

# T. Charles Clancy, PhD, FIEEE

## EXPERIENCE

---

### **The MITRE Corporation, McLean, VA**

Senior Vice President & General Manager, MITRE Labs; Chief Futurist	2020 – present
Vice President for Intelligence Programs	2019 – 2020

### **Virginia Tech, Arlington, VA**

Interim Executive Director, Commonwealth Cyber Initiative; Bradley Distinguished Professor	2018 – 2019
Executive Director, Hume Center; Professor of Electrical and Computer Engineering	2017 – 2019
Director, Hume Center; Associate Professor of Electrical and Computer Engineering	2011 – 2017
Associate Director, Hume Center; Research Fellow	2010 – 2011

### **National Security Agency, Fort Meade, MD**

Engineering Leader GS-14, Laboratory for Telecommunications Sciences	2008 – 2010
Senior Researcher GS-13, Laboratory for Telecommunications Sciences	2006 – 2008
Researcher GS-12, Laboratory for Telecommunications Sciences	2005 – 2006
Summer Hire & Graduate Researcher	2000 – 2005

## EDUCATION

---

### **University of Maryland, College Park, MD**

PhD, Computer Science	May 2006
-----------------------	----------

### **University of Illinois, Urbana-Champaign, IL**

MS, Electrical Engineering	Dec 2002
----------------------------	----------

### **Rose-Hulman Institute of Technology, Terre Haute, IN**

BS, Computer Engineering, <i>summa cum laude</i>	May 2001
--	----------

## CURRENT PROFESSIONAL ACTIVITIES

---

### **Professional Organizations**

- Fellow, Institute for Electrical and Electronics Engineers (IEEE)
- Board Executive Committee, Armed Forces Communications and Electronics Association (AFCEA)
- Intelligence Committee, Armed Forces Communications and Electronics Association (AFCEA)
- Task Force on AI and National Security, Center for New American Security (CNAS)
- Conference Board & Past Conference Chair, IEEE Military Communications Conference (MILCOM)
- Conference Board & Past Conference Chair, IEEE Communications and Network Security (CNS)
- Next G Alliance Steering Group, Alliance for Telecommunications Industry Solutions (ATIS)

### **DOD University Affiliated Research Center Advisory Boards**

- Systems Engineering Research Center
- Research Institute for Tactical Autonomy

## University Advisory Boards

- National Security Institute, Virginia Tech
- DoD Cybersecurity Center of Excellence, Norfolk State University
- DoD AI and Machine Learning Center of Excellence, Howard University
- Computer Science Department, North Carolina A&T

## ENTREPRENEURSHIP

---

Co-Founder, Chairman, and Interim CEO, SecureG, 2019

Founding Advisor, DeepSig, 2017

Co-Founder and Interim CTO, HawkEye 360, 2015

Co-Founder and Advisor, Federated Wireless, 2012

Co-Founder and Advisor, Optio Labs, 2012

## CONGRESSIONAL TESTIMONY

---

### Senate Committee on the Judiciary

5G: National Security Concerns, IP Issues, and the Impact on Competition and Innovation May 2019

### House Committee on Science, Space, and Technology; Subcommittee on Oversight

Bolstering Data Privacy and Mobile Security: An Assessment of IMSI Catcher Threats June 2018

### House Energy and Commerce Committee; Subcommittee on Communications and Technology

Telecommunications, Global Competitiveness, and National Security May 2018

Promoting Security in Wireless Technology June 2017

## PATENTS

---

11,418,955	System and Methods for Transit Path Security Assured Network Slices	Mar 2022
10,474,976	Hierarchical Satellite Task Scheduling System	Nov 2019
10,396,919	Processing of Communications Signals using Machine Learning	Aug 2019
9,787,681	Systems and methods for Enforcing Access Control Policies on Privileged Accesses on Mobile Devices	Oct 2017
9,773,107	Systems and Methods for Enforcing Security in Mobile Computing	Sep 2017
9,712,530	Systems and Methods for Enforcing Security in Mobile Computing	Jul 2017
9,609,020	Systems and Methods to Enforce Security Policies on the Loading, Linking, and Execution of Native Code by Mobile Applications Running inside of Virtual Machines	Mar 2017
9,578,445	Systems and Methods to Synchronize Data to a Mobile Device	Feb 2017
9,544,778	Method of Network Sharing between Public Safety and Commercial Users	Jan 2017
9,516,508	System and Method for Heterogeneous Spectrum Sharing Between Commercial Cellular Operators and Legacy Incumbent Users in Wireless Networks	Dec 2016
9,391,749	System and Method of Distributed Data Management in Wireless Networks	Jul 2016
9,363,670	Systems and Methods for Restricting Access to Network Resources via In-Location Access Point Protocol	Jun 2016
7,756,510	Authentication Method for Wireless Distributed System	Jul 2010

## STANDARDS

---

### Wireless Innovation Forum (WinnF)

TS-0065	CBRS Communications Security Technical Specification, V1.0.0	Apr 2017
TS-0071	CBRS Operational Security Technical Specification, V1.0.0	Jun 2016

### Internet Engineering Task Force (IETF)

RFC 6677	Channel Binding Support for EAP Methods	Jul 2012
RFC 5433	EAP Generalized PSK (GPSK)	Feb 2009
RFC 5418	CAPWAP Threat Analysis for 802.11 Deployments	Dec 2008
RFC 5415	CAPWAP Protocol Specification	Dec 2008
RFC 5169	Handover Key Management and Re-Authentication Problem Statement	Mar 2008
RFC 4746	EAP Password Authenticated Exchange	Nov 2006

## BOOKS

---

### Monographs

<i>Internet of Things Performance and Security</i> , McGraw Hill	2020
<i>Design and Implementation of Practical Schedulers for M2M Uplink Networks</i> , Springer	2018
<i>Resource Allocation with Carrier Aggregation in Cellular Networks</i> , Springer	2018
<i>Spectrum Sharing between Radars and Communication Systems</i> , Springer	2017
<i>Cellular Communications Systems in Congested Environments</i> , Springer	2017
<i>MIMO Radar Waveform Design for Spectrum Sharing with Cellular Systems</i> , Springer	2016

### Book Chapters

"Deep Learning for Wireless Comms", in <i>Development and Analysis of Deep Learning Architectures</i> , Springer	2019
"Application-Aware Spectrum Sharing", in <i>Handbook of Cognitive Radio</i> , Springer	2019

## ACADEMIC PUBLICATIONS

---

- 53 papers published in peer-reviewed academic journals
- 134 papers published in peer-reviewed conference proceedings
- 16 invited papers published in conference proceedings