

SWASTIK BRAHMA

Dept. of Computer Science ◊ Tennessee State University ◊ Nashville, TN 37209

Tel: (615) 963-5852 ◊ Email: sbrahma@tnstate.edu ◊ Web: <http://www.sbrahma.net/>

PROFESSIONAL EXPERIENCE

Assistant Professor (Tenure-Track) Dept. of Computer Science Tennessee State University, Nashville, TN	August 2017 - Present
Research Assistant Professor Dept. of Electrical Engineering & Computer Science Syracuse University, Syracuse, NY	January 2017 - August 2017
Research Scientist Dept. of Electrical Engineering & Computer Science Syracuse University, Syracuse, NY <i>Supervisor:</i> Prof. Pramod K. Varshney	January 2014 - December 2016
Postdoctoral Research Associate Dept. of Electrical Engineering & Computer Science Syracuse University, Syracuse, NY <i>Supervisor:</i> Prof. Pramod K. Varshney	July 2011 - December 2013
Graduate Research and Teaching Assistant Dept. of Electrical Engineering & Computer Science University of Central Florida, Orlando, FL.	Fall 2005 - Spring 2011
Research Intern Applied Statistics Unit Indian Statistical Institute, Kolkata, India.	Summer 2004

EDUCATION

Doctor of Philosophy in Computer Science University of Central Florida, Orlando, FL <i>Dissertation:</i> "Spectrum Sharing and Service Pricing in Dynamic Spectrum Access Networks" <i>Advisor:</i> Prof. Mainak Chatterjee	August 2011
Master of Science in Computer Science University of Central Florida, Orlando, FL	May 2008
Bachelor of Technology in Computer Science & Engineering West Bengal University of Technology, Calcutta, India	July 2005

RESEARCH INTERESTS

- Networking and Cybersecurity
- Cyber-Physical Systems and Internet-of-Things (IoT)
- Signal Processing and Distributed Inference-Making Networks
- Human-in-the-Loop Networks
- Crowd and Cloud-based Inference Networks
- Behavioral Decision Theory
- Game Theory and Network Economics

HONORS AND AWARDS

- **NSF CAREER Award**, 2021-2026.
- **Visiting Research Faculty Fellowship**, Topic: *Development of a Strategic Framework for Cybersecurity*, U.S. Air Force Research Laboratory (AFRL), Rome, NY, Summer 2020.
- **Extension Award**, AFRL, “Development of a Strategic Framework for Cybersecurity,” Amount: \$10,000, 09/21/2020-11/21/2020.
- **Summer Faculty Fellowship**, Topic: *Game Theory Applied to Cyber Deception*, U.S. Army Research Laboratory (ARL), Adelphi, MD, Summer 2019.
- **Recognized reviewer; Outstanding reviewer**, Computer Communications (COMCOM), 2015.
- **NSF Student Travel Award** for IEEE WoWMom, 2009.
- **Best Ph.D. Forum Award**, IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), 2009.
- **Best Paper Award**, IEEE Global Communications Conference (Globecom), 2008.

FUNDED RESEARCH GRANTS

- Principal Investigator (**PI**), “CAREER: Distributed Inference-Making via Crowdsensing,” **National Science Foundation (NSF)**, Amount: \$489,750, 04/01/2021 - 03/31/2026.
- Principal Investigator (**PI**), “Targeted Infusion Project: Infusion of Cyber Physical System Education and Research Training in the Undergraduate Curriculum in the College of Engineering at TSU,” **National Science Foundation (NSF)**, Amount: \$388,672, 07/15/2019 - 06/30/2022.
- Co-Principal Investigator (**Co-PI**), “Veterinary Antibiotics Influencing the Biogeochemical Cycling of Boron: Evaluating the Role of Abiotic Surface Interaction Mechanisms on Soil Minerals”, **U.S. Department of Agriculture/NIFA**, Amount: \$198,079, 04/15/2019 - 04/14/2021.
- Principal Investigator (**PI**), “Mission Critical Survivable and Recoverable Cyber Systems,” **Army Research Office (ARO)**, Amount: \$281,325, 5/1/2018 - 07/31/2021.
- Senior Personnel, “Management of Mobile Phone Sensing via Sparse Learning”, **National Science Foundation (NSF)**, Amount: \$400,000, 9/1/2016 - 2/28/2018.
- Senior Investigator, “Fusion of Statistically Dependent Heterogeneous Information Sources”, **Department of the Army**, Amount: \$272,890, 7/1/2014 - 08/16/2018.
- Senior Investigator, “Cyber-Domain Spectrum Exploitation (CyberSE)”, **ANDRO Computational Solutions**, LLC, Amount: \$60,000, 1/25/2016 - 12/10/2017.
- Senior Investigator, “A Framework to Implement the Cyber Survive and Recover Simulator (CSRS) Demo”, **U.S. Air Force Research Laboratory**, Rome, Amount: \$78,261, 5/1/2014 - 9/30/2014.

PENDING RESEARCH GRANTS

- Co-Principal Investigator (**Co-PI**), “Excellence in Research: Modelling and Validation Approaches to Decontaminate SARS-CoV-2 and other Respiratory Viruses using Ultraviolet (UV-C) Technologies,” **National Science Foundation (NSF)**, Amount: \$600,000, 03/15/2021 - 03/14/2024.

PUBLICATIONS

Book Chapters:

- [B2] Satyaki Nan, **Swastik Brahma**, Charles A. Kamhoua, and Laurent L. Njilla, “On Development of a Game-Theoretic Model for Deception-Based Security,” Book Title: *Modeling and Design of Secure Internet of Things*, Editors: Charles A. Kamhoua, Laurent L. Njilla, Alexander Kott, Sachin Shetty, John Wiley & Sons, Ltd, 2020.

- [B1] **Swastik Brahma**, Mainak Chatterjee, and Shamik Sengupta “Traffic Management in Wireless Sensor Networks”, Book Title: *Building Sensor Networks: From Design to Applications*, Editors: Ioanis Nikolaidis and Krzysztof Iniewski, CRC Press, 2013.

Journals:

- [J17] Baocheng Geng, **Swastik Brahma**, Thakshila Wimalajeewa, Pramod K. Varshney, and Muralidhar Rangaswamy, “Prospect Theoretic Utility Based Human Decision Making In Multi-agent Systems,” *IEEE Transactions on Signal Processing*, vol. 68, pp. 1091-1104, 2020.

- [J16] Pranay Sharma, Donald J. Bucci, **Swastik Brahma**, and Pramod K. Varshney, “Communication Network Topology Inference via Transfer Entropy,” *IEEE Transactions on Network Science and Engineering*, vol. 7, no. 1, pp. 562-575, Jan.-March 2020.

- [J15] Nianxia Cao, **Swastik Brahma**, Baocheng Geng, and Pramod K. Varshney, “Optimal Auction Design With Quantized Bids for Target Tracking via Crowdsensing,” *IEEE Transactions on Computational Social Systems*, vol. 6, no. 5, pp. 847-857, Oct. 2019.

- [J14] Wael Hashlamoun, **Swastik Brahma**, and Pramod K. Varshney, “Audit Bit Based Distributed Bayesian Detection in the Presence of Byzantines,” *IEEE Transactions on Signal and Information Processing over Networks*, vol. 4, no. 4, pp. 643-655, Dec. 2018.

- [J13] Wael Hashlamoun, **Swastik Brahma**, and Pramod K. Varshney, “Mitigation of Byzantine Attacks on Distributed Detection Systems using Audit Bits,” *IEEE Transactions on Signal and Information Processing over Networks*, vol. 4, no. 1, pp. 18-32, March 2018.

- [J12] Bhavya Kailkhura, **Swastik Brahma**, and Pramod K. Varshney, “Data Falsification Attacks on Consensus-based Detection Systems,” *IEEE Transactions on Signal and Information Processing over Networks*, vol. 3, no. 1, pp. 145-158, March 2017

- [J11] V. Sriram Siddhardh Nadendla, **Swastik Brahma**, and Pramod K. Varshney, “Optimal Spectrum Auction Design with 2-D Truthful Revelations under Uncertain Spectrum Availability,” *IEEE/ACM Transactions on Networking*, vol. 25, no. 1, pp. 420-433, Feb. 2017.

- [J10] Nianxia Cao, **Swastik Brahma**, and Pramod K. Varshney, “Optimal Auction Design with Quantized Bids,” *IEEE Signal Processing Letters*, vol. 23, no. 11, pp. 1518-1522, Nov. 2016.

- [J9] Raghed El-Bardan, **Swastik Brahma**, and Pramod K. Varshney, “Strategic Power Allocation with Incomplete Information in the Presence of a Jammer,” *IEEE Transactions on Communications*, vol. 64, no. 8, pp. 3467-3479, Aug. 2016.

- [J8] **Swastik Brahma** and Mainak Chatterjee, “Spectrum Bargaining: A Model for Competitive Sharing of Unlicensed Radio Spectrum,” *IEEE Transactions on Cognitive Communications and Networking*, vol. 1, no. 3, pp. 257-272, Sept. 2015.

- [J7] Bhavya Kailkhura, Yunghsiang S. Han, **Swastik Brahma**, and Pramod K. Varshney, “Distributed Bayesian Detection in the Presence of Byzantine Data,” *IEEE Transactions on Signal Processing*, vol. 63, no. 19, pp. 5250-5263, Oct. 1, 2015.
- [J6] Bhavya Kailkhura, **Swastik Brahma**, Berkan Dulek, Yunghsiang S. Han, and Pramod K. Varshney, “Distributed Detection in Tree Networks: Byzantines and Mitigation Techniques,” *IEEE Transactions on Information Forensics and Security*, vol. 10, no. 7, pp. 1499-1512, July 2015.
- [J5] Nianxia Cao, **Swastik Brahma**, and Pramod K. Varshney, “Target Tracking via Crowdsourcing: A Mechanism Design Approach,” *IEEE Transactions on Signal Processing*, vol. 63, no. 6, pp. 1464-1476, March 15, 2015.
- [J4] Bhavya Kailkhura, Yunghsiang S. Han, **Swastik Brahma**, and Pramod K. Varshney, “Asymptotic Analysis of Distributed Bayesian Detection with Byzantine Data,” *IEEE Signal Processing Letters*, vol. 22, no. 5, pp. 608-612, May 2015.
- [J3] Bhavya Kailkhura, **Swastik Brahma**, Yunghsiang S. Han, and Pramod K. Varshney, “Distributed Detection in Tree Topologies with Byzantines,” *IEEE Transactions on Signal Processing*, vol. 62, no. 12, pp. 3208-3219, June 15, 2014.
- [J2] Shamik Sengupta, **Swastik Brahma**, Mainak Chatterjee, and N. Sai Shankar, “Self-coexistence Among Interference-aware IEEE 802.22 Networks with Enhanced Air-interface,” *Elsevier Journal of Pervasive and Mobile Computing*, vol. 9, no. 4, pp. 454-471, Aug. 2013.
- [J1] **Swastik Brahma**, Mainak Chatterjee, Kevin Kwiat, and Pramod K. Varshney, “Traffic Management in Wireless Sensor Networks: Decoupling Congestion Control and Fairness,” *Elsevier Journal of Computer Communications*, vol. 35, no. 6, pp. 670-681, March 2012.

Conferences:

- [C35] Satyaki Nan, **Swastik Brahma**, Charles A. Kamhoua, and Nandi O. Leslie, “Mitigation of Jamming Attacks via Deception,” *IEEE 31st Annual International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, London, United Kingdom, pp. 1-6, 2020.
- [C34] Satyaki Nan and **Swastik Brahma**, “Redundancy-based Mitigation of Jamming Attacks,” *54th Annual Conference on Information Sciences and Systems (CISS)*, Princeton, NJ, USA, pp. 1-6, 2020.
- [C33] Baocheng Geng, **Swastik Brahma**, and Pramod K. Varshney, “A Truthful Mechanism For Mobility Management in Unmanned Aerial Vehicles Networks,” *53rd Asilomar Conference on Signals, Systems, and Computers (ASILOMAR)*, Pacific Grove, CA, USA, pp. 401-405, 2019.
- [C32] Satyaki Nan, **Swastik Brahma**, Charles A. Kamhoua, and Nandi O. Leslie, “Behavioral Cyber Deception: A Game and Prospect Theoretic Approach,” *IEEE Global Communications Conference (GLOBECOM)*, Waikoloa, HI, USA, pp. 1-6, 2019.
- [C31] Qasem Abu Al-Haija and **Swastik Brahma**, “Optimization of Cyber System Survivability Under Attacks Using Redundancy of Components,” *53rd Annual Conference on Information*

Sciences and Systems (CISS), pp. 1-6, Baltimore, MD, USA, 2019.

- [C30] **Swastik Brahma** and Eunice Michael, “On Sybil-proof Optimal Auction Design for Crowd-sensing,” *Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)*, pp. 1174-1178, Honolulu, HI, USA, 2018.
- [C29] V. Sriram Siddhardh (Sid) Nadendla, **Swastik Brahma**, and Pramod K. Varshney, “Towards the Design of Prospect-Theory based Human Decision Rules for Hypothesis Testing,” *54th Annual Allerton Conference on Communication, Control, and Computing (Allerton)*, pp. 766-773, 2016.
- [C28] Nianxia Cao, Yanzhi Wang, **Swastik Brahma**, and Pramod K. Varshney, “Charging State Aware Optimal Auction Design for Sensor Selection in Crowdsourcing Based Sensor Networks,” *19th International Conference on Information Fusion (FUSION)*, pp. 626-633, 2016.
- [C27] Nianxia Cao, **Swastik Brahma**, and Pramod K. Varshney, “Portfolio Theory based Sensor Selection in Wireless Sensor Networks with Unreliable Observations,” *50th Annual Conference on Information Sciences and Systems (CISS)*, pp. 454-459, 2016.
- [C26] Raghed El-Bardan, Walid Saad, **Swastik Brahma**, and Pramod K. Varshney, “Matching Theory for Cognitive Spectrum Allocation in Wireless Networks,” *50th Annual Conference on Information Sciences and Systems (CISS)*, pp. 466-471, 2016.
- [C25] **Swastik Brahma**, Kevin Kwiat, Pramod K. Varshney, and Charles Kamhoua, “CSRS: Cyber Survive and Recover Simulator,” *IEEE International Symposium on High Assurance Systems Engineering (HASE)*, pp. 110-113, Orlando, FL, 2016.
- [C24] Raghed El-Bardan, V. Sriram Siddhardh (Sid) Nadendla, **Swastik Brahma**, and Pramod K. Varshney, “On ARQ-based Wireless Communication Systems in the Presence of a Strategic Jammer,” *IEEE Global Conference on Signal and Information Processing (GlobalSIP)*, pp. 273-277, Atlanta, GA, 2014.
- [C23] **Swastik Brahma**, Kevin Kwiat, Pramod Varshney, and Charles Kamhoua, “Diversity and System Security: A Game Theoretic Perspective,” *IEEE Military Communications Conference (MILCOM)*, pp. 146-151, 6-8 Oct. 2014.
- [C22] Nianxia Cao, **Swastik Brahma**, and Pramod K. Varshney, “Market based Sensor Mobility Management for Target Localization,” *48th Asilomar Conference on Signals, Systems and Computers (ASILOMAR)*, pp. 1428-1432, Pacific Grove, CA, Nov. 2014.
- [C21] Nianxia Cao, **Swastik Brahma**, and Pramod K. Varshney, “Towards Cloud Sensing Enabled Target Localization,” *52nd Annual Allerton Conference on Communication, Control, and Computing (Allerton)*, pp. 537-544, 2014.
- [C20] Bhavya Kailkhura, **Swastik Brahma**, and Pramod K. Varshney, “On the Performance Analysis of Data Fusion Schemes with Byzantines,” *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pp. 7411-7415, 2014.

- [C19] Raghed El-Bardan, **Swastik Brahma**, and Pramod K. Varshney, “Power Control with Jammer Location Uncertainty: A Game Theoretic Perspective,” *48th Annual Conference on Information Sciences and Systems (CISS)*, pp. 1-6, 2014.
- [C18] Nianxia Cao, **Swastik Brahma**, and Pramod K. Varshney, “An Incentive-based Mechanism for Location Estimation in Wireless Sensor Networks,” *IEEE Global Conference on Signal and Information Processing (GlobalSIP)*, pp. 157-160, 2013.
- [C17] V. Sriram Siddhardh (Sid) Nadendla, **Swastik Brahma**, and Pramod K. Varshney, “A Bilateral Market based Mechanism for Spectrum Allocation in Cognitive Radio Networks,” *IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP)*, pp. 444-447, 2013.
- [C16] Raghed El-Bardan, **Swastik Brahma**, and Pramod K. Varshney, “A Game Theoretic Power Control Framework for Spectrum Sharing in Competitive Environments,” *47th Asilomar Conference on Signals, Systems and Computers*, pp. 1493-1497, Pacific Grove, CA, Nov. 2013
- [C15] Bhavya Kailkhura, Yunghsiung S. Han, **Swastik Brahma**, and Pramod K. Varshney, “On Covert Data Falsification Attacks on Distributed Detection Systems,” *International Symposium on Communications and Information Technologies (ISCIT)*, pp. 412-417, 2013.
- [C14] Bhavya Kailkhura, **Swastik Brahma**, Yunghsiung S. Han, and Pramod K. Varshney, “Optimal Distributed Detection in the Presence of Byzantines,” *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pp. 2925-2929, 2013.
- [C13] **Swastik Brahma** and Mainak Chatterjee, “Multi-path Routing in Dynamic Spectrum Access Networks: A Mechanism Design Approach,” *IEEE International Conference on Communications (ICC)*, pp. 2905-2909, 2013.
- [C12] Bhavya Kailkhura, **Swastik Brahma**, and Pramod K. Varshney, “Optimal Byzantine Attacks on Distributed Detection in Tree-based Topologies,” *International Conference on Computing, Networking and Communications Workshop on Cyber Physical System (ICNC-CPS)*, pp. 227-231, 2013.
- [C11] V. Sriram Siddhardh (Sid) Nadendla, **Swastik Brahma**, and Pramod K. Varshney, “An Auction-based Mechanism for Dynamic Spectrum Allocation in Participatory Cognitive Radio Networks,” *50th Annual Allerton Conference on Communication, Control, and Computing (Allerton)*, pp. 2120-2126, 2012.
- [C10] **Swastik Brahma**, Pramod K. Varshney, Mainak Chatterjee, and Kevin Kwiat, “Optimal Content Delivery in DSA Networks: A Path Auction based Framework,” *IEEE International Conference on Communications (ICC)*, pp. 1843-1847, 2012.
- [C9] **Swastik Brahma** and Mainak Chatterjee, “Spectrum Sharing in Secondary Networks: A Bargain Theoretic approach,” *IEEE Wireless Communications and Networking Conference (WCNC)*, pp. 1331-1336, 2012.

- [C8] **Swastik Brahma** and Mainak Chatterjee, “A Bayesian based Incentive-Compatible Routing Mechanism for Dynamic Spectrum Access Networks,” *IEEE International Conference on Computer Communications (INFOCOM)*, pp. 2781-2785, 2012.
- [C7] **Swastik Brahma** and Mainak Chatterjee, “A Bargaining Game for Channel Access in Dynamic Spectrum Access Networks,” *IEEE Global Telecommunications Conference (GLOBECOM)*, December 2010, pp. 1-6.
- [C6] **Swastik Brahma** and Mainak Chatterjee, “Equilibrium Strategies for Interference Free Channel Access in Cognitive Radio based WRANs,” *International Conference on Adaptive and Self-Adaptive Systems and Applications (ADAPTIVE)*, pp. 27-32, 2010.
- [C5] **Swastik Brahma**, Mainak Chatterjee, and Kevin Kwiat, “Congestion Control and Fairness in Wireless Sensor Networks,” *IEEE International Conference on Pervasive Computing and Communications Workshops (PERCOM Workshops)*, pp. 413-418, 2010.
- [C4] **Swastik Brahma** and Mainak Chatterjee, “Mitigating Self-interference among IEEE 802.22 Networks: A Game Theoretic Perspective,” *IEEE Global Telecommunications Conference (GLOBECOM)*, pp. 1-6, 2009
- [C3] **Swastik Brahma** and Mainak Chatterjee, “Interference avoidance among IEEE 802.22 networks: A Game Theoretic Approach,” *IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM) Workshops*, pp. 1-3, June 2009, (**Best PhD Forum Award**).
- [C2] Shamik Sengupta, Rajarathnam Chandramouli, **Swastik Brahma**, and Mainak Chatterjee, “A game theoretic framework for distributed self-coexistence among IEEE 802.22 networks,” *IEEE Global Telecommunications Conference (GLOBECOM)*, pp. 1-6, 2008 (**Best Paper Award**).
- [C1] Shamik Sengupta, **Swastik Brahma**, Mainak Chatterjee, and S. Shankar N, “Enhancements to cognitive radio based IEEE 802.22 air-interface,” *IEEE International Conference on Communications (ICC)*, pp. 5155-5160, June 2007.

TEACHING EXPERIENCE

- Course: **COMP 5700 Fundamentals of Computer Networks**
 Role: Instructor
 Course Level: Graduate
 Semesters Taught: Fall 2017, Fall 2018, Fall 2019, Fall 2020
 University: Dept. of Computer Science, Tennessee State University
- Course: **COMP 5750 Computer Network Management and Security**
 Role: Instructor
 Course Level: Graduate
 Semesters Taught: Spring 2018, Spring 2019, Spring 2020
 University: Dept. of Computer Science, Tennessee State University
- Course: **COMP 3310 Data Communications and Computer Networks**
 Role: Instructor
 Course Level: Undergraduate

Semesters Taught: Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, Spring 2020, Fall 2020
University: Dept. of Computer Science, Tennessee State University

- Course: **COMP 4750 Computer Network Management**
Role: Instructor
Course Level: Undergraduate
Semesters Taught: Spring 2018, Spring 2019, Spring 2020
University: Dept. of Computer Science, Tennessee State University
- Course: **ENGR 2230 Engineering Programming**
Role: Instructor
Course Level: Undergraduate
Semester Taught: Spring 2019
University: Tennessee State University
- Course: **COMP 2400 Computer Organization**
Role: Instructor
Course Level: Undergraduate
Semester Taught: Fall 2018
University: Dept. of Computer Science, Tennessee State University
- Course: **CIS 651 Mobile Application Programming**
Role: Instructor
Course Level: Graduate
Semesters Taught: Fall 2016, Spring 2017
University: Dept. of Electrical Engineering & Computer Science, Syracuse University
- Course: **CIS 444 Mobile Application Programming**
Role: Instructor
Course Level: Undergraduate
Semesters Taught: Fall 2016, Spring 2017
University: Dept. of Electrical Engineering & Computer Science, Syracuse University
- Course: **CPS 196 Introduction to Computer Programming**
Role: Instructor
Course Level: Undergraduate
Semesters Taught: Fall 2013, Spring 2014, Fall 2014, Spring 2015
University: Dept. of Electrical Engineering & Computer Science, Syracuse University
- Course: **Introduction to Discrete Structures**
Role: Teaching Assistant
Duties: Recitation sessions, Grading, Office hours
Course Level: Undergraduate
Semester: Spring 2011
University: Dept. of EECS, University of Central Florida
- Course: **Systems Software**
Role: Teaching Assistant
Duties: Selected lecture sessions, Grading, Office hours
Course Level: Undergraduate
Semester: Fall 2010
University: Dept. of EECS, University of Central Florida

- Course: **Design and Implementation of Computer Comm. Networks**
Role: Teaching Assistant
Duties: Laboratory Instruction, Grading, Office hours
Course Level: Undergraduate
Semesters: Spring 2006 - Summer 2010
University: Dept. of EECS, University of Central Florida
- Course: **Introduction to C Programming**
Role: Teaching Assistant
Duties: Grading, Office hours, Proctoring
Course Level: Undergraduate
Semester: Fall 2006
University: Dept. of EECS, University of Central Florida
- Course: **Computer Network Concepts**
Role: Teaching Assistant
Duties: Grading, Office hours
Course Level: Undergraduate
Semester: Fall 2005
University: Dept. of EECS, University of Central Florida

STUDENT AND RESEARCHER MENTORING

Tennessee State University (Graduate Students)

- **Cassandra Brown**, Ph.D. student (Joined: Spring 2021)
Topic: *Secure and Resilient Autonomous Networks*
- **Satyaki Nan**, Ph.D. student (Joined: Fall 2020)
Topic: *Behavioral Cybersecurity*
- **Qasem Abu Al Haija**, Ph.D. student (Joined: Fall 2018)
Topic: *Security of Mission Critical Systems*
- **Yashesh Satyaprasad Gurralla**, M.S. student (Joined: Fall 2019)
Topic: *Optimization of Cyber System Survivability Under Attacks Using Redundancy and Diversity of Components*
- **Satyaki Nan**, M.S. student (Graduated: Summer 2020)
Thesis Title: *Deception-based Mitigation of Cyber Threats under Game and Prospect Theoretic Considerations*
- **Ruslan Mardugalliamov**, M.S. student (Graduated: 2018; Now with Credit Suisse)
Topic: *Prospect Theory based Behavioral Hypothesis Testing*

Tennessee State University (Post Doctoral Researcher)

- **Dr. Mohammad Rahman** (Joined: Summer 2020)
Research Topics: *Mitigation of Hardware Trojans, Internet-of-Things, Fog/Edge Computing*

Tennessee State University (Undergraduate Students)

- **Marvin Nde and Toree Sims Jr.** (Fall 2020 – Spring 2021)
Senior Design Project Title: *Computational Investing*
- **Ashley Morgan** (Fall 2020 – Spring 2021)
Senior Design Project Title: *Analyzing the United States Stock Market*
- **Adrian Ghazi and Reme' Randolph** (Spring 2020 – Fall 2020)
Senior Design Project Title: *Congestion Management in Wireless Sensor Networks*
- **Daniel Ochoa, Nelson Kambaliya, and Vala Jamal** (Fall 2019 – Spring 2020)
Senior Design Project Title: *Development of a Smartphone-based Gunshot Classification System*
- **Khansa Fatima, Mohamoud Tallman, and Keyur Patel** (Spring 2019 – Fall 2019)
Senior Design Project Title: *Market-driven Spectrum Allocation in Cognitive Radio Networks*
- **Reginald Deion Woods** (Fall 2018 – Spring 2019)
Senior Design Project Title: *Cross-Layer Congestion Control Mechanism Design for Wireless Sensor Networks*
- **Andargachew Gebeyehu, Armando B. Mpembele, and Elliot Davy** (Spring 2018 – Fall 2018)
Senior Design Project Title: *Diversity based Resource Allocation for Network Security*
- **Hussam Alahmadi, Othman Alahmadi, and Mohannad Bahattab** (Fall 2017 – Spring 2018)
Senior Design Project Title: *Mobile Application Development for Finding Local Restaurants*

Syracuse University (Graduate Students)

- **Baocheng Geng**, Ph.D. student (Fall 2016 - Present)
Topic: *Game Theory based Resource Allocation for Distributed Inference*
Major Advisor: Prof. Pramod K. Varshney
- **Raghd El-Bardan**, Ph.D. student (Graduated: 2016; Now with Apple Inc., CA)
Dissertation Title: *Resource Allocation for Interference Management in Wireless Networks*
Major Advisor: Prof. Pramod K. Varshney
- **Bhavya Kailkhura**, Ph.D. student (Graduated: 2016; Now with Lawrence Livermore National Lab., CA)
Dissertation Title: *Distributed Inference and Learning with Byzantine Data*
Major Advisor: Prof. Pramod K. Varshney
- **Venkata Sriram Siddhardh Nadendla**, Ph.D. student (Graduated: 2016; Now Asst. Prof., Missouri Univ. of Science and Technology)
Dissertation Title: *On the Design and Analysis of Secure Inference Networks*
Major Advisor: Prof. Pramod K. Varshney
- **Nianxia Cao**, Ph.D. student (Graduated: 2016; Now with APTIV Advanced Engineering Center, CA)
Dissertation Title: *Sensor management for localization and tracking in wireless sensor networks*
Major Advisor: Prof. Pramod K. Varshney

SELECTED TALKS

- Talk on “*Networks and Cybersecurity: Research, Solutions, and Technology*” presented to National Security Agency (NSA) personnel at Tennessee State University, TN, March 2020.
- Talk on “*Development of a Strategic Cyber Deception Framework for the Internet-of-Battlefield-Things*,” Army Research Laboratory (ARL), Adelphi, MD, July 2019.
- Talk on “*Distributed Inference Making via Crowdsensing*,” National Science Foundation (NSF), Alexandria, VA, June 2019.
- Talk on “*Networks and Cybersecurity: Research, Solutions, and Technology*,” Seminar, College of Engineering, Tennessee State University, TN, October 2018.
- Talk on “*Distributed Decision Making in the Presence of Byzantine Attacks*,” University of Southern Mississippi, MS, 2017.
- Talk on “*Securing Distributed Systems against Threats from Selfish and Malicious Entities*,” California State University, Fullerton, CA, April 2013.
- Talk on “*Self-enforcing Protocol Design for Distributed Systems*,” Mississippi State University, MS, March 2013.
- Talk on “*Self-enforcing Protocol Design for Next Generation Wireless Networks*,” Qualcomm-Atheros, Ocala, FL, September 2012.
- Talk on “*Self-enforcing Protocol Design for Next Generation Wireless Networks*,” Qualcomm Research, San Diego, CA, May 2012.
- Talk on “*A Market-driven Approach to Content Delivery in Dynamic Spectrum Access Networks*,” Stevens Institute of Technology, Hoboken, NJ, February 2012.

DEPARTMENT, COLLEGE AND UNIVERSITY SERVICES

- Led the development and establishment of the new undergraduate concentration in *Cybersecurity and Networking* in the Computer Science (CS) department.
- Serve as a member of the ABET committee in the CS department (Fall 2018 - Present).
- Serve as a member of the Recruitment & Retention committee of the College of Engineering (CoE) (Fall 2018 - Present).
- Served as a member of the Tennessee Board of Regents (TBR) academic audit self-study team (Fall 2019).
- Help prepare undergraduate students in CS for their Major Field Exam (MFE).
- Showcased our research and infrastructure to key personnel from various organizations, including the Army Research Laboratory (ARL) and National Security Agency (NSA), on multiple occasions.

PROFESSIONAL SERVICES

Technical Program Committee (TPC) Member

- IEEE International Conference on Communications (ICC), 2012, 2013, 2014, 2015, 2016, 2021.
- International Conference on Computer Communications and Networks (ICCCN), 2020.
- International Sustainability and Resilience Conference (SRC), 2020.
- International Conference on e-Learning (ECONF), 2020.
- Elsevier Computer Communications (COMCOM Technical Committee (TC)).
- Asia-Pacific Conference on Communications (APCC), 2019.
- IEEE Middle East and North Africa Communications Conference (MENACOMM), 2019.
- International Conference on Innovation and Intelligence for Informatics, Computing, and Technologies (3ICT), 2019.
- IEEE Global Telecommunications Conference (GLOBECOM), 2018.
- International Conference on Electrical Engineering and Informatics (ICon EEI), 2018.
- International Conference on Computing, Networking and Communications (ICNC), 2016, 2017.
- IEEE Military Communications Conference (MILCOM), 2014, 2016.
- International Conference on Distributed Computing and Networking (ICDCN), 2014.
- IEEE Intl. Workshop on Smart Communication Protocols and Algorithms (SCPA), 2012, 2013.
- IEEE International Conference on Networks (ICON), 2012, 2013.
- International Workshop on Smart Sensor Protocols and Algorithms (SSPA), 2015.
- International Conference on Information Technology (ICIT), 2015, 2016.

Editorial Board Member

- Review Editor on the Editorial Board of Smart Grid Communications of Frontiers in Communications and Networks

Journal Reviewer

- IEEE Transactions on Signal Processing
- IEEE Transactions on Information Forensics and Security
- IEEE Transactions on Mobile Computing
- IEEE Transactions on Computational Social Systems
- IEEE Transactions on Dependable and Secure Computing
- IEEE Signal Processing Letters
- IEEE Communications Magazine
- Elsevier Journal of Computer Communications
- IEEE Transactions on Vehicular Technology

- IEEE Journal on Selected Areas in Communications
- IEEE Transactions on Wireless Communications
- IEEE Transactions on Parallel and Distributed Systems
- IEEE Transactions on Communications
- IEEE Communications Surveys and Tutorials
- EURASIP Journal on Wireless Communications and Networking
- IEEE Transactions on Signal and Information Processing over Networks

Conference Reviewer

- International Conference on Computer Communications and Networks (ICCCN), 2020.
- International Conference on Electrical Engineering and Informatics (ICon EEI), 2018.
- IEEE Global Communications Conference (GLOBECOM), 2007, 2009, 2011, 2018.
- IEEE International Conference on Cloud Computing (CLOUD), 2017.
- International Conference on Computing, Networking and Communications (ICNC), 2016, 2017.
- International Conference on Information Technology (ICIT), 2016.
- IEEE Intl. Conference on Computer Communications (INFOCOM), 2011, 2012, 2013, 2015, 2016.
- IEEE International Conference on Communications (ICC), 2012, 2013, 2014, 2015, 2016, 2021.
- IEEE Military Communications Conference (MILCOM), 2010, 2013, 2014, 2016.
- IEEE International Workshop on Smart Communication Protocols and Algorithms (SCPA), 2012.
- IEEE Intl. Symp. on Personal, Indoor, and Mobile Radio Communications (PIMRC), 2011.
- IEEE Consumer Communications & Networking Conference (CCNC), 2009.
- IEEE Intl. Symp. on a World of Wireless, Mobile and Multimedia Networks (WoWMom), 2008.

Book Chapter Reviewer

- Book Title: *“Modeling and Design of Secure Internet of Things,”* Editors: C. A. Kamhoua, L. Njilla, A. Kott, S. Shetty, John Wiley & Sons, Ltd, 2020.

REFERENCES

- **Prof. Pramod K. Varshney**
Distinguished Professor
Dept. of Electrical Engineering & Computer Science
Syracuse University, Syracuse, NY 13244
Email: varshney@syr.edu
- **Prof. Mainak Chatterjee**
Associate Professor
Dept. of Electrical Engineering & Computer Science
University of Central Florida, Orlando, FL 32816
Email: mainak@eecs.ucf.edu

- **Charles Kamhoua, Ph.D.**
Senior Electronics Engineer
Army Research Laboratory
Adelphi, MD 20783
Email: charles.a.kamhoua.civ@mail.mil