



**Name of the Event:** New Frontiers of Hardware Security in the IoT Regime

**Event Type:** Athenaeum Talk Series

**Speaker:** Dr. Swarup Bhunia

**SIG:** CompSoc

**Event Date:** Thursday, October 5th

**Event Time:** 6:30 PM - 7:15 PM

**Location:** Online

**Turnout:** 25

**Event Description:**

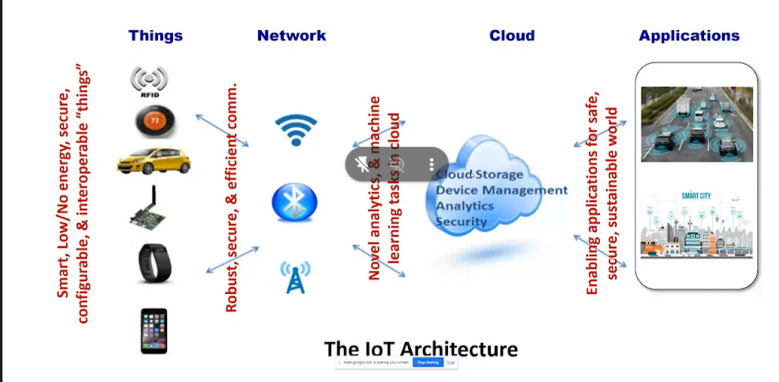
Dr. Swarup Bhunia, a Professor of IoT at the University of Florida, spoke about the significant challenges associated with IoT security in today's interconnected world. The event provided valuable insights into the critical domain of IoT security and emerging solutions for secure hardware. The talk focused on the concept of trustworthy hardware and how recent security attacks on microchips and circuits have raised concerns and the need to establish hardware trust anchors in IoT devices. The presentation shed light on the security issues stemming from current business models, which underscored the urgency of enhancing hardware security. Dr. Bhunia highlighted the integral role of verification in ensuring hardware security and discussed the development of novel security primitives and design-for-security approaches as essential elements in achieving secure hardware for diverse IoT applications. The attendees gained valuable insights into the importance of secure hardware, the role of verification, and innovative approaches to address evolving security threats.

Event Pictures:

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Swarup Bhunia (Presenting)

### Demand for Innovation at All Levels



**Things**: Smart, Low/No energy, secure, configurable, & interoperable "things"

**Network**: Robust, secure, & efficient comm.

**Cloud**: Novel analytics & machine learning tasks in cloud; Cloud Storage, Device Management, Analytics, Security


**Applications**: Enabling applications for safe, secure, sustainable world

**The IoT Architecture**

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### What are Unique to IoT Security?

- Connects with physical world
- Long, complex life cycle
- Mass produced in same configuration
- Devices never intended to be connected
- Machine-to-machine
- Physical attacks
- Requires holistic view of device to cloud and the comm. between them



Slide Courtesy: Prof. Sandip Ray, UF

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