Curriculum Vitae Sachin Shetty

PERSONAL INFORMATION Sachin Shetty

JOB POSITION

Professor, Department of Computational Modeling and Simulation Engineering and Executive Director, Center for Secure and Intelligent Critical Systems, Virginia Modeling Analysis and Simulation Center, Old Dominion University

WORK EXPERIENCE

[Add separate entries for each experience. Start from the most recent.]

2021- Present Executive Director, Center for Secure and Intelligent Critical Systems

Old Dominion University, 1030 University Blvd, Suffolk, VAUSA 23435

Leading a research center to develop technologies for safe and secure critical infrastructure
 Academic

2021- Present

Professor, Department of Computational Modeling and Simulation Engineering

Old Dominion University, 1030 University Blvd, Suffolk, VAUSA 23435 Teaching cybersecurity courses and supervising graduate dissertations and thesis

2016-2021

Associate Professor, Department of Computational Modeling and Simulation

Engineering

Old Dominion University, 1030 University Blvd, Suffolk, VA USA 23435 Teaching cybersecurity courses and supervising graduate dissertations and thesis Academic

2015- 2016

Associate Professor, Department of Electrical ad Computer Engineering

Tennessee State University,3500 John MerrittBlvd,Nashville, TN USA 37209

Teaching cybersecurity courses and supervising graduate dissertations and thesis Leading Cybersecurity laboratory in the TIGER Research Institute

Academic

2009-2015

Assistant Professor, Department of Electrical ad Computer Engineering

Tennessee State University,3500 John MerrittBird,Nashville,TN USA 37209

Teaching cybersecurity courses and supervising graduate dissertations and thesis Leading Cybersecurity laboratory in the TIGER Research Institute

Academic

2008-2009

Assistant Professor, Department of Electrical ad Computer Engineering

Rowan University, 201 Mullica Hill Rd, Glassboro, NJ 08028

Teaching cybersecurity courses and supervising graduate dissertations andthesis.

Academic

2007-2008

Adjunct Professor, Department of Electrical ad Computer Engineering

Old Dominion University, 1030 University Blvd, Suffolk, VAUSA 23435

Teaching cybersecurity courses and conducting research on wireless communications

Academic

1998-2000

Software Developer

Tata Infotech Limited, Mumbai, India Developed software for imaging suite

Business

EDUCATION AND TRAINING

[Add separate entries for each course. Start from the most recent.]

2002-2007 Ph.D.

Old Dominion University, Norfolk, VAUSA

Modeling and Simulation

2000-2002

M.S.

University of Toledo, Toledo, OH USA

Computer Science

2002-2007

B.E

University of Mumbai, Mumbai, India

Computer Engineering

ADDITIONAL INFORMATION

Publications

Selected Publications (For full list, visit - Sachin Shetty - Google Scholar)

Books

Charles Kamhoua, Alexander Kott, Laurent Njilla, Sachin Shetty, "Modeling and Design of Secure Internet of Things", John Wiley &Sons, 1 edition, 2020, ISBN 978-1-119-59336-2

Sachin Shetty, Charles Kamhoua, Laurent Njilla, "Blockchain for Distributed Systems Security", Wiley-IEEE Computer Scoeity, 1 edition, 2019, ISBN 978-1-119-51960-7

Sachin Shetty, Xuebiao Yuchi and Min Song, "Moving Target Defense for Distributed Systems," Springer, ISBN 978-3-319-31031-2, 2016

D. B. Rawat, M. Song, and Sachin Shetty, ""Dynamic Spectrum Access for Wireless Networks," SpringerBriefs of Electrical and Computer Engineering, ISBN 978-3-319-15298-1 Springer Verlag, 2015

Book Chapters

Haque, Md Ariful, and Sachin Shetty. "Leveraging Machine Learning in Financial Fraud Forensics in the Age of Cybersecurity." In *Technologies to Advance Automation in Forensic Science and Criminal Investigation*. edited by Chen, Chung-Hao and Wen-Chao Yang, and Lijian Chen, 220-249. Hershey, PA: IGI Global, 2022.

Ghosh, Uttam and Pushpita Chatterjee, and Sachin Shetty. "Securing SDN-Enabled Smart Power Grids: SDN-Enabled Smart Grid Security." In *Research Anthology on Smart Grid and Microgrid Development.* edited by Management Association, Information Resources, 1028-1046. Hershey, PA: IGI Global, 2022. (Citations – 2)

Ariful Haque, Sachin Shetty, Bheshaj Krishnappa, "CPS resilience: Frameworks, metrics, complexities, challenges and future directions", Complexity Challenges in Cyber Physical Systems: Using Modeling and Simulation (M&S) to Support Intelligence, Adaptation and Autonomy, Eds.: Saurabh Mittal and Andreas Tolk, Wiley, 2019.

Eranga Herath, Xueping Liang, Pete Foytik, **Sachin Shetty**, Promize - Blockchain and Self Sovereign Identity Empowered Mobile ATM Platform. In: Arai K. (eds) Intelligent Computing. Lecture Notes in Networks and Systems, vol 284. Springer

Curriculum Vitae Sachin Shetty

Haque MA, Shetty S, Gold K, Krishnappa B (2021) Realizing cyber-physical systems resilience frameworks and security practices. In: Security in cyber-physical systems, pp 1-37

Journals

Tan Le and Sachin Shetty, "Artificial Intelligence-aided Privacy Preserving Trustworthy Computation and Communication in 5G-based IoT Networks,", Adhoc Network Journal, vol 126, March 2022 (Impact Factor – 5.42)

Eranga Bandara, Deepak Tosh, Peter Foytik, Sachin Shetty, Nalin Ranasinghe, Kasun De Zoysa, "Tikiri—Towards a lightweight blockchain for IoT," Future Generation Computer Systems, Volume 19, 2021, (Impact Factor – 7.187)

M. A. R. A. Amin, **Sachin Shetty**, Laurent Njilla, Deepak Tosh and Charles Kamhoua, "Hidden Markov Model and Cyber Deception for the Prevention of Adversarial Lateral Movement," in IEEE Access, vol. 9, pp. 49662-49682, 2021, (Impact Factor – 3.367)

Hamdi Kavak, Jose J. Padilla, Daniele Vernon-Bido, Saikou Y. Diallo, Ross Gore, **Sachin Shetty**, "Simulation for cybersecurity: state of the art and future directions," in Journal of Cybersecurity, vol. 7, No. 1, 2021. (Impact Factor – 5.41)

S. P. Gochhayat, S. Shetty, R. Mukkamala, P. Foytik, G. A. Kamhoua and L. Njilla, "Measuring Decentrality in Blockchain based Systems," in *IEEE Access*, September 2020 (Impact Factor – 3.745)

Muhammad Saad, Jeffrey Spaulding, Laurent Njilla, Charles Kamhoua, Sachin Shetty, DaeHun Nyang, and David Mohaisen, "Exploring the Attack Surface of Blockchain: A Comprehensive Survey", IEEE Communications Surveys & Tutorials, 2020 (Impact Factor – 23.7)

Deepak Tosh, **Sachin Shetty**, Xueping Liang, Charles Kamhoua, Laurent Njilla, "Data Provenance in the Cloud: A Blockchain-Based Approach," in *IEEE Consumer Electronics Magazine*, vol. 8, no. 4, pp. 38-44, July 2019. (Impact Factor – 3.273)

Mohammad Wazid, P. Bagga, Ashok Kumar Das, Sachin Shetty, Joel J. P. C. Rodrigues, and Yongho Park. "AKM-IoV: Authenticated Key Management Protocol in Fog Computing-Based Internet of Vehicles Deployment," in *IEEE Internet of Things Journal*, 2019 (Impact Factor 9.515)

<u>Danda B. Rawat</u>, Sachin Shetty, <u>Chunsheng Xin</u>, "Stackelberg-Game-Based Dynamic Spectrum Access in Heterogeneous Wireless Systems," <u>IEEE Systems</u> Journal, vol. 10, pp. 1494-1504, 2016 (Impact Factor – 4.463)

J. Rodriguez, N. H. Tran, T. Q. Duong, T. Le-Ngoc, M. Elkashlan, and Sachin Shetty, "Physical Layer Security in Wireless Cooperative Relay Networks: State-Of-The-Art and Beyond," *IEEE Commun. Magazine*, vol. 53, pp.32-39, December 2015. (Impact Factor – 10.356)

Technical Report

Luiz A. DaSilva, Jeffrey H. Reed, Sachin Shetty, Jerry Park, Duminda Wijesekera and Haining Wang, "Securing 5G: A NATO's Role in Collaborative Risk Assessment and Mitigation," Cyber Threats and NATO 2030: Horizon Scanning and Analysis, 2021

Conference Procedings

Eranga Herath, Deepak Tosh, Sachin Shetty, Bheshaj Krishnappa, "CySCPro - Cyber Supply Chain Provenance Framework for Risk Management of Energy Delivery Systems," IEEE Blockchain 2021

Eranga Herath, Sachin Shetty, Abdul Rehman, Ravi Mukkamalla, "Let'sTrace -

Blockchain, Federated Learning and TUF/In-ToTo Enabled Cyber Supply Chain Provenance Platform," IEEE Milcom 2021

Abel Gomez, Deepak Tosh, Sachin Shetty, "Achieving Runtime State Verification Assurance in Critical Cyber-Physical Infrastructures," IEEE SmartGridComm 2021.

Sayyed Farid Ahamed, Priyanka Aggarwal, Sachin Shetty, Erin Lanus, Laura Freeman, "ATTL: An Automated Targeted Transfer Learning with Deep Neural Network," Big Data Track, IEEE Global Communications Conference

Ariful Haque Sachin Shetty, Charles Kamhoua, Kimberly Gold, "Integrating Mission-Centric Impact Assessment to Operational Resiliency in Cyber-Physical Systems," IEEE Globecom 2020

Sharif Ullah, Sachin Shetty, Amin Hassanzadeh, Anup Nayak and Kamrul Hasan, "On the Effectiveness of Intrusion Response Systems Against Persistent Threats," IEEE ICNC, Hawaii. 2020

Md Ali Reza Al Amin, Sachin Shetty, Laurent Njilla, Deepak Tosh and Charles Kamhoua "Online Cyber Deception System using Partially Observable Monte-Carlo Planning Framework", Securecomm, 2019

Deepak Tosh, Sachin Shetty, Peter Foytik, Laurent Njilla, Charles Kamhoua, "Blockchain Empowered Secure Internet-of-Battlefield Things (IoBT) Architecture", Milcom, Los Angeles, October 2018.

Xueping Liang, Sachin Shetty, Deepak Tosh, Charles Kamhoua, Kevin Kwiat, Laurent Njilla, "ProvChain: A Blockchain-based Data Provenance Architecture in Cloud Environment with Enhanced Privacy and Availability", The 17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGRID), May 14-17 2017.

Deepak Tosh Sachin Shetty, Xueping Liang, Charles Kamhoua, Kevin Kwiat, Laurent Njilla, "Security Implications of Blockchain Cloud with Analysis of Block Withholding Attack", 17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGRID), May 14-17 2017.

Selected invited talks (For Full list, visit www.odu.edu/~sshetty)

Invited Talks

Spectrum Sharing Technologies- Where we are and Future Challenges, National Spectrum Consortium, December 15, 2021

Marine Corps 5G Community of Interest, July 10, 2021

Cyber Risk Scoring and Mitigation for Critical Infrastructure, Center for Energy, Environmental, and Economic Systems Analysis Fall Seminar Series on Energy Systems and Cybersecurity, Argonne National Lab, October 2, 2020

Internet of Medical Things, Health Utility Grid Standards, Global Collaboration and Harmonization for Digital Transformation in Health care, Global Science Collaboration, 75th United Nations General Assembly (UNGA75), October 1, 2020

Cyber Risk Scoring and Mitigation, NASA Langley, March 24, 2020

Cyber Risk Scoring and Mitigation, Turbo Transition, US Transcom, June 2019

Blockchain for Distributed Systems Security Symposium, Army Research Lab, Adelphi, MD, February 5, 2019

A Proof-of-Stake Consensus Design for Blockchain Integrated Cloud, Applications and Barriers to Consensus Protocols Workshop, DARPA, February 15, 2019

Cyber security research, Air Force Institute of Technology, January 23-24, 2019

"Transfer Learning for Detecting Unknown Attacks in Autonomous", Workshop on Autonomous Cyber Operations, Baltimore, Maryland, November 5-6 2018

Blockchain and Process Control Systems Security", Supply Chain Cybersecurity & Cloudbased Services Workshop, October 23, 2018, FortWorth, Texas.

Cyber Risk Scoring and Mitigation", US PACOM Webinar, May 17, 2018

Curriculum Vitae Sachin Shetty

"Cyber Risk Scoring for Wireless Systems", C-UAS and JCREW Advanced Techniques Development Technical Exchange Meeting, Crane Indiana, March 12-15, 2018

"Blockchain empowered cyber threat sharing platform", US Transcom, December 2017

Selected Active Projects (For Full list, visit www.odu.edu/~sshetty)

Projects

Advancements in low latency, resilient and energy efficient 5G networks for smart warehouse, National Spectrum Consortium.

Top Down 5G Network Security Design, Deloitte

Blockchain-Empowered Cyber-Resilient IoT Security Solution, Commonwealth of Virginia

AI Model Certification in Operational Environments, MITRE

Center of Excellence in Artificial Intelligence and Machine Learning, Army Research Lab

Cybersecurity Monitoring and Assurance Training Program for Safe and Secure Port

Operations, Commonwealth Cyber Initiative

Question Under Discussion Framework to Analyze Misinformation targeting Security

Researchers, Commonwealth Cyber Initiative

Secure and Privacy Preserving 5G Network for Connected Vehicles, Commonwealth

Cyber Initiative

Analytically-based frameworks for AI model verification and improvement in cyber-

physical systems, National Science Foundation

Blockchain Empowered Provenance Framework for Sensor Identity Management and

Data Flow Security in Fossil-Based Power Plants, Department of Energy

Networked Device Identity Management using Blockchain, Sentara Healthcare

Data Provenance Assurance in Cloud Using Blockchain, Air Force Research Lab

Towards Community Resilience through Comprehensive Risk Assessment for Business

Continuity, Department of Homeland Security

Cyber Resilient Energy Delivery Consortium, Department of Energy

Center of Excellence in Cyber security, Air Force Research Lab

Top 2 % Scientist

Honours and awards

Fulbright Specialist

CCI Faculty Fellow

Electric Power Research Institute Research Challenge Award

Top 50 Blockchain Academic Research Paper Award

2016 TSU Million Dollar Club

2015 NSWC Summer Faculty Research

Three time winner of the TSU Faculty Research Mentorship Award (2013, 2014, 2015)

2012 TBR Research Academy Fellow

2011 Ida McClain Award (College of Engineering, TSU)

2010 NSF/DoE FaST (Faculty Student Team) Fellowship

2011 - 2013 AFRL, Rome Visiting Faculty Fellowship

Memberships

Senior Member, IEEE

VA, 13 OTTOBRE 2022

Prof. Sachin S. SHETTY

INFORMAZIONI PERSONALI Sachin Shetty

INCARICO

Professore presso il Dipartimento di Computational Modeling and Simulation Engineering e Direttore esecutivo del Center for Secure and Intelligent Critical Systems, Virginia Modeling Analysis and Simulation Center, Old Dominion University

ESPERIENZE LAVORATIVE

DAL 2021 a oggi

Direttore esecutivo del Center for Secure and Intelligent Critical Systems Old Dominion University, 1030 University Blvd, Suffolk, VA USA 23435

• Responsabile di un centro di ricerca per lo sviluppo di tecnologie per la sicurezza e la protezione delle infrastrutture critiche

Dal 2021 a oggi

Professore presso Dipartimento di Computational Modeling and Simulation Engineering

Old Dominion University, 1030 University Blvd, Suffolk, VA USA 23435 Docente di cybersecurity e supervisore delle dissertazioni e delle tesi presentate dai laureandi

2016-2021

Professore associato presso il Dipartimento di Computational Modeling and Simulation Engineering

Old Dominion University, 1030 University Blvd, Suffolk, VA

USA 23435

Docente di cybersecurity e supervisore delle dissertazioni e delle tesi presentate dai laureandi

2015-2016

Professore associato presso il Dipartimento di Electrical ad Computer Engineering

Tennessee State University, 3500 John MerrittBlvd,Nashville, TN USA 37209

Docente di cybersecurity e supervisore delle dissertazioni e delle tesi presentate dai laureandi. Responsabile del Cybersecurity

laboratory presso il TIGER Research Institute

Curriculum Vitae

2009- 20	15 Professore aggiunto presso il Dipartimento di Electrical ad Computer Engineering
	Tennessee State University, 3500 John MerrittBlvd,
	Nashville,TN USA 37209 Docente di cybersecurity e supervisore delle dissertazioni e delle
	tesi presentate dai laureandi. Responsabile del Cybersecurity laboratory presso il TIGER Research Institute
2008- 2009	Professore aggiunto presso il Dipartimento di Electrical ad Computer Engineering Rowan University, 201 Mullica Hill Rd, Glassboro, NJ 08028 Docente di cybersecurity e supervisore delle dissertazioni e delle tesi dei laureandi.
2007- 2008	Professore a contratto presso il Dipartimento di Electrical ad Computer Engineering Old Dominion University, 1030 University Blvd, Suffolk, VA USA 23435
	Docente di cybersecurity e ricercatore nel campo delle comunicazioni wireless
1998- 2000	Sviluppatore di Software
	TataInfotech Limited,Mumbai,India Developed software for imaging suite
ISTRUZIONE	E
FORMAZIONE	
2002-2007	Old Dominion University, Norfolk, VA USA
	 Modeling and Simulation
2000-2002	Master Università di Toledo, Toledo, OH USA ■ Informatica
2002-2007	Laurea Università di Mumbai,

ALTRE INFORMAZIONI

Pubblicazioni Selezione di pubblicazioni (per la lista completa Cfr:Sachin Shetty - Google Scholar)

Libri

Mumbai, India

Computer Engineering

Charles Kamhoua, Alexander Kott, Laurent Njilla, Sachin Shetty, "Modeling and Design of Secure Internet of Things", John Wiley &Sons, 1 edition, 2020, ISBN 978-1-11959336-2

Sachin Shetty, Charles Kamhoua, Laurent Njilla, "Blockchain for Distributed Systems Security", Wiley-IEEE Computer Scoeity, 1 edition, 2019, ISBN 978-1-119-51960-7

Sachin Shetty, Xuebiao Yuchi and Min Song, "Moving Target Defense for Distributed Systems," Springer, ISBN 978-3-319-31031-2, 2016

D. B. Rawat, M. Song, and Sachin Shetty, ""Dynamic Spectrum Access for Wireless Networks," SpringerBriefs of Electrical and Computer Engineering, ISBN 978-3-319-

15298-1 Springer Verlag, 2015

Contributi in volume

Haque, Md Ariful, and Sachin Shetty. "Leveraging Machine Learning in Financial Fraud Forensics in the Age of Cybersecurity." In *Technologies to Advance Automation in Forensic Science and Criminal Investigation*. edited by Chen, Chung-Hao and Wen-Chao Yang, and Lijian Chen, 220-249. Hershey, PA: IGI Global, 2022. Ghosh, Uttam and Pushpita Chatterjee, and Sachin Shetty. "Securing SDN-Enabled Smart Power Grids: SDN-Enabled Smart Grid Security." In *Research Anthology on Smart Grid and Microgrid Development*. edited by Management Association, Information Resources, 1028-1046. Hershey, PA: IGI Global, 2022. (Citations – 2)

Ariful Haque, Sachin Shetty, Bheshaj Krishnappa, "CPS resilience: Frameworks, metrics, complexities, challenges and future directions", Complexity Challenges in Cyber Physical Systems: Using Modeling and Simulation (M&S) to Support Intelligence, Adaptation and Autonomy, Eds.: Saurabh Mittal and Andreas Tolk, Wiley, 2019.

Eranga Herath, Xueping Liang, Pete Foytik, **Sachin Shetty**, Promize - Blockchain and Self Sovereign Identity Empowered Mobile ATM Platform. In: Arai K. (eds) Intelligent Computing. Lecture Notes in Networks and Systems, vol 284. Springer

Haque MA, Shetty S, Gold K, Krishnappa B (2021) Realizing cyber-physical systems resilience frameworks and security practices. In: Security in cyber-physical systems, pp 1–37

Articoli

Tan Le and Sachin Shetty, "Artificial Intelligence-aided Privacy Preserving Trustworthy Computation and Communication in 5G-based IoT Networks,", Adhoc Network Journal, vol 126, March 2022 (Impact Factor – 5.42)

Eranga Bandara, Deepak Tosh, Peter Foytik, Sachin Shetty, Nalin Ranasinghe, Kasun De Zoysa, "Tikiri—Towards a lightweight blockchain for IoT, " Future Generation Computer Systems, Volume 19, 2021, (Impact Factor – 7.187)

M. A. R. A. Amin, **Sachin Shetty**, Laurent Njilla, Deepak Tosh and Charles Kamhoua, "Hidden Markov Model and Cyber Deception for the Prevention of Adversarial Lateral Movement," in IEEE Access, vol. 9, pp. 49662-49682, 2021, (Impact Factor – 3.367)

Curriculum Vitae

Hamdi Kavak, Jose J. Padilla, Daniele Vernon-Bido, Saikou Y. Diallo, Ross Gore, **Sachin Shetty**, "Simulation for cybersecurity: state of the art and future directions," in Journal of Cybersecurity, vol. 7, No. 1, 2021. (Impact Factor – 5.41)

S. P. Gochhayat, S. Shetty, R. Mukkamala, P. Foytik, G. A. Kamhoua and L. Njilla, "Measuring Decentrality in Blockchain based Systems," in *IEEE Access*, September 2020 (Impact Factor – 3.745)

Muhammad Saad, Jeffrey Spaulding, Laurent Njilla, Charles Kamhoua, Sachin Shetty, DaeHun Nyang, and David Mohaisen, "Exploring the Attack Surface of Blockchain: A Comprehensive Survey", IEEE Communications Surveys & Tutorials, 2020 (Impact Factor – 23.7)

Deepak Tosh, **Sachin Shetty**, Xueping Liang, Charles Kamhoua, Laurent Njilla, "Data Provenance in the Cloud: A Blockchain-Based Approach," in *IEEE Consumer Electronics Magazine*, vol. 8, no. 4, pp. 38-44, July 2019. (Impact Factor – 3.273)

Mohammad Wazid, P. Bagga, Ashok Kumar Das, Sachin Shetty, Joel J. P. C. Rodrigues, and Yongho Park. "AKM-IoV: Authenticated Key Management Protocol in Fog Computing-Based Internet of Vehicles Deployment," in *IEEE Internet of Things Journal*, 2019 (Impact Factor 9.515)

<u>Danda B. Rawat</u>, Sachin Shetty, <u>Chunsheng Xin</u>, "Stackelberg-Game-Based Dynamic Spectrum Access in Heterogeneous Wireless Systems," <u>IEEE Systems</u> <u>Journal, vol. 10, pp.</u> 1494-1504, 2016 (Impact Factor – 4.463)

J. Rodriguez, N. H. Tran, T. Q. Duong, T. Le-Ngoc, M. Elkashlan, and Sachin Shetty, "Physical Layer Security in Wireless Cooperative Relay Networks: StateOf-The-Art and Beyond," *IEEE Commun. Magazine*, vol. 53, pp.32-39, December 2015. (Impact Factor – 10.356)

Relazioni tecniche

Luiz A. DaSilva, Jeffrey H. Reed, Sachin Shetty, Jerry Park, Duminda Wijesekera and Haining Wang, "Securing 5G: A NATO's Role in Collaborative Risk Assessment and Mitigation," Cyber Threats and NATO 2030: Horizon Scanning and Analysis, 2021

Atti di convegno

Eranga Herath, Deepak Tosh, Sachin Shetty, Bheshaj Krishnappa, "CySCPro – Cyber Supply Chain Provenance Framework for Risk Management of Energy Delivery Systems," IEEE Blockchain 2021

Eranga Herath, Sachin Shetty, Abdul Rehman, Ravi Mukkamalla, "Let'sTrace - Blockchain, Federated Learning and TUF/In-ToTo Enabled Cyber Supply Chain Provenance Platform," IEEE Milcom 2021

Abel Gomez, Deepak Tosh, Sachin Shetty, "Achieving Runtime State Verification Assurance in Critical Cyber-Physical Infrastructures," IEEE SmartGridComm 2021.

Sayyed Farid Ahamed, Priyanka Aggarwal, Sachin Shetty, Erin Lanus, Laura Freeman, "ATTL: An Automated Targeted Transfer Learning with Deep Neural Network," Big Data Track, IEEE Global Communications Conference

Ariful Haque Sachin Shetty, Charles Kamhoua, Kimberly Gold, "Integrating MissionCentric Impact Assessment to Operational Resiliency in Cyber-Physical Systems," IEEE Globecom 2020

Sharif Ullah, Sachin Shetty, Amin Hassanzadeh, Anup Nayak and Kamrul Hasan, "On the Effectiveness of Intrusion Response Systems Against Persistent Threats," IEEE ICNC, Hawaii, 2020

Md Ali Reza Al Amin, Sachin Shetty, Laurent Njilla, Deepak Tosh and Charles Kamhoua "Online Cyber Deception System using Partially Observable Monte-Carlo Planning Framework", Securecomm, 2019

Deepak Tosh, Sachin Shetty, Peter Foytik, Laurent Njilla, Charles Kamhoua, "Blockchain Empowered Secure Internet-of-Battlefield Things (IoBT) Architecture", Milcom, Los Angeles, October 2018.

Xueping Liang, Sachin Shetty, Deepak Tosh, Charles Kamhoua, Kevin Kwiat, Laurent Njilla, "ProvChain: A Blockchain-based Data Provenance Architecture in Cloud Environment with Enhanced Privacy and Availability", The 17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGRID), May 14-17 2017.

Deepak Tosh Sachin Shetty, Xueping Liang, Charles Kamhoua, Kevin Kwiat, Laurent Njilla, "Security Implications of Blockchain Cloud with Analysis of Block Withholding Attack", 17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGRID), May 14-17 2017.

Invited Talks

Selezione di *invited talks* (per la lista completa,Cfr. www.odu.edu/~sshetty)

Spectrum Sharing Technologies- Where we are and Future Challenges, National Spectrum Consortium, December 15, 2021

Marine Corps 5G Community of Interest, July 10, 2021

Cyber Risk Scoring and Mitigation for Critical Infrastructure, Center for Energy, Environmental, and Economic Systems Analysis Fall Seminar Series on Energy Systems and Cybersecurity, Argonne National Lab, October 2, 2020

Internet of Medical Things, Health Utility Grid Standards, Global Collaboration and Harmonization for Digital Transformation in Health care, Global Science Collaboration, 75th United Nations General Assembly (UNGA75), October 1, 2020 Cyber Risk Scoring and Mitigation, NASA Langley, March 24, 2020

Cyber Risk Scoring and Mitigation, Turbo Transition, US Transcom, June 2019

Blockchain for Distributed Systems Security Symposium, Army Research Lab, Adelphi, MD, February 5, 2019

A Proof-of-Stake Consensus Design for Blockchain Integrated Cloud, Applications and Barriers to Consensus Protocols Workshop, DARPA, February 15, 2019

Cyber security research, Air Force Institute of Technology, January 23-24, 2019

Curriculum Vitae

"Transfer Learning for Detecting Unknown Attacks in Autonomous", Workshop on Autonomous Cyber Operations, Baltimore, Maryland, November 5-6 2018

Blockchain and Process Control Systems Security", Supply Chain Cybersecurity & Cloudbased Services Workshop, October 23, 2018, FortWorth, Texas.

Cyber Risk Scoring and Mitigation", US PACOM Webinar, May 17, 2018 "Cyber Risk Scoring for Wireless Systems", C-UAS and JCREW Advanced Techniques Development Technical Exchange Meeting, Crane Indiana, March 12-15, 2018 "Blockchain empowered cyber threat sharing platform", US Transcom, December 2017

Selezione di progetti attivi (per la lista completa, Cfr. www.odu.edu/~sshetty)

Progetti

Advancements in low latency, resilient and energy efficient 5G networks for smart warehouse, National Spectrum Consortium.

Top Down 5G Network Security Design, Deloitte

Blockchain-Empowered Cyber-Resilient IoT Security Solution, Commonwealth of Virginia

Al Model Certification in Operational Environments, MITRE

Center of Excellence in Artificial Intelligence and Machine Learning, Army Research Lab

Cybersecurity Monitoring and Assurance Training Program for Safe and Secure Port Operations, Commonwealth Cyber Initiative

Question Under Discussion Framework to Analyze Misinformation targeting Security Researchers, Commonwealth Cyber Initiative

Secure and Privacy Preserving 5G Network for Connected Vehicles, Commonwealth Cyber Initiative

Analytically-based frameworks for AI model verification and improvement in cyberphysical systems, National Science Foundation

Blockchain Empowered Provenance Framework for Sensor Identity Management and Data Flow Security in Fossil-Based Power Plants, Department of Energy

Networked Device Identity Management using Blockchain, Sentara Healthcare

Data Provenance Assurance in Cloud Using Blockchain, Air Force Research Lab

Towards Community Resilience through Comprehensive Risk Assessment for Business

Continuity, Department of Homeland Security

Cyber Resilient Energy Delivery Consortium, Department of Energy

Center of Excellence in Cyber security, Air Force Research Lab

Onorificenze e riconoscimenti

Top 2 % Scientist

Fulbright Specialist

CCI Faculty Fellow

Electric Power Research Institute Research Challenge Award

Top 50 Blockchain Academic Research Paper Award

2016 TSU Million Dollar Club

2015 NSWC Summer Faculty Research

Tre volte vincitore del TSU Faculty Research Mentorship Award (2013, 2014, 2015)

2012 TBR Research Academy Fellow

2011 Ida McClain Award (College of Engineering, TSU)

2010 NSF/DoE FaST (Faculty Student Team) Fellowship

2011 - 2013 AFRL, Rome Visiting Faculty Fellowship

Memberships

Membro senior dell' IEEE

VA, 13 OTTOBRE 2022

Prof. Sachin S. SHETTY

(firma autografa omessa ai sensi dell'art. 3 del D.lgs. n. 39/1993)