



Work-Life Balance in the Academy

Deidra R. Hodges, Ph.D., ECE Chair, Assoc. Professor
January 24, 2023

About me...



□ ECE Chair and Associate Professor

- **Courses: Quantum Mechanics, Semiconductor Devices, Integrated Circuits, Semiconductor Materials and Characterization, Applied Photovoltaics, Renewable Energy**

□ Research

- **Quantum Circuits for Quantum Sensing and Computing**
- **Perovskite Solar Cells and Thin-Film Materials**
- **Gamma-ray Radiation Detectors for Homeland Security**

About me...

FIU

**Dual-Degree Program at Dillard University and Columbia University Majors:
Physics and Electrical Engineering, BS Physics, BS EE, PhD EE at USF**

Ebony Magazine



Deidra Hodges, 21, is a native of New Orleans. A participant in a special program, she earned a physics degree from Dillard after three years of study and will earn an electrical engineering degree from Columbia University in New York next spring.

**Summer Internships:
Corning Glass
Works**



**Stanford Linear
Accelerator
(SLAC)**

SLAC

**NATIONAL
ACCELERATOR
LABORATORY**

About me...



**B.S.
Physics**

1982

1984

1989

1994

2005

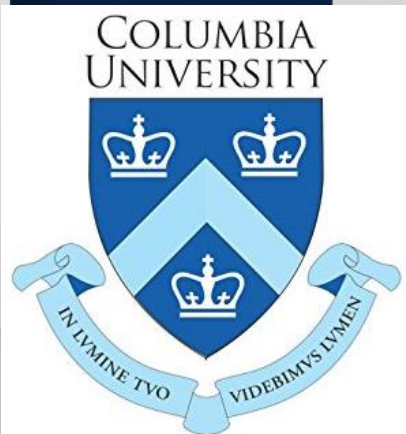
2009

2010

2014

2021

**B.S. and
M.S. in EE**

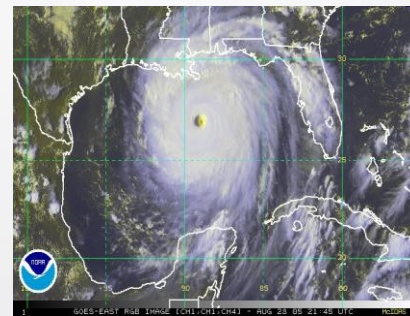


Completed Ph.D.



Assistant Professor

Hurricane Katrina



**Assistant
Professor**



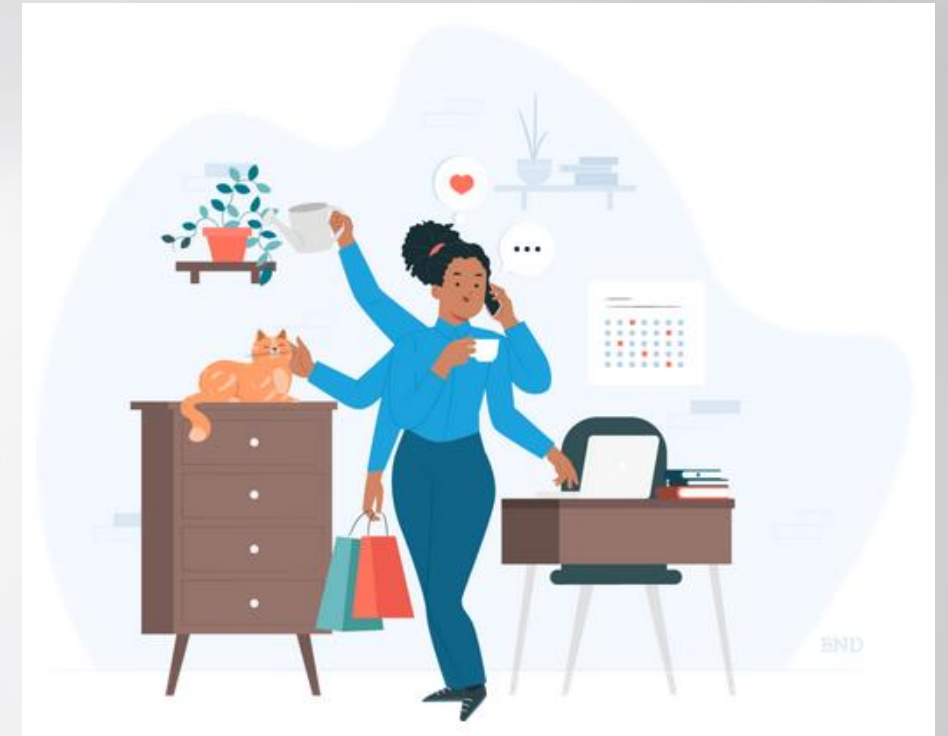
**Associate
Professor and
ECE Chair**



My Roadmap...



- ❑ **Balancing your work and personal life:**
 - ❑ **Challenging**
 - ❑ **Essential**
- ❑ **Career demands should be equally prioritized with one's personal life.**



Work-Life Balance



in the Academy

- ❑ Reasons that result in a poor work-life balance:
 - ❑ Increased responsibilities at work and/or at home
 - ❑ Working longer hours
 - ❑ Having children



Work-Life Balance



in the Academy

❑ Positive effects of a good work-life balance:

- ❑ Less stress
- ❑ Lower risk of burnout
- ❑ A greater sense of well-being



Work-Life Balance



in the Academy

□ Ways to create a better work-life balance:

□ Prioritize your health

□ Don't be afraid to unplug

□ Take a vacation

□ Make time for yourself and your loved ones

□ Set boundaries and work hours

□ Set goals and priorities



❑ Black Superwoman Syndrome

- ❑ Obligation to manifest strength
- ❑ Obligation to suppress emotions
- ❑ Resistance to being vulnerable or dependent
- ❑ Determination to succeed despite significantly limited resources
- ❑ Obligation to help others



Work-Life Balance



in the Academy

- ❑ **Black Superwoman Syndrome**
 - ❑ **An asset and a liability to ascend in the Academy**
 - ❑ **Enables Black women to thrive in leadership**
 - ❑ **Being one of a few or the only, feeds the syndrome**



- ❑ **Black Superwoman Syndrome**
 - ❑ **The pressure on Black women to juggle and be perfect at all things because of unequal expectations at the intersection of race and gender-based oppression takes a physical and emotional toll.**



❑ Black Superwoman Syndrome

- ❑ Manifest strength – put on a “strong face” no matter
- ❑ Suppress emotions – walk on eggshells and internalize feelings to avoid the “weak” or “angry black woman” typecast
- ❑ Resistance to vulnerability – reject help and lack trust
- ❑ Determination to succeed – being held to higher expectations for performance, with limited resources

- ❑ **Black Superwoman Syndrome**
 - ❑ **Obligated to help others**
 - ❑ **Rarely take days off from work**
 - ❑ **Don't prioritize doctor appointments**



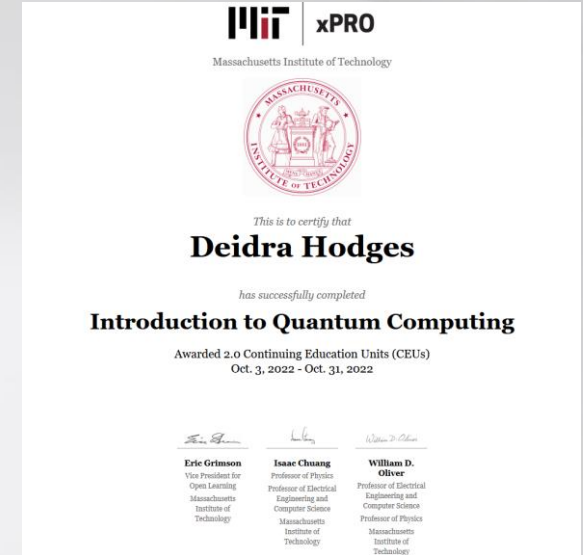
Work-Life Balance



in the Academy

Black Superwoman Syndrome

Personally, when I am told I can't do something because of my race and gender...



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My inspiration...

The logo for Florida International University (FIU) is displayed in a dark blue square. The letters 'FIU' are in a bold, white, sans-serif font with a yellow outline.

- Life is a journey!**
 - Be willing to try, believe and take risks!**
 - Know that you can do all things!**
 - Believe that nothing is impossible!**
 - When life's challenges happen, move forward, and don't focus on the past.**
 - Have positive and supportive friends.**
-

My inspiration...



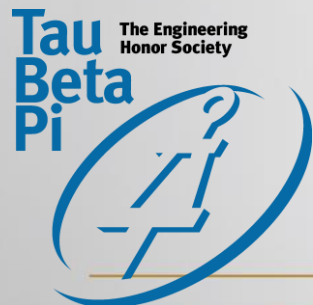
- ❑ **A wealth of resources and opportunities are out there waiting for you to tap into!**
- ❑ **Fellowships, Faculty positions, and research opportunities...**
- ❑ **A world of help and support is available!**
- ❑ **Teachers, Professors, Academic Advisors, Google, YouTube, friends and many others...**

Ophelia ...



Scholarships awarded:

- University of Alabama Birmingham
- Georgia Engineering Foundation
- Tau Beta Pi
- UNCF Merck → Merck Pharmaceuticals
- Marshall → Imperial College, London
- NSF GRFP → Ph.D. at Drexel



Graduate
Research
Fellowship
Program



PV Rooftop System Installation - Research



FIU

PV Rooftop System Installation - Research

- The power bill showing energy usage (kWh) before and after PV installation.
- What is the difference between the previous meter reading and the current reading?
- How much energy was used before the PV installation?
- How much energy was put on the grid, with netmetering?

Billing Period 29 Days

Meter 114048750

Current Reading 03/21/13 5

Previous Reading 02/20/13 5

Energy Usage (kWh) Multiplier - 1 0

Energy Cost - Residential

Service Charge 11.36

Energy Cost Total \$11.36

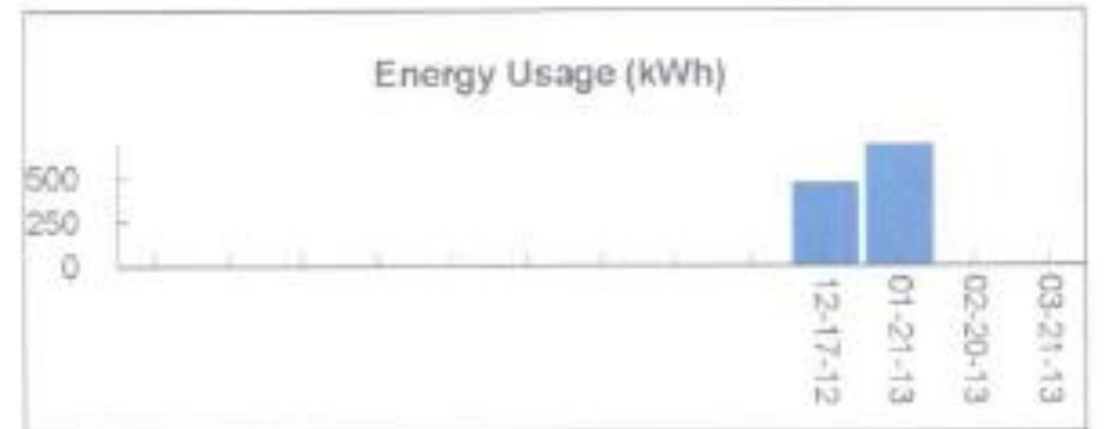
Regulatory Fees and Taxes

Franchise 0.45

Local 0.35

State 0.47

Regulatory Fees and Taxes Total \$1.27



PV Rooftop System Installation - Research

- Is there a cost on the bill, even though no net energy was used from the grid?
- What is your cost of energy based on your utility bill?
- How much energy (kWh) do you consume on a daily basis?

Billing Period 29 Days

Meter 114048750

Current Reading 09/16/14 349

Previous Reading 08/18/14 349

Energy Usage (kWh) Multiplier - 1 0

Energy Cost - Residential

Service Charge 11.36

Energy Cost Total **\$11.36**

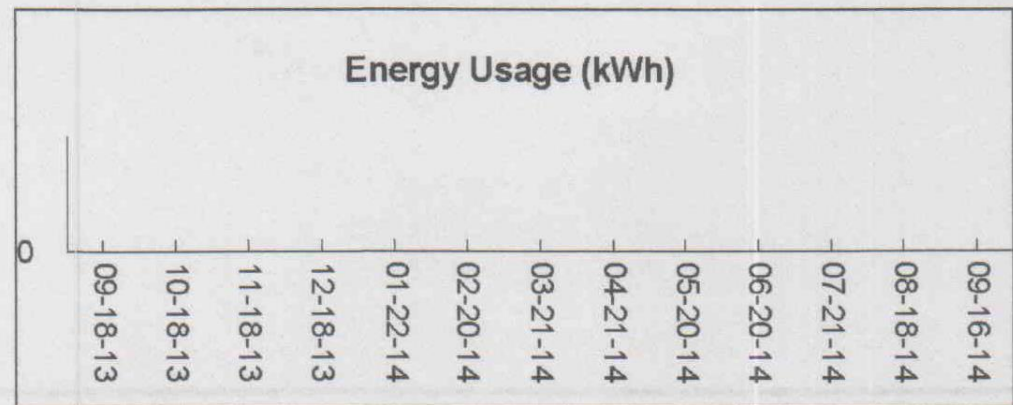
Regulatory Fees and Taxes

Franchise 0.45

Local 0.35


State 0.47

Regulatory Fees and Taxes Total **\$1.27**



PV Rooftop System Installation - Research

- Power company billing changes, now include netmetering! (I like to think, I had something to do with that decision.)



AN ELECTRIC MEMBERSHIP CORPORATION

Previous Balance	-210.80
Payments Received	0.00
Total Amount Due	-\$236.53

Service Information
400 HILL CREST CIR 1131690065

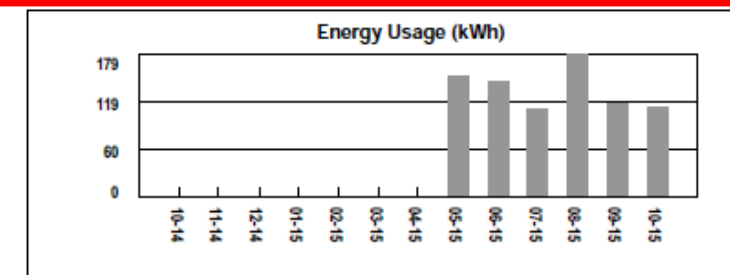
Billing Period 30 Days



GREYSTONE POWER
AN ELECTRIC MEMBERSHIP CORPORATION
GreyStone Power is an equal opportunity provider and employer.

MEMBER ACCOUNT DETAILS

Service Information		
400 HILL CREST CIR		1131690064
Billing Period 36 Days		
Meter 114048750		
Current Reading	10/23/15	9305
Previous Reading	09/17/15	9193
Consumed Energy Usage (kWh) Mult - 1		112
Current Reading	10/23/15	22868
Previous Reading	09/17/15	22048
Excess Energy Generated (kWh) Mult - 1		-820
Consumed Energy Usage		112
Excess Energy Generated		-820
Net Energy (kWh)		-708
Net Metering Residential		
Energy		-30.73
Net Buyback	\$0.06000	-42.48
Net Metering Residential Total		-\$30.73



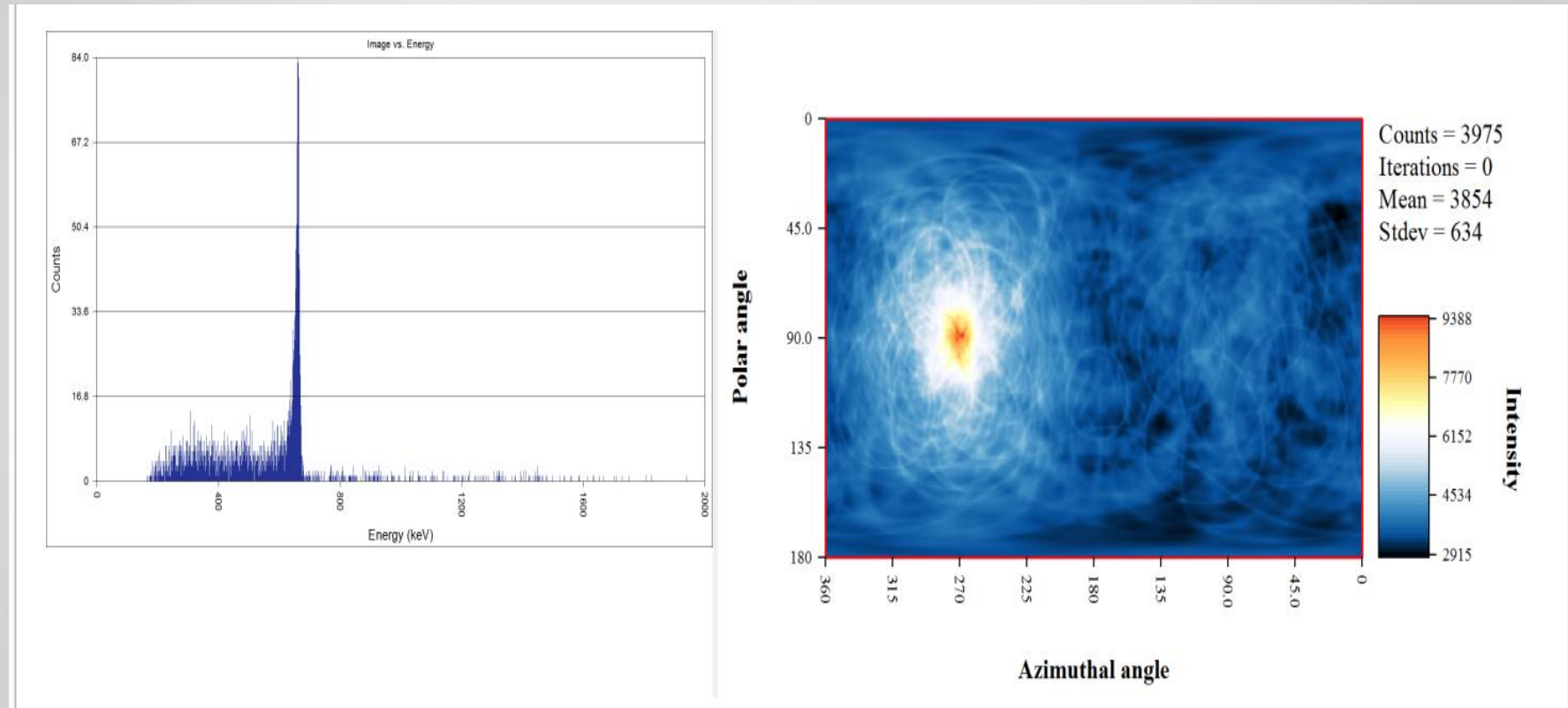
PV Rooftop System Installation - Research

System Output and Degradation Study

Month	2013	2014	2015	2016	2017
January	404 kWh	739 kWh	683 kWh	708 kWh	617 kWh
February	647 kWh	630 kWh	675 kWh	773 kWh	660 kWh
March	855 kWh	834 kWh	726 kWh	907 kWh	904 kWh
April	921 kWh	834 kWh	810 kWh	999 kWh	892 kWh
May	912 kWh	953 kWh	1,013 kWh	1,002 kWh	921 kWh
June	871 kWh	837 kWh	972 kWh	933 kWh	788 kWh
July	745 kWh	888 kWh	956 kWh	911 kWh	922 kWh
August	803 kWh	922 kWh	904 kWh	909 kWh	837 kWh
September	876 kWh	741 kWh	799 kWh	966 kWh	922 kWh
October	837 kWh	862 kWh	732 kWh	1,009 kWh	835 kWh
November	720 kWh	764 kWh	559 kWh	793 kWh	691 kWh
December	489 kWh	531 kWh	551 kWh	558 kWh	469 kWh
Total	9,080 kWh	9,535 kWh	9,379 kWh	10,468 kWh	9,459 kWh

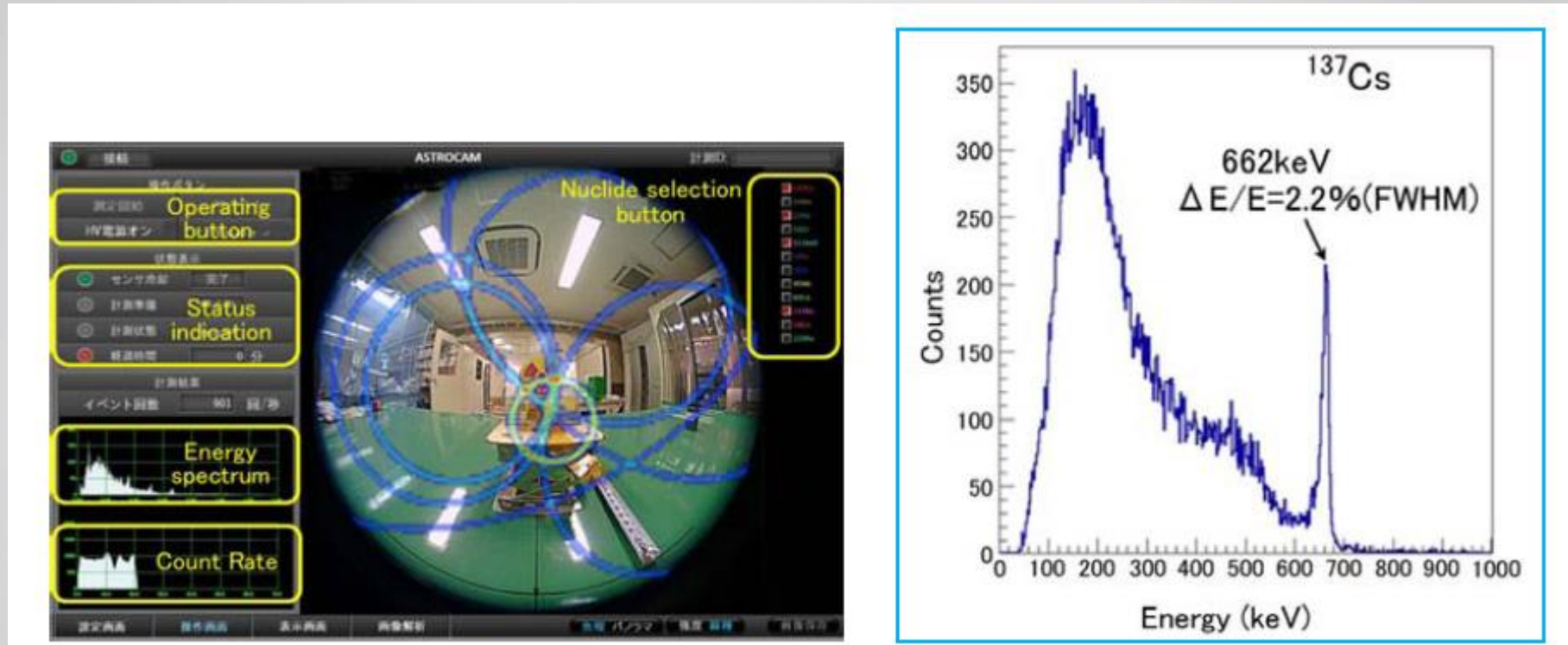
X- and γ -ray Detectors

Compton Camera - position and energy of the source reconstructed.



X- and γ -ray Detectors

Field-portable Compton Camera



D. MATSUURA, K. GENBA, Y. KURODA, H. IKEBUCHI, and T. TOMONAKA, "'ASTROCAM 7000HS' Radioactive Substance Visualization Camera," *Mitsubishi Heavy Industries Technical Review*, vol. 51, March 2014.

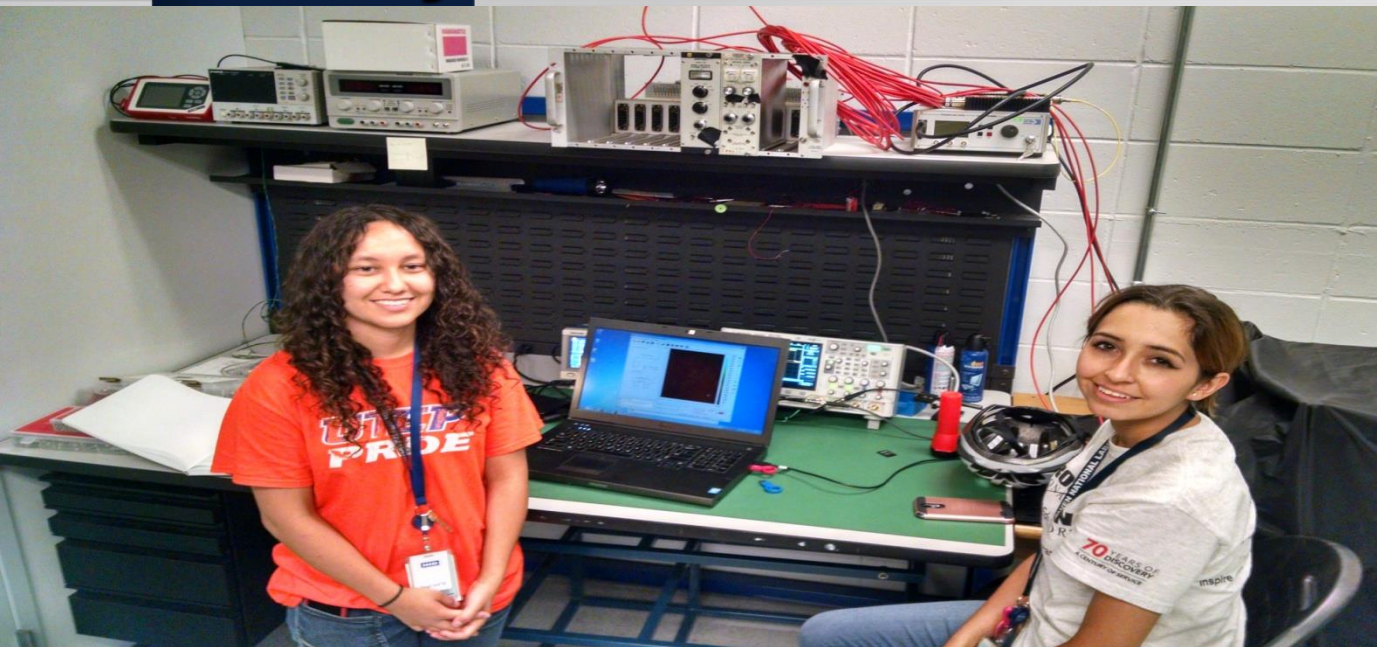
My undergraduate research students ...



My students and summer research at BNL ...



My Students and Research ...



My students and summer research at BNL ...



Teaching students Solar Energy ...



Special thanks to the Team!



FIU

Special thanks to the Team!



FIU



Questions?

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<http://noed.fiu.edu>