

# George T. Amariucai

# Curriculum Vitae

### Education

2004–2009 **Doctor of Philosophy**, *Electrical and Computer Engineering, Minor in Mathematics*, Louisiana State University, Baton Rouge, LA. *GPA – 4.0* 

2003–2004 **Master of Science**, *Electrical Engineering*, Polytechnic University of Bucharest, Romania.

1998–2003 **Bachelor of Science**, *Electrical Engineering*, Polytechnic University of Bucharest, Romania.

# Ph.D. Dissertation

Title Physical Layer Security in Wireless Networks: Intelligent Jamming and Eavesdropping Supervisor Shuangqing Wei, Associate Professor, Louisiana State University

## Experience

2017-present Associate Professor, Kansas State University, Manhattan, KS. 2016–2017 Adjunct Associate Professor, Iowa State University, Ames, IA. 2009–2016 Adjunct Assistant Professor, Iowa State University, Ames, IA.

#### Interests

- Privacy,

- Wireless Network Security

- Information Theory

- Machine Learning

- Cyber Physical System security

- Cryptography

- Physical-Layer Security

- Verifiable Computation

- Non-Traditional Security: community, metadata, human-computer interaction

## Grants

- 2022 **National Science Foundation**, *RII Track-1: Adaptive and Resilient Infrastructures driven by Social Equity (ARISE)*, **\$4,254,690**, Co-PI, with PI Bala Natarajan and Co-PIs Husain Aziz, Jason Bergtold, Anil Pahwa, Vaishali Sharda...
  - Department of Energy (DoE) Office of Energy Efficiency and Renewable Energy, Stakeholder-guided holistic, Adaptive Framework for enhancing community Energy Resilience (SAFER), \$796,699, Co-PI, with PI Bala Natarajan and Co-PIs Anil Pahwa, Jason Bergtold, Marcellus Caldas, Angela Park..
- 2020 **National Science Foundation**, *CyberCorps SFS Renewal: Strengthening the National Cybersecurity Workforce*, **\$3,000,262**, Co-PI, with PI Eugene Vasserman and Co-PIs Arslan Munir, Scott DeLoach, Daniel Andresen.
  - National Science Foundation, SCC-PG: Pilot Study and Workshop For Enhancing Rural-to-Urban Disaster Resilience by Integrating Social, Spatial and Digital Networks, \$149,813, Co-PI, with PI Hyung Jin Kim and Co-PI Bala Natarajan.
  - Qatar Foundation, sub-award from Texas A&M University, Multi-layer Cybersecurity and Situational Awareness to Enhance Resiliency in Qatar's Power Grid, \$113,721, KSU PI.
  - Qatar Foundation, sub-award from Texas A&M University, Enabling Cybersecurity Situational Awareness and Resilience in Distribution Grids Through Smart Devices and Deep Learning, \$248,143, Co-PI, with PI Mohammad Shadmand.
- 2019 **National Science Foundation**, *MRI: Development of Grid of Nanogrids (GNG) Testbed*, **\$624,404**, Co-PI, with PI Behrooz Mirafzal and Co-PIs Mohammad Shadmand and Hongyu Wu.
- 2018 Subcontract PTE: Purdue University, DOD National Security Agency, IN-SuRE 3.0: INSuRing the Effectiveness of Tomorrow's Cybersecurity Workforce Today, \$12,000.
  KSU PI
- 2017 **National Science Foundation**, *II-EN: loT Event Emulation Environment (IoTE*<sup>3</sup>) based on Cyber-Physical Integration, **\$498,077**, Co-PI, with PI Daji Qiao.
- 2016 **National Science Foundation**, *SBE: Small: Continuous Human-User Authentication by Induced Procedural Visual-Motor Biometrics*, **\$499,923**, Co-PI, with PI Yong Guan and Co-PIs Daji Qiao and Ann Smiley-Oyen.
- 2015 **DOD National Security Agency**, *Community-Based*, *Context-Aware Transparent and Continuous Authentication for Combat Environments*, **\$295,263**, **PI**, with Co-Pls Yong Guan, Daji Qiao, Akhilesh Tyagi and Morris Chang.
  - **National Science Foundation**, *TWC:Small:Time-Advantage-based Key Establishment Protocols for Low-Cost Wireless Networked Systems*, **\$499,411**, Co-PI, with PI Yong Guan.
  - **ISU IT Services**, *Techstarter: Facilitating cooperative learning in a competitive environment in the flipped classroom*, \$3000, PI.

- 2014 **ISU Online Learning Innovation Hub, President's Flipped Classroom Initiative**, Facilitating Hybrid and Flipped Classes in ECpE via a Library of Cross-Cutting Learning Modules, **\$26,462**, **PI**, with Co-PI Thomas Daniels.
- 2013 **National Science Foundation**, *CCF:Small:Security in Dynamic Environments: Harvesting Network Randomness and Diversity*, **\$160,000** (for ISU), **ISU PI**, with PI Shuangqing Wei (Louisiana State University) and Co-PI Jing Deng (University of North Carolina at Greensboro).
- 2012 **ISU Engineering/LAS Online Learning**, *Course development Grant*, **\$6000**. Awards
- 2017,2020 **Michelle Munson-Serban Simu Keystone Research Faculty Scholar**, *Kansas State University*, Dept. of Computer Science.
  - 2015 Warren B. Boast Undergraduate Teaching Award, *Iowa State University*, Dept. of Electrical and Computer Engineering.
  - 2014 Greek Community Outstanding Faculty Recognition, Iowa State University.
  - 2008 George Reymond Scholarship, Louisiana State University.
- 2001-2004 Merit Fellowship, Polytechnic University of Bucharest.
- 1998-2001 **Study Fellowship**, *Polytechnic University of Bucharest*.

# Supervised Students

#### **Current Graduate Students**

- 2021-present **Bipin Paudel**, *PhD, Kansas State University*, Graduation expected in 2026, **Supported, Spring 2022 present**.
- 2020-present **Bishwas Mandal**, *PhD*, *Kansas State University*, Graduation expected in 2025, **Supported, Summer 2021**.
- 2019-present Adaeze Okeukwu, *PhD, Kansas State University*, Graduation expected in 2024, Supported, Summer 2020, Summer 2021, Fall 2021 present.
- 2019-present **Stephanie Harshbarger**, *PhD, Kansas State University*, Graduation expected in Fall 2022, **Supported, Summer 2020, Summer 2021, Fall 2021 Summer 2022**.
- 2017-present **Shahnewaz Sakib**, *PhD, Iowa State University*, Graduation expected in 2023. co-advised with Yong Guan
- 2019-present **Abhishek Jana**, *PhD*, *Kansas State University*, Department of Physiscs. supervised, but **not as a major professor**, as part of the side project Neural Fuzzy Extractors: A Secure Way to UseArtificial Neural Networks for Biometric UserAuthentication Graduated Graduate Students
  - 2017-2022 **Chandra Sharma**, *PhD*, *Kansas State University*, Towards optimal strategies for the management of online information and activity: privacy and utility tradeoffs, **Supported**, **Fall 2017 Fall 2021**.

- 2017-2022 **Abiola Arise**, *PhD*, *Kansas State University*, Privacy and security implications of active participation in online social networks: An information diffusion based approach to modeling user behavioral patterns, **Supported**, **Fall 2017 Fall 2020**, **Summer 2021**, **Fall 2021**.
- 2018-2021 **Joy Hauser**, *MS*, *Kansas State University*, Automated Malware Analysis for Android Applications through Raw Bytecode.
- 2014-2018 Mohammad Reza Khalili Shoja, PhD, Iowa State University, Secret Key Establishment from Common Randomness Represented as Complex Correlated Random Processes: Practical Algorithms and Theoretical Limits, Graduated with Research Excellence Award (REA).

  co-advised with Zhengdao Wang
- 2015-2018 **Sanchita Barman**, *MS*, *Iowa State University*, An Algebraic Time-Advantage-Based Key Establishment Protocol, **Supported**, **Fall 2014 Summer 2017**. co-advised with Yong Guan
- 2012-2014 **Gang Xu**, *PhD*, *Iowa State University*, Towards practical verifible computation: verification outsourcing, linear arguments without linearity tests, and repeated structures, **Graduated as Student Marshal**, **with Research Excellence Award (REA)**.

  co-advised with Yong Guan
- 2016-2017 **Chad Bockholt**, *MS, Iowa State University*, Markov Chain Analysis of Packet Sequence for Intrusion Detection.

  co-advised with Doug Jacobson
- 2015-2016 **Mouhamadou Diallo**, *MS, Iowa State University*, Creative Component, Multimodal biometric authentication using Bayesian networks. co-advised with Yong Guan
- 2014-2015 **Chee Kang Tan**, *MS*, *Iowa State University*, Memoryless authentication key and random number generation schemes using SRAM power-on state randomness. co-advised with Yong Guan
- 2015-2017 **Nicholas Berry**, *PhD*, *Iowa State University*, Department of Statistics. Supported, Fall 2016 but **not as major professor**Undergraduate Students
- 2021-present Alexander Ozga, Undergraduate Research Assistant, Kansas State University.
  - 2021-2022 Nhicolas Aponte, Undergraduate Research Assistant, Kansas State University.
  - 2019-2021 Ethan Cole Tucker, Undergraduate Research Assistant, Kansas State University.
    - 2021 William Raymann, Undergraduate Research Assistant, Kansas State University.
  - 2019-2020 Abigail M. Butel, Undergraduate Research Assistant, Kansas State University.
    - 2019 **Blake Holman**, *Senior Design*, Automatic Network Device detection and Classification, Kansas State University.
    - 2019 **Sarah Niebergall**, *Senior Design*, Encrypted Message Application, Kansas State University.
    - 2018 Vivian Weaver, Undergraduate Research Assistant, Kansas State University.
    - 2018 Colin Goodman, Undergraduate Research Assistant, Kansas State University.

- 2018 Nathan Miller, Undergraduate Research Assistant, Kansas State University.
- 2018 Benjamin Young, Senior Design, Kansas State University.
- 2017-2018 **Dalton Hahn**, Smart Grid Cyber Security Project, Kansas State University.
- 2013-2014 **Sean Nichols, Allison Sapienza, Allison Thongvanh, Dan Roggow**, Research Experience for Undergraduates (REU), Active Authentication, ISU.
  - 2015 Cole Cummings, Holden Rehg, Cody Lougee, Ethan Niemeyer, Senior Design, Wireless Mesh Networking Application, ISU.
  - 2015 Monica Kozbial, Ian Pierce, Kyle Williams, Sarah Files, Senior Design, Connecting ISU Students, ISU.
- 2014-2015 Andrew Wallace, Anthony Wilson, Ian Monroe, Mathew Burzinski, Senior Design, Challenge Expeditions, ISU.
- 2013-2014 Alec Jahnke, Brock Mills, Collin Gross, Dan Roggow, Scott Schmidt, Travis Mallow, Senior Design, Augmented Reality Accessory for Firearm Target Practice, ISU.
  - 2013 Frank Niu, Chris Van Oort, Tahsin Khan, Yuqi Wang, Thuong Tran, Mathew Mallet, Senior Design, Wireless Security Lab –Phase 2, ISU.
- 2012-2013 Cody Cooke, Jim Carey, William Petersen, Jamison Voss, Kyle Pashan, Clinton Young, Senior Design, Multi-Sport Scoring and Information Display, second place best project award.
  ISU
- 2012-2013 **John Irwin, Edmund Ly, Ji-Hyeung Kim, Yueyi Jiao, Gang Qu**, *Senior Design*, iPhone Noise Cancellation Hardware, ISU.
- 2012-2013 Andrew Arbogast, Michael Masteller, Nathan Powelson, Senior Design, Circuit Game Development, ISU.
- 2011-2012 Alex Frisvold, Nazmus Sakib, Eric VanBuren, Alex Meyer, Senior Design, Boeing Android security, ISU.
  - 2011 Anthony Lobono, Shishir Gupta, Michael Steffen, Senior Design, Wireless Security Lab, ISU.

#### Publications

#### Journal Papers

- 2022 **Shahnewaz Karim Sakib, George Amariucai, Yong Guan**, *ZeroProKeS: A Secure Zeroconf Key Establishment Protocol for Large-Scale Low-Cost Applications*, IEEE Transactions on Dependable and Secure Computing.
- 2021 Chandra Sharma, Samuel Moylan, Eugene Y. Vasserman, George Amariucai, Review of the Security of Backward-Compatible Automotive Inter-ECU Communication, IEEE Access, Impact factor: 3.367.
- 2018 Mohammad Reza Khalili-Shoja, George Amariucai, Zhengdao Wang, Shuangqing Wei, Jing Deng, On the Secret Key Capacity of Sibling Hidden Markov Models, IEEE Transactions on Information Forensics and Security, Impact factor: 7.178.

- 2016 **Gang Xu, George Amariucai, Yong Guan**, Delegation of Computation with Verification Outsourcing: Curious Verifiers, IEEE Trans. Dependable and Secure Computing, **Impact factor: 7.329**.
  - Mohammad Reza Khalili-Shoja, George Amariucai, Shuangqing Wei, Jing Deng, Secret Common Randomness from Routing Metadata in Ad-Hoc Networks, IEEE Transactions on Information Forensics and Security, Impact factor: 7.178.
  - Ali Moharrer, Shuangqing Wei, George T Amariucai and Jing Deng, Extractable Common Randomness from Gaussian Trees: Topological and Algebraic Perspectives, IEEE Transactions on Information Forensics and Security, Impact factor: 7.178.
- 2012 Amariucai and S. Wei, Half-Duplex Active Eavesdropping in Fast Fading Channels: A Block-Markov Wyner Secrecy Encoding Scheme, IEEE Trans. Inf. Theory, Impact factor: 2.501.
  - **G.** Amariucai and S. Wei, Feedback-Based Collaborative Secrecy Encoding over Binary Symmetric Channels, IEEE Trans. Inf. Theory, Impact factor: 2.501.
- 2008 **G. Amariucai and S. Wei**, *Jamming Games in Fast-Fading Wireless Channels*, International Journal of Autonomous and Adaptive Communications Systems (IJAACS), Special Issue on Algorithmic Game Invited paper.

#### Conference Papers

- 2023 Shahnewaz Karim Sakib, George Amariucai, Yong Guan, Variations and Extensions of Information Leakage Metrics with Applications to Privacy Problems with Imperfect Statistical Information, 36th IEEE Computer Security Foundations Symposium (CSF 2023), Research.com impact score: 3.6.
- Abhishek Jana, Bipin Paudel, Md Kamruzzaman Sarker, Monireh Ebrahimi, Pascal Hitzler, George T Amariucai, Neural Fuzzy Extractors: A Secure Way to Use Artificial Neural Networks for Biometric User Authentication, 22nd Privacy Enhancing Technologies Symposium (PETS 2022).
  - Abiola Osho, Shuangqing Wei and George Amariucai, Heuristic Gradient Optimization Approach to Controlling Susceptibility to Manipulation in Online Social Networks, The 11th International Conference on Computational Data and Social Networks (CSoNet 2022), Research.com impact score: 6.3.
  - Bishwas Mandal, George Amariucai, Shuangqing Wei, Uncertainty-Autoencoder-Based Privacy and Utility Preserving Data Type Conscious Transformation, The 2022 International Joint Conference on Neural Networks (IJCNN 2022).
  - Shen Fu, Dong Qin, George Amariucai, Daji Qiao, Yong Guan, Ann Smiley, Artificial Intelligence Meets Kinesthetic Intelligence: Mouse-based User Authentication based on Hybrid Human-Machine Learning, 17th ACM ASIA Conference on Computer and Communications Security (ACM ASIACCS 2022).
- 2021 Chandra Sharma, Bishwas Mandal, George T Amariucai, A Practical Approach to Navigating the Tradeoff Between Privacy and Precise Utility, The IEEE International Conference on Communications (ICC): Communication and Information Systems Security Symposium, 2021, Research.com impact score: 10.06.

- Shahnewaz Karim Sakib, George T Amariucai, Yong Guan, Information Leakage Metrics for Adversaries with Incomplete Information: Binary Privacy Mechanism, The IEEE International Conference on Communications (ICC): Communication and Information Systems Security Symposium, 2021., Research.com impact score: 10.06.
- Abiola Osho, Caden Waters and George Amariucai, An Implicit Crowdsourcing Approach to Rumor Identification in Online Social Networks, The 2020 IEEE/ACM International Conference on Advances in Social Network Analysis and Mining (ASONAM), 2020, Research.com impact score: 4.46.
  - Abiola Osho, Colin Goodman and George T. Amariucai, MIDMod-OSN: A Microscopic-level Information Diffusion Model for Online Social Networks, 9th International Conference on Computational Data and Social Networks (CSoNet), 2020.
  - Shen Fu, Dong Qin, Daji Qiao, George T. Amariucai, RUMBA-Mouse: Rapid User Mouse-Behavior Authentication Using a CNN-RNN Approach, IEEE Conference on Communications and Network Security (CNS), 2020, Research.com impact score: 2.81.
  - Dong Qin, Shen Fu, George Amariucai, Daji Qiao, Yong Guan, MAUSPAD: Mouse-based Authentication Using Segmentation-based, Progress-Adjusted DTW, 19th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom), 2020, Research.com impact score: 2.81.
  - **Chandra Sharma, George T Amariucai**, *Neutralizing Manipulation of Critical Data by Enforcing Data-Instruction Dependency*, Symposium on the Science of Security (HotSoS), 2020.
  - Stephanie Harshbarger, Mohsen Hosseinzadehtaher, Bala Natarajan, Eugene Vasserman, Mohammad Shadmand and George Amariucai, (A Little) Ignorance is Bliss: The Effect of Imperfect Model Information on Stealthy Attacks in Power Grids, IEEE Kansas Power & Energy Conference (KPEC), 2020.
  - **Abiola Osho, Ethan Tucker, George Amariucai**, *Implicit Crowdsourcing for Identifying Abusive Behavior in Online Social Networks*, 14th International Conference on Web and Social Media, Data Challenge (ICWSM-DC), 2020.
  - Blake A Holman, Joy Hauser, and George T Amariucai, Towards Home Area Network Hygiene: Device Classification and Intrusion Detection for Encrypted Communications, The 2020 International Conference on Security and Management (SAM'20), 2020.
  - Zhen Zhang, Mitchell Easley, Mohsen Hosseinzadehtaher, George Amariucai, Mohammad Shadmand and Haitham Abu-Rub, An Observer Based Intrusion Detection Framework for Smart Inverters at the Grid-Edge, The Twelfth Annual Energy Conversion Congress and Exposition (ECCE), 2020, Research.com impact score: 1.32.

- 2019 Amin Y., Mitchell Easley, George T. Amariucai, Mohammad B. Shadmand, Haitham Abu-Rub, Cybersecurity Analytics using Smart Inverters in Power Distribution System: Proactive Intrusion Detection and Corrective Control Framework, IEEE International Symposium on Technologies for Homeland Security (HST), Research.com impact score: 1.65.
- 2018 **George Amariucai, Sanchita Barman, Yong Guan**, *An Algebraic Quality-Time-Advantage-Based Key Establishment Protocol*, The 11th ACM Conference on Security and Privacy in Wireless and Mobile Networks (WiSec 2018), **Research.com impact score: 3.3**.
  - Yanmao Man, Jing Deng, George Amariucai, Shuangqing Wei, HQuad: Statistics of Hamiltonian Cycles in Wireless Rechargeable Sensor Networks, 25th International Conference on Telecommunications (ICT 2018), Research.com impact score: 2.15.
- 2017 Mohammad Reza Khalili-Shoja, George Amariucai, Zhengdao Wang, Shuangqing Wei, Jing Deng, Asymptotic Converse Bound for Secret Key Capacity in Hidden Markov Model, IEEE International Symposium on Information Theory (ISIT), Research.com impact score: 7.26.
  - Zhonghao Liao, George Amariucai, Raymond Wang, Yong Guan, The Impact of Discharge Inversion Effect on Learning SRAM Power-Up Statistics, Asian Hardware Oriented Security and Trust Symposium (AsianHOST), Research.com impact score: 1.65.
  - Ali Moharer, Shuangqing Wei, George Amariucai, Jing Deng, Successive Synthesis of Latent Gaussian Trees, Milcom2017, Research.com impact score: 3.3.
- 2016 Ali Moharer, Shuangqing Wei, George Amariucai, Jing Deng, Synthesis of Gaussian Trees with Correlation Sign Ambiguity: An Information Theoretic Approach, the 54th Annual Allerton Conference on Communication, Control and Computing, Research.com impact score: 4.12.
  - Mohammad Reza Khalili-Shoja, George Amariucai, Shuangqing Wei, Jing Deng, A Key Establishment Algorithm Based on Harvesting Randomness in MANETs, The 2016 International Conference on Security and Management (SAM'16).
- 2015 Ali Moharer, Shuangqing Wei, George Amariucai, Jing Deng, Topological and Algebraic Properties for Classifying Unrooted Gaussian Trees under Privacy Constraints, IEEE Global Communications Conference (Globecom), Research.com impact score: 9.4.
  - Junjun Ruan, Jing Deng, George Amariucai, Shuangqing Wei, Efficient Link Cuts in Online Social Networks, IEEE Global Communications Conference (Globecom), Research.com impact score: 9.4.
  - **Gang Xu, George Amariucai, and Yong Guan**, *Block Programs: Improving Efficiency of Verifiable Computation for Circuits with Repeated Substructures*, the 10th ACM Symposium on Information, Computer and Communications Security (ASIACCS), **Research.com impact score: 5.94**.

- Ali Moharrer, Shuangqing Wei, George T Amariucai and Jing Deng, Evaluation of Security Robustness Against Information Leakage in Gaussian Polytree Graphical Models, IEEE Wireless Communication and Networking Conference (WCNC).
- 2014 **Gang Xu, George Amariucai, Yong Guan**, *Verifiable Computation with Reduced Informational Costs and Computational Costs*, the 19th European Symposium on Research in Computer Security (ESORICS), **Research.com impact score: 5.61**.
  - **Gang Xu, George Amariucai, Yong Guan**, *Poster: Distributed Delegation of Computation with Verification Outsourcing*, the 35th IEEE Symposium on Security and Privacy(Oakland).
  - **Gang Xu, George Amariucai, Yong Guan**, *Poster: Distributed Delegation of Computation with Delegation of Verification Using GENI Infrastructure*, the 20th GENI Engineering Conference.
  - Gang Xu, George Amariucai, and Yong Guan, Delegation of Computation with Verification Outsourcing using GENI Infrastructure, the 3rd GENI Research and Educational Experiment Workshop (GREE).
- 2013 **Gang Xu, G. Amariucai, Y. Guan**, *Delegation of Computation with Verification Outsourcing: Curious Verifiers*, ACM Symposium on Principles of Distributed Computing (PODC).
  - **Gang Xu, G. Amariucai, Y. Guan**, *A Lightweight Argument System with Efficient Verifier*, First IEEE Conference on Communications and Network Security (CNS).
- 2011 **G. Amariucai, C. Bergman, Y. Guan**, *An Automatic, Time-Based, Secure Pairing Protocol for Passive RFID*, The 7th Workshop on RFID Security and Privacy (RFIDsec).
- 2010 **G. Amariucai, S. Wei**, Active Eavesdropping in Fast Fading Channels. A Block-Markov Wyner Secrecy Encoding Scheme, IEEE International Symposium on Information Theory (ISIT).
- 2009 **G. Amariucai, S. Wei**, *Active Eavesdropping in Fast Fading Channels*, Military Communications Conference (MILCOM).
  - **G.** Amariucai, **S.** Wei, *Mixed Anti-Jamming Strategies in Fixed-Rate Wireless Systems over Fast Fading Channels*, IEEE International Symposium on Information Theory (ISIT).
- 2008 **G. Amariucai and S.Wei**, *Jamming Games in Fast-Fading Wireless Channels*, IEEE Globecom Wireless Communications Symposium.
  - **G.** Amariucai and S.Wei, Strictly Positive Secrecy Rate of Binary Wiretapper Channels Using Feedback Schemes, Annual Conference on Information Sciences and Systems (CISS08).
- 2007 **G. Amariucai, S. Wei and R. Kannan**, *Gaussian Jamming in Block-Fading Channels under Long Term Power Constraints*, IEEE International Symposium on Information Theory (ISIT).
  - **G.** Amariucai, S. Wei and R. Kannan, *Minimax and Maxmin Solutions to Gaussian Jamming in Block-Fading Channels under Long Term Power Constraints*, Annual Conference on Information Sciences and Systems (CISS07).

2006 **G. Amariucai and S.Wei**, Channel Capacity and Dirty Paper Coding for Gaussian Channels with Additive and Multiplicative Interferences, 40th Annual Asilomar Conference on Signals, System, and Computers.

# Courses Taught

- 2019-present **Cybersecurity Studio/ INSuRE**, *Kansas State University*, Graduate/ Undergraduate.
- 2017-present **Fundamentals of Computer Security**, *Kansas State University*, Graduate/Undergraduate.
- 2018-present **Fundamentals of Cryptography**, *Kansas State University*, Graduate/Undergraduate.
  - 2019 **Research Methods in Computer Science**, *Kansas State University*, Graduate/ Undergraduate.
  - 2010-2017 Wireless Network Security, Iowa State University, Graduate/ Undergraduate.
  - 2012-2017 Introduction to Circuits and Instruments, *Iowa State University*, Undergraduate.
  - 2012-2017 Senior Design II, Iowa State University, Undergraduate.
    - 2012 Introduction to Computer Engineering and Problem Solving, *lowa State University*, Undergraduate.
  - 2010-2012 **Engineering Problems with Computer Applications Laboratory**, *Iowa State University*, Undergraduate.
    - 2011 Electric Circuits, Iowa State University, Undergraduate.
  - 2009-2011 Introduction to Electrical Engineering and Problem Solving, *Iowa State University*, Undergraduate.
  - 2009-2010 Signals and Systems II, Laboratory, Iowa State University, Undergraduate.

## Service

- Technical Served on the following conferences:, IEEE Global Communications Conference Program (Globecom 2016, 2018, 2020) International Conference on Computing, Networking and Communication (ICNC 2013, 2014, 2015, 2016), IEEE International Conference on Communications (ICC 2015, 2016), IEEE Consumer Communications and Networking Conference (CCNC 2015, 2016).
- Conference **Served as session chair**, The 11th ACM Conference on Security and Privacy in Service Wireless and Mobile Networks (WiSec 2018).
- Reviewed manuscripts for the following journals:, IEEE Communications Magazine, IEEE Transactions on Information Theory, IEEE Transactions on Wireless Communications, IEEE Transactions on Vehicular Technology, IEEE Transactions on Information Forensics and Security, IEEE Journal on selected Areas in Communications, IEEE Transactions on Industrial Electronics, Internet Technology Letters, Computers and Security, IEEE Access, Springer Journal on Personal and Ubiquitous Computing.
  - Proposal **Served on NSF panels**, *Dec. 2017, Febr. 2018*, **Reviewed proposals for US**Review **Army Research Office (ARO)**, July 2018.

Department In the Department of Computer Science at KSU, Graduate Studies Committee Committees (2018-present), PhD Recruitment Committee (2018-present), In the Department of Electrical and Computer Engineering at ISU, Curicullum Committee (2012, 2013), Senior Design Committee (2010-2017).

Program of Served on the committees of the following students:, Nikesh Gyawali (PhD, Study CS, KSU, 2021-present), Halah Shehada (M.S., ECE, KSU, 2021), Mahmood Azhar Committees Qureshi (PhD, CS, KSU, 2020-present), Mohsen Shid Pilehvar (PhD, ECE, KSU, 2020), Gauresh Singh Rajawat (M.S., CS, KSU, 2020), Logan Prough (M.S., CS, KSU, 2020), Chandan Chowdhury (M.S., CS, KSU, 2019), Riley Brien (M.S., ECpE, ISU, 2015), Akanksha Singh (M.S., ECpE, ISU, 2015), Brian Peck (Ph.D., ECpE, ISU, 2014), Keyan Shen (M.S., ECpE, ISU, 2013), Matthew Sullivan (M.S., ECpE, ISU, 2015), Lauren Herrmann (M.S., Math, ISU, 2012).

Public Service **Volunteered**, Served as a judge for the State Science and Technology Fair of Iowa (2012), helped with hurricane Gustav relief efforts (Louisiana Volunteers in Action, 2008).

## Languages

Fluent English

Mothertongue Romanian

Conversational French

Basic **Italian** 

#### References

Shuangqing **Professor**, School of Electrical Engineering and Computer Science, Louisiana State Wei University, swei@lsu.edu. (225)-578-5536

Yong Guan **Professor**, Department of Electrical and Computer Engineering, Iowa State University, guan@iastate.edu. (515)-294-8378

Bala **Professor**, Department of Electrical and Computer Engineering, Kansas State Natarajan University, bala@k-state.edu.