

Heui Chang Lee

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EDUCATIONAL BACKGROUND & RESEARCH EXPERIENCE

2014 - Current	University of Florida <i>Visiting Scholar</i>	Gainesville, FL, U.S.
2012 - Current	PURDUE UNIVERSITY <i>PhD Candidate in Biomedical Engineering</i>	West Lafayette, IN, U.S.
2011 - 2012	KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY (KIST) <i>Researcher</i>	Seoul, Korea
2009 - 2011	SEOUL NATIONAL UNIVERSITY <i>Master in Electrical Engineering</i> “Resource Allocation of Dedicated-channel in Multi-femtocell Networks”, Feb. 2011.	Seoul, Korea
2002 - 2009	HANYANG UNIVERSITY <i>Bachelor in Electrical and Computer Engineering</i>	Seoul, Korea

MILITARY SERVICE

2004 - 2006 **REPUBLIC OF KOREA (ROK) ARMY**

PUBLICATIONS

INTERNATIONAL JOURNAL ARTICLES

- Sommakia, S., Lee, H. C., Gaire, J., & Otto, K. J. Materials approaches for modulating neural tissue responses to implanted microelectrodes through mechanical and biochemical means. *Current Opinion in Solid State and Materials Science* **2014**, 18(6), 319-328.
- Chu, J. U., Jeong, M. J., Song, K. I., Lee, H. C., Kim, J., Kim, Y. J., ... & Youn, I. Spontaneous synchronized burst firing of subthalamic nucleus neurons in rat brain slices measured on multi-electrode arrays. *Neuroscience research* **2012**, 72(4), 324-340.
- Oh, D. C., Lee, H. C., & Lee, Y. H. Power control and beamforming for femtocells in the presence of channel uncertainty. *Vehicular Technology, IEEE Transactions on* **2011**, 60(6), 2545-2554.

INTERNATIONAL CONFERENCE PROCEEDINGS

- **Lee, H. C.**, Gaire, J., McDowell, S. P., & Otto, K. J. The effect of site placement within silicon microelectrodes on the long-term electrophysiological recordings. In *Engineering in Medicine and Biology Society (EMBC), 2014 36th Annual International Conference of the IEEE*. **Aug 2014**.
- **Lee, H. C.**, Oh, D. C., & Lee, Y. H. Coordinated user scheduling with transmit beamforming in the presence of inter-femtocell interference. In *Communications (ICC), 2011 IEEE International Conference on*. **June 2011**.
- Oh, D. C., **Lee, H. C.**, & Lee, Y. H. Cognitive radio based femtocell resource allocation. In *Information and Communication Technology Convergence (ICTC), 2010 International Conference on*. **Nov 2010**.
- Oh, D. C., **Lee, H. C.**, & Lee, Y. H. Linear hard decision combining for cooperative spectrum sensing in cognitive radio systems. In *Vehicular Technology Conference Fall (VTC 2010-Fall), 2010 IEEE 72nd*. **Sept 2010**.
- **Lee, H. C.**, Oh, D. C., & Lee, Y. H. Mitigation of inter-femtocell interference with adaptive fractional frequency reuse. In *Communications (ICC), 2010 IEEE International Conference on*. **May 2010**.

PRESENTATIONS

POSTER PRESENTATIONS

- **Lee, H. C.**, Gaire, J., McDermott, M. D., Zhang, J., & Otto, K. J. Improving the Performance of Intracortical Microelectrodes via Structural Modifications and Biochemical Intervention Strategies. BMES Annual Meeting. **Oct 2014**.
- **Lee, H. C.**, McDowell, S. P., Gaire, J., & Otto, K. J. Chronic Neural Recording Performance of Silicon Microelectrode Arrays with Modified Site Placement. DARPA RE-NET Program Review and Workshop. **Feb 2014**.

AWARDS & SCHOLARSHIPS

- Chungsoo Scholarship. Spring 2009 - Fall 2010.
- Capstone Design Fair. National Ministry of Education, Science and Technology. Special Award. Nov 2008.
- ECE Graduation Project, 3rd Place. Hanyang University. Nov 2008.
- Hanyang Merit-based Scholarship. Fall 2006.

EXTRACURRICULAR ACTIVITIES

- Research Symposium Chair. BMEGSA Research Symposium, Purdue University. 2013.
- PhD Representative. Biomedical Engineering Graduate Student Association (BMEGSA), Purdue University. 2013.
- Senior Student Representative. Electrical Engineering, Hanyang University. 2008.