



# UNLOCKING THE POWER OF SEMICONDUCTORS

**Dr. Kiki Ikossi**

**This presentation will provide a brief overview of the technological evolution of microwave amplifiers as experienced through a unique career path.**

**We will examine how daring to explore unconventional materials and understand their behavior at the nano-level led to the high-performance microwave power amplifiers that fuel the communications revolution of our times. We will see how unconventional materials for high-frequency devices can be equally exciting and Beneficial for solar cells and optoelectronic devices. We will see how the feared semiconductor trapping centers of the past become part of the new devices for quantum engineering.**

**Finally, the prospect of the future for semiconductor research will be explored.**

## **BIOGRAPHY:**

**Dr. Kiki Ikossi is an American Association for the advancement of Science (AAAS)-Science and Technology Policy Fellow currently at the National Science Foundation (NSF) in Alexandria, VA.**

**Dr. Ikossi's area of professional expertise is in advanced micro and nano electronic devices in exploratory materials. Her research interests include high frequency – high-efficiency power amplifiers, nano-optoelectronics, sensors, detectors, photovoltaics, quantum effects for solid-state devices, and unconventional materials for device applications. She has published over 100 scientific papers, has numerous invention disclosures and a US patent.**

**Dr. Ikossi has held positions in academia, major research labs, and government. She was a tenured associate professor at Louisiana State University, Baton Rouge, LA; a research professor and adjunct professor at George Mason University**



**Fairfax, VA, an adjunct professor at Northern Virginia Community College, a senior scientist at the electronics lab at Wright Paterson Air Force Base, Dayton, Ohio, an AA EE faculty research fellow and senior scientist at the Naval Research Laboratory, Washington, D.C., a technology advisor for the Department of Commerce, Bureau of industries and Securities, Office of National Security and Technology Transfer Control, a science and technology program manager for basic science research programs with DoD and President of I-Cube Inc. Dr. Ikossi has Ph.D. and M.S. degrees in Electrical and Computer Engineering from the University of Cincinnati with emphasis in Solid-State Electronics, and a B.S.E.E. from the National Technical University of Athens (EMP), Greece.**

**Register to attend Via Zoom**  
<https://fiu.zoom.us/meeting/register/tJUpd--ppzosEtTio79quuriaDCoMVtcOpBZ>

**Friday, April 1st, 2022**

**ECE 3930**

**10:45 am - 12:00pm**