

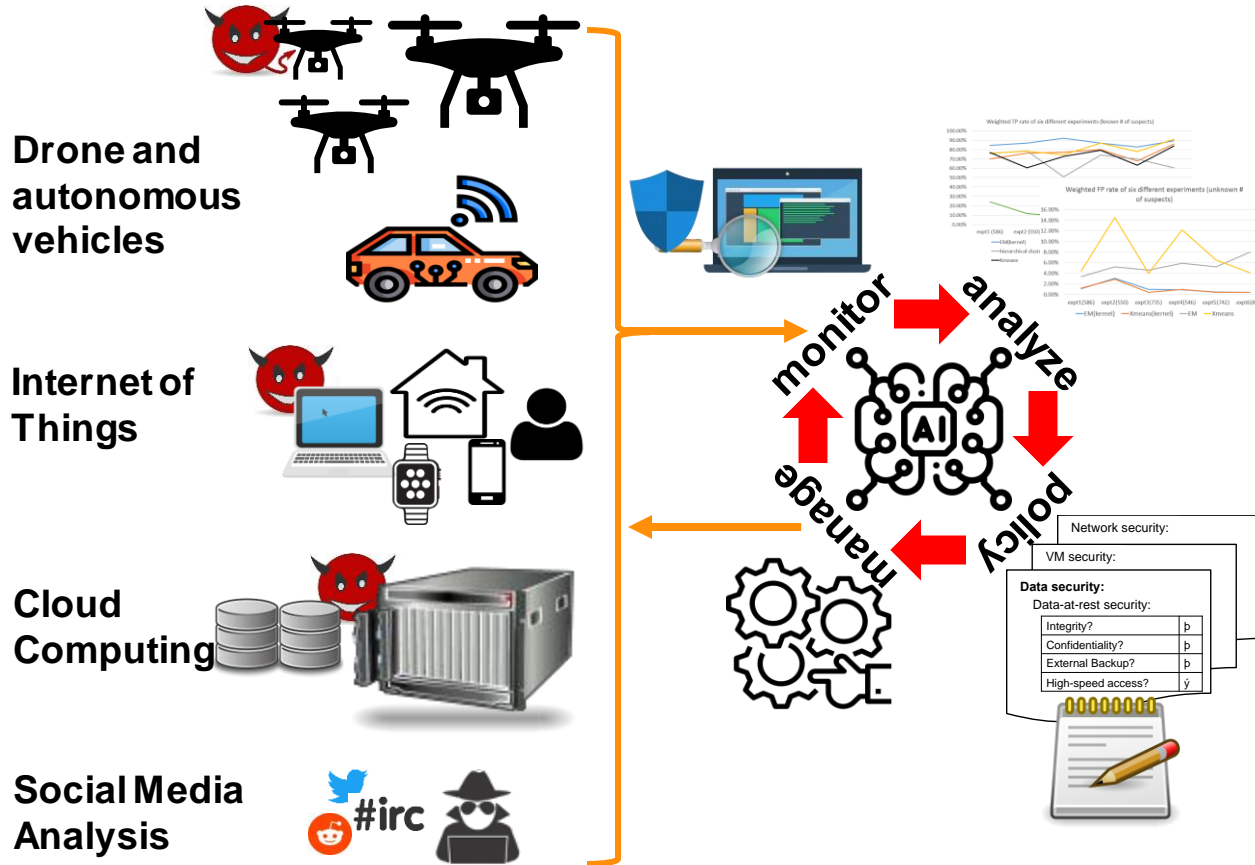
# Cihan Tunc

Assistant Professor

Department of Computer Science and Engineering

**Research Interests:** cybersecurity, cloud computing, Internet of Things (IoT), unmanned vehicles security, social media analysis, cybersecurity education

## Smart Cyber Space (SCS): Proactive Autonomic Cyber-Security and Management Solutions



### Research problems

#### How to monitor cyberspace?

- Granularity
- Overhead

#### What are the constraints?

- Security
- Resiliency & fault-tolerance
- Power/energy consumption
- Performance
- Better utilization

#### What to analyze?

- Apps, platforms, resources, systems
- Network
- Cloud computing
- IoT/IloT devices
- Smart environments
- Users (system/app usage)
- Social media

#### How to detect & mitigate anomalies?

- Signature vs anomaly based IDS/IPS
- Cyber-resiliency
- Moving target defense
- Autonomic computing

#### How to identify threats in advance?

- Social media analysis

#### How to teach cybersecurity?

- Theory
- Practice & experiments