Admission and Routing in Loss Networks: Hybrid Dynamic Programming Equations." *IEEE Trans. on Automatic Control*, vol 55, no. 2, February, 2010, pp 350 - 366.
- M. Nourian, P. E. Caines, R. P. Malhame', M.Y. Huang, "A Leader-Follower Cucker-Smale Type Flocking Synthesized via Mean Field Stochastic Control Theory: Nash Equilibria". *Brian, Body and Machine: Advances in Intelligent and Soft Computing*, Vol. 83, Eds. J. Angeles et al., Springer Verlag, November, pp. 283 - 298, 2010.

**CHAMPAGNE, Benoit:**

- E. Plourde and B. Champagne, "Generalized Bayesian estimators of the spectral amplitude for speech enhancement", *IEEE Signal Processing Letters*, vol. 16, pp. 485-488, June 2009.
- C.-C. Tu and B. Champagne, "Subspace-based blind channel estimation for MIMO-OFDM systems with reduced time averaging," *IEEE Trans. on Vehicular Technology*, vol. 59, pp. 1539-1544, March 2010.
- A. El-Keyi and B. Champagne, "Adaptive Linearly Constrained Minimum Variance Beamforming for Multiuser Cooperative Relaying Using the Kalman Filter", *IEEE Trans. on Wireless Communications*, vol. 9, pp. 641-651, Feb. 2010.

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- P. Seddighian and L. R. Chen, "Independent and simultaneous delay control of two 10 Gb/s channels using a single delay element," *IEEE Photonics Technology Letters*, vol. 21, no. 6, pp. 401-403 (2009).
- P. Samadi, I. A. Kostko, A. Jain, B. Shia, C. L. Callender, P. Dumais, S. Jacob, and L. R. Chen, "Tunable lattice-form Mach-Zehnder interferometer for arbitrary binary code generation at 40 GHz," *IEEE/OSA Journal of Lightwave Technology*, vol. 28, no. 21, pp. 3070-3078 (2010).
- T. Cai and L. R. Chen, "40-80-160 GHz tunable mode-locked semiconductor fiber laser incorporating a nonlinear optical loop mirror," *Optics Express*, vol. 18, no. 17, pp. 18113-18118 (2010).
- J. Qiu, K. Sun, M. Rochette, and L. R. Chen, "Reconfigurable all-optical multi-logic gate (XOR, AND, and OR) based on cross phase modulation in a highly nonlinear fiber," *IEEE Photonics Technology Letters*, vol. 22, no. 16, pp. 1199-1201 (2010).
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#### **CHODAVARAPU, Vamsy:**

- L. Yao, R. Khan, V. P. Chodavarapu, V. Tripathi, F. V. Bright, "Sensitivity Enhanced CMOS Phase Luminometry System using Xerogel-based Sensors," *IEEE Transactions on Biomedical Circuits & Systems*, vol. 3, pp. 304-311, 2009.
- M. Hajj-Hassan, V. P. Chodavarapu, S. Musallam, "Reinforced Silicon Neural Microelectrode Array Fabricated using Commercial MEMS process", *SPIE Journal of Micro/Nanolithography, MEMS, and MOEMS*, vol. 8, 033011, 2009. (SELECTED FOR VIRTUAL JOURNAL OF BIOLOGICAL PHYSICS RESERACH, vol. 18, iss. 3, August 2009)
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- M. Hajj-Hassan, S. J. Kim, M. C. Cheung, L. Yao, V. P. Chodavarapu, A. N. Cartwright, "Porous Silicon and Porous Polymer Substrates for Optical Chemical Sensors", *SPIE Journal of Nanophotonics*, Vol. 4, No. 043513, 2010. (Selected for SPIE Newsroom article in *Biomedical Optics & Medical Imaging*, Newslink)
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- P. J. R. Roche, M. C. Cheung, K. Y. Yung, A. G. Kirk, V. P. Chodavarapu, and F. V. Bright, "Application of Gold quenching of Luminescence to improve Oxygen sensing using a Ruthenium (4,7-diphenyl-1,10-phenanthroline)<sub>3</sub> Cl<sub>2</sub>:TEOS thin film", *Sensors and Actuators: B Chemical*, Vol. 147, pp. 581-586, 2010.
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- Skaff, S., Arbel, T., and Clark, J.J., "A Sequential Bayesian Approach to Color Constancy using Non-Uniform Filters", *Computer Vision and Image Understanding*, Vol. 113, No. 9, pp. 993-1004, 2009.

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#### **COATES, Mark J.:**

- D. Üstebay, B. Oreshkin, M. Coates, and M. Rabbat, Greedy gossip with eavesdropping, IEEE Transactions on Signal Processing, vol. 58, no. 7, pp. 3765-3776, July 2010.
- B. Oreshkin, M. Coates, and M. Rabbat, Optimization and analysis of distributed averaging with short node memory, IEEE Transactions on Signal Processing, vol. 58, no. 5, pp. 2850-2865, May, 2010.

#### **COOPERSTOCK, Jeremy R.:**

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- Anlauff, J., Hermann, T., Grosshauser, T., and Cooperstock, J.R. (2009) Modular tacTiles for Sonic Interactions with Smart Environments, Haptic and Audio Interaction Design, Dresden, Germany, September 10-11.
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#### **GALIANA, Francisco D.:**

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