

ABHISHEK PHADKE

Curriculum Vitae

Texas A&M University Corpus Christi
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Links: [Website](#) , [Google Scholar](#) , [LinkedIn](#)

EDUCATION

Ph.D. Candidate, Texas A&M University–Corpus Christi

Geospatial Computer Science, *2019 to present (expected completion 2024)*
Emphasis on System resilience, UAV, Cybersecurity, Blockchain.

M.S. Texas A&M University–Kingsville

Electrical engineering, *2017 to 2019*
Emphasis on Renewable energy generation and transmission, Blockchain development, Multi-agent SoS

B.E. Mumbai University, 2017

Major in Electronics Engineering, Minor in Computer science.

ACADEMIC AND RESEARCH POSITIONS

Research Assistant	Texas A&M University–Corpus Christi (<i>August 2020 - present</i>) Department of Computing Sciences
Adjunct Faculty	Texas A&M University–Corpus Christi (<i>January 2020–August 2020</i>) Department of Computing Sciences EEEN-3345-001 - Electronic devices & Circuits
Research Assistant	Texas A&M University–Corpus Christi (<i>August 2019- December 2019</i>) Department of Computing Sciences
Instructor	Texas A&M University–Kingsville (<i>May 2019- August 2019</i>) Upward Bound Rural, Upward bound Math & Science
Teaching Assistant	Texas A&M University–Kingsville (<i>August 2018-December 2018</i>) Department of Electrical and computer engineering

INDUSTRY EXPERIENCE

Jr Engineer Amber Instruments, Mumbai, India. (*June 2016 to July 2017*)
R&D department

Jr Engineer Om Energy Savers, Mumbai, India. (*June 2015 to May 2016*)
Quality control

JOURNAL ARTICLES

Phadke, A.; Medrano, F.A.; Sekharan, C.N.; Chu, T. Designing UAV Swarm Experiments: A Simulator Selection and Experiment Design Process. *Sensors* **2023**, *23*, 7359. DOI: <https://doi.org/10.3390/s23177359>

Phadke, A.; Medrano, F.A. Towards Resilient UAV Swarms—A Breakdown of Resiliency Requirements in UAV Swarms. *Drones* **2022**, *6*, DOI: <https://doi.org/10.3390/drones6110340>

CONFERENCE PUBLICATIONS

Phadke, A.; Antonio Medrano, F.; Chu, T. Engineering resiliency in UAV swarms—A bibliographic analysis. In Proceedings of the Journal of Physics: Conference Series, 2022/08/01, 2022; p. 012007. DOI: [10.1088/1742-6596/2330/1/012007](https://doi.org/10.1088/1742-6596/2330/1/012007)

Phadke, A.; Medrano, F.A.; Brahmbhatt, J.; Ustymenko, S. A Framework for an Optimized Smart Energy System. In Proceedings of the 2022 International Symposium on Electrical, Electronics and Information Engineering (ISEEIE), 2022; pp. 240-246. DOI: [10.1109/ISEEIE55684.2022.00049](https://doi.org/10.1109/ISEEIE55684.2022.00049)

Phadke, A.; Medrano, F.A.; Ustymenko, S. Applications of Blockchain in E-government. In Proceedings of the 2022 International Symposium on Electrical, Electronics and Information Engineering (ISEEIE), 2022; pp. 157-164. DOI: [10.1109/ISEEIE55684.2022.00035](https://doi.org/10.1109/ISEEIE55684.2022.00035)

Phadke, A.; Medrano, F.A.; Brahmbhatt, J. A conceptual framework for a Blockchain-based Tax payment financial service. In Proceedings of the 2021 International Conference on Computational Science and Computational Intelligence (CSCI), 2021; pp. 1523-1527. DOI: [10.1109/CSCI54926.2021.00296](https://doi.org/10.1109/CSCI54926.2021.00296)

Phadke, A.; Medrano, F.A.; Ustymenko, S. A Review of Vehicular Micro-Clouds. In Proceedings of the 2021 International Conference on Computational Science and Computational Intelligence (CSCI), 2021; pp. 411-417. DOI: [10.1109/CSCI54926.2021.00139](https://doi.org/10.1109/CSCI54926.2021.00139)

Phadke, A.; Ustymenko, S. Updating the Taxonomy of Intrusion Detection Systems. In Proceedings of the 2021 IEEE 45th Annual Computers, Software, and Applications Conference (COMPSAC), 2021; pp. 1085-1091. DOI: [10.1109/COMPSAC51774.2021.00148](https://doi.org/10.1109/COMPSAC51774.2021.00148)

BOOK CHAPTERS

Phadke A. and S. Ustymenko, “*Examining Security and forensics across Database Management Systems*”, 2021 International conference on Security and Management (SAM21), July 26-29, 2021, Las Vegas, Nevada. (Accepted, pending publication)

EDITORIALS, LETTERS AND SHORT ARTICLES

Phadke, A.; Boyd, J.; Medrano, F.A.; Starek, M. Navigating the skies: examining the FAA's remote identification rule for unmanned aircraft systems. *Drone Systems and Applications* **2023**, *11*, 1-4, <http://dx.doi.org/10.1139/dsa-2023-0029>

Phadke, A.; Medrano, F.A. A conceptual Blockchain backed framework for Healthcare Data access – Extended abstract series; 2022. <https://doi.org/10.20935/AL4944>

Phadke, A.; Medrano, A. A Resilient Multi-UAV System of Systems (SoS); 2771-9359; 2021. <https://doi.org/10.20935/AL1659>

PROFESSIONAL SERVICES

Vice President- Geospatial Computer Science Graduate Student Organization; September 2021-Present

Technical advisory chair- IEEE student branch @TAMUCC; September 2020 - July 2021

REVIEWER ACTIVITIES

Reviewer- The 5th International Conference on Machine Learning and Intelligent Systems (MLIS 2023); <http://www.machinelearningconf.org>

Reviewer- Intelligence and Robotics; Online ISSN: 2770-3541; DOI: 10.20517/ir

Reviewer- Eksploatacja i Niezawodność – Maintenance and Reliability; <https://ein.org.pl>

Reviewer- Advances in Networks-Science PG; <http://www.networksjournal.org/reviewers>

Reviewer- Reliability Engineering & System safety; Online ISSN: 1879-0836

Reviewer- 7th Int'l Conf. on Energy Engineering and Environmental Protection; <http://www.iceeep.org>

AWARDS AND GRANTS (Total amount : \$58,000)

- International Graduate Scholarship - Texas A&M university - Corpus Christi – **Fall 2023 to Spring 2024**
- Islander Leadership Scholarship, Texas A&M University - Corpus Christi, **Fall 2023 to Spring 2024**
- 3M thesis competition, University level, Texas A&M University - Corpus Christi-People's Choice award, **April 2023**
- Geo-Spatial Engineering GR Scholarship- Texas A&M University - Corpus Christi, **Spring 2022.**
- Islander Leadership Scholarship, Texas A&M University - Corpus Christi, **Fall 2022**
- CBI endowment- Texas A&M University - Corpus Christi - **Fall 2021.**
- Geo-Spatial Engineering GR Scholarship- Texas A&M University - Corpus Christi - **August 2021 to May 2022.**
- International Impact Scholar - Texas A&M university - Corpus Christi - **August 2021 to May 2022.**

- Division of Research and Innovation, Texas A&M University - Corpus Christi, Student research Competition award, **September 2021.**
- 3M thesis competition, University level, Texas A&M University - Corpus Christi-People's Choice award, **April 2021.**
- Geo-Spatial Engineering GR Scholarship- Texas A&M University - Corpus Christi - **Spring 2021.**
- CBI endowment- Texas A&M University - Corpus Christi - **Spring 2021.**
- International Impact Scholar - Texas A&M university - Corpus Christi - **August 2020 to May 2021.**
- Graduate Student Merit Scholarship - Texas A&M University - Kingsville - **August 2017 to July 2018.**

PRESENTATIONS, INVITED TALKS AND LECTURES

Unmanned Aerial Systems: From Foundations to the Future, Guest talk at Montana Technological University, UAS development & analytics undergraduate certificate, September 2023 (Scheduled)

Drone2Drone (D2D): a Search and Rescue framework module for finding lost UAV swarm agents, The 21st International Conference on Embedded Systems, Cyber-physical Systems, & Applications (ESCS23), July 24-27, 2023, Las Vegas, Nevada

On the Inclusion of Heterogeneous Agents in Unmanned Vehicle Swarms, The 20th International Conference on Embedded Systems, Cyber-physical Systems, & Applications (ESCS22), July 25-28, 2022, Las Vegas, Nevada

Engineering resiliency in UAV Swarms- A bibliographic analysis, 2022 International Symposium on Intelligent Unmanned Systems and artificial Intelligence (SIUSAI 2022) April 22-24, 2022. (Virtual)

A Framework for an Optimized Smart Energy System, 2022 International Symposium on Electrical, Electronics and Information Engineering (ISEEIE), February 25-27. (Virtual)

Applications of Blockchain in E-government, 2022 International Symposium on Electrical, Electronics and Information Engineering (ISEEIE), February 25-27. (Virtual)

A Conceptual Framework for a Blockchain-based Tax payment Financial Service. 2021 International Conference on Computational Science and Computational Intelligence (CSCI 2021), December 15-17, (Virtual)

A Review of Vehicular Micro Clouds 2021 International Conference on Computational Science and Computational Intelligence (CSCI 2021), December 15-17, (Virtual)

CERTIFICATIONS

- **Associate certification** in *CIRTL Network MOOC, An Introduction to Evidence-Based Undergraduate STEM Teaching* from **Texas A&M University**

- Certifications in Electric utility fundamentals, Renewable energy, Digital manufacturing, Enterprise system management, Advanced manufacturing process analysis, IoT, and embedded systems.

Complete list: [Click here to visit.](#)

RESEARCH INTERESTS

Resiliency: System resiliency, Distributed Cyber Physical and multi-agent systems

Networking and Cybersecurity: Intrusion Detection Systems, Database Management Systems, Network security

Renewable energy: Energy generation using renewable energy sources, efficient transmission.

Blockchain : Applications in E-governance, Smart city, Finance, and healthcare.