

1. NAME AND CONTACT INFORMATION

Ram Krishnan
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2. EDUCATIONAL BACKGROUND

Institution	Major	Degree	Year
Pondicherry University	Computer Science and Engineering	B.Tech	2001
New Jersey Institute of Technology	Computer Engineering	M.S.	2003
George Mason University	Computer Science	Ph.D.	2010

3. PROFESSIONAL EMPLOYMENT HISTORY

Sep 1, 2016 – Present	Associate Professor, Department of Electrical and Computer Engineering, University of Texas at San Antonio
Aug 18, 2010 – Aug 30, 2016	Assistant Professor, Department of Electrical and Computer Engineering, University of Texas at San Antonio

4. AWARDS AND HONORS

- College of Engineering Dean's Fellow, 2020-2021
- UTSA Innovation Award, 2019.
- Microsoft President's Endowed Professorship, 2016 – present
- U.S. National Science Foundation's CAREER award, 2016
- UTSA President's Distinguished Award for Research Achievement, 2016
- Recipient of the 2015 University of Texas System Regents' Outstanding Teaching Award, 2015
- Appointed as a Member of UTSA's Academy of Distinguished Teachers, 2015
- Inducted as a Faculty Member of Phi Kappa Phi (PKP), 2018
- Inducted as a Faculty Member of Eta Kappa Nu (HKN), 2014

5. RESEARCH/SCHOLARLY/CREATIVE ACTIVITIES SUMMARY

5.1 REFEREED JOURNAL PUBLICATIONS

1. [To appear] David Rodriguez, Tapsya Nayak, Yidong Chen, Ram Krishnan and Yufei Huang
On the Role of Deep Learning Model Complexity in Adversarial Robustness for Medical Images.
BMC Supplements, Springer Nature Series, 2021, 19 pages. **Impact Factor: 3.629**
2. Md. Farhan Haque and Ram Krishnan
Toward Automated Cyber Defense with Secure Sharing of Structured Cyber Threat Intelligence
Springer Information System Frontiers (Feb 2021), pp 1-14. **Impact Factor: 6.191**,
3. Samir Talegaon and Ram Krishnan
A Formal Specification of Access Control in Android with URI Permissions
Springer Information System Frontiers (Nov 2020), pp1-18. **Impact Factor: 6.191**,
4. Samir Talegaon and Ram Krishnan
Administrative Models for Role Based Access Control in Android
Journal of Internet Services and Inf. Security, Vol. 10, Issue 3, pp 31-46, August 2020.
5. Sherifdeen Lawal and Ram Krishnan
Policy Review in Attribute Based Access Control – A Policy Machine Case Study
Journal of Internet Services and Information Security, Vol. 10, Issue 2, pp 67-81, May 2020.
6. Sebastian Nugroho, Ahmad Taha, Nikolaos Gatsis, Tyler Summers and Ram Krishnan
Algorithms for Joint Sensor and Control Nodes Selection in Dynamic Networks
Automatica, Volume 106, August 2019, Pages 124-133. **Impact Factor: 5.944**
7. Yun Zhang, Ram Krishnan, Farhan Patwa and Ravi Sandhu
Access Control in Cloud IaaS
In Security, Privacy, and Digital Forensics in the Cloud (eds L. Chen, H. Takabi and N. Le-Khac), 2019, pp 81-108.
8. Arezou Moussavi-Khalkhali, Ram Krishnan, and Mo Jamshidi
Periodic Virtual Hierarchy: A Trust Model for Smart Grid Devices
International Journal of Security and Its Applications, pp 1-11, Vol. 10, No. 11, November 2016.
9. Hui Shen, Ram Krishnan, Rocky Slavin, and Jianwei Niu
Sequence Diagram Aided Privacy Policy Specification
IEEE Transactions on Dependable and Secure Computing (IEEE TDSC), Vol. 13, No. 3, pp. 381-393, May-June 1 2016.

10. Carlos Vazquez, Ram Krishnan and Eugene John
Time Series Forecasting of Cloud Data Center Workloads for Dynamic Resource Provisioning
Journal of Wireless Mobile Networks, Ubiquitous Computing and Dependable Apps (JoWUA), Vol. 6, No. 3, 2015.
11. Valliyappan Valliyappan, Eugene John, **Ram Krishnan** and Sruthi Nanduru
Design and Implementation of Low-Power Nanoscale Hardware-Based Cryptosystem for Group-Centric Secure Information Sharing
Journal of Research Briefs on Information & Communication Technology Evolution (ReBICTE), Vol. 1, No. 20, pp 1-11, 2015.
12. Sazzad Masud and **Ram Krishnan**
Kerberos-Based Authentication for OpenStack Cloud IaaS
Journal of IT Convergence Practice (INPRA), Vol. 3, No. 2, pp 1-24, 2015.
13. Jiwan Ninglekhu, **Ram Krishnan**, Eugene John, and Manoj Panday
Securing Implantable Cardioverter Defibrillators Using Smartphones
Journal of Internet Services and Information Security (JISIS), Vol. 5, Issue 2, pp 47-64, 2015.
14. Hui Shen, **Ram Krishnan**, Rocky Slavin and Jianwei Niu
Sequence Diagrams Aided Privacy Policy Specification
IEEE Transactions on Dependable and Secure Computing (IEEE TDSC), Vol. Preprint (PP), Issue 99, 2014, **Acceptance Rate: 11.9%**
15. Khalid Bijon, **Ram Krishnan** and Ravi Sandhu
Constraints Specification in Attribute Based Access Control
IEEE/ASE Science Journal, Vol. 2, No. 3, pp 131-144, 2013, **Acceptance Rate: 3%**
16. Mukesh Singhal, Santosh Chandrasekhar, Tingjian Ge, Ravi Sandhu, **Ram Krishnan**, Gail-Joon Ahn, Elisa Bertino
Collaboration in Multicloud Computing Environments: Framework and Security Issues
IEEE Computer, Vol. 46, Issue 2, pp 76-84, 2013.
17. **Ram Krishnan**, Jianwei Niu, Ravi Sandhu and William H. Winsborough
Group-Centric Secure Information Sharing Models for Isolated Groups
ACM Transactions on Information and System Security (ACM TISSEC), Vol. 14, Issue 3, pp 1-29, 2011.

5.2 REFEREED CONFERENCE PUBLICATIONS

1. [To appear] Sherifdeen Lawal and Ram Krishnan
Attribute-Based Access Control Policy Review in Permissioned Blockchain
International Conference on Secure Knowledge Management in the Artificial Intelligence Era (SKM '21), Virtual Event, October 8-9, 2021, 13 pages. **Acceptance Rate: 37%**

2. [To appear] Randy Klepetko and Ram Krishnan
Analyzing CNN Models' Sensitivity to the Ordering of Non-Natural Data
International Conference on Secure Knowledge Management in the Artificial Intelligence Era (SKM '21), Virtual Event, October 8-9, 2021, 19 pages. **Acceptance Rate: 37%**
3. Sherifdeen Lawal and Ram Krishnan
Utilizing Policy Machine for Attribute-Based Access Control in Permissioned Blockchain
IEEE International Conference on Omni-layer Intelligent systems (IEEE COINS '21), 6 pages, Virtual Event, August 23-26, 2021.
4. David Rodriguez, Tapsya Nayak, Yidong Chen, Ram Krishnan and Yufei Huang
On the Role of Deep Learning Model Complexity in Adversarial Robustness for Medical Images.
International Conference on Intelligent Biology and Medicine (ICIBM 2021), Virtual Event, August 8-10, 2021.
(Best Paper Award and Travel Award)
5. John Heaps, Ram Krishnan, Yufei Huang, Jianwei Niu and Ravi Sandhu
Access Control Policy Generation From User Stories Using Machine Learning.
35th Annual IFIP WG 11.3 Conference on Data and Applications Security and Privacy (DBSec '21), Virtual Event, July 19-20, 2021, 18 pages. **Acceptance Rate: 33%**
6. Sherifdeen Lawal and Ram Krishnan
Enabling Flexible Administration in ABAC Through Policy Review: A Policy Machine Case Study.
In Proceedings of 7th IEEE International Conference on Big Data Security on Cloud (BigDataSecurity 2021), 6 pages, Virtual Event, May 15-17, 2021.
Acceptance Rate: 16.67%
7. Samir Talegaon and Ram Krishnan
Role-Based Access Control Models for Android
In Proceedings of IEEE International Conference on Trust, Privacy and Security in Intelligent Systems, and Applications (TPS), Virtual Event, December 1-3, 2020, 10 pages.
(Best Paper Award)
8. Abdullah Al-Alaj, Ram Krishnan and Ravi Sandhu
ParaSDN: An Access Control Model for SDN Applications based on Parameterized Roles and Permissions
In Proceedings of 6th IEEE International Conference on Collaboration and Internet Computing (CIC), Virtual Event, December 1-3, 2020, 10 pages.
9. Abdullah Al-Alaj, Ravi Sandhu and Ram Krishnan

A Model for the Administration of Access Control in Software Defined Networking using Custom Permissions.

In Proceedings of 2nd IEEE International Conference on Trust, Privacy and Security in Intelligent Systems, and Applications (TPS), Virtual Event, December 1-3, 2020, 10 pages.

10. Md. Farhan Haque and Ram Krishnan
Toward Relationship Based Access Control for Secure Sharing of Structured Cyber Threat Intelligence
International Conference on Secure Knowledge Management in the Artificial Intelligence Era, (SKM 2019), December 21-22, 2019, Goa, India, 17 pages.
11. Samir Talegaon and Ram Krishnan
A Formal Specification of Access Control in Android
International Conference on Secure Knowledge Management in the Artificial Intelligence Era, (SKM 2019), December 21-22, 2019, Goa, India, 25 pages.
12. Shuvra Chakraborty, Ravi Sandhu and Ram Krishnan
On the Feasibility of RBAC to ABAC Policy Mining: A Formal Analysis
International Conference on Secure Knowledge Management in the Artificial Intelligence Era, (SKM 2019), December 21-22, 2019, Goa, India, 17 pages.
13. Randy Klepetko and Ram Krishnan
Analyzing CNN Model Performance Sensitivity to the Ordering of Non-Natural Data
4th IEEE International Conference on Computing Communication and Security (ICCCS 2019), 8 pages, October 10-12, 2019, Rome, Italy. Acceptance Rate: 21.7%
14. Abdullah Al-Alaj, Ram Krishnan and Ravi Sandhu
SDN-RBAC: An Access Control Model for SDN Controller Applications
4th IEEE International Conference on Computing Communication and Security (ICCCS 2019), 8 pages, October 10-12, 2019, Rome, Italy. Acceptance Rate: 21.7%
15. Shuvra Chakraborty, Ravi Sandhu and Ram Krishnan
On the Feasibility of Attribute-Based Access Control Policy Mining
20th IEEE Conference on Information Reuse and Integration (IRI), 8 pages, July 30-August 1, 2019, Los Angeles, California. Acceptance Rate: 24.62%
16. Mahmoud Abdelsalam, Ram Krishnan and Ravi Sandhu
Online Malware Detection in Cloud Auto-Scaling Systems Using Shallow Convolutional Neural Networks
33rd Annual IFIP WG 11.3 Conference on Data and Applications Security and Privacy (DBSec'19), July 15-17, 2019, Charleston, South Carolina, USA, 17 pages.
17. Abdullah Al-Alaj, Ravi Sandhu and Ram Krishnan
A Formal Access Control Model for SE-Floodlight Controller

ACM International Workshop on Security in Software Defined Networks & Network Function Virtualization (ACM SDN-NFV Security 2019), March 27, 2019, Dallas, Texas, USA, 6 pages.

18. Mahmoud Abdelsalam, Ram Krishnan, Yufei Huang and Ravi Sandhu
Malware Detection in Cloud Infrastructures using Convolutional Neural Networks
IEEE International Conference on Cloud Computing (IEEE CLOUD 2018), 8 pages, July 2-7, 2018, San Francisco, California, USA. Acceptance Rate: 19%
19. Jiwan Ninglekhu and Ram Krishnan
AARBAC: Attribute-Based Administration of Role-Based Access Control
IEEE International Conference on Collaboration and Internet Computing (IEEE CIC 2017), October 15-17, 2017, San Jose, California, USA, 10 pages.
20. Samir Talegaon and Ram Krishnan
Demystifying Android's URI Permission System
International Conference on Secure Knowledge Management, 6 pages, October 6-7, 2017, Tampa, Florida, USA
21. Jiwan Ninglekhu and Ram Krishnan
ARRA: Attribute-Based Role-Role Assignment
International Conference on Secure Knowledge Management, 6 pages, October 6-7, 2017, Tampa, Florida, USA
22. Mahmoud Abdelsalam, Ram Krishnan and Ravi Sandhu
Clustering-Based IaaS Cloud Monitoring
IEEE International Conference on Cloud Computing (IEEE Cloud '17), 8 pages, June 25-30, 2017, Honolulu, Hawaii, USA. Acceptance Rate: 19%
23. Prosunjit Biswas, Ravi Sandhu and Ram Krishnan
Attribute Transformation for Attribute-Based Access Control
ACM Attribute-Based Access Control (ABAC 2016), Scottsdale, Arizona, March 24, 2017, 8 pages.
24. Prosunjit Biswas, Ravi Sandhu and Ram Krishnan
An Attribute-Based Protection Model for JSON Documents
International Conference on Network and System Security (NSS 2016), Taipei, Taiwan, September 28-30, 2016, 15 pages. Acceptance Rate: 29.5%
25. Prosunjit Biswas, Ravi Sandhu and Ram Krishnan
Uni-ARBAC: A Unified Administrative Model for Role-Based Access Control
Information Security Conference (ISC 2016), Honolulu, Hawaii, September 7-9, 2016, 13 pages. Acceptance Rate: 25%
26. Prosunjit Biswas, Ravi Sandhu and **Ram Krishnan**
A Comparison of Logical Formula and Enumerated Authorization Policy ABAC Models

Annual IFIP WG 11.3 Working Conference on Data and Applications Security and Privacy (DBSec 2016), Trento, Italy, July 18-21, 2016.

27. Rocky Slavin, Xiaoyin Wang, Mitra Bokaei Hosseini, William Hester, **Ram Krishnan**, Jaspreet Bhatia, Travis D. Breaux and Jianwei Niu
PVDetector: A Detector of Privacy-Policy Violations for Android Apps
International Conference on Mobile Software Engineering and Systems (MOBILESoft 2016), Austin, TX, May 14-22, 2016.
28. Rocky Slavin, Xiaoyin Wang, Mitra Bokaei Hosseini, William Hester, **Ram Krishnan**, Jaspreet Bhatia, Travis D. Breaux and Jianwei Niu
Toward a Framework for Detecting Privacy Policy Violation in Android Application Code
International Conference on Software Engineering (ICSE 2016), Austin, TX, May 14-22, 2016.
29. Prosunjit Biswas, Ravi Sandhu and **Ram Krishnan**
Label-Based Access Control: An ABAC Model with Enumerated Authorization Policy
ACM Workshop on Attribute-Based Access Control (ABAC 2016), New Orleans, Louisiana, March 11, 2016.
30. Qasim Mahmood Rajpoot, Christian Damsgaard Jensen and **Ram Krishnan**
Attributes Enhanced Role-Based Access Control Model
Proceedings of 12th International Conference on Trust, Privacy and Security in Digital Business (TrustBus), September 1-2, 2015, Valencia, Spain, pp 3-17.
31. Qasim Mahmood Rajpoot, Christian Damsgaard Jensen and **Ram Krishnan**
Integrating Attributes into Role-Based Access Control
Proceedings of 29th Annual IFIP WG 11.3 Working Conference on Data and Applications Security and Privacy (DBSec), July 13-15, Fairfax, VA, USA, 2015, pp. 242-249.
32. Khalid Bijon, **Ram Krishnan** and Ravi Sandhu
Mitigating Multi-Tenancy Risks in IaaS Cloud Through Constraints-Driven Virtual Resource Scheduling
Proceedings of 20th ACM Symposium on Access Control Models and Technologies (ACM SACMAT), June 1-3, 2015, Vienna, Austria, pp 63-74, Overall Acceptance Rate: 29%
33. Navid Pustchi, **Ram Krishnan** and Ravi Sandhu
Authorization Federation in IaaS Multi Cloud
Proceedings of the Third International Workshop on Security in Cloud Computing (SCC), April 14-17, 2015, Singapore, pp 63-71.
34. Amy Zhang, Ram Krishnan and Ravi Sandhu
Secure Information and Resource Sharing in Cloud (poster)

Proceedings of ACM Conference on Data and Application Security and Privacy (ACM CODASPY), San Antonio, TX, March 2-4, 2015

35. Khalid Bijon, **Ram Krishnan** and Ravi Sandhu
Virtual Resource Orchestration Constraints in Cloud Infrastructure as a Service
Proceedings of ACM Conference on Data and Application Security and Privacy (ACM CODASPY), San Antonio, TX, March 2-4, 2015, pp 183-194, Overall Acceptance Rate: 21%
36. **Ram Krishnan** and Jiwan Ninglekhu
Smartphone-based Secure Authenticated Session Sharing in Internet of Personal Things
Proceedings of Mobile Devices and Multimedia: Enabling Technologies, Algorithms, and Applications, San Francisco, CA, February 10-11, 2015, pp 1-10.
37. Amy Zhang, **Ram Krishnan** and Ravi Sandhu
Secure Information and Resource Sharing in Cloud Infrastructure as a Service
Proceedings of ACM Workshop on Information Sharing and Collaborative Security (ACM WISCS), November 3, 2014, Scottsdale, AZ, pp 81-90.
38. Xin Jin, **Ram Krishnan** and Ravi Sandhu
Role and Attribute Based Collaborative Administration of Intra-Tenant Cloud IaaS
Proceedings 10th IEEE International Conference on Collaborative Computing: Networking, Applications and Worksharing (IEEE CollaborateCom), Miami, Florida, October 22-25, 2014, pp 261-274, Acceptance Rate: 20%
39. Khalid Bijon, **Ram Krishnan** and Ravi Sandhu
A Formal Model for Isolation Management in Cloud Infrastructure-as-a-Service
Proceedings of International Conference on Network and System Security (IEEE NSS), October 15-17, 2014, Xi'an, China, pp 41-53, Acceptance Rate: 26%
40. Carlos Vazquez, **Ram Krishnan** and Eugene John
Cloud Computing Benchmarking: A Survey
Proceedings of International Conference on Grid & Cloud Computing and Applications (GCA), July 21-24, 2014, Las Vegas, NV, pp 15-20.
41. Xin Jin, **Ram Krishnan** and Ravi Sandhu
Reachability Analysis for Role-based Administration of Attributes
Proceedings of ACM Digital Identity Management Workshop (ACM DIM), November 8, 2013, Berlin, Germany, pp 73-84.
42. Philip Fong, Pooya Mehregan and **Ram Krishnan**
Relational Abstraction in Community-Based Secure Collaboration
Proceedings of ACM Conference on Computer and Communications Security (ACM CCS), November 4-8, 2013, Berlin, Germany, pp 585-598, Overall Acceptance Rate: 21%

43. Khalid Bijon, **Ram Krishnan** and Ravi Sandhu
A Framework for Risk-Aware Role Based Access Control
Proceedings of IEEE International Conference on Communications and Network Security (IEEE CNS), October 14-16, 2013, Washington DC, pp 462-469, Acceptance Rate: 28.3%
44. Khalid Bijon, **Ram Krishnan** and Ravi Sandhu,
Towards an Attribute Based Constraints Specification Language
Proceedings of ASE/IEEE International Conference on Information Privacy, Security, Risk and Trust (ASE/IEEE PASSAT), September 8-14, 2013, Washington DC, pp 108-113, Acceptance Rate 9.6%
45. **Ram Krishnan** and Eugene John
Design of a Curriculum on Cloud Computing
Proceedings of International Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS), July 22-25, 2013, Las Vegas, NV, pp 312-315.
46. Khalid Bijon, **Ram Krishnan** and Ravi Sandhu
Risk-Aware RBAC Sessions
Proceedings of the 8th International Conference on Information Systems Security (ICISS), Guwahati, India, December 15-19, 2012, pp 59-74, Acceptance Rate 25%
47. Xin Jin, Ravi Sandhu and **Ram Krishnan**
RABAC: Role-Centric Attribute-Based Access Control
Proceedings 6th International Conference, on Mathematical Methods, Models, and Architectures for Computer Network Security (MMM-ACNS), St. Petersburg, Russia, October 17-20, 2012, pp 84-96.
48. Khalid Bijon, Tahmina Ahmed, Ravi Sandhu and **Ram Krishnan**
A Lattice Interpretation of Group-Centric Collaboration with Expedient Insiders
Proceedings of IEEE International Conference on Collaborative Computing: Networking, Applications and Worksharing (IEEE CollaborateCom), October 14-17, 2012, Pittsburgh, PA, pp 200-209, Acceptance Rate: 25%
49. Yuan Cheng, Dang Nguyen, Khalid Bijon, **Ram Krishnan**, Jaehong Park and Ravi Sandhu
Towards Provenance and Risk-Awareness in Social Computing
Proceedings of the IEEE International Workshop on Secure and Resilient Architectures and Systems (IEEE SRAS), September 19-23, 2012, Minneapolis, MN, pp 25-30.
50. Xin Jin, **Ram Krishnan** and Ravi Sandhu
A Role-Based Administration Model for Attributes
Proceedings of the IEEE International Workshop on Secure and Resilient Architectures and Systems (IEEE SRAS), September 19-23, 2012, Minneapolis, pp 7-12.
51. Alexandra Camacho, Eugene John and **Ram Krishnan**

Design and Low Power VLSI Implementation of Triple-DES Algorithm
Proceedings of International Conference on Security and Management (SAM), Las Vegas, NV, July 16-19, 2012, 5 pages.

52. **Ram Krishnan**, Eugene John and Manoj Panday
Towards Security Policy and Architecture for Managing Implantable Medical Devices
Proceedings of International Conference on Security and Management (SAM), Las Vegas NV, July 16-19, 2012, 4 pages.
53. Xin Jin, **Ram Krishnan** and Ravi Sandhu
A Unified Attribute-Based Access Control Model Covering DAC, MAC and RBAC
Proceedings 26th Annual IFIP WG 11.3 Working Conference on Data and Applications Security and Privacy (DBSec), Paris, France, July 11-13, 2012, pp 41-55.
54. Khalid Bijon, Ravi Sandhu and **Ram Krishnan**
A Group-Centric Model for Collaboration with Expedient Insiders in Multilevel Systems
Proceedings IEEE International Symposium on Security in Collaboration Technologies and Systems (IEEE SECOTS), Denver, CO, May 24th, 2012, pp 419-426.
55. **Ram Krishnan** and Ravi Sandhu
Authorization Policy Specification and Enforcement for Group-Centric Secure Information Sharing
Proceedings of 7th the International Conference on Information Systems Security (ICISS), Kolkata, India, December 15-19, 2011, pp 102-115, Acceptance Rate 19%
56. Ravi Sandhu, Khalid Zaman Bijon, Xin Jin, and **Ram Krishnan**
RT-Based Administrative Models for Community Cyber Security Information Sharing
Proceedings of the 6th IEEE International Workshop on Trusted Collaboration (IEEE TrustCol), Orlando, Florida, October 15, 2011, pp 473-478.
57. Ravi Sandhu, Raj Boppana, **Ram Krishnan**, Jeff Reich, Todd Wolff and Josh Zachry
Towards a Discipline of Mission-Aware Cloud Computing
Proceedings of ACM Cloud Computing Security Workshop (CCSW) - held in conjunction with the 17th ACM Conference on Computer and Communications Security (ACM CCS), Oct 08, 2010, Chicago, Illinois, pp 13-18.
58. Ravi Sandhu, **Ram Krishnan** and Greg White
Towards Secure Information Sharing Models for Community Cyber Security
Proceedings of IEEE International Conference on Collaborative Computing: Networking, Applications and Worksharing (IEEE CollaborateCom), Oct 09-12, 2010, Chicago, Illinois, pp 1-6.
59. Ravi Sandhu, **Ram Krishnan**, Jianwei Niu and William Winsborough
Group-Centric Models for Secure and Agile Information Sharing

Proceedings of International Conference on Mathematical Methods, Models, and Architectures for Computer Network Security (MMM-ACNS), September 8-11, 2010, St. Petersburg, Russia. Springer Lecture Notes in Computer Science.

60. **Ram Krishnan**, Ravi Sandhu, Jianwei Niu and William Winsborough
Towards a Framework for Group-Centric Secure Collaboration
Proceedings of IEEE International Conference on Collaborative Computing: Networking, Applications and Worksharing (IEEE CollaborateCom), Nov 11-14, 2009, Washington D.C., pp 1-10.
61. **Ram Krishnan** and Ravi Sandhu
A Hybrid Enforcement Model for Group-Centric Secure Information Sharing
*Proceedings of IEEE International Symposium on Secure Computing (IEEE SecureCom), August 29-31, 2009, Vancouver, Canada, pp 189-194, **Acceptance Rate: 9%***
62. **Ram Krishnan**, Ravi Sandhu, Jianwei Niu and William Winsborough
Foundations for Group-Centric Secure Information Sharing Models
*Proceedings of 14th ACM Symposium on Access Control Models and Technologies (ACM SACMAT), June 3-5, 2009, Stresa, Italy, pp 115-124, **Overall Acceptance Rate: 29%***
63. **Ram Krishnan** and Ravi Sandhu
Enforcement Architecture and Implementation Model for Group-Centric Information Sharing
International Workshop on Security and Communication Networks (IWSCN), May 20-22, 2009, Trondheim, Norway, pp 1-8.
64. **Ram Krishnan**, Ravi Sandhu, Jianwei Niu and William Winsborough
A Conceptual Framework for Group-Centric Secure Information Sharing Model
Proceedings of ACM Symposium on Information, Computer and Communications Security (ASIACCS), March 10 – 12, 2009, Sydney, Australia.
65. **Ram Krishnan**, Jianwei Niu, Ravi Sandhu and William Winsborough
Stale-Safe Security Properties for Group-Based Secure Information Sharing
Proceedings of ACM workshop on Formal Methods in Security Engineering (ACM FMSE), Oct 27- Oct 31, 2008, Alexandria, Virginia, USA, pp 53-62.
66. Manoj Sastry, **Ram Krishnan** and Ravi Sandhu
A New Modeling Paradigm for Dynamic Authorization in Multi-domain Systems
Proceedings of International Conference on Mathematical Methods, Models, and Architectures for Computer Network Security (MMM-ACNS), September 13-15, 2007, St. Petersburg, Russia, pp 153-158.
67. **Ram Krishnan**, Ravi Sandhu and Kumar Ranganathan
PEI Models towards Scalable, Usable and High-Assurance Information Sharing

*Proceedings of ACM Symposium on Access Control Models and Technologies (ACM SACMAT), June 20-22, 2007, Nice-Sophia Antipolis, France, pp 145-150, **Overall Acceptance Rate: 29%***

68. N. Ansari, G. Cheng, and **Ram Krishnan**
Efficient and Reliable Link State Information Dissemination
IEEE Communications Letters, Vol. 8, No. 5, pp. 317-319, May 2004.

6. OTHER CONTRIBUTIONS/PRESENTATIONS

6.1 SCHOLARLY PRESENTATIONS

1. My students and I presented the conference papers above (Section 5.1) at international venues as identified. All of those are refereed.

6.2 EXPERT CONSULTANT

2. Singularity LLC, Palo Alto, CA: Provided expertise on a patent lawsuit case in my field of research (28 hours, 2017)
3. XpressRules LLC, Spokane, WA: Independent consultant on NIST Policy Machine technology (50 hours, 2018)

6.3 EXPERT TESTIMONY

1. The State of Texas Senate Committee on Business and Commerce, Expert testimonial on storing Texan data in the cloud, 2016.

6.4 INVITED CONTRIBUTIONS (PANELS/TALKS)

1. Talk at UTSA/Khalifa University Research Summit, 2021
2. Talk at CNF Technologies, San Antonio, 2021
3. Talk at IPSecure LLC, San Antonio 2021
4. Talk at 5G Steering Committee, Online Malware Detection in Cloud Auto-Scaling Systems, 2021
5. Talk at Port San Antonio, Cybersecurity and Artificial Intelligence, 2020

6. Talk at ITESM, Mexico, “Toward Continuous Security Monitoring in Cloud-Based Enterprise Infrastructure”, 2019
7. Talk at UTSA-Darmstadt (Germany) Summit, “Online Anomaly Detection in Replicated Computing Systems”, 2019
8. Talk at BITS Pilani Goa, India, 2019
9. Talk at UTSA-HEB Collaboration Initiative, 2018
10. Talk at “Strategies for Success” panel, St. Mary’s University, San Antonio, TX, 2018
11. Talk at UTSA Office of Commercialization, 2017
12. Briefing: [LMI Government-University Forum](#), May 27, 2015, McLean, VA
13. Briefing: LMI Government-University Forum, May 21, 2014, McLean, VA
14. Panel Member: “*Grand challenges in cyber security*” at Cybersecurity Research Institute (CSRI), Lockheed Martin, April 19-20, 2012, Arlington, VA

6.5 INVITED CONTRIBUTIONS (PUBLIC MEDIA)

1. Panel: “What keeps you up at night?”, American Civil Liberties Union (ACLU) Conference, September 30, 2015, Austin, TX.
2. Panel: [Views & Brews: Who's Tracking Your Digital Footprint?](#), Texas Public Radio, July 24, 2015, San Antonio, TX.
3. Talk at Thomas Jefferson High School: "Cloud Computing", March 21, 2013, San Antonio, TX.
4. San Antonio Leadership Panel: "Preparing university and trade school graduates for 21st Century jobs", March 6, 2013, San Antonio, TX.
5. Article: [UTSA seeks to consolidate school’s diverse cyber-security programs](#), San Antonio Business Journal, August 3, 2012.
6. Article: [Does your password pass the test?](#), Houston Chronicle, July 4, 2012.

7. GRANTING ACTIVITIES

7.1 ACTIVE GRANTS

1. *NSF Center for Security and Privacy Enhanced Cloud Computing*
Role: Co-PI (Others: Nicole Beebe, Guadalupe Carmona, Jeff Prevost, Ravi Sandhu (PI))
Sponsor: National Science Foundation
Amount: \$5,000,000; My Portion: \$825,000
Period: 2017-2024
Grant Type: Research
2. *CAREER: Group-Centric Secure Information Sharing – Models, Properties and Implementation*
Role: PI (Single)
Sponsor: National Science Foundation
Amount: \$544,376; My Portion: \$544,376
Period: 2016-2022
Grant Type: Research

7.2 COMPLETED GRANTS

1. *Secure Knowledge Management Workshop Grant*
Role: Co-PI (Others: H. R. Rao (PI))
Sponsor: National Science Foundation
Amount: \$14,140; My Portion: \$7,070
Period: 2021-2022.
Grant Type: Research+Education
2. *Toward a Zero-Trust Security Architecture for 5G Core Networks*
Role: PI (Single)
Sponsor: UTSA VPR Strategic Research Award
Amount: \$10,000; My Portion: \$10,000
Period: 2021.
Grant Type: Research
3. *Secure Knowledge Management Workshop Grant*
Role: Co-PI (Others: H. R. Rao (PI))
Sponsor: National Science Foundation
Amount: \$12,142; My portion: \$6,071
Period: 2017-2018.
Grant Type: Research+Education
4. *Towards Multi-Tenancy Security Capabilities for Applications in Cloud Platforms*

Role: PI, (Key Personnel: Ravi Sandhu)
Amount: \$593,514
Sponsor: U.S. Department of Army, Army Research Office
Performing Period: 2015-2020
Grant Type: Research

5. *Trustworthy Computing: Attribute Based Access Control for Cloud IaaS*
Role: PI (Others: Ravi Sandhu)
Amount: \$500,000
Sponsor: U.S. National Science Foundation, SaTC Program, (Acceptance Rate: ~15%)
Performing Period: 2014-2018
Grant Type: Research
6. *Enhancing Situational Awareness for Emergency Response Using Social Media*
Role: PI (Others: Jae Park)
Amount: \$50,000 (excluding F&A cost)
Sponsor: LMI Research Institute
Performing Period: 2014-2015
Grant Type: Research
7. *Secure Information Sharing Models for Cyber Response Teams*
Role: PI (Others: Ravi Sandhu)
Amount: \$50,000 (excluding F&A cost)
Sponsor: LMI Research Institute
Performing Period: 2013-2014
Grant Type: Research
8. *Design of a Curriculum on Building Security Services in the Cloud*
Role: PI (Others: Ravi Sandhu)
Amount: \$35,000 (excluding F&A cost)
Sponsor: Intel Corporation
Performing Period: 2013-2014
Grant Type: Instructional/Educational
9. *ESCAPE: Experimental Study on Computer Architecture and Performance Evaluation*
Role: Key Personnel (Others: Eugene John (PI), Wei-Ming Lin)
Amount: \$356,732
Sponsor: National Science Foundation Research Experiences for Undergraduates
Performing Period: 2011-2014
Grant Type: Research + Instructional/Educational

8. INTELLECTUAL PROPERTY

8.1 PATENTS ISSUED

1. *Authorization Policy for Group-Centric Secure Information Sharing*, **Ram Krishnan** and Ravi Sandhu, US patent # US 10 , 116 , 664 B2, Issue Date: Oct 30, 2018, Board of Regents of the University of Texas System.

8.2 PENDING PATENTS (FILED)

1. *Method And Apparatus For Defending Against Laser Or Other Electromagnetic Wave-Based Audio Injection Attacks On Voice-Controllable Devices And Systems*, Eugene John and **Ram Krishnan**, US Non-Provisional Patent Application (Serial No. 62/987,949 filed on March 11, 2020).
2. *Risk-Aware Sessions in Role-Based Access Control Systems and Methods of Use*, **Ram Krishnan**, Ravi Sandhu and Khalid Bijon, US Non-Provisional Patent Application (Provisional Application Number: 61886639), Filing Date: October 03, 2013, Board of Regents of the University of Texas System.
3. *Methods and apparatuses for privacy in location-aware systems*, Manoj Sastry, Michael Covington, **Ram Krishnan**, US Non-Provisional Application (US 11/772,196), Intel.

8.3 UTSA DISCLOSURES

1. *Deep Learning Based Access Control*, Ram Krishnan, Yufei Huang, Mohammed Nur Nobil, Mehrnoosh Shakarami, 2021 (Provisional Patent being filed by UTSA.)
2. *Smartphone-based Epidemic Tracker*, Ram Krishnan and Chunjiang Qian, 2020
3. *Security and Privacy Enabled Deep Learning*, Ram Krishnan and Yufei Huang, 2019
4. *Constraint-Driven Virtual-Resource Scheduling for Resolving Conflicts in Multi-Tenant Cloud IaaS*, Ram Krishnan, Ravi Sandhu and Khalid Bijon, June 16, 2014.

9. TEACHING ACTIVITIES

9.1 FORMAL COURSES TAUGHT AT UTSA (2+1 PER YEAR)

9.1.1 COURSES TAUGHT

Undergraduate Courses Taught at UTSA

EE 3223	C++ and Data Structures (Revamped)
EE 4953	Introduction to Cloud Computing (NEW)
EE 4953	Introduction to Mobile App

Development in Android (NEW)

Graduate Courses Taught at UTSA

EE 5453	Intro to Computer and Network Security (NEW)
EE 5103	Engineering Programming
EE 5453	Introduction to Mobile App Development in Android
EE 6991	Graduate Seminar

9.2 STUDENTS MENTORED

9.2.1 CURRENT PHD STUDENTS (TOTAL: 5)

1. Randy Klepetko
PhD in ECE (joined Spring 2019)
Topic: Malware Detection using Machine Learning
Advisor: Ram Krishnan
2. David Rodriguez
Pursuing PhD in ECE (joined Spring 2019)
Topic: Adversarial Machine Learning in Medical Domain
Advisor: Ram Krishnan
3. Md Farhan Haque
PhD in ECE (joined Fall 2016)
Topic: Secure Cyber Threat Information Sharing
Advisor: Ram Krishnan
4. Pankaj Chettri
PhD in ECE (joined Fall 2020)
Topic: 5G Network Security
Advisor: Ram Krishnan
5. Mohammad Nur Nobi
PhD in CS (joined Fall 2019)
Topic: Deep Learning Based Access Control
Advisors: Ram Krishnan and Ravi Sandhu

9.2.2 GRADUATED PHD STUDENTS (SINCE TENURE: 5)

1. Sherifdeen Lawal, “*Policy Review in Attribute Based Access Control Models*”,
Department of Electrical and Computer Engineering, UTSA, Anticipated, August 2021.

Currently at: job market

2. Samir Talegaon, “*Role Based Access Control for Android*”, Department of Electrical and Computer Engineering, UTSA, PhD Thesis, December 2020
Currently: Postdoc at Rutgers University
3. Abdullah Al-Alaj, “*Role Based Access Control for Software Defined Networking: Formal Models and Implementation*”, Department of Computer Science, UTSA, PhD Thesis. (Co-chaired with Dr. Ravi Sandhu), Graduated: Summer 2020
Currently at: Assistant Professor, Virginia Wesleyan University
4. Mahmoud Abdelsalam, “*Online Malware Detection in Cloud Auto-Scaling Systems using Performance Metrics*”, Department of Computer Science, UTSA, PhD Thesis. (Co-chaired with Dr. Ravi Sandhu), Graduated: Fall 2018
Currently at: Assistant Professor, North Carolina A&T University
5. Jiwan Ninglekhu, “*Attributed Based Access Control for Cloud Storage*”, Department of Electrical and Computer Engineering, UTSA, PhD Thesis. Fall 2017
Currently at: Senior Research and Innovation Engineer, InterDigital, Inc., PA
6. Prosunjit Biswas, “*Attribute Engineering for Attribute Based Access Control*”, Department of Computer Science, UTSA, PhD Thesis, (Co-adviser Dr. Ravi Sandhu), Spring 2017
Currently at: Application Security Researcher, Adobe, CA
7. Navid Pustchi, “*Authorization Federation in Multi-Tenant Multi-Cloud IaaS*”, Department of Computer Science, UTSA, PhD Thesis. (Co-chaired with Dr. Ravi Sandhu), Graduated: Spring 2016
Currently at: Security Researcher at Turbonomic, NY
8. Khalid Bijon, “*Constraints for Attribute Based Access Control with Application in Cloud IaaS*”, Department of Computer Science, University of Texas at San Antonio, PhD Thesis, (Co-chaired with Dr. Ravi Sandhu), Graduated: May 2015
Currently at: Security Engineer at Snowflake Computing, Los Altos, CA
9. Xin Jin, “*Attribute-Based Access Control Models and Implementation in Cloud Infrastructure as a Service*”, Department of Computer Science, UTSA, PhD Thesis. (Co-chaired with Dr. Ravi Sandhu), Graduated: May 2014
Currently at: Senior Engineer at Google, Mountain View, CA

9.2.3 POSTDOCS MENTORED

1. Samir Talegaon
Postdoctoral Fellow (joined Spring 2021)
Topic: Access Control in Android

9.2.4 VISITING

Qasim Mahmood Rajpoot, “*Attributes Enhanced Role-Based Access Control for Video Surveillance*”, Technical University of Denmark (DTU), Fall 2014 – Spring 2015. Formal adviser at DTU: Dr. Christian Damsgaard Jensen

9.2.5 MS THESIS ADVISING

Completed:

1. Md. Farhan Haque (MS Thesis) “*A Framework to Detect “Device Related” Data Collection Violations of Android Apps*”, August 2015.
2. Sanket Lawangare (MS Thesis), “*Integrating Kerberos in Openstack Cloud Infrastructure as a Service*”, July 2015.
3. Md. Farhan Haque (MS Thesis), “*A Framework to Detect “Device Related” Data Collection Violations of Android Apps*”, July 2015.
4. Sazzad Masud (MS Thesis), “*Kerberos-Based Authentication Framework for Cloud Infrastructure as a Service*”, Dec 2014.
5. Jiwan Ninglekhu (MS Thesis), “*Securing Implantable Cardioverter Defibrillators Using Smartphones*”, August 2013.
6. Nagasaikrishna Narra (MS Thesis), “*Fail-Safe Decentralized Architecture for Advanced Metering Infrastructure*”, December 2012.
7. Santhosh Chandana Golagani (MS Thesis), “*Developing Learning Technologies On Mobile Platforms And Studying Mobile-Server Interactivity*”, 2012, (Co-Chaired with Dr. David Akopian)

9.2.6 MS PROJECT ADVISING

Completed:

1. Janhavi Shiras, “*State of the Art Review and Demonstration of the Iot and MQTT Protocol*”, Co-Advised with Dr. David Akopian, April 24, 2015
2. Roopchand Yanamadala (MS Project), “*Design of a Scheduling System for Remote Laboratories*”, 2013.
3. Kashyap Patel (MS Project), “*Secure Group Communication in Advanced Metering Infrastructure using Logical Key Hierarchy*”, 2012.

9.2.7 INDEPENDENT STUDIES MENTORED

Advised 6 Independent Studies of graduate students, and 4 Independent Studies of UG Students.

9.2.8 UG/SENIOR DESIGN ADVISING

Advised a total of 12 undergraduate students either formally or informally in Senior Design Projects, in NSF REU project, Independent Study, etc.

1. Mentoring (formal) **Bryan Deloeste, Dilip Kotadiya and Joel Rizner**, “*Enhancing Situational Awareness for Emergency Response Using Social Media Provenance*”, Electrical and Computer Engineering Senior Design Project, UTSA, Fall 2015.
2. Mentoring (formal) Adil Aledili, “*Android Sensor based Geolocation in GPS-Denied environments*”, Electrical and Computer Engg. Senior Design Project, UTSA, Fall 2015.
3. Advised (informal) **Jin Ruitao**, Electrical and Computer Engineering Senior Design Project, University of Texas at San Antonio, Spring 2015.
4. Advised (informal) **Ric Torres and Miguel Zuniga**, Electrical and Computer Engineering Senior Design Project, University of Texas at San Antonio, Spring 2014.
5. Mentored (formal) **Joleen Ontiveros**, “*A Secure Document Storage Architecture for Android-based Smartphones*”, NSF REU project, UT El Paso, Summer 2013.

9.2.9 OUTREACH ACTIVITIES

- Panel: “What keeps you up at night?”, American Civil Liberties Union (ACLU) Conference, September 30, 2015, Austin, TX
- Panel: [Views & Brews: Who's Tracking Your Digital Footprint?](#), Texas Public Radio, July 24, 2015, San Antonio, TX
- Talk at Thomas Jefferson High School: "Cloud Computing", March 2, 2013, San Antonio, TX
- San Antonio Leadership Panel: "Preparing University and Trade School Graduates for 21st Century Jobs", March 6, 2013, San Antonio, TX
- Article: [UTSA seeks to consolidate school's diverse cyber-security programs](#), San Antonio Business Journal, August 3, 2012
- Article: [Does your password pass the test?](#), Houston Chronicle, July 4, 2012
- Talks at UTSA IEEE Student Chapter and UTSA Graduate Seminar, “Cyber Security Issues in Smart Grid”, Spring 2011

9.3 GRADUATE THESIS/DISSERTATION COMMITTEES SERVED

Served as Dissertation Committee Member of 11 PhD students.

Served as Thesis Committee Member of 14 MS Thesis students.

1. Dissertation Committee Member, "Security Analysis Of Multimedia Communication Protocols in Traditional And Emerging Models", (Jan 2011 – July 2015 – Completed)
Advised: Ali Tekeoglu (CS)
2. Master's Thesis Committee Member, "Time Series Forecasting of Cloud Data Center Workloads for Dynamic Resource Provisioning", (Jan 2014 – June 2015 – Completed)
Advised: Carlos Vazquez (ECE)
3. Dissertation Committee Member (April 2015 – Present)
Advised: Mehrab Ghanat Bari (ECE)
4. Dissertation Committee Member. "Authorization Federation in OpenStack Multi Cloud Systems" (January 2014 - Present – Proposal).
Advised: Navid Pustchi (CS)
5. Dissertation Committee Member, "Group-Centric Resource Sharing in Cloud IaaS" (January 2013 - Present – Proposal).
Advised: Amy Zhang (CS)
6. Master's Thesis Committee Member, "Improving Chip Multiprocessor Performance by Exploiting Dynamic and Speculative Updates." (January 2014 - November 2014 – Completed).
Advised: Nilufar Ferdous (ECE)
7. Master's Thesis Committee Member, "Design and Implementation of Low-Power Nano-Scale Hardware Based Crypto-System in Group-Centric Fashion." (August 2013 - July 2014 – Completed).
Advised: Valliyappan V (ECE)
8. Master's Thesis Committee Member, "Configuring Windows Server 2012 and Online Calendar System for Remote Laboratory Access Control with Video Streaming." (August 2013 - May 2014 – Completed).
Advised: Debabrata Mazumder (ECE)
9. Master's Thesis Committee Member, "Predictive Object Tracking." (January 2013 - December 2013 – Completed).
Advised: Saeed Ezzati (ECE)
10. Master's Thesis Committee Member, "Hashing for Fast IP Address Lookup Utilizing Inter-Key Correlation." (November 2013 – Completed).
Advised: Ramin Sahba (ECE)

11. Master's Thesis Committee Member. (July 24, 2013 – Completed).
Advised: Sai Praveen Kumar Madineni (ECE)
12. Master's Thesis Committee Member, "Lip Tracking and Quick Mouth Shape Extraction."
(April 18, 2013 – Completed).
Advised: Jesus Luna (ECE)
13. Master's Thesis Committee Member, "32-bit MIPS Pipelined Microprocessor
Implementation using Design Vision." (February 2, 2013 – Completed).
Advised: Sanjay Mulagada (ECE)
14. PhD Dissertation Committee Member, "A Framework for Composing Security-Typed
Languages", (August 2008 - December 2013 – Completed)
Advised: Andreas Gampe (Computer Science)
15. Master's Thesis Committee Member, "Tensor Transform-Base Method of Image
Encryption", (August 2013 – May 2015 – Completed)
Advised: Bryan Wiatrek (ECE)
16. Master's Thesis Committee Member, "A High Level Synthesis of GPS Acquisition",
(September 2013 – August 2014 – Completed)
Advised: Madhuri Samudrala (ECE)
17. Master's Thesis Committee Member, "Low power routing algorithms for mobile ad-hoc
networks", (August 2013 – December 2014 – Completed)
Advised: Todd Newton (ECE)
18. PhD Dissertation Committee Member, "Superpredictive Models for Discrete Signal
Analysis" Completed, (November 2010 - May 2014 – Completed).
Advised: Richard Metzler (ECE)
19. PhD Dissertation Committee Member, "Expert System for the Prognosis and Analysis of
Prostrate Cancer Using Biopsy Images." Completed, (November 2010 - December 2011
– Completed).
Advised: Ali Almuntashri (ECE)
20. PhD Dissertation Committee Member, "Privacy-Preserving Data Mining Through Data
Publishing and Knowledge Model Sharing." Completed, (January 2008 - December 2012
– Completed).
Advised: Hongwei Tian (Computer Science)
21. PhD Dissertation Committee Member, "A Formal Framework For Analyzing Sequence
Diagram." Completed, (August 2010 - December 2012 – Completed).
Advised: Hui Shen (Computer Science)

22. PhD Dissertation Committee Member, "Privacy Preservation in Social Graphs." Completed, (August 2010 - May 2012 – Completed).
Advised: Lijie Zhang (Computer Science)
23. PhD, Dissertation Committee Member, "Crosscutting Software Artifacts for Access Control." In-Process, (January 2010 – Aril 2013 – Completed).
Advised: Mark Robinson (Computer Science)
24. Master's Thesis Committee Member, "Remote Laboratory for Dielectric Measurement System." Completed, (August 2011 - May 2012 – Completed).
Advised: Krati Mehta (ECE)
25. Master's Thesis Committee Member, "Web-based Real-time Remote Laboratory." Completed, (August 2010 - December 2010 – Completed).
Advised: Muthaheera Yasmeena Belgur Shamiullah (ECE)

9.4 EDUCATION-RELATED GRANTS

- Co-PI, “Travel: Secure Knowledge Management Workshop”, NSF, \$14,140, 2021-2022.
- Co-PI, “NSF Student Travel Grant for 2017 Secure Knowledge Management Workshop (SKM)”, \$12,142, 2017-2018.
- PI of “Design of a Curriculum on Building Security Services in Cloud Computing”, Intel Corporation, \$35,000, 2013-2014.
- Recipient of support from the ECE department for developing a hybrid curriculum for EE 3223, “A Proposal to Develop Video Modules for Strengthening ECE Software Programming Curriculum”, \$2,500, Summer 2014.
- Co-recipient of support from the ECE department for new curriculum development, “EE 4953: Introduction to Cloud Computing”, \$5,000, 2012.

9.5 EDUCATION-RELATED PROFESSIONAL SERVICE

- Member of the Organizing Committee of the 2015 American Society for Engineering Education Gulf-Southwest Education Conference, March 25-27, 2015, San Antonio, TX
- Member of American Society for Engineering Education (ASEE)

9.6 EDUCATION-RELATED TRAINING/WORKSHOPS

- UTSA Blackboard Training, 2020
- ADTS Workshop on “Classroom management with shifting norms”, 2019
- ADTS workshop on “Best Practices for Internships/Practicums”, 2019
- ADTS Workshop on “Bringing Research to Teaching”, 2018

- The Provost Academy for Teaching Excellence, 2017
- UT Academy of Distinguished Teachers Teaching Forum, Aug 18, 2015
- UTSA College of Engineering Teaching Workshop, December 12, 2012
- UTSA Provost's Academy on Teaching, "Creating Critical Thinkers", May 16-18, 2012
- "Using Lync 2013 for Recording Your Lectures", UTSA TLC Feb 10, 2015

10. SERVICE ACTIVITIES

10.1 COMMITTEE ASSIGNMENTS

Department, College and University Service

Served as Chair and Member of many committees at the department, college and university levels.

Department:

1. Chair, ECE Graduate Programs, 2019 – present
2. Chair, ECE Undergraduate Programs, 2015 – 2019
3. Chair of ECE Annual Evaluation Committee, 2020
4. Chair of Faculty Search (Cybersecurity), 2016 – 2017
5. Member of many other committees including: ABET (2016 to present), Graduate Programs (2016), TA (2016-2017), F&A (2019 – present) and DFRAC (2016 to present)

College:

1. Chair, College Academic Programs and Curriculum Committee, 2020 – present
2. Member, College Executive Advisory Committee (2020 – present)
3. Member, Programming Literacy Committee (2018 – 2019)
4. Member, College Academic Programs and Curriculum Committee (2016 – 2019)
5. Member, College Awards Nomination Committee (2016)

University:

1. Member, UTSA Honors Council, 2019 – present
2. Member, President's Initiative on Respectful Discourse, 2019 – 2020
3. Faculty Senator, 2019 – 2020
4. Member, UTSA Committee on Conflict of Interest, 2020 – present
5. Member, UTSA's Tactical Team 5 (Enabling Clear Pathways to Degree Completion), 2020 – present
6. Member, University IRM Operational Review Committee, 2020 – present
7. Member, Academy of Distinguished Teaching Scholars, 2016 – present
8. Member, Piper Award Nomination Committee, 2016, 2017, 2019
9. Member, UT System Regents' Outstanding Teaching Award Nomination Committee, 2016, 2017, 2018

10. Member, President's Distinguished Achievement Awards, Teaching Excellence Selection Committee, 2018, 2019.
11. Member, VPR GREAT proposal review panel, 2018
12. Mentor, UTSA NSF CAREER Award Proposals, 2018
13. Member, Ralph E. Powe Junior Faculty Enhancement Award Nomination Committee, 2018
14. Member, UT System Academy of Distinguished Teachers Nomination Committee, 2018
15. Member, Faculty Search for the Chair of Department of Computer Science, 2018 – 2019

10.2 PROFESSIONAL SERVICE ACTIVITIES

Conference Steering Committee

- a. Chair of ACM Conference of Data and Application Security and Privacy (2019-present)
- **Chair of Steering Committee**
 - a. ACM Conference on Data and Application Security and Privacy, 2019 to present
 - **Technical Program Committee Chair**
 - a. ACM Conference on Data and Application Security and Privacy, 2019
 - b. ACM Conference on Data and Application Security and Privacy, 2018
 - c. Workshop on Attribute Based Access Control, 2016
 - d. Workshop on Attribute Based Access Control, 2017
 - e. International Conference on Secure Knowledge Management in the AI Era, 2017
 - **Journal Reviewer (Selected)**
 - a. ACM Transactions on Privacy and Security (ACM TOPS), 2017, 2021
 - b. ACM Computing Surveys, 2017
 - c. IEEE Transactions on Dependable and Secure Computing (IEEE TDSC), 2016, 2018, 2019, 2020
 - d. IEEE Security and Privacy (IEEE S&P), 2019
 - e. IEEE Transactions on Service Computing (IEEE TSC), 2016, 2018, 2019
 - f. IEEE Transactions on Parallel and Distributed Systems (IEEE TPDS), 2021
 - g. IEEE Transactions on Computers (IEEE TC), 2021
 - h. IEEE Forensics, 2017
 - i. Journal of Computer Security, 2017
 - j. Elsevier Computers and Security (Elsevier COSE), 2016, 2017, 2020, 2021
 - k. Springer International Journal of Information Security (Springer IJIS), 2016
 - l. Elsevier Journal of Information Security and Applications (Elsevier JISA), 2017
 - m. Wiley Software and Practice
 - n. IEEE Systems Journal, 2017
 - o. Autosoft Journal, 2019
 - **Program Committee Member (Selected)**
 - a. ACM Conference on Data and Application Security and Privacy (ACM CODASPY), 2016 – present
 - b. ACM Symposium on Applied Computing (ACM SAC), 2016, 2017
 - c. IFIP Annual Conference on Data and Application Security and Privacy (DBSec), 2016
 - d. IEEE International Conference on Future Internet of Things and Cloud (FiCloud), 2016
 - e. IEEE Conference on Cloud Computing (IEEE Cloud), 2016, 2017, 2018, 2019

- f. IEEE International Conference on Information Reuse and Integration for Data Science (IEEE IRI), 2016, 2017, 2018
 - g. ACM Workshop on Attribute Based Access Control (ABAC), 2016, 2017
 - h. IEEE International Conference on Security, Privacy, and Anonymity in Computation, Communication, and Storage (IEEE SpaCCS), 2017
 - i. International Conference on Network and System Security (NSS), 2016, 2017, 2018, 2019, 2021
 - j. International Conference on Information Systems Security (ICISS), 2016 – present
 - k. International Conference on Secure Knowledge Management in the AI Era, 2017, 2019, 2021
- **Grant Proposal Review**
 - a. Review Panelist: National Science Foundation (NSF), Secure and Trustworthy Program proposals, 2021
 - b. CAREER Review Panelist: National Science Foundation (NSF), Secure and Trustworthy Program, CAREER proposals, 2017
 - c. Review Panelist: UTSA Grants for Research Advancement and Transformation (GREAT), 2017