



# WPI



Dr. Paul Ratazzi leads a scientific team developing the next generation of cyber defense technologies. He holds a BSEE from RPI, an MS from Syracuse, an MS in Management from RPI and a PhD in EECE from Syracuse. Paul is a Senior Member of the Institute of Electrical and Electronics Engineers, Past Chair of the Mohawk Valley Section of the IEEE, and Board Member of the Erie Canal Chapter of the Armed Forces Communications and Electronics Association.



**CyberCorps®: Scholarship for Service**

**Seminar Series 2017-2018**

## **Understanding & Improving Security of the Android Operating System**

**Dr. Paul Ratazzi**

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**Air Force Research Lab**

**Date:** Tuesday, September 26, 2017

**Place:** 320 Fuller Labs

**Time:** 11:00 am – 1:00pm (discussion followed by pizza)

### **Abstract**

Realization of practical computer security improvements requires understanding and insight into the system's security architecture, combined with a consideration of end-users' needs and the system's design tenets. Since Android is a user centric, robust operating system with an open, modular architecture, combining these insights and understandings is vital when designing security improvements. This talk describes a novel lightweight virtualization architecture that was conceived and implemented in Android using this mindset. The architecture protects sensitive resources while preserving Android's open architecture and expected levels of performance and usability. Following this technical presentation, the speaker will provide an overview of AFRL's Information Directorate (RI), with an emphasis on RI's Cyber Science & Technology Core Technical Competency (CTC), in order to highlight potential career opportunities for CyberCorps®: Scholarship for Service participants as well as the general WPI student population.