

Venkata Swamy 'Kalyan' Nakka

Contact Information	Phone: +1 361-516-7796	
	E-mail: kalyan@tamu.edu	
	Webpage: https://kalyan-nakka.github.io/	
	LinkedIn Google Scholar	
Research Interests	Deep Learning; Adversarial ML; AI/ML Security.	
Education	Texas A&M University Doctor of Philosophy (PhD) in Computer Science	01/2024 – 05/2027
	Texas A&M University – Kingsville Master of Science (MS) in Computer Science	08/2021 – 05/2023
	Indian Institute of Technology – Dhanbad Bachelor of Technology (BTech) in Mechanical Engineering	07/2012 – 04/2016
Academic & Professional Experience	Texas A&M University <i>Graduate Assistant – Research</i>	01/2024 – Present
	Texas A&M University–Kingsville <i>Graduate Research Assistant</i>	08/2022 – 05/2023
	<i>Graduate Teaching Assistant</i>	01/2022 – 07/2022
	Soroco, India <i>Senior Software Engineer</i>	09/2019 – 07/2021
	Infosys, India <i>Senior Software Engineer</i>	11/2018 – 08/2019
	<i>Software Engineer</i>	11/2016 – 10/2018
Research Projects	U. S. Department of Energy (DoE) Multilevel Cybersecurity for Photovoltaic Systems [DE-EE0009026]	08/2022 – 05/2023
	National Science Foundation (NSF) A Resilient Cyber-Physical Security Framework for Next-Generation Distributed Energy Resources (DER) at Grid Edge [2219733]	08/2022 – 05/2023
	National Science Foundation (NSF) MBARKA: A Multi-tier Basic Architecture for fault-tolerant and K-secure IoT-based Autonomous campus monitoring systems [2219785]	08/2022 – 05/2023
Technical Expertise	Programming Languages: Python, Kotlin, Java, SQL, Go Platforms/Tools: Linux, Windows, Visual Studio Code, Android Studio, PyCharm Machine Learning: TensorFlow, Jupyter, PyTorch	
Teaching Experience	Guest Lectures Quantum Threat to Current Cyber-Security, TAMUK	Spring 2023
	Teaching Assistant Massive Parallel Computing, TAMUK Foundations of Computer Science, TAMUK	Summer 2022 Spring 2022

Invited Talks	TAMUK Graduate Science and Engineering Research Colloquium Series	2023
	SunSpec Alliance 2022 Annual Meeting	2022
Honors & Achievements	Distinguished Student Award	2023
	Awarded to only 1 graduate student per semester at TAMUK (University level)	
	Dean's Merit Scholarship for exceptional academic performance	2022
	Awarded to top 2% of Engineering graduate students at TAMUK (College level)	
	Computer Science Graduate Scholarship for exceptional academic performance	2021
	Awarded to top 5% of CS Graduate students at TAMUK (Department level)	
	Rockwell International Scholarship for exceptional academic performance	2021
	Awarded to top 2% of International graduate students at TAMUK (Department level)	
	Insta Award	2018
	Infosys, India	
	IIT MCM Scholarship for exceptional academic performance	2013 – 2016
	Awarded to top 20% of Undergraduate students at IIT Dhanbad (University level)	
	All India Rank 10760 (98.2 %ile)	2012
	Indian Institute of Technology Joint Entrance Examination (IIT-JEE)	
	Entrance exam for IISc & IITs	
	All India Rank 8076 (99.2 %ile)	2012
	All India Engineering Entrance Examination (AIEEE)	
	Entrance exam for NITs	
Fellowships	TAMU Graduate Research Assistantship (US \$12,000 p.a.)	2024 – 2024
	Graduate Research Assistant Scholarship (US \$6,000 p.a.)	2022 – 2023
	Dean's Merit Scholarship (US \$1,000 p.a.)	2022 – 2023
	TAMUK In-State Scholarship (US \$8,500 p.a.)	2021 – 2023
	HEERF III Student Scholarship (US \$1,600 p.a.)	2021 – 2022
	Computer Science Graduate Scholarship (US \$1,000 p.a.)	2021 – 2022
	Rockwell International Scholarship (US \$1,000 p.a.)	2021 – 2022
	IIT MCM Scholarship (IND ₹72,000 p.a.)	2013 – 2016
Publications	Articles in Peer-Reviewed Conference Proceedings	
	[1] Field demonstration of Blockchain-based security for a Solar Farm	
	BoHyun Ahn, Kalyan Nakka , Taesic Kim	
	ECCE – IEEE Energy Conversion Congress and Exposition, 2024	
	[2] Post-Quantum Cryptography (PQC)-Grade IEEE 2030.5 for Quantum Secure Distributed Energy Resources Networks	
	Kalyan Nakka , Seerin Ahmad, Logan Atkinson, Taesic Kim, Habib M. Ammari	
	ISGT – IEEE PES Innovative Smart Grid Technologies, 2024	
	[3] Square Tessellation for Stochastic Connected k -Coverage in Planar Wireless Sensor Networks	
	Kalyan Nakka , Habib M. Ammari	
	ISCC – IEEE Symposium on Computers and Communications, 2023	
	Articles in Peer-Reviewed Journals	
	[1] Enhancing Photovoltaic System Security using Blockchain and Security Module	
	BoHyun Ahn, Kalyan Nakka , Taesic Kim, Jinchun Choi, Seerin Ahmad, Alan Mantooth	
	IEEE OJPEL – IEEE Open Journal of Power Electronics (submitted)	

- [2] Blockchain-assisted Resilient Control for Distributed Energy Resource Management Systems
Seerin Ahmad, **Kalyan Nakka**, BoHyun Ahn, Taesic Kim, Dongjun Han, Dongjun Won
IEEE TIE – IEEE Transactions on Industrial Electronics (submitted)
- [3] An Energy-Efficient Irregular Hexagonal Tessellation-based Approach for Connected k -Coverage in Planar Wireless Sensor Networks
Kalyan Nakka, Habib M. Ammari
AdHoc – Elsevier's Ad Hoc Networks, 2024
- [4] k -CSqu: Ensuring connected k -coverage using Cusp Squares of Square Tessellation
Kalyan Nakka, Habib M. Ammari
JPDC – Elsevier's Journal of Parallel and Distributed Computing, 2023
- [5] Influence of Aerodynamic Add-on devices on Aerodynamic performance of an Automobile: A Numerical Study
Kalyan Nakka, Dipen Kumar Rajak, L A Kumaraswamidhas
RoJAE – Romanian Journal of Automotive Engineering, 2017
- [6] Experimental and Numerical study on energy absorption characteristics of mild steel and aluminium square tubes under axial loading
Kalyan Nakka, Bharadwaja Reddy, Dipen Kumar Rajak, L A Kumaraswamidhas
RoJAE – Romanian Journal of Automotive Engineering, 2016
- [7] Experimental and Numerical investigation on torsional failure of cardan joint of an intermediate steering shaft
Dipen Kumar Rajak, **Kalyan Nakka**, Bharadwaja Reddy, L A Kumaraswamidhas
RoJAE – Romanian Journal of Automotive Engineering, 2016

Community Service Reviewer

ICDCS – IEEE International Conference on Distributed Computing Systems	2024
ECCE – IEEE Energy Conversion Conference and Exposition	2024
ACSAC – Annual Computer Security Applications Conference	2024
ACM TOPS – ACM Transactions on Privacy and Security	2024

References

Dr. Nitesh Saxena, Texas A&M University	Email: nsaxena@tamu.edu
Dr. Taesic Kim, University of Missouri	Email: tkx96@missouri.edu
Dr. Habib M. Ammari, Texas A&M International University	Email: habib.ammari@tamiu.edu