EMILY W LAM

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Interests:

Future Technologies, Optical Wireless Communications, User-Technology Relationships, Smart Spaces, Embedded Systems, Electronics, Visual Art, Design, and Writing.

Education:

2016 – Present **Ph.D. in Electrical Engineering**, Boston University, Boston, MA
Dissertation: Work in Progress
Advisor: Prof. Thomas D.C. Little

2014 – 2016 **M.S. in Electrical Engineering**, Boston University, Boston, MA
M.S. Project: Visible Light Communication and Positioning
Advisor: Prof. Thomas D.C. Little

2010 – 2014 **B.S. in Electrical Engineering**, Boston University, Boston, MA
Senior Design Project: Portable Solar Energy Harvester
Cum Laude

Work Experience:

2014 – Present **Graduate Research Assistant**
Multimedia Communications Lab, Boston University, Boston, MA
Center for Lighting Enabled Systems & Applications (LESA)
Advisor: Prof. Thomas D.C. Little

2014 **Electrical Engineering Intern**
IDEO, Chicago, IL

2013 – 2014 **Undergraduate Research Assistant**
Multimedia Communications Lab, Boston University, Boston, MA
NSF Smart Lighting Engineering Research Center
Advisor: Prof. Thomas D.C. Little

2012 – 2013 **Undergraduate Research Assistant**
Applied Electromagnetics Lab, Boston University, Boston, MA
Advisor: Prof. Mark Horenstein

Teaching Experience:

2018 **Teaching Faculty Member**
Electrical Engineering Seminar, BU Summer Challenge, Summer Term High School Programs, Boston University

2016 – 2017	**Graduate Teaching Assistant** ENG EC544: Networking the Physical World, Department of Electrical and Computer Engineering, Boston University

Leadership and Community Work:

2015 – Present	**Workshop Leader**, BU Summer Pathways
2015 – Present	**Mentor**, Graduate Women in Science and Engineering (GWISE)
2017 – 2018	**Vice President**, LESA/Smart Lighting ERC Student Leadership Council
2015 – 2017	**University Chair**, LESA/Smart Lighting ERC Student Leadership Council
2011 – 2014	**Dean's Host**, College of Engineering

Awards:

2016 – 2017	Distinguished Electrical Engineering Fellowship, BU ECE
2014	Student Advisor Service Award, BU College of Engineering
2014	Best Hardware, BU Make'athon
2013	Clare Boothe Luce Scholar, Henry Luce Foundation
2013	UROP Faculty Matching Grant, BU
2013	Summer Term Alumni Research Scholar, BU

Extracurricular:

1. Panelist on "Making Things Wireless" and "The State of Microcontrollers," *Arisia Sci-Fi & Fantasy Convention*, Boston, MA, 2018.
2. "brACE, A Slouch Detection Wearable," article in *Circuit Cellar Magazine*, 2015.
3. Invited Alumni Speaker, Senior Banquet, *National Honor Society*, Lowell High School, Lowell, MA, 2011.

Publications:

1. **E. W. Lam** and T. D. C. Little, "Refining Light-Based Positioning for Indoor Smart Spaces," *4th ACM Workshop on Experience with the Design and Implementation of Smart Objects (SMARTOBJECTS'18)*, Los Angeles, CA, USA, 2018.
2. **E. W. Lam** and T. D. C. Little, "Resolving Height Uncertainty in Indoor Visible Light Positioning Using a Steerable Laser," *IEEE ICC 2018 Workshop - The 4th Workshop on Optical Wireless Communications (OWC)*, Kansas City, MO, 2018.
3. T. Little, M. Rahaim, I. Abdalla, **E. Lam**, R. Mcallister, A. M. Vegni, "A Multi-Cell Lighting Testbed for VLC and VLP," *First Global LiFi Congress (IEEE)*, Paris, France, 2018.

Technical Reports:

1. J. Intoy and **E. Lam**, "Room Occupancy Sensing Using a Thermal Tripwire," *Boston University Electrical and Computer Engineering Technical Report*, Boston, MA, 2018.
2. **E. Lam**, S. K. Wilson, H. Elgala, T. D. C. Little, "Spectrally and Energy Efficient OFDM (SEE-OFDM) for Intensity Modulated Optical Wireless Systems," *AirXiv*, 2015.

Poster Presentations:

1. **E. Lam** and T. D. C. Little, “Visible Light Communication and Positioning Testbed,” at *Center for Lighting Enabled Systems Applications Industry-Academia Days*, Troy, NY, 2018.
2. **E. Lam**, H. Elgala, and T. D. C. Little, “Subcarrier Allocation for Communication and Positioning,” at *Center for Lighting Enabled Systems Applications Industry-Academia Days*, Troy, NY, 2017.
3. **E. Lam**, H. Elgala, and T. D. C. Little, “SEE-OFDM Compared to Other Combination Optical OFDM Techniques,” at *Center for Lighting Enabled Systems Applications Industry-Academia Days*, Troy, NY, 2016.
4. J. Jean-Michel, C. Morleo, **E. Lam**, M. Rahaim, and T. D.C. Little, “Indoor Positioning using SDR-Based Visible Light Communications,” at *New England Workshop on Software Defined Radio (NEWSDR)*, Northeastern University, Boston, MA, 2016.
5. **E. Lam**, H. Elgala, and T. D. C. Little, “Optical OFDM and Dimming in Visible Light Communications,” at *GE Global Research Center Student Research Summit*, Niskayuna, NY, 2015.
6. **E. Lam**, H. Elgala, and T. D. C. Little, “Optical OFDM and Dimming in Visible Light Communication Systems,” at *Smart Lighting ERC Industry-Academia Days*, Troy, NY, 2015.
7. **E. Lam**, J. Chege, J. Glynn, J. Jones, N. Madonna, M. Siwkiewicz, and T. D. C. Little, “TiLED (Tiled LED) Smart Room,” at *Boston University Undergraduate Research Symposium*, Boston, MA, 2013.