## Young J. Lee, Ph.D.

The Department of Computational, Engineering, and Mathematical Sciences College of Arts and Sciences, Texas A&M University-San Antonio ylee@tamusa.edu, 210-784-2376

## **EDUCATION:**

- Ph.D., Computer Science and Software Engineering, Auburn University, 2007
- M.S., Computer Science, Hallym University, South Korea, 1991
- B.S., Computer Science, Hallym University, South Korea, 1989

## **EMPLOYMENT:**

2023-present	Associate Professor  Department of Computing, Engineering, and Mathematical Sciences, College of Arts and Sciences, Texas A&M University-San Antonio		
2024- present	Graduate Program Coordinator for the M.S. program in Computer Science and M.S. program in Cyber Security, Texas A&M University-San Antonio		
2018-2023	Associate Professor & Graduate Coordinator (2018-2020) Department of Computing and Cyber Security, College of Business, Texas A&M University-San Antonio		
2014-2018	Associate Professor & Graduate Coordinator Department of Electrical Engineering and Computer Science, Frank H. Dotterweich College of Engineering, Texas A&M University-Kingsville		
2007-2014	Assistant Professor & Graduate Coordinator Visiting Assistant Professor (2007) Department of Electrical Engineering and Computer Science, Frank H. Dotterweich College of Engineering, Texas A&M University-Kingsville		
2006-2007	Visiting Assistant Professor Department of Computer and Software Engineering Embry Riddle Aeronautical University		
2002-2006	Assistant Professor Department of Computer Science, Western Illinois University		

1998-2002	Research Assistant & Teaching Assistant Department of Computer Science and Software Engineering Samuel Ginn College of Engineering, Auburn University
1991-1998	Research Engineer  C³I (Command, Control, Computer and Intelligence) EW (Electronic Warfare) Division, Agency for Defense Development (ADD), South Korea Responsible for designing and developing a security architecture of Command, Control, Communications and Intelligence (C³I) system and a real-time secure Jamming Management Software of Electronic Warfare (EW) system for warships.

# **FUNDED EXTERNAL GRANTS:**

9/1/2024- 8/31/2025	Co-PI, (PI-TAMUSA, \$28,965, Total Amount: \$79,977) Source: CAHSI-Google Institutional Research Program Title: Towards the Safety and Security Gap of Integrating LLMs into Software With PI: Bozhen Liu at TAMUCC
10/1/2023- 9/30/2025	Co-PI, \$385,475 + \$14,516 Google Cloud credits Source: National Science Foundation (NSF), Award #2334243 Title: CAP: AI-Ready Institution Transforming Tomorrow's Research and Education with AI Focused on Health and Security (Jag-AI) With PI: Yang & Co-PIs: Cao & Liang
10/1/2021- 9/30/2024	Co-PI, \$299,897 + \$12,000 Google Cloud credits Source: National Science Foundation (NSF), Award #2131193 Title: CISE-MSI: RCBP-RF: S&CC: Building a Smart Mobility Network for the San Antonio Transit to Improve Transit Service and Social Impact With PI: Yang & Co-PIs: Alsmadi, Abdel-Rahman, Delgado, & Cao (SP)
10/1/2014- 9/30/2021	PI, \$1,199,73 Source: National Science Foundation (NSF), Award # 1439861 Title: Phase I Robert Noyce Teacher Scholarship Program: Future STEM Teachers in South Texas (F(ST)²), With Co-PIs: Park, Wong-Ratcliff, Ahangar, & Castro, Yang (SP), relinquished PI to Park (2018)

7/1/2016-	PI-TAMUK, \$48,642, Total Amount: \$447,763 for collaborative research.		
9/30/2018	Source: <b>National Science Foundation (NSF), Award # 1557278</b> Title: Collaborative Research: Understanding Robert Noyce Teacher		
	Scholarship Outcomes in Texas. With lead PI-C. Horn at University of		
	Houston. Other Collaborative Universities: Stephen F. Austin University,		
	University of Houston - Clear Lake, University of Houston, University of		
	Houston - Downtown, University of Texas at Austin, University of Texas at		
	Arlington, Texas State University, Texas A&M University-Kingsville		
9/1/2012-	PI, \$775,775		
2/28/2015	Source: Health Resource and Services Administration (HRSA), Award#		
	H9CRH2288,		
	Title: HINSTX (Health Information Network of South Texas) Rural HIT		
	Network Program		
	With Co-PI: V. Bartelt		
10/1/2012-	PI, \$291,352		
9/30/2015	Source: National Science Foundation (NSF), Award # 1239993		
	Title: Robert Noyce Teacher Scholarship Program Capacity Building:		
	Future STEM Teachers in South Texas (F(ST) <sup>2</sup> )		
	With Co-PIs: Park, Wong-Ratcliff, Nijim, & Ahangar		
1/1/2014-	PI, \$8,000		
1/31/2014	Source: Corpus Christi Diabetes Community Coalition		
	Title: DCCDatabase - Diabetes Database Management System for Coastal		
	Bend Diabetes Community Coalition		
11/1/2011-	PI, \$7,483		
10/30/2012	Source: Kiewit Offshore Services, Ltd.		
	Title: Construction Scheduling with Primavera P6 for Kiewit Olympus TLP		
9/1/2008-	PI, \$2,400		
8/31/2009	Source: National Science Foundation (NSF)		
	Title: Center for the Advancement of Scholarship on Engineering Education		
	(CASEE) with support		
SUBMMIT	SUBMMITTED EXTERNAL GRANTS		
2024-2029	Co-PI, \$2,996,384, Submitted, not successful		
	Source: U.S. Department of State, Office to Monitor and Combat Trafficking		
	in Persons, International Programs to Combat Human Trafficking Notice of		
	Funding Opportunity–Stage 1: Statement of Interest.		
	Title: Bimodal Inquiry of Human Trafficking in East Asia and the Pacific:		
	Criminological Analysis of Perpetrators and Use of Artificial Intelligence in		
	Detecting Employment, Romance, and Financial Scams in Philippines		

With PI: C. Braaten, A&M-SA & Co-PIs: D. Braaten, A&M-SA & N. Reye,
Sonoma State University

## **FUNDED INTERNAL GRANTS:**

7/2016-6/2017	Co-PI, \$10,000, With PI - Monica Wong-Ratcliff Title: NSF Noyce Summer Internship Program Source: TAMUK Support of Service-Learning Courses or Programs
1/2015-6/2015	<b>Co-PI, \$10,000</b> , With PI - Monica Wong-Ratcliff Title: NSF Noyce Summer Internship Program Source: TAMUK Support of Service-Learning Courses or Programs
1/2015-7/2015	Co-PI, \$4,500, With PI- Jeong Yang Title: One-to-One Virtual Mentoring System (VMS) for Enhancing Student Programmer's Programming Skill and Logical Thinking Source: TAMUK Council for Undergraduate Research (TCUR)
11/20/12012- 12/31/2013	<b>Co-PI, \$11,907, With</b> PI - Joon-Yeoul Oh, Co-PI - Richard A. Aukerman Title: Development of Air Pollution Alert System: Integrating Air Quality Forecasting Models and Location-aware Mobile Devices Source: University Research Award
1/1/20212- 6/1/2013	<b>Co-PI, \$14,997, With</b> PI - Nuri Yilmazer, Co-PI - Kuo-Jen Liao Title: Development of Air Pollution Alert System: Integrating Air Quality Forecasting Models and Location-aware Mobile Devices Source: University Research Award
1/2011- 12/2011	PI, \$16,980 with PI – Robert Diersing Title: Mobile Device Programming Laboratory in Support of Graduate Education and Economic Development Source: University College/Office of Title V Program/PPOHA Internal Equipment Grant
10/1/2010- 12/31/2011	PI, \$12,300, With Co-PI – Wei-Da Hao Title: Categorizing Object-Oriented Software Architecture Source: University Research Award

# PUBLICATIONS: PEER-REVIEWED JOURNALS (\* indicates student)

• B. Kishiyama \*, Y. Lee, J. Yang, "Improving VulRepair's Perfect Prediction by Leveraging the LION Optimizer," Applied Sciences 14, no. 13: 5750. https://doi.org/10.3390/app14135750.

- Y. R. Kim, J. Yang, Y. Lee and B. Earwood, "Assessing Cybersecurity Problem-Solving Skills and Creativity of Engineering Students Through Model-Eliciting Activities Using an Analytic Rubric," in *IEEE Access*, vol. 12, pp. 5743-5759, 2024, doi: 10.1109/ACCESS.2023.3348554.
- D. Delgado, J. Yang, M. Abdel-Rahman, & Y. Lee, "Infrastructures of Inequality and Enclaves of Inaccessibility: Understanding Public Transit's Role in the Maintenance of Race and Class Segregation in San Antonio, Texas," 2024, Critical Sociology, under revision
- M. Al-Ramahi, Y. Lee, J. Yang, D Delgado, "Enhancing Sustainable Urban Mobility: Analysis of Bus Schedule Adherence within the San Antonio Transit System," Journal of Public Transportation 2024, under review.
   Co-Authors: Jeong Yang; Young Lee; Daniel Delgado
- M. Ansari; Y. Lee; J. Yang, "Comparative Analysis of Taint Analysis Tools: Evaluating the Efficacy in Data Flow Tracking Across Diverse Codebases," SN Computer Science journal, submitted, under review.
- Y. Lee, J. Yang, M. Abdel-Rahman, & D. Delgado, "SmartSAT: A Customizable Mobile-Web App toward Improving the Efficiency and Equitable Access of San Antonio Public Services," 2024, Software Impacts Journal, submitted, under review. Preprint Available at SSRN: http://dx.doi.org/10.2139/ssrn.4700599
- T. Kim, J Ochoa, T Faika, A Mantooth, J Di, Q Li, Y Lee, "An Overview of Cyber-Physical Security of Battery Management Systems and Adoption of Blockchain Technology," 2022 *IEEE Journal of Emerging and Selected Topics in Power Electronics*. doi: 10.1109/JESTPE.2020.2968490. https://ieeexplore.ieee.org/document/8964396.
- J. Yang, Y. Lee, A. Hernandez, & J. Sanchez\*, "Evaluating and Securing Text-Based Java Code through Static Code Analysis," *Journal of Cybersecurity Education, Research and Practice*, Vol. 2020: No. 1, Article 3. https://digitalcommons.kennesaw.edu/jcerp/vol2020/iss1/3/
- Kim, T.; Makwana, D.; Adhikaree, A.; Vagdoda, J.S.; **Lee, Y**. Cloud-Based Battery Condition Monitoring and Fault Diagnosis Platform for Large-Scale Lithium-Ion Battery Energy Storage Systems. *Energies* 2018, 11, 125. https://doi.org/10.3390/en11010125.
- J. Yang, **Y. Lee**, and Kai H. Chang, "Evaluations of JaguarCode: A Web-Based Object-Oriented Programming Environment with Static and Dynamic Visualization," *The Journal of Systems and Software* (2018), DOI: 10.1016/j.jss.2018.07.037. <a href="https://www.sciencedirect.com/science/article/abs/pii/S016412121830147X">https://www.sciencedirect.com/science/article/abs/pii/S016412121830147X</a>
- Y. Lee, M. D. Bhargavan\*, & J. Yang, "Teaching Test-Driven Development Using Dojo", *Journal of Computing Sciences in Colleges*, Volume 32 Issue 4, ACM Digital Library, April 2017. <a href="https://dl.acm.org/doi/abs/10.5555/3055338.3079049">https://dl.acm.org/doi/abs/10.5555/3055338.3079049</a>

- M. N. Rahman\*, M. N. Hossain\*, & Y. Lee, "Collapsible Tabular Visualization of Aspects in Object Oriented Programming", GSTF Journal on Computing, Vol.5 No.3, 2017. <a href="http://dl6.globalstf.org/index.php/joc/article/view/1877/2301">http://dl6.globalstf.org/index.php/joc/article/view/1877/2301</a>
- A. Ghosh\* & Y. Lee, "An Empirical Study of a Hybrid code clone detection approach on Java byte code", Journal on computing", GSTF Journal on Computing, Vol.5 No.2, 2017. <a href="http://dl6.globalstf.org/index.php/joc/article/view/1781/2309">http://dl6.globalstf.org/index.php/joc/article/view/1781/2309</a>
- K. Shah\*, J. Yang, & Y. Lee, "Enhancing Engineering Education Using Virtual Lab Technology", Transactions on Techniques in STEM Education, Vol. 1 No. 4, 2016.
- J. Yang, Y. Lee, S. Park, M. Ratcliff, and R. Ahangar, "Discovering the Needs Assessment of Qualified STEM Teachers for the High-Need Schools in South Texas", *Journal of STEM Education*, Vol 16., Issue 4, 2015. <a href="https://www.jstem.org/jstem/index.php/JSTEM/article/view/1948/1699">https://www.jstem.org/jstem/index.php/JSTEM/article/view/1948/1699</a>
- P. Koyya\*, Y. Lee, and J. Yang, "Feedback for Programming Assignments Using Software-Metrics and Reference Code," International Scholarly Research Notices (ISRN) Software Engineering, Vol. 2013, Article ID 805963, 2013. doi:10.1155/2013/805963.
- Hyung J. Yoo\*, **Y. Lee**, "Use of Cell Block as an Indent Space in Python", International Journal of Software Engineering, Vol 4., No. 1, pp. 33-43, 2013.
- N. Yilmazer, Kuo-Jen Liao, Y. Lee, J. Mora\*, William Webb\*, Remzi Seker, "A New Generation Air Pollution Alert System: Integrating Air Quality Models and Location-Aware Mobile Devices", International Journal of Environmental Monitoring and Analysis. Vol. 1, No. 1, pp. 21-26, 2013.
- T. H. Kang\*, **Y. Lee**, and M. Nijim, "Task-Based Visualization using Merged View", Journal of Communication and Computer, Vol 9. pp. 665-668, 2012.
- Y. Lee, V. C. Rajasekar\* and P. R. Kasula\*, "Accessibility of Website for Visually Challenged: Combined Tree Structure and XML Metadata", GSTF Journal on Computing, Vol.2 No.1. pp. 7-10, 2012.
- Y. Lee and J. Yang, "Locating Reusable Classes Using Dependency in Object-Oriented Software", GSTF Journal on Computing, Vol.2 No.1. pp.134-139, 2012.
- M. Nijim, Y. Lee, N. Yilmazer, and R. Seker, "A data mining algorithm for multilevel prefetching in storage systems", Ubiquitous Computing and Communication Journal, pp. 10-19, 2011.
- R., V.C.S., Lee, Y., Schreur, B. (2010). Accessing Web Based Multimedia Contents for the Visually Challenged: Combined Tree Structure and XML Metadata. In: Sobh, T. Innovations and Advances in Computer Sciences and Engineering. Springer, Dordrecht. https://doi.org/10.1007/978-90-481-3658-2\_80.

- Lee, Y., Yang, J., Chang, K.H. (2010). Identifying Connected Classes for Software Reuse and Maintenance. In: Sobh, T. Innovations and Advances in Computer Sciences and Engineering. Springer, https://doi.org/10.1007/978-90-481-3658-2\_68.
- K., S., J., O., Lee, Y. (2010). Mobile Application for Healthcare System Location Based. In: Sobh, T. (eds) Innovations and Advances in Computer Sciences and Engineering. Springer, Dordrecht. https://doi.org/10.1007/978-90-481-3658-2\_51.

#### PUBLICATIONS: PEER-REVIEWED BOOK CHAPTERS (\* indicates student)

- Lee, Y., "Visualizing Static Analysis Warnings by Dynamic Trace". Springer Nature Book: Transactions on Computational Science & Computational Intelligence-Advances in Security, Networks, and Internet of Things, (in press).
- Tang, C.\*, & Lee, Y. "Applying Equivalent Mutant to Refactoring the Security Vulnerabilities". Springer Nature Book: Transactions on Computational Science & Computational Intelligence-Advances in Security, Networks, and Internet of Things, (in press).
- Yang J., Lee Y., McDonald A.P\*. (2021) SolarWinds Software Supply Chain Security: Better Protection with Enforced Policies and Technologies. In: Lee R. (eds) Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing. SNPD 2021. Studies in Computational Intelligence, vol 1012. Springer, Cham. https://doi.org/10.1007/978-3-030-92317-4\_4.
- Y. Lee & J. Yang. (2020). Analysis of Bug Types of Textbook Code with Open-Source Projects. Springer Nature Book: Transactions on Computational Science & Computational Intelligence-Advances in Software Engineering, Education, and e-Learning, <a href="https://link.springer.com/chapter/10.1007/978-3-030-70873-3">https://link.springer.com/chapter/10.1007/978-3-030-70873-3</a> 44
- Shah, K.B\*., **Lee, Y**. (2014). Automatic Sensor Configuration for Creating Customized Sensor Network. In: Silhavy, R., Senkerik, R., Oplatkova, Z., Silhavy, P., Prokopova, Z. (eds) Modern Trends and Techniques in Computer Science. Advances in Intelligent Systems and Computing, vol 285. Springer, Cham. <a href="https://doi.org/10.1007/978-3-319-06740-7">https://doi.org/10.1007/978-3-319-06740-7</a> 28.

# <u>PUBLICATIONS: PEER-REVIEWED CONFERENCE PAPERS</u> (\* indicates student. All papers were presented at the international level conference.)

- Yang, J., Lee, Y., Abdel-Rahman, M., & Cao, Z. (2024, June). "Enhancing Urban Mobility: SmartSAT's Impact on Public Transportation Services and Commuting Experience." In 2024 ASEE Annual Conference & Exposition.
- H. Wang, J. Yang, G. Liang, Y. Lee, Z. Cao, "Analyzing the Usability, Performance, and Cost-Efficiency of Deploying ML Models on BigQuery ML and Vertex AI in

- Google Cloud," International Conference on Cloud and Big Data Computing (ICCBDC), 2024.
- Bonian Han, Cristian Moran, Jeong Yang, Young Lee, Zechun Cao, Gongbo Liang, "Multi-Scale Self-Supervised Consistency Training for Trustworthy Medical Imaging Classification," International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC) 2024.
- J. Yang, **Y. Lee**, Abstract: "Enhancing Urban Mobility: SmartSAT's Impact on Public Transportation Services and Commuting," ASEE Annual Conference & Exposition 2024.
- Y. Lee, J. Yang, & Y. R. Kim, "Adopting Model-Eliciting Activities in an Undergraduate Software Engineering Course through Real-World Projects," IEEE Frontiers in Education Conference (FIE), 2023.
- Y. Lee, A. McDonald\*, & J. Yang, "Identifying Code Tampering Using A Bytecode Comparison Analysis Tool," 2023 IEEE/ACIS International Conference on Software Engineering Research, Management and Applications (SERA 2023).
- J. Yang, **Y. Lee**, W. Noonan\*, and A. Abraham\*. 2022. Demo Abstract: SmartSAT A Customizable Secure App for San Antonio Transit Pilot Project. In Proceedings of the 20th ACM International Symposium on Mobility Management and Wireless Access (MobiWac '2022). <a href="https://doi.org/10.1145/3551660.3560910">https://doi.org/10.1145/3551660.3560910</a>. Selected ACM Research Showcase on Kudos: <a href="https://www.growkudos.com/publications/10.1145%25252F3551660.3560910/reader">https://www.growkudos.com/publications/10.1145%25252F3551660.3560910/reader</a>
- M. Abdel-Rahman, I. Alsmadi, D. Delgado, & Y. Lee, Prediction and Analysis of Bus Adherence to Scheduled Times: San Antonio Transit System, 2022 Annual Americas Conference on Information Systems (AMCIS). <a href="https://aisel.aisnet.org/amcis2022/sig\_dsa/sig\_dsa/9/">https://aisel.aisnet.org/amcis2022/sig\_dsa/sig\_dsa/9/</a>
- Y. Lee & J. Yang, "Visualization of Context Sensitive Data Flow for Secure Object-Oriented Programming," International Conference on Software Engineering Research and Practice (SERP), July 2019.
   <a href="https://www.kriso.ee/software-engineering-research-practice-db-9781601325105.html">https://www.kriso.ee/software-engineering-research-practice-db-9781601325105.html</a>
- Lee, Y., & Yang, J. (2019, April), *Reverse Engineering Environment for Teaching Secure Coding in Java* Paper presented at 2018 ASEE Gulf Southwest Section Conference, AT&T Executive Education and Conference Center. <a href="https://peer.asee.org/31596">https://peer.asee.org/31596</a>.
- J. Yang, A. Lodgher, and Y. Lee, "Secure Software Engineering Modules for Undergraduate Software Engineering Courses", 2018 IEEE Frontiers in Education (FIE): Fostering Innovation Through Diversity. <a href="https://ieeexplore.ieee.org/document/8658433">https://ieeexplore.ieee.org/document/8658433</a>
- S. S. Kumbhar\*, **Y. Lee** and J. Yang, "Hybrid Encryption for Securing SharedPreferences of Android Applications," 2018 1st International Conference on Data

- *Intelligence and Security (ICDIS)*, 2018, pp. 246-249, doi: 10.1109/ICDIS.2018.00047. https://ieeexplore.ieee.org/document/8367771
- S. Kumbhar, T. Faika, D. Makwana, T. Kim and Y. Lee, "Cybersecurity for Battery Management Systems in Cyber-Physical Environments," 2018 IEEE Transportation Electrification Conference and Expo (ITEC), 2018, pp. 934-938, doi: 10.1109/ITEC.2018.8450159. https://ieeexplore.ieee.org/document/8450159
- A. Adhikaree, T. Kim, J. Vagdoda, A. Ochoa, P. J. Hernandez and Y. Lee, "Cloud-based battery condition monitoring platform for large-scale lithium-ion battery energy storage systems using internet-of-things (IoT)," 2017 IEEE Energy Conversion Congress and Exposition (ECCE), 2017, pp. 1004-1009, doi: 10.1109/ECCE.2017.8095896.
  - https://ieeexplore.ieee.org/document/8095896
- J. Yang, **Y. Lee** and K. H. Chang, "Initial Evaluation of JaguarCode: A Web-Based Object-Oriented Programming Environment with Static and Dynamic Visualization," 2017 IEEE 30th Conference on Software Engineering Education and Training (CSEE&T), 2017, pp. 152-161, doi: 10.1109/CSEET.2017.32. <a href="https://ieeexplore.ieee.org/document/8166696">https://ieeexplore.ieee.org/document/8166696</a>
- J. Yang, **Y. Lee**, D. Gandhi\* and S. G. Valli\*, "Synchronized UML diagrams for object-oriented program comprehension," 2017 12th International Conference on Computer Science and Education (ICCSE), 2017, pp. 12-17, doi: 10.1109/ICCSE.2017.8085455. <a href="https://ieeexplore.ieee.org/document/8085455/similar#similar">https://ieeexplore.ieee.org/document/8085455/similar#similar</a>
- Oh, J.; Lee, Y.; Gharehgozli, Amir Hossein (2016). Developing Early Risk Detection and Preparedness System with Risk Analysis and Contingency Plan. Mary Kay O'Connor Process Safety Center; Texas &M University. Libraries. Available electronically from <a href="https://oaktrust.library.tamu.edu/handle/1969.1/193647">https://oaktrust.library.tamu.edu/handle/1969.1/193647</a>
- J. Yang, **Y. Lee**, and D. Hicks "Synchronized Static and Dynamic Visualization in a Web-Based Programming Environment," IEEE International Conference on Program Comprehension (ICPC), 2016, doi: 10.1109/ICPC.2016.7503733. <a href="https://ieeexplore.ieee.org/document/7503733">https://ieeexplore.ieee.org/document/7503733</a>
- M. Srinivasan\*, J. Yang and Y. Lee, "Case studies of optimized sequence diagram for program comprehension," 2016 IEEE 24th International Conference on Program Comprehension (ICPC), 2016, pp. 1-4, doi: 10.1109/ICPC.2016.7503734.
   12 Google citations. <a href="https://ieeexplore.ieee.org/document/7503734">https://ieeexplore.ieee.org/document/7503734</a>
- B. Earwood\*, J. Yang and Y. Lee, "Impact of static and dynamic visualization in improving object-oriented programming concepts," 2016 IEEE Frontiers in Education Conference (FIE), 2016, pp. 1-5, doi: 10.1109/FIE.2016.7757639. https://ieeexplore.ieee.org/document/7757639

- M. Srinivasan\*, Y. Lee and J. Yang, "Enhancing Object-Oriented Programming Comprehension Using Optimized Sequence Diagram," 2016 IEEE 29th International Conference on Software Engineering Education and Training (CSEET), 2016, pp. 81-85, doi: 10.1109/CSEET.2016.37. https://ieeexplore.ieee.org/document/7474469?reload=true
- J. Yang, **Y. Lee**, D. Hicks and K. H. Chang, "Enhancing object-oriented programming education using static and dynamic visualization," 2015 IEEE Frontiers in Education Conference (FIE), 2015, pp. 1-5, doi: 10.1109/FIE.2015.7344152. <a href="https://ieeexplore.ieee.org/document/7344152">https://ieeexplore.ieee.org/document/7344152</a>
- J. Oh, **Y. Lee**, N. Yilmazer, K. Raman, & L. Peel, "Risk Mitigation in Mass Evacuation with Evacuation Routing Aid and Procedure", 4th International Conference on Disaster Management and Human Health: Reducing Risk, Improving Outcomes, 20 22 May 2015, Istanbul, Turkey.
- J. Oh, **Y. Lee**, N. Yilmazer and K. Raman, "Decision Making in Evacuation From Disaster" Proceedings of the International Association for Computer Information Systems (IACIS), 2014. https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.567.7220&rep=rep1&type=pdf
- K. Shah\*, A. Ghosh\*, Md Naim Hossein\*, **Y. Lee**, "Enhancing Engineering Educational Using Virtual Lab Technology," Zone 1 Conference of the American Society for Engineering Education (ASEE), Bridgeport, Connecticut, 2014. <a href="https://monolith.asee.org/documents/zones/zone1/2014/Student/PDFs/180.pdf">https://monolith.asee.org/documents/zones/zone1/2014/Student/PDFs/180.pdf</a>
- Y. Lee, J. Oh, N. Yilmazer, A. Ghosh\*, Md Naim Hossein\*, "An Integrated Emergency Evacuation System for Real-Time Operations A Case Study of the Eagle Ford Shale Gas Area, South Texas," Shale Energy Engineering, pp. 502-511, 2014. https://ascelibrary.org/doi/10.1061/9780784413654.053
- J. Oh, Y. Lee, & N. Yilmazer, "Realtime Mobile Evacuation Routing Systems", IACIS 2013 International Conference, San Juan, Puerto Rico, 2013.
- N. Mantrawadi\*, M. Nijim, & Y. Lee, "Object identification and classification in a high resolution satellite data using data mining techniques for knowledge extraction", Proceeding pp.750-755, IEEE International Systems Conference (SYSCON), 2013.
- N. Yilmazer, K. Liao, Y. Lee, J. Mora\*, and W. Webb\*, "Development of A Real-Time Air Pollution Alert System Using Smart Phones", Proceedings of the International Conference on Distributed Multimedia Systems (DMS), pp. 39-41, 2012.
- M. Nijim, Y. Lee, and K. Bellam, "HyBuM: Hybrid Energy Efficient Architecture for Mobile Storage Systems", Proceedings of IEEE International Conference on Information Technology: New Generations (ITNG), pp. 214-220, 2012

- Y. Lee and J. Yang, "Identifying Architectural Changes Using Software Metrics", Proceedings of the International Conference on Software Engineering Research and Practice (SERP), pp. 370-375, 2010.
- H. Yoo\* and **Y. Lee**, "Software Visualization: Replacing Tab in Python Programming with Cell Block in Spreadsheet", Proceedings of the International Conference on Software Engineering Research and Practice (SERP), pp. 76-79, 2010.
- T. Kang\*, Y. Lee, and Wei-Dao, "Task-Based Visualization for Software Maintenance", Proceedings of the International Conference on Software Engineering Research and Practice (SERP), pp. 563-567, 2009.
- Y. Lee and J. Yang, "Visualization of Software Evolution", Proceedings of the International Conference on Software Engineering Research and Practice (SERP), pp. 343-348, 2008.
- J. Oh, Y. **Lee**, and R. A. Aukerman, "Decision Support Systems in Highway Traffic Control", Proceedings of the International Association for Computer Information Systems (IACIS), 2008.
- Y. Lee, J. Yang and K. H. Chang, "Metrics and Evolution in Open Source Software," IEEE Seventh International Conference on Quality Software (QSIC 2007), 2007, pp. 191-197, doi: 10.1109/QSIC.2007.4385495.
- Y. Lee and Kai H, Chang, "Reusability and maintainability metrics for object-oriented software," ACM-SE 38: Proceedings of the 38th annual on Southeast regional conference, 2000, <a href="https://doi.org/10.1145/1127716.1127737">https://doi.org/10.1145/1127716.1127737</a>.

#### Posters and Presentations

- J. Yang, Y. Lee, "Enhancing Urban Mobility: SmartSAT's Impact on Public Transportation Services and Commuting Experience," 2024 ASEE Annual Conference & Exposition
- Claire Braaten, Daniel Braaten, Young Lee, "Human Trafficking in the Philippines: How the Trafficked Became Perpetrators of Employment, Romance, and Financial Scams," American Society of Criminology Annual Meeting in San Francisco from November 13-16, 2024

#### **COURSES TAUGHT (G: Graduate level):**

#### At Texas A&M University-San Antonio

- **(G)** CSCI 5353 Secure Software Development
- (G) CSCI 5366 Software Quality Assurance
- **(G)** CSCI 5362 Operating Systems

- (G) CSCI 5316 Software Engineering
- **(G)** CSCI 5304 Database Systems
- CSCI 4335 Mobile App Development II (iOS)
- CSCI 4317 Software Engineering II
- CSCI 4316 Software Engineering I
- CSEC 3385 Secure Software Engineering
- CSCI 3362 Operating Systems
- CSCI 3354 Web Application Development
- CSCI 3306 Programming Languages
- CSCI 3304 Database Systems
- CSCI 2322 Discrete Structures-Computing
- CSCI 1436 Programming Fundamentals I & Lab

#### At Texas A&M University-Kingsville

- **(G)** CSEN5401 Advanced Topics in CS
- (G) CSEN5325 Software Engineering
- (G) CSEN5322 Operating Systems
- **(G)** CSEN5306 Thesis
- (G) CSEN5305 Graduate Research Project
- (G) CSEN5303 Object-Oriented Analysis and Design
- (G) CSEN5303 Mobile Application Programming (Android and iOS)
- **(G)** CSEN5303 Web Programming
- **(G)** CSEN5303 T: Studies on Current Research
- CSEN4362 Operating Systems
- CSEN4336 Special Problems (iOS Swift Programming)
- CSEN4335 Mobile Application Programming
- CSEN4317 Software Engineering II
- CSEN4316 Software Engineering I
- CSEN3331 iOS Mobile App Development
- CSEN2310 Object-Oriented Software Engineering

#### At Embry Riddle Aeronautical University

- **(G)** CS550 Current Trends in Software Engineering
- **(G)** CS420 Software Quality Assurance
- SE300 Software Engineering Practice
- CS211 Principles of Computer Science
- CS118 Fundamentals of Computer Programming (Python)

#### At Western Illinois University

- (G) CS585 Topics of Software Engineering
- CS491 Software Engineering I
- CS492 Software Engineering II

- CS484 Network and Data Communication Concepts
- CS483 Microcomputer Systems with Database Applications
- CS410 System Programming
- CS371 UNIX
- CS310 Computer Organization
- CS301 Advanced Microcomputer Systems with Spreadsheet Applications
- CS212 Java Programming

#### M.S. THESIS ADVISOR:

- Committee: Hongyu Wang, "Analyzing the Usability, Performance, and Cost Efficiency of Deploying ML Models in Various Cloud Computing Platforms," graduated in August 2024.
- Committee: Anoop Abraham, "Analyzing the System Features, Usability, and Performance of a Containerized Application on Cloud Computing Systems," graduated in August 2023.
- Committee: Arlen McDonald, "Investigating Security Standards and Technologies Related to SolarWinds Breach," graduated in December 2021
- Advisor: Sushanth Manakhari, "Automated Test Case Generation to overcome 'Pesticide Paradox' for Integrated Testing in Object Oriented Programming", May 2016
- Advisor: Marepalli Dhanunjaya Bhargavan, "Evaluation of Learning Test Driven Development Using DOJO in a University Environment", Dec 2015
- Advisor: Md. Nahid Rahman, "Collapsible Tabular Visualization of Aspects in Object Oriented Programming," Dec 2015
- Advisor: Aritra Ghosh, "Enhancing Quality of Code Detecting on java Byte Code," Dec 2015
- Advisor: Md. Naim Hossain, "Tabular Visualization of Aspects in Object Oriented Programming", August 2015
- Advisor: Nadipineni Narendranadh, "Automation of Plagiarism Detection Tool", May 2015
- Advisor: Sasikanth Dale, "Analyzing Novice Programmer's Activity Using Face Expression", May 2014
- Advisor: Ramya Gujja, "Metrics and Software Evolution", May 2014
- Advisor: Prajjwal Gupta, "Authorship in Pair Programming using version control and face recognition", May 2014
- Advisor: Pardha Koyya, "Automation of Programming Assignment Grading: Using Software-metrics and Reference Code", December 2013

- Advisor: Govind Gupta, "Mobile Map API Wrapper for Evacuation Routing", December 2013
- Advisor: Pranay Kumar Sevella (Awarded outstanding graduate student of COE),
   "Determining the Barriers Faced by Novice Programmers", May 2013
- Advisor: Sireesha Maddhela, "A Prototype Query-by-Humming Database System for Indian Classical Music", December 2011
- Advisor: HyungJun Yoo, "Programming in spreadsheet use of cell block as an indent space in python", July 2010
- Advisor: Arun Bakshi, "Secured wireless routing protocol for mobile ad hoc network," December 2010
- **Advisor:** Avinash Saxena, "Performance testing of cloud based deployed GIS system", December 2010
- Advisor: TaegHyun Kang, "Task-Based Visualization for Software Maintenance" August 2009
- Advisor: Victoria Christy Sathya Rajasekar, "Integrated Multimedia Interface for the Visually Challenged" August 2009

#### **STUDENT PROJECT ADVISOR:**

- 2023: Faculty Sponsor, Student Research Symposium: Mohammed T. U. Ansari, "Hybrid taint analysis to identify Python Vulnerabilities," Master Oral Presentation.
- 2022, Faculty Sponsor, Student Research Symposium: Chunyang Tang, "Better system for detecting, revising and confirming Java program security bugs", Master Oral Presentation.
- 2015: Faculty Sponsor, Texas A&M University System Annual Pathways Student Research Symposium, Master presentation
  - Swetha Murthy and Sai Kiran, "Web-Based Interactive Programming Environment using Static and Dynamic Visualization."
  - Dhanunjaya Bhargavan Marepalli, "Evaluating Test-Driven Development Through Object-Oriented Metrics"
  - Md. Nahid Rahman, "Collapsible Visualization of Aspects in Object-Oriented Programming"
- 2014-2015: College of Engineering Graduate poster competition (Awarded) Swetha Murthy, Sai Kiran Bramahadandi, Young Lee, "Web IDE for Noyce Programmers.
- 2013-2014: College of Engineering Graduate poster competition
  - Sasikanth Dale, Young Lee, "A Study of Detecting the Adversities faced by the Novice Programmers in java Language using Face Recording"
  - Ketul Shah, Aritra Ghosh, Md. naim Hossain, Young Lee, "Virtual Lab technology for enhancing engineering education"

- Aritra Ghosh, Wei-Da Hao, Mais Nijim, Young Lee, "Virtual Reality for pipeline safety Training
- 2013-2014: Undergraduate senior design project team advised, Gaylon Taylor, Jaleal Butler, "Retina Image for Diabetes"
- 2013: Sasikanth Dale, "A study of Detecting the adversities Faced by the Novice Programmers in Java Language using Facial Expression", 11th Pathways, Master's Poster Presentation.
- 2010: Daniel Clancy, "Design and Construction of a Robust Public Access Computer System", Javelina Research Symposium
- 2010: (**Awarded First place at Master Students**), Keyur Jadhav and Preethi Lodha, "Schematizing Maps", Texas A&M Pathway
- 20019: Hyung-Joon Yoo, "Unified indent style with colored blocks for Python using Spreadsheet", Texas A&M Pathways Research Symposium
- 2009: Joseph Brysch, "Simple Java", Texas A&M Pathway Research Symposium
- 2008: Taeg-Hyun Kang, "Task-Based Visualization for Software Maintenance", Texas A&M Pathways Research Symposium
- 2008: Sarin Kizhakkepuravil, Texas A&M Pathway, "Healthcare Mobile Network Application", Texas A&M Pathways Research Symposium
- 2008: (Awarded First Place at Master Students) Victoria Christy Sathya Rajasekar, "Integrated Multimedia Interface for the Visually Challenged", Texas A&M Pathways Research Symposium

#### SCHOLARSHIPS, ACADEMIC TRAINING & PROFESSIONAL DEVELOPMENT:

- March 10 23, 2024: AWS Machine Learning University's educator enablement program, Coding School, 2-week Part I: Introduction to Machine Learning (ML) Professional Development Intensive Bootcamp.
- July 17 28, 2017: DeepSpec, Summer School of Verified Systems, University of Pennsylvania, Philadelphia, PA: DeepSpec is an Expedition in Computing that focuses on the formal specification and verification of full functional correctness of secure software and hardware. Funded by National Science Foundation (NSF).
- June 15 27, 2015: OPLSS (Oregon Programming Languages Summer School) Types, Logic, Semantics, and Verification, University of Oregon, Eugene, OR: OPLSS is the mix or interplay of theory and practice in program verification that presents a range of material, from foundational work on semantics and type theory to advanced program verification techniques. Ideas are applied to yield proved-correct software by software verification using the proof assistant Coq in order to provide machine-checked proofs of program correctness and security. Funded by NSF, ACM, Microsoft Research, and Facebook.

Jan 28 – Mar 11, 2022: Complete the Google Cloud Platform Training Courses,

- From Data to Insights with Google Cloud Platform
- Machine Learning On Google Cloud
- Google Cloud Fundamentals: Big Data and Machine Learning

#### Machine Learning on Google Cloud

As the result of a partnership between the NSF and Google and NSF award 21-533, I received instructor-led Google Cloud training sessions to train myself all the skills you need to use Google Cloud in NSF SmartSAT project. I completed all 4 sessions, instructor-led sessions conducted over video alongside faculty from other institutions and their team members awarded through NSF 21-533 who are using Google Cloud.

January 28th - Google Cloud Fundamentals: Big Data and Machine Learning (1 day) February 9-11 - Machine Learning on Google Cloud (3 day) February 23-25 - From Data to Insights with Google Cloud Platform (3 day) March 9-11 - Teaching Google Cloud Foundations (3 day)

Mar 23, 2022: Attended, NASEM and Department of Defense UARC Town Hall, Empathetic Leadership Online Session, professional trainer, Julie Burch, discussed "Advanced Leadership Skills: Accountability, Empowerment and Values Based Decisions."

Aug 2022 – Fall 2023: Association of College and University Educators (ACUE) Effective June 2022: Teaching Practices course, the ACUE Effective Teaching Certification. Attended, The Texas A&M System Council for Academic Technology and Innovative Education (CATIE), the 2022 Texas A&M Chancellor's Conference on Academic Technology, June 27-28, 2022.

June 7, June 21 2022: Participated, Minority Serving Institutional Readiness for Federal Grant Preparation Workshop (MSI-RFP), Research Infrastructure Assessment Tool (RIAT), Received a stipend of \$1,800

July 22 2022: Attended "New IUSE:HSI Program Solicitation Information Session," NSF Sep 27, 2022: Attended, The U.S. National Science Foundation (NSF) webinar, NSF's Directorate for Technology, Innovation, and Partnerships (TIP)

Mar 21, 2022: Attended, Security Summits

May 2022: Attended Security Week's Threat Intelligence Summit

Mar 2022: Attended Security Week's Supply Chain Security Summit,

Attended, Connecting with Hispanic-Serving Institutions on a Proposed New NSF Directorate, Feb 25, 2022

#### GRADUATE COORDINATOR EXPERIENCE:

I have been a Graduate Program Coordinator for the M.S. program in Computer Science and M.S. program in Cyber Security at Texas A&M University-San Antonio since January 2024.

	2023	2024
No. of incoming MSCS Students	7	37
No. of incoming MSCyber Students	8	8

I had been a Graduate Coordinator for the M.S. program in Computer Science at Texas A&M University-Kingsville from 2008 - 2018. As shown below, I processed many applications (7660 applications from 2012-FA to 2017-FA) and contributed to the MS-CS program in great success.

	No. of	No. of	No. of		No. of	No. of	No. of
	Completed	Accepted	Enrolled		Completed	Accepted	Enrolled
	Applicants	Applicants	Admits		Applicants	Applicants	Admits
2017-FA	453	340	74	2015-SP	598	362	108
2017-SU	31	17	3	2014-FA	1124	818	253
2017-SP	470	317	50	2014-SU	138	99	44
2016-FA	964	642	126	2014-SP	737	591	146
2016-SU	85	44	11	2013-FA	597	486	133
2016-SP	678	440	142	2013-SU	61	56	16
2015-FA	1039	628	192	2013-SP	315	256	52
2015-SU	77	40	15	2012-FA	293	240	41
Total	3797	2468	613		3863	2908	793

#### **ABET EXPERIENCE:**

I have been an ABET Committee member for Computer Science in the department of Computing and Cyber Security Department at A&M-SA since 2018.

I developed the rubrics for all courses required for the BS in Computer Science at Texas A&M University-Kingsville: CSEN 2304, CSEN 2306, CSEN 2310, CSEN 2328, CSEN 3314, CSEN 3315, CSEN 3316, CSEN 4201, CSEN 4202, CSEN 4317, CSEN 4320, CSEN 4340, CSEN 4362, CSEN 4366. The rubrics have been used for assessing student learning outcomes for the ABET accreditation including Fall 2013 ABET visit and Fall 2015 ABET Focus visit.

I was an active faculty member in preparing ABET reports, assessment reports, and relevant documents and attending advisory board meetings. I was also a member of SACS and IEP Advisory Committee at TAMUK.

#### **SERVICE TO UNIVERSITY:**

2021-present Graduate Council Member, representing computing graduate programs,

Since Fall 2021 and in 2022, I have served on the <u>Graduate Council</u> for the university. The Council works hard to shape graduate studies at the university. As a member, I have worked with other members on establishing strategic goals, procedures, and policies that outline graduate study's focus areas. The Council is formed with two representatives from each college and the faculty senate.

2022-present Steering member, Proyecto Exito for graduate programs

2023	Search Committee Member, Dean of Graduate Studies
2023	Search Committee Member, Assistant Director of International Affairs
2019-2022	Quantitative Reasoning Advisory Committee Member: Implementation of Quality Enhancement Plan (QEP)
2020-2022	Freshman students' mentor, University Faculty Advising Program, Mentor for TAMUSA CS/CIS/COB freshman students. Advised Freshmen Students as a Mentor
	Faculty Students Training Experience Learning Group Discussion (Sep 3, 2022)
2021-2022	Student Research Symposium Faculty Sponsor
2020-2021	Search Committee Member, Dean of College of Business
2020-2021	Faculty Grievance Panel
2019-2022	University Faculty Advisory
2019-2021	University Curriculum Committee Member on undergraduate curriculum proposals from three Colleges
2010-2018	University Technology Advisory Committee (UTAC), representing College of Engineering, TAMUK
2016	Distinguished Student Award committee, College of Engineering representative select Distinguished Graduate & Undergraduate students
2016	MSSE committee, preparing a new M.S. degree in Software Eng. (SW)
2015	Advisor, ACM Student Organization
2015	Judge, 6th annual Javelina Research Symposium
2015	Judge, Senior Design Conference
2012	Presenter, CS programs at Javelina Preview Day
2012	Presenter, High School Recruitment fair (South Texas Career Expo) for recruitment with post presentation in J. K. Northway Expo Center
2011	Presenter, EECS booth at 2011 Annual Engineering Student Design and Research Conference, Hoggie Day
2011-2016	Faculty Advisor, "Computer Science Association (CSA)" student organization, Attended CCDC competition, Texas A&M College Station, March 10-12, 2012; Attended CCDC competition, Online, February 2013; CSA received "Because You Care Award" sponsored by Keep Kingsville Beautiful (KKB), October 8, 2012

# **PROFESSIONAL SERVICE:**

2023, 2024	Guest Editor for the special issue "Cyber Security and Software
	Engineering" in the "Applied Sciences" Journal by MDPI.
2024	NSF Panelist/Reviewer, NSF Graduate Research Fellowship Program (GRFP)
2024	Reviewer, Tapia 2024 Doctoral Consortium, CMD-IT/ACM RICHARD TAPIA CELEBRATION OF DIVERSITY IN COMPUTING CONFERENCE, <a href="https://tapiaconference.cmd-it.org/">https://tapiaconference.cmd-it.org/</a>
2024	Reviewer, Full Research Paper review, IEEE Frontiers in Education Conference (FIE)
2024	Reviewer, "Security of Programmable Logic Controllers and Related Systems: Today and Tomorrow" for the IEEE Open Journal of the Industrial Electronics Society
2024	Reviewer, "Cyber Vulnerability Trend for Robotic Systems" for IEEE Access
2024	Reviewer, "Turnstile File Transfer: A Unidirectional System for Medium-Security Isolated Clusters" for Journal of Cybersecurity Education, Research and Practice.
2024	Reviewer, "User Susceptibility to Distraction in Augmented Reality Applications: AI Detection of Malicious Push Notifications in a Mobile Augmented Reality Interface" for Journal of Cybersecurity Education, Research and Practice
2024	Academic Editorial Board Member of BP International, Review a Book, "Contemporary Perspective on Science, Technology and Research" and a Book Chapter (Manuscript), "Integration Between E-learning System Platform Social Network"
2024	Judge, Alamo Regional Science and Engineering Fair, The Alamo Regional Science and Engineering Fair (ARSEF)
2023	NSF Panelist/Reviewer, Regional Innovation Engines Type-2
2023	Journal Reviewer, SN (Springer Nature) Computer Science Journal
2023	Journal Reviewer, IEEE Access Journal
2023, 2022	Reviewer, CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference, Doctoral Consortium
2014-present	Reviewer, IEEE Frontiers in Education (FIE) Conference: Fostering Innovation Through Diversity
2018-present	A&M-SA representative, Computing Alliance of Hispanic-Serving Institutions (CAHSI)
2022	Journal Guest Editor, Topical Issue 'Advances in Computational Intelligence for Artificial Intelligence, Machine Learning, Internet of Things and Data Analytics', Springer Nature Computer Science Journal.
2022	Journal Reviewer, IEEE Access How Do Organizations Seek Cyber Assurance? Investigations on the Adoption of the Common Criteria and Beyond, May 23, 2022
2022	Reviewer, Tapia 2022 Doctoral Consortium, May 11 - May 29, 2022 <a href="https://tapiaconference.cmd-it.org/">https://tapiaconference.cmd-it.org/</a>

2022, 2021	Poster Reviewer, CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference	
2022	Technical Program Committee Chair, International Conference on Analytics	
	and Learning in Computational Systems (ICALCS – 2022) at GSSS	
	Institute of Engineering and Technology for Women, Mysuru, India	
	https://geethashishu.in/icalcs/	
	The conference has been hosted in December 2022 in association with Elsevier, focusing on analytics learning in the fields of AI, Machine Learning, Computational Analytics, Evolutionary Computing, Cloud Computing, Data Analytics, Data Mining Applications, etc.	
2022	Review, ELSEVIER IST, INFSOF-D-19-00614 entitled Fixing Design	
	Inconsistencies of Polymorphic Methods using Sequence Models for	
	Information and Software Technology	
2021	Journal Reviewer, Journal of Frontiers in Artificial Intelligence	
2021	Editorial Board of AI in Business as Review Editor, Journal of Frontiers	
	in Artificial Intelligence	
2021	Journal Reviewer, Engineering Reports Journal	
2021, 2020, 2016	NSF Panelist/Reviewer, Robert Noyce Teacher Scholarship Program	
2021	Committee/Task Force, Computing Alliance of Hispanic-Serving Institutions (CAHSI) (Regional)	
2020	Journal Reviewer, Information and Software Technology Journal	
2020, 2018, 2014	Editorial Board Member, Journal of Biometrics and its Applications	
2020	Committee, KASTE (Korean American Society for Technology Entrepreneurship)	
2020 -2015	Reviewer, ACM SIGCSE, paper and tool demo review	
2020, 2018	Journal Guest Editor, Asian Journal of Research in Computer Science	
2019	Technical Program Committee Chair, 'International Conference on Adaptive Computational Intelligence (ICACI- 2022)' at GSSS Institute of Engineering and Technology for Women, Mysuru, India	
2019	Journal Reviewer, Wiley Engineering Reports Journal	
2019	Judge, FBLA-PBL National Leadership Conference (NLC),	
2019	Panelist, Research guideline of Broadening Participation in k-12 STEM Education Research, invited by the Center for Gender Equity in Science and Technology (CGEST) AZ	
2019	Committee Chair, International Conference on Computational Intelligence and Internet of Everything (ICCIIoE (International)	
2018	Committee chair, Conference on Information & Computer Technology	

2018	Program committee and reviewer, 31th IEEE International Conference on Software Engineering Education and Training (CSEE&T)
2018	Reviewer, International Journal on Software & Systems Modeling
2018, 2014	Reviewer, International Journal of Interactive Mobile Technologies (iJIM)
2017-2013	Chair, Technology work group of HINSTX (Health Information Network of South Texas)
2017	Journal Reviewer, Ocean Engineering Journal
2017	Reviewer, International Association of Computer Investigative Specialists)
2018,2016,2015	Reviewer, IEEE International Conference on Info. Science & Applications
2016	External Reviewer of Tenure and Promotion, Penn State Univ. Harrisburg
2015	Facilitator, Monday noon Seminar, "What If a Student Asks a Question I Can't Answer?", Center for Teaching Effectiveness (CTE)
2014	Judge, Science Academy, EDD presentation
2014	Journal Reviewer, IEEE Transactions on Reliability
2014	Journal Reviewer, Journal of Scientific Research and Reports
2013	Book Reviewer, "Overcoming Challenges in Software Engineering Education: Delivering Non-Technical Knowledge and Skills"
2013	Program Committee and Reviewer, International Conference on IT Converge and Security (ICITCS)
2012	External Referee, Discovery Grants competition, National Sciences and Engineering Research Council of Canada (NSERC

#### **SERVICE TO COLLEGE:**

2018-2023 Tenure and Promotion/Faculty Evaluation Committee Member: Evaluation of Tenure & Promotion Portfolios and Annual Reports

I have served on the <u>College Promotion and Tenure (P/T) Committee</u>. The P/T committee is elected by the college faculty members with one representative from each department and one 'at large' alternative. As a P/T committee member, I am involved in reviewing promotion and/or tenure applications and preparing recommendations for the Dean. I also involve reviewing and preparing annual evaluations for all tenured and tenure track faculty members in the college.

2020-2021 CIS Curriculum Task Force Member

2020-2023 Member, Capstone Lab and Ethics Learning Outcome Task Force

I have served on the <u>Capstone Lab and Ethics Learning Outcome Task Force</u> for the college. The task force recommended curriculum changes to transition from BUAD 4170 to BUAD 4070 and supported deleting BUAD 4170 from the catalog and suggested for the college programs include a curriculum to achieve Ethics learning outcomes.

2019-2022	Chair, College Curriculum Committee
2019-2021	AACSB Strategic Planning Committee Member
2019-2020	Presenter, Graduate Studies Orientation for MS-CS program
2018-2019	College Curriculum Committee Member
2010-2018	Graduate Committee Member, College of Engineering, TAMUK
2017-2018	Associate Dean Search Committee, College of Engineering, TAMUK
2014	Judge, College of Engineering poster competition, TAMUK
2014	Judge, College of Engineering Senior Presentation, TAMUK
2011-2013	Instructor, FE (Professional Engineer) Review for Computer Science
2011	Strategic Planning Committee, TAMUK
2011	Texas Nuclear Workforce Initiative Scholarship Committee, TAMUK
2008-2009	Advisor, SWE, Society of Women Engineers, support with External Fund
	(EEES Project)
2008	Extension Agent for Engineering Equity Extension Service (EEES)
2008-2018	Attendee, ABET Retreat, College of Engineering, TAMUK

# **SERVICE TO DEPARTMENT:**

2023-2024	Department P/T Committee Chair/Member
2023-2024	Search Committee Member, Instructional Assistant Professor of Computer
2023 2024	Science/Cyber Security
2023-2024	Search Committee Member, Tenure Track Assistant Professor of Cyber
	Security
2023-2024	Search Committee Member, Electronic Systems Engineering Technology
	Associate Professor
2023-2024	Search Committee Member, Adjunct Faculty in Computer
	Science/Cybersecurity/ Cyber Engineering Technology
2022-2023	Student Research Symposium Faculty Sponsor
2021	Organizer, Plagiarism-Ethics seminar to MS-CS graduate students
2018-present	ABET-CS Committee Member
2019-2020	Chair, Faculty Search Committee for three positions
	Tenure-track assistant professor in Computer Science
	Tenure-track assistant professor in Computer Information Systems
	Full-time Lecturer in Computer Science
2019-2020	Chair, Department Curriculum Committee
2018-2022	Graduate Coordinator, MS-CS program
2018-2019	Presenter, recruitment activities for CCS programs at JaguarDay
2019-2022	Faculty Mentor, assigned CS/CIS/IT students

2008-2018	Graduate Coordinator, MS-CS program, TAMUK
2015	Tenure & Promotion Committee, EECS (Electrical Engineering & Computer Science), TAMUK
2017	EECS Faculty Search Committee, TAMUK
2016	<ul> <li>MS-Software Engineering (SW) Committee, preparing a new M.S. in SW</li> <li>Prepared new graduate courses (Two of five core courses required for M.S. in SW), Software Maintenance and Reengineering, Software Architecture and Design: proposal will be submitted in 2016</li> </ul>
2012	EECS Scholarship Committee Member
2012-2016	Secretary, EECS Graduate Curriculum Committee
2012-2016	CS ABET, SACS and IEP Advisory Committee
2010	Tenure-Track Faculty Search Committee
2010	Revise CS undergraduate curriculum for preparing ABET
2008	Program Administrator, MSDN Academic Alliance Software Center
2008	Webmaster, EECS Department
2014-2018	EECS graduate curriculum Committee Member
2015-2017	CS-ABET Preparation: Actively engaged in preparing ABET accreditation for CS undergraduate program, Assisted ABET coordinator(s) to prepare reports, relevant documents, and advisory board meetings

#### **MEMBERSHIP IN PROFESSIONAL SOCIETY:**

- Member, Institute of Electrical and Electronics Engineers (IEEE) Computer Society
- Member, Institute of Electrical and Electronics Engineers (IEEE)
- Member, Association for Computing Machinery (ACM) Special Interest Group on Software Engineering (SIGSOFT)
- Member, Korean American Scientists and Engineers Association (KSEA)
- Member, Korean Computer Scientists and Engineers Association in America (KOCSEA)
- Founding member, KASTE (Korean American Society for Technology Entrepreneurship)