YU-WEN (WENDY) LIN

2215 Channing Way Apt 3, Berkeley, CA 94704 · (206)-886-7535 · yuwen.lin@berkeley.edu · linyuwen.com

EDUCATION

University of California, Berkeley Aug 2018-Present
Ph.D. Scholar in Electrical Engineering and Computer Science *Berkeley, CA*
Relevant coursework: Optimization model in Engineering, Machine Learning, Deep Reinforcement Learning, Linear System Theory, Nonlinear Systems, Theoretical Statistics

Georgia Institute of Technology Aug 2015-May 2018
Bachelor of Science in Electrical Engineering; GPA: 3.8/4.0 *Atlanta, GA*

RESEARCH INTEREST

Optimization, Machine Learning, Control Systems, and their applications to Smart Buildings.

AWARDS AND HONOR

- Singapore-Berkeley Building Efficiency and Sustainability in the Tropics (SinBerBEST) Graduate fellowship, National Research Foundation (NRF), Singapore 2018-Present
- Member, Tau Beta Pi Engineering Honor Society 2017-Present
- Opportunity Research Scholar, Georgia Tech 2016-2018
- Summer Undergraduate Research Fellowship, Purdue University 2017
- Best Research Presentation Award at GT ORS Research Competition 2016 & 2017

PUBLICATIONS

- **Yu-wen Lin**, Evan L Schlenker, Zhou Zhiguang, Peter Bermel (2017), "Radiative Cooling Experiment," https://nanohub.org/resources/radcool. (DOI: 10.4231/D3DR2PB4W).
- **Yu-wen Lin**, Evan L Schlenker, Zhou Zhiguang, Peter Bermel (2017), "RadCool: a Web-enabled Simulation Tool for Radiative Cooling," https://nanohub.org/resources/26902.

RELEVANT PROJECTS

Hysteresis in thermal comfort (Ongoing)

- Designing a physical experiment to capture hysteresis effect on human thermal discomfort and ambient temperature
- Creating a data-driven controller that is able to minimize energy cost and maximize occupants thermal comfort

Building Control via Deep Reinforcement Learning

- Obtained the optimal control strategy to reduce energy consumption while maintaining occupants thermal comfort
- Created a large-scale virtual building environment testbed to allow the RL algorithms to be tested on

Autonomous Low Frequency Radio Wave Receiver

- Designed a portable and efficient system that is able to detect very low frequency radio waves (3-30 kHz) to characterize Earth's D-region ionosphere in real-time and identify phase instability from collected signal data
- Created a printed circuit board of an eighth order low pass filter by modifying the currently existing circuit board with Eagle CAD software, and ensured successful data collection from the antenna and propagation to the ADC

RadCool: A Web-enabled Simulation Tool for Radiative Cooling

- Published a simulation tool that models radiative cooling to help designing new experiments
- Developed the tool using Rappture for the interactive interface and Python for the algorithm

PROFESSIONAL/RESEARCH EXPERIENCE

Hon Hai Precision Industry Co., Ltd. (Foxconn Technology Group) May 2018 - August 2018
Product Management Intern *Taipei, Taiwan*

- Facilitated communication between technical and market team to meet client's specifications and product deadline.
- Performed overseas client outreach for company's product promotion, with a number of successful deals
- Developed a production line that includes production cost, labor cost, service fee and presented to the company.

Georgia Tech Low Frequency Lab October 2016 - May 2018
Undergraduate Research Assisstant under Dr. Morris Cohen *Atlanta, GA*

- Simulated and tested circuits for the filter design using LT Spice to ensure the functionality of the design
- Soldered the individual components onto the PCB, and characterizing the custom filter with a vector network analyzer to ensure the filter fulfills the requirements of our receiver

Network for Computational Nanotechnology May 2017 - August 2017
Research Intern under Dr. Peter Bermel *West Lafayatte, INN*

- The simulation tool created served at least 8 different users and was ran 32 times in a month
- Knowledge of photovoltaic cells, thermophotovoltaic devices, and radiative cooling to design the simulation tool
- Presented the simulation tool in three poster sessions and two oral sessions and received positive feedback

Ultrafast Biomedical Optics Group July 2014-August 2014
Research Intern under Dr. Tzu-Ming Liu *Taipei, Taiwan*

- The goal is to determine whether femtosecond lasers could be used on human skin to detect different kinds of white blood cells; it can potentially allow doctors to examine a patient's blood without having to draw a blood sample
- Facilitated the preparation of human clinical trials and further optical inspections
- Isolated white blood cells and mounted of specimens on the microscope
- Collected and Analyzed nonlinear optical images using femtosecond lasers

TECHNICAL STRENGTHS

Software	Microsoft Office, Eagle CAD, NI Multisim, Quartus II, LT Spice, Mathcad
Instrumentation	Mbed microcontroller, Oscilloscope, Function generator, Soldering
Programming	Python, C, MATLAB, Assembly, Java, VHDL
Communication	Design proposals, Gantt chart, Public Speaking, Leadership

REFERENCE

Costas J. Spanos
`spanos@berkeley.edu`
Andrew S. Grove Distinguished Professor, EECS, UC Berkeley
Director and CEO, Berkeley Education Alliance for Research in Singapore (BEARS)