

Faculty Vitae

1. Name

Fred Lacy

2. Education – degree, discipline, institution, year

| | | | |
|----------|------------------------|--------------------------|------|
| Ph.D. | Electrical Engineering | Howard University | 1993 |
| M.S.E. | Electrical Engineering | Johns Hopkins University | 1989 |
| B.S.E.E. | Electrical Engineering | Howard University | 1987 |

3. Academic experience – institution, rank, title (chair, coordinator, etc. if appropriate), when (ex. 2002-2007), full time or part time

| | | | |
|---------------------|---------------|----------------|-----------|
| Southern University | Chair | 2014 – present | full time |
| Southern University | Professor | 2013 – present | full time |
| Southern University | Assoc. Prof. | 2007 – 2013 | full time |
| Southern University | Assist. Prof. | 2002 – 2007 | full time |
| TESST College | Instructor | 1999 – 2000 | part time |
| UCSD | Postdoc. | 1994–1998 | full time |

4. Non-academic experience – company or entity, title, brief description of position, when (ex. 2008-2012), full time or part time

Point Mugu Naval Air Station, Electrical Engineer, characterization of noise quality from electronic warfare equipment, summer 2011, full time

LSU / Center for Advanced Microstructures and Devices, Research Associate, design, fabrication, and testing of biomedical sensors, 2001 – 2002, full time

Food and Drug Administration, Electrical Engineer, performed scientific review of medical devices before they were marketed, 1998 – 2001, full time

Naval Surface Warfare Center, Electrical Engineer, designed electrical circuits that were used in explosives test measurements, 1988 – 1990, full time

5. Certifications or professional registrations

| | |
|---|------|
| Quality Matters Online Course Development Certification | 2019 |
|---|------|

6. Current membership in professional organizations

None

7. Honors and awards

| | |
|---|-------------|
| Best Conference Paper Award [WCECS / ICEEA] | 2019 |
| Best Conference Paper Award [Int. Journal of Arts & Sci.] | 2009 |
| WCECS / ICEEA Conference Paper Certificate of Merit | 2007 |
| SMART Research Award [SU / NSF] | 2004 |
| Outstanding Service Award (Honors Thesis Research) [SU] | 2003 - 2004 |

| | |
|-----------------------------------|-------------|
| Outstanding Faculty Award [SU/EE] | 2013 – 2018 |
| Outstanding Faculty Award [SU/EE] | 2010 – 2012 |
| Outstanding Faculty Award [SU/EE] | 2008 – 2009 |

8. Service activities (within and outside of the institution)

| | |
|--|----------------|
| IEEE student group adviser | 2018 – present |
| Engineers Week Committee Chairman | 2016 – present |
| High School Student Outreach / Workshops | 2016 – present |

9. Briefly list the most important publications and presentations from the past five years – title, co-authors if any, where published and/or presented, date of publication or presentation

“Understanding the Behavior of Superconductors by Analyzing Permittivity”, Fred Lacy, Int. J. of Elec. and Comp. Eng. 15(2), p. 60, 2021.

“Video-Based Automated Pedestrians Counting Algorithms for Smart Cities”, Willson Meli, Fred Lacy, Yasser Ismail, Int. J. of Com. Dig. Sys. 9(6), p. 1065, Nov. 2020.

“Toxicity of Nanomaterials due to Photochemical Degradation and the Release of Heavy Metal Ions”, Jeladhara Sobhanan, Philip Jones, Reiko Kohara, Sakiko Sugino, Martin Vacha, Challapally Subrahmanyam, Yuta Takano, Fred Lacy, Vasudevanpillai Biju, Nanoscale, Sept. 2020.

“CHIMES: Chemical Identification by Magneto Elastic Sensing”, Yeshak Dabels, Yasser Ismail, Fred Lacy, Int. J. of Com. Dig. Sys. 9(4), July 2020.

“A Service-Oriented Learning Approach for the Electrical Engineering Capstone Design Course”, Radian Belu, Fred Lacy, American Society for Engineering Education, 2020

“Electrical Resistance of Superconductors”, Fred Lacy, Proceedings of the World Congress on Engineering and Computer Science 2019

“Experiment-Centric Pedagogy – Improving the HBCU Engineering Student Learning Experience”, K. Connor, et al., Proceedings of the 2018 ASEE Annual Conference, 2018

“Preparation and Simulation of a SAW/Capacitance Sensor”, T. Walpita and F. Lacy, Proceedings of the World Congress on Engineering and Computer Science 2016

10. Briefly list the most recent professional development activities

| | |
|--|------|
| IBM Internet of Things Workshop | 2020 |
| Quality Matters (QM) Online Course Development | 2019 |

“Using Sensor Networks and Machine Learning to Characterize Agriculture Response to Stimuli”, US Federal Government Grant, \$350,000, July 2021 – June 2023, Fred Lacy (PI)